

1775 University Avenue Project

Administrative Draft – Appendix N Checklist

prepared for

UCR 1775 Development LLC
250 Whispering Pines Summit
Arcadia, California 91006
Contact: Zibo Gong

prepared with the assistance of

Rincon Consultants, Inc.
250 East 1st Street, Suite 1400
Los Angeles, California 90012

January 2024

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
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Appendix N: Infill Environmental Checklist Form

1. Project Title

1775 University Avenue Project

2. Lead Agency Name and Address

City of Riverside
3900 Main Street
Riverside, California 92522

3. Contact Person and Phone Number

Judy Egüez, Senior Planner
Community and Economic Development, Planning Division
City of Riverside
Email: JEguez@riversideca.gov
Office: (951) 826-3969

4. Project Location

The project site is located at 1775 and 1795 University Avenue in the City of Riverside. As part of the Housing Element Update, the City identified available sites for potential future housing development (Opportunity Sites), the project site is on an identified Opportunity Site (Ward 1 Site 144), of the 6th cycle City's Housing Element Update. The project site is approximately 0.63-acres (27,445 square feet [sf]) and encompasses Assessor Parcel Numbers (APNs) 211-183-023 and -024. Figure 1 shows the location of the site in the region and Figure 3 shows the project site in its neighborhood context.

5. Project Sponsor's Name and Address

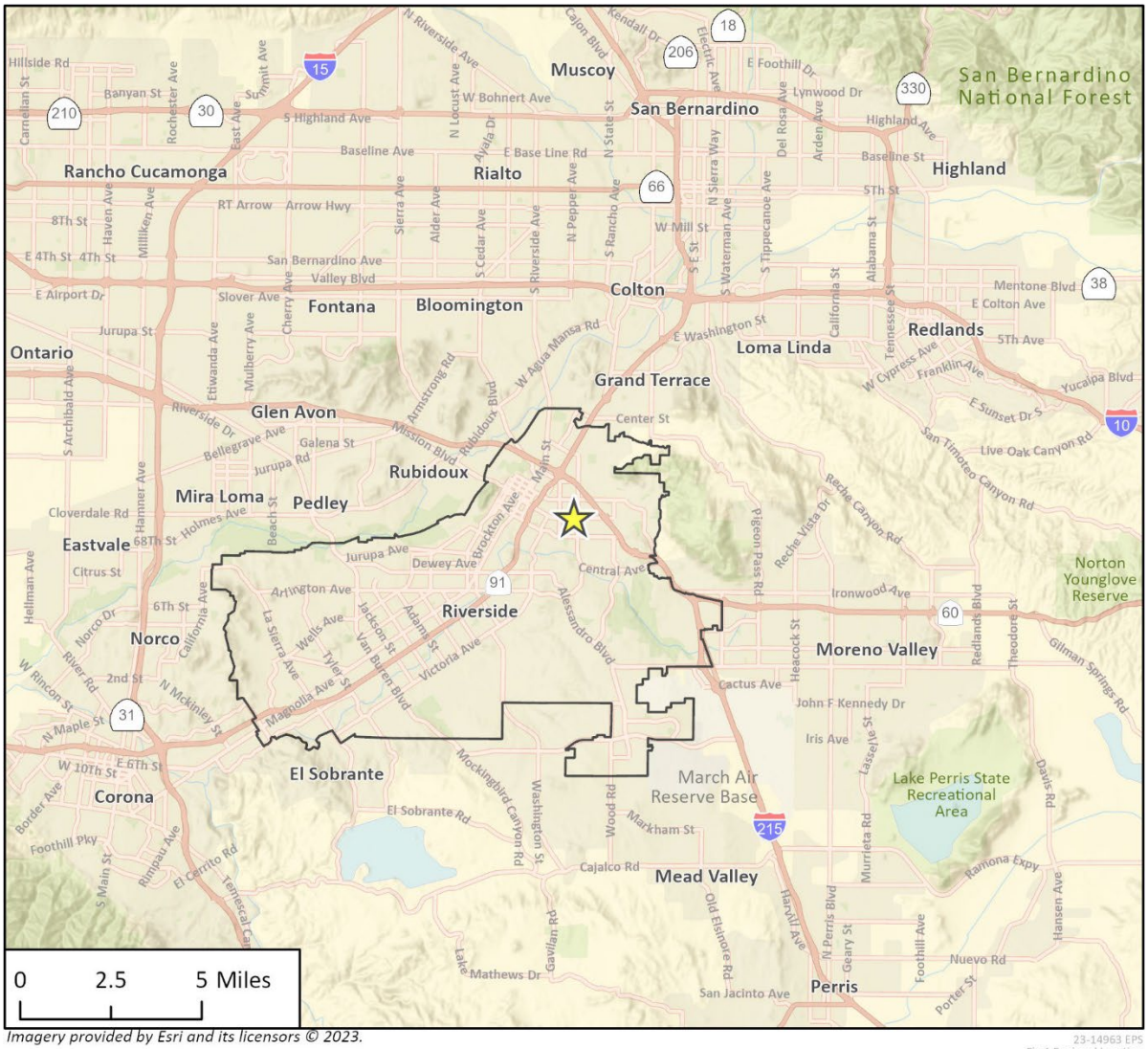
Mr. Zibo Gong, UCR 1775 Development LLC
250 Whispering Pines Summit
Arcadia, California 91106

6. General Plan Designation

Neighborhoods

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Figure 1 Regional Location



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23-14963 EPS
Fig 1 Regional Location

Project Location

City of Riverside Boundary

N

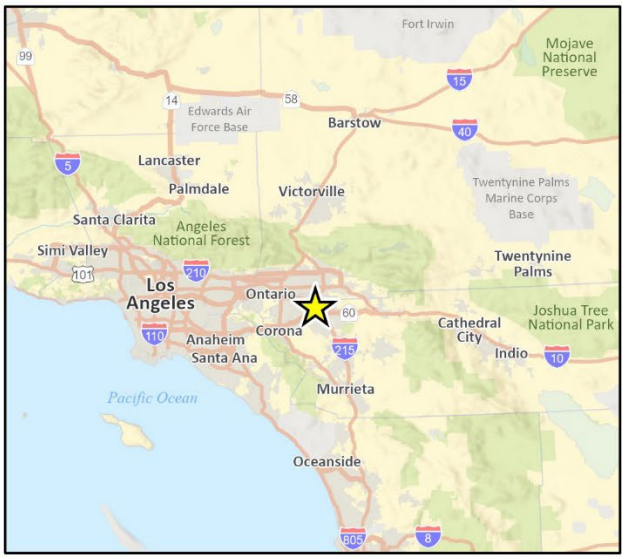


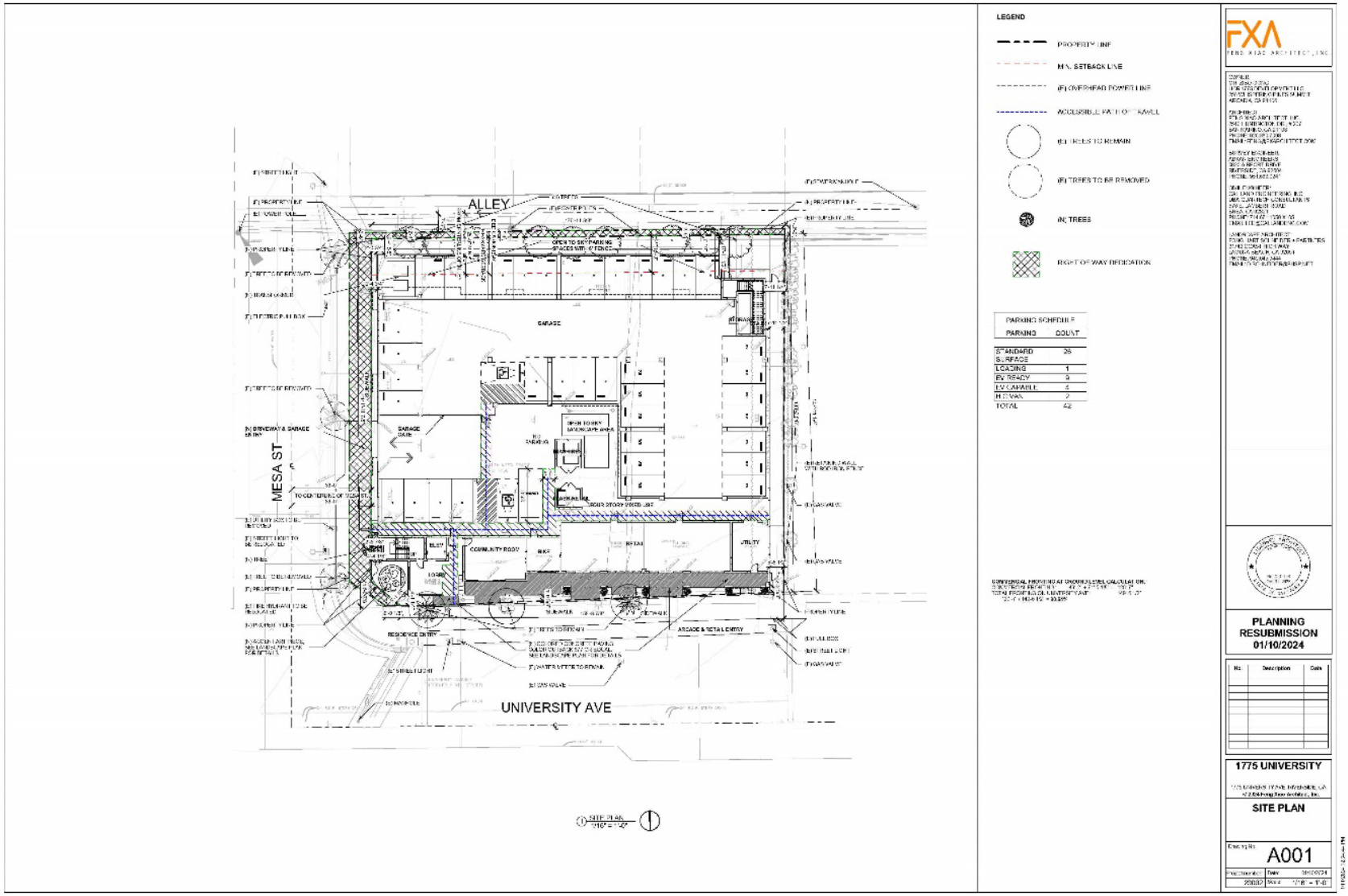
Figure 2 Project Location



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23-14963 EP5
Fig 2 Project Location

Figure 3 Site Plan – Ground Floor



7. Zoning

Mixed-Use Urban and Specific Plan (University Avenue) Overlay Zone (MU-U-SP)

8. Prior Environmental Document(s) Analyzing the Effects of Infill Projects

The City of Riverside 6th Cycle Housing and Public Safety Element Updates and Environmental Justice Policies Draft Environmental Impact Report State Clearinghouse No. 2021040089 (hereafter referred to as "prior EIR") includes analysis of infill projects associated with the site inventory under the Housing Element update.

9. Location of Prior Environmental Document(s) Analyzing the Effects of the Infill Project

City of Riverside, Planning, Riverside Housing and Public Safety Updates and Environmental Justice Policies
https://riversideca.gov/cedd/planning/riverside-housing-public-safety-element-and-environmental-justice-approach

10. Description of Project

As part of the Housing Element Update, the City identified available sites for potential future housing development (Opportunity Sites) that would not contain significant constraints to development. As stated in Section 4, *Project Location*, the project site is on an identified Opportunity Site (Ward 1 Site 144), of the prior EIR. The prior EIR evaluates an increase of 31,564 new dwelling units and 3,181,903 square feet of non-residential development, or up to 31,175 dwelling units and 1,433,460 square feet over existing conditions. As stated on page 15 of Chapter 1, *Introduction and Scope of Environmental Impact Report*, of the prior EIR;

> "while [this Certified PEIR] does not preclude future environmental review required under CEQA for subsequent development projects (i.e., Opportunity Sites), the analysis in [this Certified PEIR] and provision of program-level mitigation measures would streamline further CEQA review for specific projects to support facilitation of future development of individual Opportunity Sites. Projects that are within the scope of the analysis of [this Certified PEIR], whereby all Project-specific impacts could be adequately minimized or avoided through application of program-level mitigation, may be able to proceed without subsequent CEQA documentation."

Further, as stated on page 5-4 of Chapter 5, Other CEQA Considerations, of the prior EIR;

> "the City will use [the Certified PEIR] as the basis for streamlining CEQA reviews of future residential and mixed-use development on Opportunity Sites consistent with the Housing and Public Safety Element Updates."

The proposed project involves development of a mixed-use residential and retail building, which would be consistent with the types of uses analyzed in the prior EIR.

The proposed building would be four stories that would consist of 18 multi-family residential units, 1,477 sf of retail space along University Avenue, and a parking garage on the ground level. The residential units would be three-bedroom units with an average unit size of approximately 1,790 sf. In addition to the retail space and parking, the first level would consist of a bike room, lobby, trash room, storage/electric space, and a community room. The second through fourth levels would consist of 18 residential units. The second floor would also include 5,732 sf of common open space situated in the center of the site, which would consist of trees, seating area, a community dining table, a BBQ area, and an enclosed private patio. In addition, 2,150 sf of private open space (i.e., balconies) would be provided to alternating units along the northern, western, and southern sides of the project site. The parking on the ground level would consist of 42 parking spaces and one loading space. Vehicles would enter and exit the site via one proposed driveway along Mesa Street, which would allow access to the parking garage.

The proposed building would be designed as a rectangular building with wall recesses and various rooflines. Articulated building elements include metal canopies, metal railings, and vinyl window and French doors. The exterior palette for the proposed building would comprise of various earth-tones colors, including shades of gray, gold, brownish red, and white.

Proposed ornamental landscaping would be installed along the northern, southern, eastern, and western perimeters of the site, which would consist of drought-tolerant trees, shrubs, succulents, perennials, grasses, and groundcovers.

Table 1 provides a summary of the project components. Figure 3 through Figure 5 show the proposed site plan and building elevations.

11. Surrounding Land Uses and Setting

As shown in Figure 2, the project site is in an urban area characterized by a mix of commercial and residential uses. The surrounding uses include the following: a restaurant and commercial businesses along Mesa Street to the west; commercial development to the east; the northern boundary of the site is an alleyway that is adjacent to single-family residences to the north; and office, restaurants, and commercial businesses to the south along University Avenue.

12. Other Public Agencies whose Approval is Required

The City of Riverside is the lead agency with responsibility for approving the proposed project. Approval from other public agencies is not anticipated.

Figure 4 Second Story Floor Plan

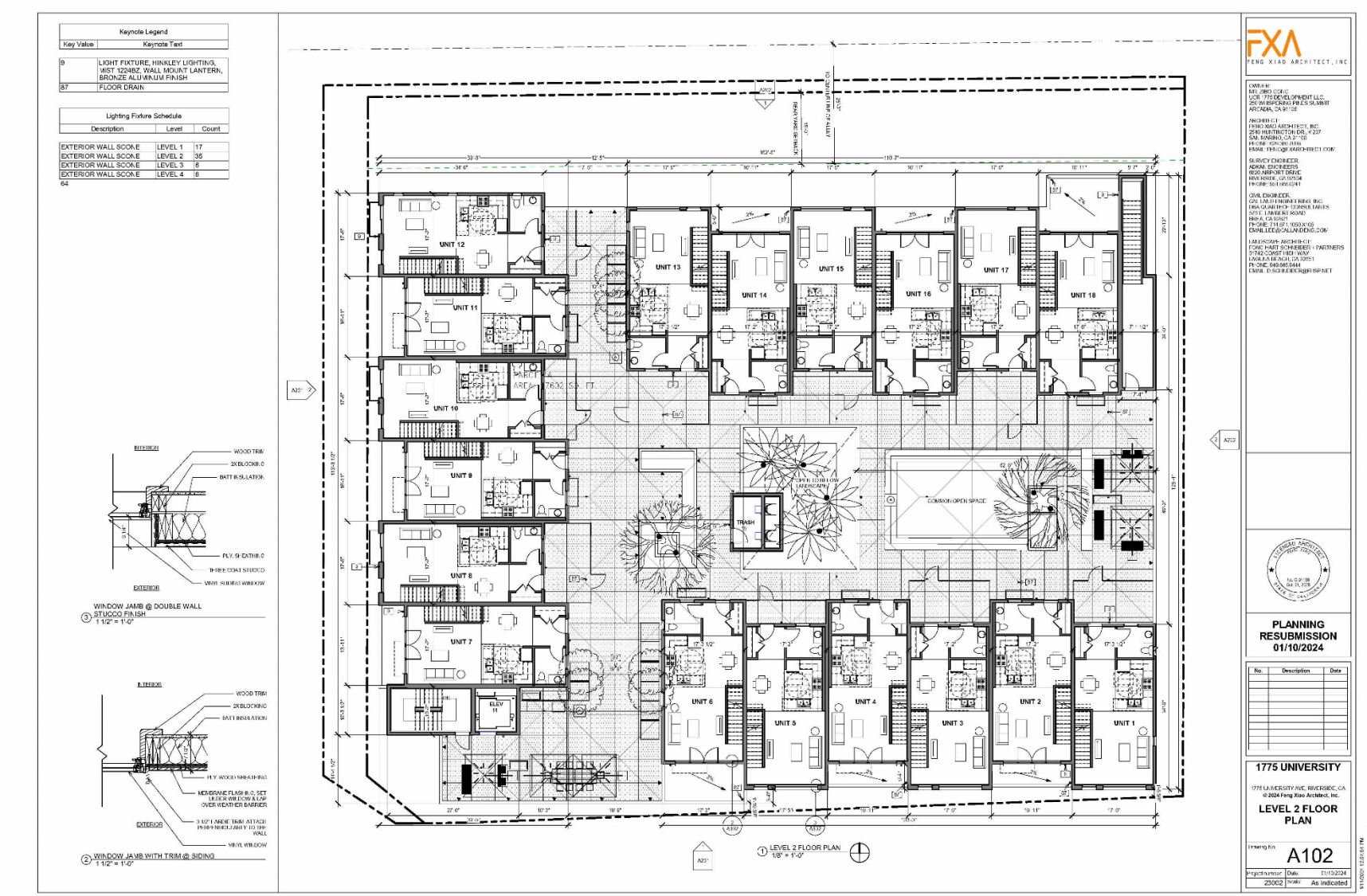


Figure 5 Building Elevation from Mesa and University

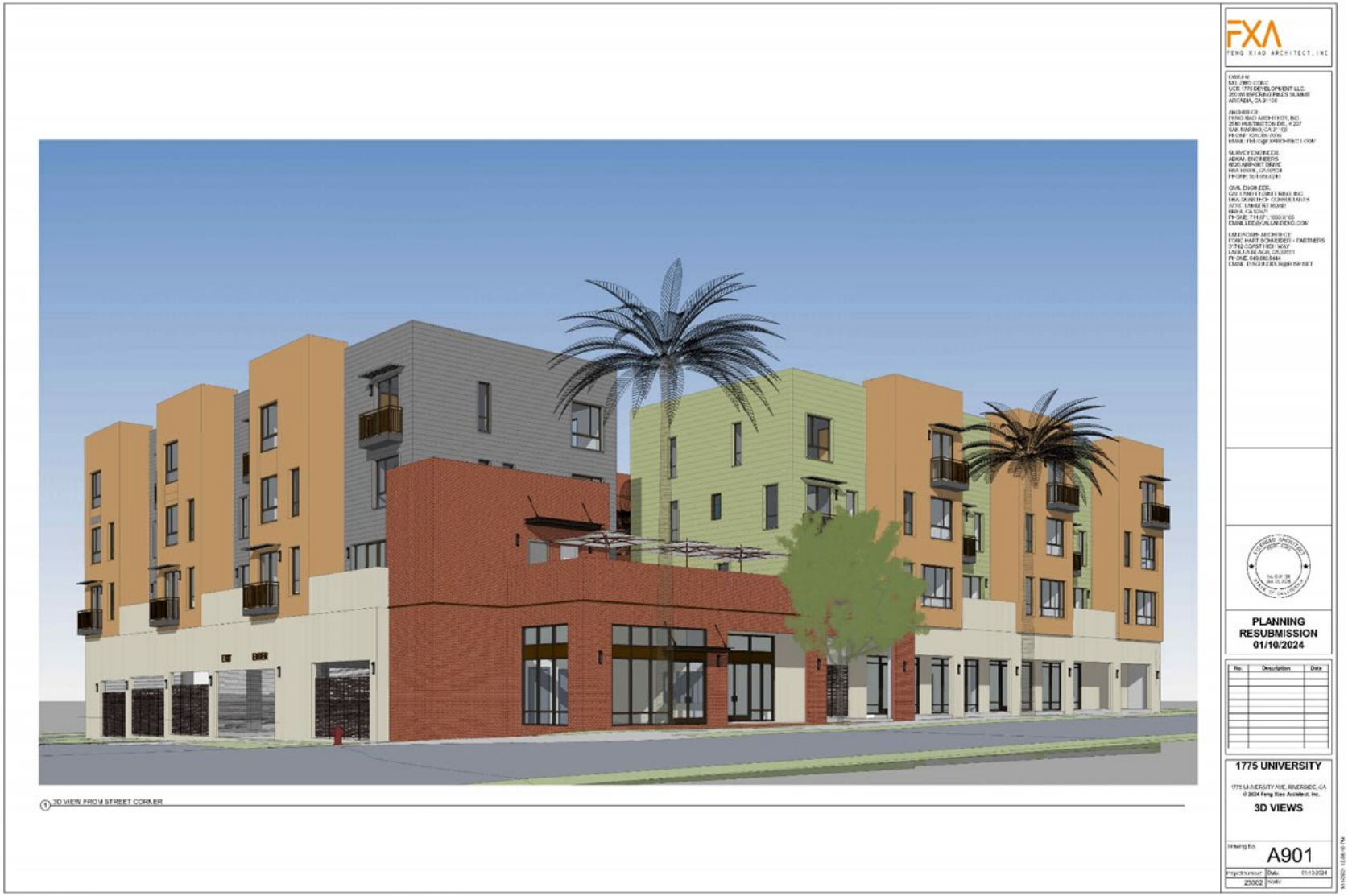


Table 1 Project Summary

Site Area	0.63 acre/27,445 sf 2 parcels – APNs 211-183-023 and -024
Project Components	
Residential	
3-bedroom units	18 apartments (average unit size: 1,790 sf)
Total Residential Building Area	34,589 sf
Commercial	
Retail	1,477 sf
Other	
Utility	335 sf
Storage	109 sf
Bike Storage Room	211 sf
Community Room	470 sf
Lobby	408 sf
Open Space & Landscaping	
Common Open Space	5,732 sf
Private Open Space	2,150 sf
Total	**7,882 sf**
Landscaping	8,181 sf
Height	
Maximum Building Height	52’-11 3/8” (at the top of the parapet) 4 stories
Parking	
Ground-Floor Garage Spaces	42 spaces
Outdoor Spaces	6 spaces
Loading Space	1 space
Setbacks	
Front Yard	0’-7/8”
West Side	0’-4 3/4””
East Side	5’-8 1/2”
Rear Yard	17’-11 1/8”

13. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

As of July 1, 2015, Assembly Bill (AB) 52 was enacted and expanded the California Environmental Quality Act (CEQA) by defining tribal cultural resources (TCR) as a new resource category. AB 52 establishes “a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment” (Public Resources Code [PRC] Section 21084.2). It further states that the CEQA lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

AB 52 establishes a formal consultation process with California Native American tribes that must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." California Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency. AB 52 applies specifically to projects for which a Notice of Preparation (NOP) of an EIR or a Notice of Intent (NOI) to adopt a Negative Declaration or Mitigated Negative Declaration (MND) will be filed on or after July 1, 2015.

The prior EIR determined that because the Opportunity Sites under the proposed Housing Element Update are situated throughout the City in mostly urban and developed areas and in mostly unsurveyed areas, the potential for Opportunity Sites to encounter archaeological resources is unknown. Some prehistoric resources may be considered TCRs and can include sites, features, and objects that are listed in the CRHR, eligible to be listed in the CRHR, locally listed as defined in PRC Section 5020.1(k), or be determined by the lead agency to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. Future cultural resource studies at Opportunity Site locations could identify both archaeological resources and/or TCRs through survey and consultation with Native American tribes. The cultural resources analysis for the prior EIR identified Mitigation Measure MM-CUL-2 which requires project applicants conduct an archeological study for non-ministerial development of Opportunity Sites. Through continued consultation with tribes on a project-specific basis and implementation of Mitigation Measure MM-CUL-2, it is possible that the City will be able to determine whether specific Opportunity Sites overlap with known locations of TCRs. Because ground-disturbing activities could result in disturbance or destruction of TCRs, impacts would be potentially significant. For Opportunity Site projects that are not eligible for the ministerial approval process (and not projects per CEQA), and with continued consultation with Native American tribes, implementation of Mitigation Measures MM-CUL-2 through MM-CUL-9, MM-TCR-1, and MM-TCR-2 would reduce this impact to less-than-significant levels.

The Native American Heritage Commission (NAHC) was contacted on September 12, 2023, to request a search of the Sacred Lands File (SLF) as well as a contact list of Native Americans culturally affiliated with the project area (Attachment A). On November 3, 2023, the NAHC responded to the SLF request, stating that the results of the SLF search were negative. See Attachment A for the NAHC response, which includes the Tribal contacts list. Pursuant to Mitigation Measures MM-CUL-2 through MM-CUL-9, MM-TCR-1, and MM-TCR-2, AB 52 consultation was not conducted as part of the projects cultural resources assessment because the project's potential environmental impacts to TCRs would be within the scope of the prior EIR and would not result in any of the conditions set forth in PRC Section 21166(c) or *CEQA Guidelines* Sections 15162 or 15163.

14. Satisfaction of Appendix M Performance Standards

The following information demonstrates that the infill project satisfies the performance standards under Appendix M of the *CEQA Guidelines*. For mixed-use projects, the predominant use will determine which performance standards apply to the entire project. The primary use under the proposed project is residential.

15. Does the Non-residential Infill Project Include a Renewable Energy Feature?

The primary use under the proposed project is residential; therefore, this performance standard does not apply.

16. Is the Project Site Included on Any List Compiled Pursuant to Section 65962.5 of the Government Code?

The Department of Toxic Substances Control (DTSC)'s EnviroStor database and State Water Resources Control Board (SWRCB)'s GeoTracker database are the data management systems for tracking cleanup, permitting, enforcement and investigation efforts at hazardous waste facilities and sites with known contamination, or sites where there may be reasons to investigate further. The project site is not listed on EnviroStor and GeoTracker.

17. Does the Infill Project Include Residential Units Located within 500 Feet of a Roadway?

If the infill project includes residential units located within 500 feet, or such distance that the local agency or local air district has determined is appropriate based on local conditions, a high-volume roadway or other significant source of air pollution, as defined in Appendix M, describe the measures that the project will implement to protect public health. Such measures may include policies and standards identified in the local general plan, specific plans, zoning code or community risk reduction plan, or measures recommended in a health risk assessment, to promote the protection of public health. Identify the policies or standards, or refer to the site-specific analysis, below. (Attach additional sheets if necessary.)

The project site is located along University Avenue which is defined as a four lane arterial road according to the City's Circulation Element. This section of University Avenue is also identified within the City's Land Use and Urban Design Element as the "L Corridor." The "L" Corridor's length and abundance of current and potential activity centers make it a prime location for the incorporation of smart growth principles and advanced forms of public transportation such as express buses and light rail. The Land Use and Urban Design Element directs a larger proportion of the anticipated population growth to infill sites along already established transportation corridors, particularly Magnolia Avenue and University Avenue (Riverside 2018). The project includes development of a mixed-use building with retail and residential uses. While the project is located within 500 feet of a roadway, the project itself is consistent with the City's general plan and land use plan for the site.

18. For Residential Projects, the Project Satisfies which of the following?

The project is located in a high-quality transit corridor as shown in Figure 6

☐ Located within a low vehicle travel area, as defined in Appendix M. (Attach VMT map.)

■ Located within ½ mile of an existing major transit stop or an existing stop along a high quality transit corridor. (Attach map illustrating proximity to transit.)

☐ Consists of 300 or fewer units that are each affordable to low income households. (Attach evidence of legal commitment to ensure the continued availability and use of the housing units for lower income households, as defined in Section 50079.5 of the Health and Safety Code, for a period of at least 30 years, at monthly housing costs, as determined pursuant to Section 50053 of the Health and Safety Code.)

19. For Commercial Projects with a Single Building Floor-Plate below 50,000 Square Feet, the Project Satisfies Which of the Following?

The project is not a commercial project; therefore, this performance standard does not apply.

☐ Located within a low vehicle travel area, as defined in Appendix M. (Attach VMT map.)

☐ The project is within one-half mile of 1800 dwelling units. (Attach map illustrating proximity to households.)

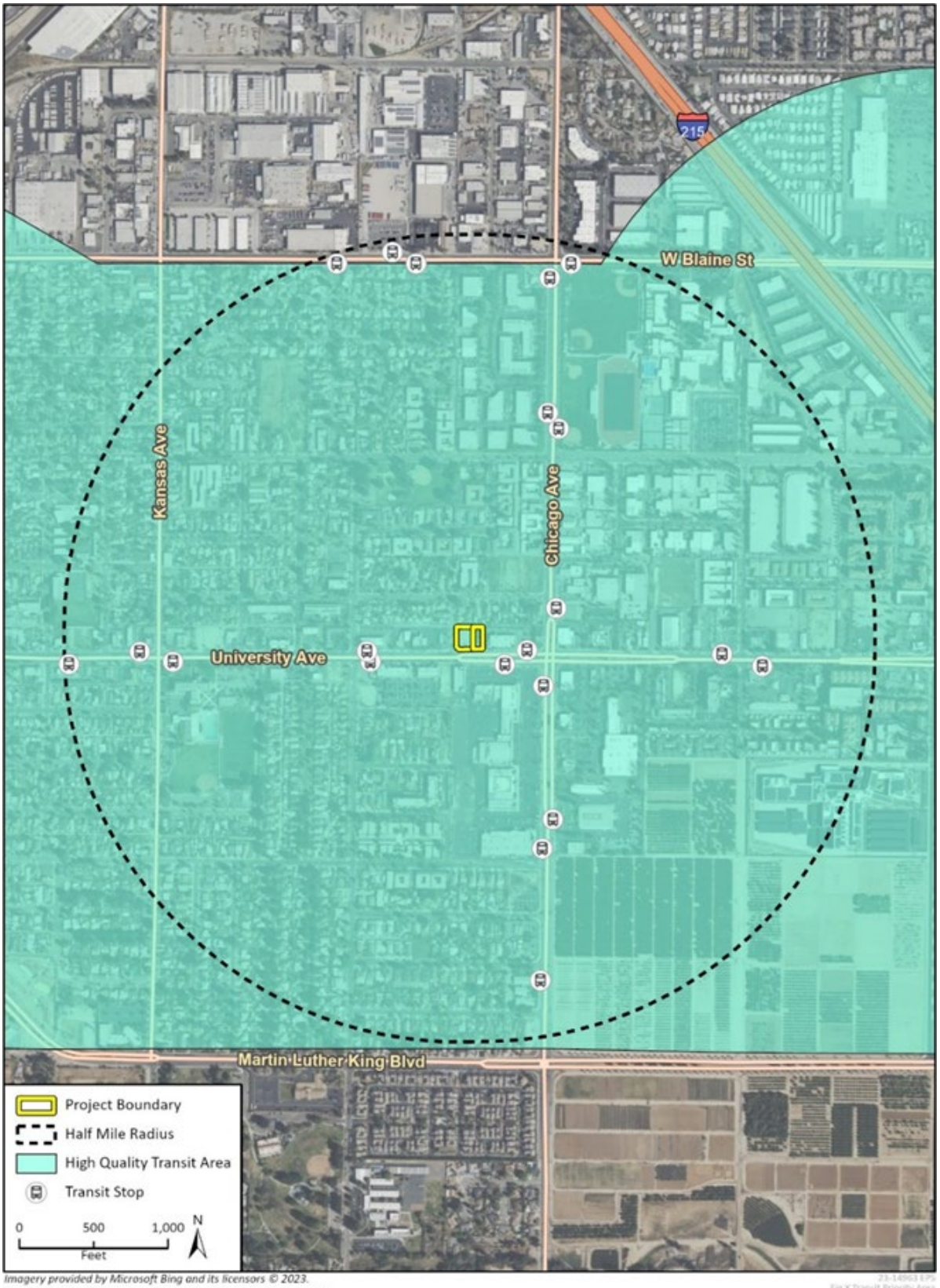
20. For Office Building Projects, the Project Satisfies Which of the Following?

The project is not an office building project; therefore, this performance standard does not apply.

☐ Located within a low vehicle travel area, as defined in Appendix M. (Attach VMT map.)

☐ Located within ½ mile of an existing major transit stop or within ¼ of a stop along a high quality transit corridor. (Attach map illustrating proximity to transit.)

Figure 6 Project in High Quality Transit Area



21. For School Projects, the Project Does All of the Following:

The project is not a school project; therefore, this performance standard does not apply.

☐ The project complies with the requirements in Sections 17213, 17213.1 and 17213.2 of the California Education Code.

☐ The project is an elementary school and is within one mile of 50% of the student population, or is a middle school or high school and is within two miles of 50% of the student population. Alternatively, the school is within ½ mile of an existing major transit stop or an existing stop along a high quality transit corridor. (Attach map and methodology.)

☐ The project provides parking and storage for bicycles and scooters.

22. Small Walkable Community Projects

For small walkable community projects, the project must be a residential project that has a density of at least eight units to the acre or a commercial project with a floor area ratio of at least 0.5, or both.

The project is a residential mixed-use project that has a density of 18 units on a 0.63-acre site; therefore, the project meets the criteria for a small walkable community project.

23. Evaluation of the Environmental Impacts of Infill Projects:

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. For the purposes of this checklist, "prior EIR" means the environmental impact report certified for a planning level decision, as supplemented by any subsequent or supplemental environmental impact reports, negative declarations, or addenda to those documents. "Planning level decision" means the enactment or amendment of a general plan, community plan, specific plan, or zoning code. (Section 15183.3(e).)

4. Once the lead agency has determined that a particular physical impact may occur as a result of an infill project, then the checklist answers must indicate whether that impact has already been analyzed in a prior EIR. If the effect of the infill project is not more significant than what has already been analyzed, that effect of the infill project is not subject to CEQA. The brief explanation accompanying this determination should include page and section references to the portions of the prior EIR containing the analysis of that effect. The brief explanation shall also indicate whether the prior EIR included any mitigation measures to substantially lessen that effect and whether those measures have been incorporated into the infill project.
5. If the infill project would cause a significant adverse effect that either is specific to the project or project site and was not analyzed in a prior EIR, or is more significant than what was analyzed in a prior EIR, the lead agency must determine whether uniformly applicable development policies or standards that have been adopted by the lead agency, or city or county, would substantially mitigate that effect. If so, the checklist shall explain how the infill project's implementation of the uniformly applicable development policies will substantially mitigate that effect. That effect of the infill project is not subject to CEQA if the lead agency makes a finding, based upon substantial evidence, that the development policies or standards will substantially mitigate that effect.
6. If all effects of an infill project were either analyzed in a prior EIR or are substantially mitigated by uniformly applicable development policies or standards, CEQA does not apply to the project, and the lead agency shall file a Notice of Determination.
7. Effects of an infill project that either have not been analyzed in a prior EIR, or that uniformly applicable development policies or standards do not substantially mitigate, are subject to CEQA. With respect to those effects of the infill project that are subject to CEQA, the checklist shall indicate whether those effects are significant, less than significant with mitigation, or less than significant. If there are one or more “Significant Impact” entries when the determination is made, an infill EIR is required. The infill EIR should be limited to analysis of those effects determined to be significant. (Sections 15128, 15183.3(d).)
8. “Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures will reduce an effect of an infill project that is subject to CEQA from “Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how those measures reduce the effect to a less than significant level. If the effects of an infill project that are subject to CEQA are less than significant with mitigation incorporated, the lead agency may prepare a Mitigated Negative Declaration. If all of the effects of the infill project that are subject to CEQA are less than significant, the lead agency may prepare a Negative Declaration.
9. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to an infill project's environmental effects in whatever format is selected.
10. 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.

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Environmental Factors Potentially Affected

The infill project could potentially result in one or more of the following environmental effects:

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

Determination

Based on this initial evaluation:

■ I find that the proposed infill project WOULD NOT have any significant effects on the environment that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed, or that uniformly applicable development policies would not substantially mitigate. Pursuant to Public Resources Code Section 21094.5, CEQA does not apply to such effects. A Notice of Determination (Section 15094) will be filed.

☐ I find that the proposed infill project will have effects that either have not been analyzed in a prior EIR, or are more significant than described in the prior EIR, and that no uniformly applicable development policies would substantially mitigate such effects. With respect to those effects that are subject to CEQA, I find that such effects WOULD NOT be significant and a NEGATIVE DECLARATION, or if the project is a Transit Priority Project a SUSTAINABLE COMMUNITIES ENVIRONMENTAL ASSESSMENT, will be prepared.

☐ I find that the proposed infill project will have effects that either have not been analyzed in a prior EIR, or are more significant than described in the prior EIR, and that no uniformly applicable development policies would substantially mitigate such effects. I find that although those effects could be significant, there will not be a significant effect in this case because revisions in the infill project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION, or if the project is a Transit Priority Project a SUSTAINABLE COMMUNITIES ENVIRONMENTAL ASSESSMENT, will be prepared

☐ I find that the proposed infill project would have effects that either have not been analyzed in a prior EIR, or are more significant than described in the prior EIR, and that no uniformly applicable development policies would substantially mitigate such effects. I find that those effects WOULD be significant, and an infill ENVIRONMENTAL IMPACT REPORT is required to analyze those effects that are subject to CEQA.

Signature	Date
Printed Name	Title

Environmental Checklist

1 Aesthetics

	Significant Impact	Less Than Significant or Less than Significant with Mitigation Incorporated	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
Except as provided in Public Resources Code Section 21099, would the project:					
a. Have a substantial adverse effect on a scenic vista?	☐	☐	■	☐	☐
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	■	☐	☐
c. Conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☐	■
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	☐	☐	■

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

The prior EIR determined that future development under the Housing Element Update would increase development densities in specific areas and future development would not block scenic views of surrounding mountains or the Santa Ana River. Further, future development would be required to comply with the design review and applicable General Plan 2025 policies and Riverside Municipal Code (RMC) standards. Therefore, the prior EIR determined implementation of the Housing Element Update would not have a substantial adverse effect on a scenic vista and impacts would be less than significant.

The project site is located within an urbanized setting adjacent to existing urban uses. The site is surrounded by a mix of uses including commercial, residential and mixed-use developments. The project would not cause any substantial changes from the views at and around the project site. Therefore, the proposed project would not cause a substantial adverse effect on existing scenic vista, and would not result in a new or more significant impact in comparison to the impacts analyzed under the prior EIR.

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

The City of Riverside has a wide variety of landscapes and scenic resources, including a floodplain, mountains, and hillsides. The project site is situated in existing urban areas, and not in open space areas, and would not block scenic views of the surrounding mountains, hillsides, or the Santa Ana River. As determined in the prior EIR, there are no State scenic highways in the City and implementation of the Housing Element Update would not result in any effects on scenic highways or scenic resources. Therefore, impacts were found to be less than significant in the prior EIR.

The proposed project is in an urban area characterized by a mix of commercial and residential uses. The project site is not located within the vicinity of a designated State scenic highway. State Route 91, located approximately 17.2 miles west of the project site, is the closest eligible highway, but has not officially been designated (Caltrans 2022). Therefore, the project would not result in any effects on scenic highways or scenic resources and there would be no impact.

c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from 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?

As determined in the prior EIR, future development associated with the Housing Element Update would not result in substantial degradation of visual character and quality upon compliance with General Plan 2025 policies, RMC, Specific Plan standards, and the Riverside Citywide Design Guidelines and Sign Guidelines. Therefore, potential impacts to the existing visual character or quality of public views were found to be less than significant under the prior EIR.

The project entails infill development in an urbanized area and is located away from scenic resources. Additionally, the project adheres to RMC standards, and is designed to preserve prominent ridgelines and hillsides as important community visual assets. Therefore, the proposed project would not result in a new or more significant impact in comparison to the impacts analyzed under the prior EIR, and the impact would be less than significant.

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

The prior EIR determined that future development under the Housing Element Update would introduce new lighting and glare sources. However, compliance with Riverside County Ordinance No. 655 requirements, General Plan 2025 EIR Mitigation Measure MM-AES-1, and RMC Sections 19.556 and 19.590.070 would reduce impacts to less than significant.

The proposed project would not create a new source of substantial light or glare that would affect any daytime or nighttime views in the area. All residential and mixed-used development that introduces light sources or modifications to existing light sources are required to incorporate shielding devices or other light-pollution limiting design features. All outdoor lighting would comply with the development standards in the RMC, Section 19.556. Therefore, the proposed project would not result in a new or more significant impact in comparison to the impacts analyzed under the prior EIR.

2 Agriculture and Forestry Resources

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

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

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

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

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

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

Impacts regarding agricultural and forestry resources were discussed in Section 3.15, *Effects Not Found to be Significant*, of the prior EIR and determined that future development under the Housing Element Update would not occur in areas designated as Important Farmland. None of the Housing Element Update Opportunity Sites are within Williamson Act contracted land or zoned for forest land, timberland, or timberland zoned Timberland Production areas. Future development associated with the Housing Element Update would not result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. Therefore, the prior EIR determined implementation of the Housing Element Update would have no impact on agricultural and forestry resources.

The proposed project is a mixed-use residential and commercial infill project. The project site is zoned Mixed-Use Urban and Specific Plan (University Avenue) Overlay Zone (MU-U-SP), so the site is not located in an agricultural zone nor is it under a Williamson Act contract. The project site is not located on or near land mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance mapped by the California Department of Conservation's Farmland Mapping and Monitoring Program. According to the FMMP, the project site is considered urban and built-up land. Therefore, similar to the prior EIR, the project would have no impact on agriculture or forestry resources.

3 Air Quality

	Significant Impact	Less Than Significant or Less than Significant with Mitigation Incorporated	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
Would the project:					
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	■	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	■	☐	☐	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	■	☐	☐	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	■	☐	☐

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

The prior EIR determined construction emissions from individual development projects, while short-term, could collectively exceed air quality thresholds set by the South Coast Air Quality Management District (SCAQMD). Long-term operational emissions from the completed Housing Element Update would also surpass SCAQMD's daily thresholds for certain pollutants. Mitigation Measures MM-AQ-1 and MM-AQ-2 would be implemented to reduce criteria air pollution emissions associated with development under the Housing Element Update. However, the development under the Housing Element Update was determined to be inconsistent with the 2016 Air Quality Management Plan (AQMP), so the potential impacts are significant and unavoidable. In addition, anticipated construction and operational emission impacts associated with development under the Housing Element Update could generate combined criteria pollutant emissions on a daily basis that could exceed the SCAQMD's project-level thresholds. Mitigation Measures MM-AQ-2 and MM-AQ-3 would be implemented to reduce criteria air pollution emissions and toxic air contaminants (TACs) not covered under SCAQMD permits associated with development under the Housing Element Update. Implementation of the mitigation measures would reduce criteria air pollutant emissions, but not enough to reduce emissions below SCAQMD's significance thresholds. Therefore, the prior EIR determined impacts related to air pollution and sensitive receptors would be significant and unavoidable.

Pursuant to Mitigation Measures MM-AQ-1 and MM-AQ-2 a project-specific Air Quality and Greenhouse Gas Emissions Study (AQ/GHG Study) was prepared by prepared by Rincon Consultants for the proposed project. The AQ/GHG Study provides an analysis of potential air quality and GHG

emissions impacts associated with the construction and operation of the proposed project. While the prior EIR identified significant and unavoidable impacts related to air quality, the proposed project includes a mixed-use infill development that would not exceed air quality thresholds. Refer to the AQ/GHG Study in Attachment B for the full analysis.

The study also includes a consistency analysis with the SCAQMD's 2022 Air Quality Management Plan (AQMP) The Southern California Association of Governments (SCAG) 2020 socioeconomic projections estimate that the City of Riverside would increase from 94,500 households to 115,100 households by 2045. The proposed project would develop 18 residential units. The project's contribution to housing in the city would be within SCAG growth projections. Based on this estimation, the proposed project would be consistent with the assumptions of the emissions forecasts contained in the 2022 AQMP. Therefore, the proposed project would not conflict or obstruct implementation of the applicable air quality plan, and potential impacts would not result in a new or more significant impact in comparison to the impacts analyzed under the prior EIR.

b. *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

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

As discussed under Threshold a, the prior EIR concluded long-term operational emissions from development under the Housing Element Update would surpass SCAQMD's daily thresholds for certain pollutants. MM-AQ-1 and MM-AQ-2 would be implemented to reduce criteria air pollution emissions associated with development under the Housing Element Update; nonetheless, the full buildout under the Update would be inconsistent with the 2016 AQMP, so the potential impacts are significant and unavoidable. Anticipated construction and operational emission impacts associated with the Housing Element Update could generate combined criteria pollutant emissions on a daily basis that could exceed the SCAQMD's project-level thresholds. Implementation of Mitigation Measures MM-AQ-2 and MM-AQ-3 would reduce criteria air pollution emissions and TACs not covered under SCAQMD permits associated with development under the Housing Element Update, but not enough to reduce emissions below SCAQMD's significance thresholds.

According to the AQ/GHG Study (Attachment B), construction emissions associated with the proposed project would generate temporary air pollutants emissions associated with fugitive dust, PM10 and PM2.5, and exhaust emissions from heavy construction equipment and construction vehicles; however, construction-related emissions would not exceed SCAQMD regional thresholds, as shown in Table 2. Therefore, project construction would not 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. As such, the proposed project would not result in a new or more significant impact in comparison to the impacts analyzed under the prior EIR.

Operational emissions released from area sources such as architectural coatings, consumer products, and landscaping equipment, energy sources such as natural gas, and mobile sources such as vehicle trips to and from the project site, would not exceed SCAQMD regional thresholds for criteria pollutants, as shown in Table 3. Therefore, project operation would not result in a cumulatively considerable net increase of any pollutant for which the project region is in non-attainment, and the proposed project would not result in a new or more significant impact in comparison to the impacts analyzed under the prior EIR.

The California Air Resources Board (CARB) guidelines provide the recommended siting distances for the development of sensitive land uses in proximity to TAC sources and for the addition of new TAC sources in proximity to existing sensitive land uses. Residential land uses do not generate substantial TAC emissions based on the air toxic sources listed in CARB's guidelines; therefore, the project would not expose offsite sensitive receptors to significant amounts of carcinogens or TACs. Similar to the prior EIR, operational impacts would be less than significant, so no new impacts would occur under the proposed project.

Table 2 Project Construction Emissions (pounds/day)

	Emissions (pounds per day)				
	ROG	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Maximum Daily Emissions	20.6	19.9	22.2	4.0	2.3
SCAQMD Threshold	75	100	550	150	55
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**
Maximum On-site Emissions	20.6	19.6	20.3	3.7	2.2
Localized Significance Thresholds[1]	N/A	118	602	4	3
Exceed LST?	**No**	**No**	**No**	**No**	**No**

[1] Allowable emissions (pounds per day) as a function of receptor distance (25 meters) from site boundary. LST for Source Receptor Area 23: Riverside Metropolitan County.

Source: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds

Note: Some numbers may not add up precisely due to rounding. See Attachment B for complete modeling results.

For a conservative estimate of project emissions, construction and operational emissions were modeled during winter and summer, then reported for the maximum day during the winter or summer, whichever was highest. Maximum daily emission estimates were then compared to the SCAQMD thresholds and LSTs measured in pounds-per-day.

Table 3 Project Operational Emissions (pounds/day)

	Maximum Daily Emissions (lbs/day)					
Emission Source	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Mobile	1	1	6	<1	1	<1
Area	1	<1	2	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Project Emissions	2	1	8	<1	1	<1
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day = pounds per day; TOG = total organic gases; NO_x = nitrogen oxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter no more than 10 microns; $PM_{2.5}$ = particulate matter with a diameter no more than 2.5 microns; SO_x = sulfur oxide

Notes: Some numbers may not add up precisely due to rounding considerations. See Appendix B for complete modeling results.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The prior EIR concluded that development under the Housing Element Update would have less than significant impacts related to odor.

The proposed project does not include land uses typically associated with odor complaints such as sewage treatment plants, landfills, recycling facilities, and agricultural uses. Vehicles approaching, idling, and leaving the site may release odorous exhaust emissions. Odors of this nature disperse rapidly with distance and do not typically result in odor impacts. Additionally, the project site is located adjacent to University Avenue, an arterial road, and vehicle exhaust is already prevalent in the project area. Therefore, similar to the prior EIR, there would be no impact.

Mitigation Measures

The following mitigation measures set forth in the prior EIR and the associated Mitigation Monitoring and Reporting Program (MMRP) to address air quality impacts would be required as part of the proposed project. No additional mitigation measures are required.

MM-AQ-1 Implement Measures to Reduce Construction-Related Criteria Air Pollutant Emissions

Prior to approval by the City for non-ministerial projects proposed on Opportunity Sites, applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the Planning Division for review and approval. The evaluation shall be prepared in conformance with SCAQMD methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the SCAQMD-adopted thresholds of significance, the City shall require that applicants for new development projects incorporate mitigation measures and/or project design features to reduce air pollutant emissions during construction activities. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans or construction drawings) submitted to the City and shall be verified by the City's Building and Safety Division. While specific mitigation measures and/or project design features to reduce construction-related emissions would be determined during project-level analysis, potential mitigation could include, but is not limited to:

- Requiring fugitive-dust control measures that exceed SCAQMD's Rule 403, such as:
  - Use of nontoxic soil stabilizers to reduce wind erosion
  - Applying water every 3 hours to activate soil-disturbing activities
  - Tarping and/or maintaining a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials
- Using construction equipment rated by EPA as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower
- Ensuring that construction equipment is properly serviced and maintained to the manufacturer's standards
- Limiting nonessential idling of construction equipment to no more than 5 consecutive minutes
- Limiting onsite vehicle travel speeds on unpaved roads to 15 miles per hour

- Installing wheel washers for all existing trucks or washing all trucks and equipment leaving the project area
- Using Super-Compliant VOC paints for coating of architectural surfaces whenever possible

MM-AQ-2 Implement Measures to Reduce Criteria Air Pollutant Emissions During Operation

Prior to approval by the City for non-ministerial development projects proposed on Opportunity Sites, applicants shall prepare and submit a technical assessment evaluating potential project operation phase-related air quality impacts to the Planning Division for review and approval. The evaluation shall be prepared in conformance with SCAQMD methodology in assessing air quality impacts. If operations related air pollutants are determined to have the potential to exceed the SCAQMD-adopted thresholds of significance, the Planning Division shall require incorporation of mitigation measures and/or project design features to reduce air pollutant emissions during operational activities, to be included as part of the conditions of approval. Possible mitigation measures and/or project design features to reduce long-term emissions could include, but are not limited to, the following:

- Providing truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with Carb Rule 2845 (13 California Code of Regulations Chapter 10 §2485)
- Providing changing/shower facilities as specified in Section A5.106.4.3 of the California Green Building Standards Code (CALGreen) (Nonresidential Voluntary Measures)
- Providing bicycle parking facilities per Section A4.106.9 (Residential Voluntary Measures) of CALGreen
- Providing preferential parking spaces for low-emitting, fuel-efficient, and carpool van/vehicles per Section A5.106.5.1 of CALGreen (Nonresidential Voluntary Measures) of CALGreen
- Providing appliances shall be Energy Star-certified appliances or appliances of equivalent energy efficiency (e.g., dishwashers, refrigerators, clothes washers, and dryers). Installation of Energy Star-certified or equivalent appliances shall be verified by Building & Safety during plan check.
- Equipping landscaped common areas with electrical outlets to enable use of electric landscaping equipment to the extent feasible.

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4 Biological Resources

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

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

As determined in the prior EIR, development associated with the Housing Element Update could result in direct and indirect impacts on special-status plant and wildlife species, although impacts are expected to be minor given the placement of the Opportunity Sites within urban areas. Mitigation Measure MM-BIO-1 of the prior EIR requires a literature review, habitat assessment, and survey be conducted prior to construction on an Opportunity Site, which would reduce impacts on special status plant and/or wildlife species to a less-than-significant level.

Pursuant to the prior EIR's Mitigation Measure MM-BIO-1, a Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis Report was prepared by Rincon Consultants for the proposed project and is included as Attachment C of this Appendix N checklist.

According to the MSHCP Consistency Analysis Report, no special-status plant species or sensitive natural communities were recorded within the study area[1] nor do they have potential to occur within the study area due to a lack of suitable habitat. Furthermore, the disturbed/developed nature of the site does not support the soil conditions or vegetation communities required by special-status plant species occurring in the region. Based on the results of the literature review, 113 special-status wildlife species are documented by the California Natural Diversity Database within the nine United States Geological Survey (USGS) quadrangle search area, and three species are noted by the United States Fish and Wildlife Services (USFWS) Information for Planning and Consultation database (USFWS 2023) with a potential to occur based on the geographical area and habitats known in the region. Of these 113 species, five species were determined to have low potential to occur and include four bat species (all considered state Species of Special Concern) and the Cooper's hawk (State Watch List). A row of Mexican fan palm trees are located adjacent to the project site, which are suitable for roosting bats. However, tree removal is not proposed as part of the project; therefore, impacts to the four protected bat species are not anticipated and impacts would be less than significant. As for Cooper's hawk, there is suitable habitat bordering the project site and within the surrounding buffer area. The project applicant would be required to conduct pre-construction nesting bird and raptor surveys pursuant to Section 3503.5 of the California Fish and Game Code and federal Migratory Bird Treaty Act, as described in the MSHCP Consistency Analysis Report Condition of Approval (COA)- BIO-1. With implementation of COA-BIO-1, impacts to Cooper's hawk would be less than significant. The remaining 108 species are not likely to occur within the study area due to lack of suitable breeding, foraging, nesting, roosting, wintering, and/or transitory habitat within the study area, and/or lack of recent occurrence records (>25 years) documented within the vicinity of the study area. Therefore, impacts to the remaining 108 species would be less than significant. In addition, the site is in an urbanized area surrounded by development, effectively isolating it from natural habitats and extant populations of sensitive species. Therefore, similar to the prior EIR, impacts would be less than significant and no new impacts would occur under the proposed project.

[1] The study area includes the 0.63-acre project site plus an additional 500-foot buffer area.

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

c. *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

The prior EIR determined future development under the Housing Element Update could result in the removal and/or disturbance of natural sensitive communities, riparian habitats, or state or federally protected wetlands. However, with implementation of Mitigation Measure MM-BIO-1, impacts from development associated with the Housing Element Update would be reduced to less than significant. According to Rincon review of the USGS National Hydrography Dataset and USFWS National Wetlands Inventory Mapper and field survey conducted in 2023, the project site does not contain any riparian habitat, sensitive natural community, or State or federally protected wetland. Therefore, impacts to riparian habitat, sensitive natural community, or State or federally protected wetland would not occur, and no new impacts would occur under the proposed project.

d. *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

As determined in the prior EIR, trees, shrubs, and structures throughout the city, including within the Opportunity Sites, could provide suitable habitat for nesting birds, including raptors, protected by the MBTA and CFGC. With implementation of COA-BIO-1, impacts to nesting birds would be less than significant. The project site is not located within or adjacent to extensive native open space habitat and does not represent a wildlife travel route, crossing or regional movement corridor between large open space habitats. The project site is bordered on all sides by high density residential/urban development. The project is not located within an MSHCP-designated existing or proposed core, non-contiguous habitat block, constrained linkage, or linkage area. Therefore, the project would not 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. Impacts would be less than significant as analyzed in the prior EIR.

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

The prior EIR determined construction and/or operational activities resulting from development associated with the Housing Element Update could require pruning or tree removal during vegetation clearing and grading and other construction activities. Operational activities designed to keep housing and public safety areas landscaped, clear, and accessible would require vegetation management, which could involve tree trimming and/or tree removal. The trimming or removal of street trees would be subject to local tree policies and ordinances, such as the Urban Forestry Policy Manual, RMC, Western Riverside MSHCP mitigation fees, and the Upper Santa Ana River Habitat Conservation Plan. Upon compliance with these policies and ordinances, impacts would be less than significant. Because the proposed project does not involve tree trimming or tree removal, the project would not conflict with any local policies or ordinances protecting biological resources. Therefore, no impact would occur.

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

As described in the prior EIR, the city of Riverside is located within the Western Riverside MSHCP. Development associated with the Housing Element Update would be required to implement Mitigation Measure MM-BIO-1 to demonstrate compliance with the Western Riverside MSHCP to reduce impacts to less than significant. The proposed project is subject to the provisions of the Western Riverside MSHCP. However, the project site is not located within an MSHCP criteria cell, group, or linkage area; therefore, no Habitat Evaluation and Acquisition Negotiation Strategy or Joint Project Review are required. The following summarizes the project's consistency with MSHCP conservation goals respective of each MSHCP regulated resource section.

Criteria Area Species Survey Area (Section 6.3.2)

The project site does not occur within a predetermined survey area for MSHCP criteria area or narrow endemic plant species; therefore, no surveys are required (Western Riverside County Regional Conservation Authority [RCA] MSHCP Information Map Tool 2023). The project is consistent with MSHCP Section 6.3.2.

Amphibian Species Survey Area (Section 6.3.2)

The project site is not within the Amphibian Species Survey Area; therefore, no surveys are required (RCA MSHCP Information Map Tool 2023). The project is consistent with MSHCP Section 6.3.2.

Mammal Species Survey Aera (Section 6.3.2)

The project site is not within the Mammal Species Survey Area; therefore, no surveys are required (RCA MSHCP Information Map Tool 2023). The project is consistent with MSHCP Sections 6.3.2.

Burrowing Owl Survey Area (Section 6.3.2)

The project site is not within the Burrowing Owl Survey Area; therefore, no surveys are required (RCA MSHCP Information Map Tool 2023). No burrows or features suitable for burrowing owl were observed in the project site or the surrounding 500-foot buffer. The potential for burrowing owl to occur on the project site is unlikely. The project is consistent with MSHCP Section 6.3.2.

MSHCP Riparian/Riverine Areas and Vernal Pools (Section 6.1.2)

The site is entirely disturbed or developed land and no aquatic resources were observed during the site reconnaissance. As a result, no impacts to riparian, riverine, or vernal pool resources would occur and an MSHCP Determination of Biologically Equivalent or Superior Preservation (DBESP) is not required. The project is consistent with MSHCP Section 6.1.2.

Urban/Wildlands Interface (6.1.4)

The MSHCP Urban/Wildlands Interface guidelines presented in Section 6.1.4 are intended to address indirect effects associated with locating commercial, mixed uses and residential developments in proximity to a MSHCP Conservation Area. The project site is within the urbanized portion of the City of Riverside and is not located adjacent to an existing or proposed MSHCP Conservation Area. The nearest MSHCP Conservation Area lies along the Santa Ana River

approximately two miles northwest of the project site. The project is consistent with MSHCP Section 6.1.4.

Fuels Management (6.4)

The fuels management guidelines presented in Section 6.4 of the MSHCP are intended to address brush management activities around new development within or adjacent to MSHCP Conservation Areas. The project site is not located adjacent to an existing or proposed MSHCP Conservation Area. The nearest MSHCP Conservation Area lies along the Santa Ana River approximately two miles northwest of the project site. The project is consistent with MSHCP Section 6.4.

In summary, the project would not conflict with the provisions of the Western Riverside MSHCP. Impacts would be less than significant as analyzed in the prior EIR, and no new impacts would occur under the proposed project.

Mitigation Measures

The following mitigation measures set forth in the prior EIR and the associated MMRP to address biological resources impacts would be required as part of the proposed project. No additional mitigation measures are required.

BIO-1 Conduct Literature Review, Habitat Assessment, and Surveys

Prior to construction on Opportunity Sites that are vacant or where the potential presence of biological or aquatic resources exists, a consistency review shall be performed to ensure that the project is consistent with the requirements of the WRC MSHCP. For the project-specific WRC MSHCP consistency process, the applicant shall employ a qualified biologist approved by the City to review the future Opportunity Site project. The qualified biologist shall conduct a site-specific literature review, which shall consider, at a minimum, the future development project, site location, GIS information, WRC MSHCP survey areas and requirements, and known sensitive biological resources. The review shall assess the site for special-status plants and/or wildlife, aquatic resources, sensitive natural communities, wildlife corridors or nurseries, or other regulated biological resources covered by the WRC MSHCP and/or pursuant to CEQA, FESA, or CESA that could be affected by the project. In some cases, a literature review would be sufficient for the biologist to make a no impact and/or a less-than-significant impact determination for all six of the thresholds of significance (Section 3.2.4) of biological resources and/or the determination that the project is consistent with the WRC MSHCP. In this case, no further work shall be required, and if deemed necessary by the City, a summary report stating the basis for these findings, identifying each threshold of significance with a CEQA finding, shall be the only requirement.

Habitat Assessment Survey: If, during the preliminary review, it is determined that potential biological resources including any species covered under the MSHCP exist on the individual Opportunity Site that could be affected, then a habitat assessment survey shall be required unless a qualified biologist determines that a field review/habitat assessment is not needed. If needed, and/or the project is in a WRC MSHCP designated survey area, this survey shall consist of a site visit conducted by a qualified biologist, where the proposed individual development project and adjacent buffer (as appropriate for the target species relative to the potential project direct and indirect impacts) shall be assessed for WRC MSHCP covered species and habitats; candidate, sensitive, or special-status plants and/or wildlife; aquatic resources; sensitive natural communities; and wildlife corridors or nurseries while identifying and mapping all vegetation communities and land-cover

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types. If suitable habitat is present for candidate, sensitive, or special-status plants or animals and cannot be avoided, then focused protocol surveys may be required, as determined by the qualified biologist, with appropriate reporting. If aquatic resources are present and cannot be avoided, a jurisdictional delineation may be required. Mitigation shall include an analysis of all the biological resources identified in the thresholds of significance, with a determination made regarding significance for each threshold. Reporting shall include regulatory assessment, impact analyses, and identification and implementation of appropriate measures based on the presence of biological resources. Reduce and Avoid Impacts: If, following the literature review and surveys for Opportunity Sites, it is determined that the site would not directly or indirectly affect any WRC MSHCP covered species or habitats; candidate, sensitive, or special-status plants and/or wildlife; aquatic resources; sensitive natural communities; or wildlife corridors or nurseries, then no further action or WRC MSHCP consistency analysis shall be required. If, however, it is determined that impacts on WRC MSHCP covered species or habitats; candidate, sensitive, or special-status plants and/or wildlife; aquatic resources; sensitive natural communities; or wildlife corridors or nurseries would occur and therefore would be considered significant, then additional mitigation measures as recommended by the qualified biologist and approved by the Planning Division shall be implemented to avoid or reduce impacts to the maximum extent feasible.

5 Cultural Resources

	Significant Impact	Less Than Significant or Less than Significant with Mitigation Incorporated	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
Would the project:					
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	■	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	■	☐	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☐	■

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

The prior EIR determined the potential historical significance of much of the city's built environment is unknown. To mitigate potential impacts to unknown cultural resources, the prior EIR includes Mitigation Measure MM-CUL-1, which requires a historical resource assessment for structures over 50 years old outside previously surveyed areas. If found eligible, the structure is subject to the Cultural Resources Ordinance; otherwise, no additional mitigation is necessary. The project site does not contain any built structures and consists of a vacant lot, therefore, there would be no impact on historical resources.

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

The prior EIR determined that Opportunity Sites included in the Housing Element Update may be in areas of unknown archaeological sensitivity. Mitigation Measure MM-CUL-2 requires an archaeological study to be conducted for projects that require CEQA analysis and involve ground disturbance. If resources are discovered, Mitigation Measures MM-CUL-3 through MM-CUL-8 are required to reduce impacts to less than significant levels.

Pursuant to the prior EIR's Mitigation Measure MM- CUL-2 a Cultural Resources Technical Report was prepared by Rincon Consultants for the proposed project and is included as Attachment A of this Appendix N checklist. The project-specific Cultural Resources Technical Report included a Sacred Lands File (SLF) search, California Historical Resources Information System (CHRIS) records search, aerial and topographic map review, and pedestrian survey.

The Cultural Resources Technical Report did not identify any prehistoric or historic-period archaeological resources within the project site. Further, the geoarchaeological background research indicates the project site is underlain by early Pleistocene aged sediments which pre-date

the era of human occupation and the project site is not underlain by a soil type that is prone to archaeological resource findings. Therefore, the project site has a low geological sensitivity for prehistoric and/or historic-period archaeological resources. Additionally, the project site has been disturbed since the early-twentieth century by urban development and agriculture. Because the project site has been previously disturbed, and no archaeological resources have been identified within the project site, the geoarchaeological sensitivity is considered low. In accordance with the prior EIR, the proposed project must also adhere to Mitigation Measures MM-CUL-6 and MM-CUL-9. In the event of an unanticipated archaeological discovery during project related development, the procedures set forth in Mitigation Measure MM-CUL-8 must be followed. Therefore, the proposed project would have a less than significant impact on archaeological resources and no new impacts would occur.

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

The prior EIR determined that compliance with existing State laws would ensure impacts regarding human remains would be less than significant. No human remains are known to be present within the project site. However, the discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. If the human remains are determined to be of Native American origin, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance. Upon compliance with State and local regulations, impacts would be less than significant, and no new impacts would occur under the proposed project.

Mitigation Measures

The following mitigation measures set forth in the prior EIR and the associated MMRP to address cultural resources impacts would be required as part of the proposed project. No additional mitigation measures are required.

CUL-1 Conduct a Historical Resource Assessment

The individual applicants shall hire a Secretary of the Interior-qualified historic preservation professional to conduct a historical resource assessment if a structure to be affected by a subsequent development project, at the time of application, is not in a previously surveyed area, is not a historical resource for the purposes of CEQA and is at least 50 years old. The assessment shall formally evaluate the potential resource's eligibility for listing to the CRHR, its potential eligibility as a Landmark or Structure of Merit, and its potential eligibility as a Contributor to a Historic District or Neighborhood Conservation Area. If the resource is found eligible for any of those designations, it shall be considered a resource that qualifies as a historical resource under CEQA and is therefore subject to the provisions of the Cultural Resources Ordinance. This includes obtaining the pertinent Certificate of Appropriateness and ensuring that the project plans adhere to the SOI Standards. For resources found ineligible for any of those designations, no additional mitigation would be necessary.

CUL-2 Conduct an Archaeological Study

Prior to construction, if it is determined that the development project will involve ground disturbance of some type, the applicant shall conduct an archaeological study. This study will be conducted during project-specific CEQA analyses at sites that have not been studied in such a manner in the previous 5 years. The archaeological study shall follow the guidelines set forth by the City of Riverside Community & Economic Development Department in the document titled Consultant Requirements for Cultural Resources Survey, Studies and Reports Information Sheet (City of Riverside Community & Economic Development Department 2011) or successor document.

- **City of Riverside Community & Economic Development Department: Consultant Requirements for Cultural Resources Survey:** All consultants completing studies, surveys, or reports for cultural resources in compliance with the Planning Department's CEQA process shall include the following:
  - Executive Summary
  - Project Location (with map)
  - Project Description
  - Research and field methodology
  - Architectural description
  - Definition of area history
  - Statement of significance (context statement)
  - Recommendations
  - Resumes of authors and/or contributors
  - DPR Forms (as an appendix)
  - List of sources
  - Discussion of potential impacts
  - Proposed Mitigation Measures
  - Current setting
  - Evaluation of significance in accordance with the National, State, and Local level.
  - Copy of the Records Search from the Eastern Information Center (EIC)
  - Record of Contact with appropriate Native American group(s)
  - Contact with the Native American Heritage Commission for a Sacred Lands File (SLF) search.
  - Should the archaeological study result in the identification of archaeological resources on the proposed development site or should unanticipated discoveries of previously unknown archaeological resources be made during ground-disturbing activities, MM CUL-3 through CUL-6 would be applicable.

CUL-6 Retain an On-Call Archaeologist for Monitoring

For development projects that require CEQA analysis, an on-call archaeological monitor shall be retained when archaeological studies under MM-CUL-2 determine that a project has a less-than-significant potential for archaeological discoveries. An archaeological monitor shall also be retained for archaeological resources that have not been determined eligible for listing in the CRHR or NRHP that are unavoidable, upon agreement between Native American representatives and the City.

Applicants shall provide verification that a qualified archaeologist has been retained for an on-call basis during grading and ground-disturbance activities.

CUL-9 Conduct Cultural Sensitivity Training

When MM-CUL-6 or MM-CUL-7 are implemented and prior to construction, the certified archaeologist and Native American monitors shall provide Cultural Sensitivity Training for all construction personnel at the pre-grading meeting with the applicant/permit holder's contractors. This shall include the procedures to be followed during ground disturbance in sensitive areas and protocols that apply in the event 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.

6 Energy

	Significant Impact	Less Than Significant or Less than Significant with Mitigation Incorporated	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
Would the project:					
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	■	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	■	☐

a. *Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The prior EIR concluded development associated with the Housing Element Update could result in increased consumption of energy resources. However, none of the reasonably foreseeable developments under the Housing Element update would be expected to require an unprecedented amount of energy consumption during construction or operation. Furthermore, all future development associated with the Housing Element Update would comply with applicable State, regional, and local plans, ordinances, and regulations regarding energy efficiency. To mitigate potential impacts to energy resources, the prior EIR includes MM-GHG-1, MM-GHG-2, and MM-GHG-3 to reduce the amount of energy associated with construction and idling vehicles, restrict the use of natural gas, and require applicants to demonstrate consistency with all feasible Tier 1 and Tier 2 CALGreen voluntary measures.

Pursuant to MM-AQ-1, MM-AQ-2, and MM-GHG-3 a project specific Air Quality and Greenhouse Gas Emissions Study (AQ/GHG Study) was prepared and the full analysis is provided as Attachment B by Rincon Consultants in December 2023. The AQ/GHG Study details the analysis of potential air quality and GHG emissions impacts associated with the construction and operation of the proposed project and provides documentation that the project complies with all feasible Tier 1 and Tier 2 CALGreen voluntary measures.

The project would achieve the following voluntary measures from Appendix A4 of the 2019 California Green Building Standards for residential developments:

- A4.103.1 Selection: An infill site is selected
- A4.103.2 (2) Community Connectivity: Locate project within a ¼ mile true walking distance of at least seven basic services, readily accessible by pedestrians.

- A4.106.2.2 (1) Soil Protection: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction occupancy.
- A4.106.2.2 (1) Soil Protection: Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways.
- A4.106.2.3 Topsoil protection (Tier 2):. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. Heavy equipment or vehicle traffic and material storage outside the construction areas shall be limited to areas that are planned to be paved.
- A4.106.3 (2) Landscape design: Utilize at least 75% native California or drought tolerant plant and tree species appropriate for the climate zone region.
- A4.106.7 Reduction of heat island effect for nonroof areas (4): Locate 50% of parking underground or use multi-level parking.
- A4.106.8.2 EV charging for new construction (Tier 2): Twenty percent of the total number of parking spaces on a building site, provided for all types of parking facilities, but in no case less than one, shall be EV spaces capable of supporting future EVSE.
- A4.106.9.1 Short-term bicycle parking: Provide permanently anchored bicycle racks within 100 feet of the visitor's entrance, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity with a minimum of one two-bike capacity rack.
- A4.106.9.2 Long-term bicycle parking for multifamily buildings. Provide onsite bicycle parking for at least one bicycle per every two dwelling units.
- A4.303.1 Kitchen faucets: The maximum flow rate of kitchen faucets shall not exceed 1.5 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.5 gallons per minute at 60 psi.

As shown in the list above, the proposed project would not include natural gas connections and would utilize electric appliances, lighting, and heating. As a result, the project would not cause wasteful consumption of energy. Therefore, as analyzed in the prior EIR, impacts would be less than significant related to the consumption of energy resources. Therefore, consistent with the prior EIR, the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency, and no new impacts would occur.

Mitigation Measures

The project has incorporated the following mitigation measures outlined in the prior EIR and the associated MMRP to address GHG and energy impacts. No further mitigation measures are required.

GHG-2 Restrict Use of Natural Gas in New Development

Future development on Opportunity Sites shall utilize electrical lighting and heating to the maximum extent feasible or to the extent required by existing or future regulations. Natural gas appliances are to be avoided to the extent feasible as determined by the availability and capacity of electrical power distribution infrastructure.

GHG-3 Implement Measures to Reduce GHG Emissions During Operation

Prior to discretionary approval by the City for Opportunity Site projects subject to CEQA review (i.e. non-ministerial projects), each applicant shall be required to demonstrate that all feasible Tier 1 and Tier 2 CALGreen voluntary measures (Appendix A4 and Appendix A5 of the 2019 CALGreen) shall be implemented.

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7 Geology and Soils

	Significant Impact	Less Than Significant or Less than Significant with Mitigation Incorporated	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
Would the project:					
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☐	☐
1. 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?	☐	☐	☐	☐	■
2. Strong seismic ground shaking?	☐	☐	☐	☐	■
3. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐	☐
4. Landslides?	☐	☐	■	☐	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☐	■
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☐	■
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	■	☐	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	■	☐	☐
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	■	☐	☐	☐

a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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?

a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

The prior EIR determined future development associated with the Housing Element Update would require a geotechnical investigation pursuant to RMC Section 16.08.185 and compliance with the California Building Code (CBC) and General Plan Policies PS-1.1 and PS-1.6 to address the risk of fault rupture, strong seismic ground shaking, liquefaction, and landslides. Therefore, the prior EIR determined impacts would be less than significant. A Geotechnical Report was prepared for the proposed project by Cal Land Engineering & Associates, Inc (Cal) on October 25, 2023, and is included as Attachment D to this Appendix N checklist. According to the Geotechnical Report, the project is not located within and Alquist-Priolo Earthquake Fault Zone and there are no known active faults on the project site. The nearest known active regional fault is San Jacinto, which is located 6.7 miles from the site. In addition, the project site is located within the low potential liquefaction zone and is relatively flat and not within a landslide zone. Furthermore, the project applicant would be required to comply with RMC Section 16.08.185, CBC, and General Plan Policies PS-1.1 and PS-1.6; therefore, impacts related to fault rupture, strong seismic ground shaking, liquefaction, and landslides would be less than significant with compliance of uniformly applicable development policies, no new impacts would occur under the proposed project.

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

The prior EIR determined that development associated with the Housing Element Update with construction activities that are one acre or larger would require a Stormwater Pollution Prevention Plan (SWPPP) in compliance with the Construction General Permit, local stormwater ordinances, and other related requirements. With implementation of a SWPPP, impacts related to substantial erosion or loss of topsoil would be less than significant. The project site is less than one acre and does not necessitate a SWPP. However, as a part of the project, a Water Quality Management Plan (WQMP) has been prepared. The WQMP outlines specific Best Management Practices (BMPs) to address erosion control measures. The BMPs within the WQMP would be approved prior to development approvals and issuance of grading permits. Therefore impacts would be less than significant with compliance on uniformly applicable development policies.

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

The prior EIR determined that the risk of lateral spreading is highest near the Santa Ana River and along arroyos and watercourses, areas where the risk for liquefaction is higher than the rest of the City. Development associated with the Housing Element Update would be required to comply with CBC and General Plan Policy PS-1.1, which would ensure that all new development in the City abide

by the most recently adopted State seismic and geotechnical requirements. Therefore, with mandatory compliance with CBC and General Plan Policy PS-1.1, impacts related to unstable geologic unit or soil would be less than significant.

As previously discussed, the project site is flat, is not within a landslide zone, and in a low potential liquefaction zone. In addition, the project's Geotechnical Report indicated that settlement footing potential on the project site is not anticipated to exceed ¾ inch and differential settlement is not anticipated to exceed ½ inch. Furthermore, the project would be required to comply with CBC and General Plan Policy PS-1.1. Based on the foregoing, impacts related to unstable geologic unit or soil would be less than significant with compliance of uniformly applicable development policies; therefore, no new impacts would occur under the proposed project.

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

According to the prior EIR, the city is underlain by soils with a high shrink-swell potential. However, development associated with the Housing Element Update would be required to comply with CBC regulations and recommendations in the required soils report; therefore, impacts related to expansive soils would be less than significant.

According to the project's Geotechnical Report, the proposed structure would be entirely underlain by on-site soils of very low expansion potential. Therefore, the project would not be located on expansive soil and there would be no impact.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The prior EIR determined that development associated with the Housing Element Update would be required to meet minimum standards for any septic system. Therefore, impacts related to soils incapable of adequately supporting the use of alternative wastewater disposal systems would be less than significant. The proposed project would not involve the use of septic tanks or alternative wastewater disposal systems. Accordingly, no impact would occur.

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

According to the prior EIR, most of the city contains geologic units with High A, High B, or Undetermined paleontological sensitivity, with a minority containing geologic units with Low paleontological sensitivity. Therefore, the prior EIR determined it is likely that some of the Opportunity Site are on geologic units with High A or Undetermined paleontological sensitivity, which could disturb previously unknown significant paleontological resources. The prior EIR requires implementation of MM-PAL-1 through MM-PAL-3 to reduce impacts to less than significant by requiring a Paleontological Mitigation Plan for areas of High A or Undetermined paleontological sensitivity. Pursuant to MM-PAL-1 a Paleontological Resources Assessment was prepared by Rincon Consultants in January 2024 and is included as Attachment E. The project-specific Paleontological Resources Assessment determined that the project site is underlain by a single geologic unit with High A paleontological sensitivity. Excavations for this project are expected to consist of small amounts of grading to form level building pads in the project site. The grade throughout most of the project site would be raised, so minor amounts of sediment currently within the site would be excavated. The site has been previously developed, thus any sediment that would be impacted by

grading would likely be previously disturbed and, therefore, have low paleontological potential. Given the relatively small volume of sediment that would be impacted by grading and the likelihood that this sediment is previously disturbed, the project is not expected to significantly impact paleontological resources. Therefore, the Paleontological Resources Assessment determined that implementation of MM-PAL-2 and MM-PAL-3 of the prior EIR are not required for this project and impacts would be less than significant. Therefore, no new impacts would occur under the proposed project

Mitigation Measures

The following mitigation measure set forth in the prior EIR and the associated MMRP to address paleontological resource impacts was implemented as part of the project. No additional mitigation measures are required.

PAL-1 Conduct Paleontological Resources Investigations

During the development review process and prior to construction on Opportunity Sites that are located on geologic units with Undetermined, High A, or High B paleontological sensitivity, the project applicant shall conduct paleontological resource investigations consistent with SVP guidelines. This process shall include:

- Conducting a paleontological records search through the Los Angeles County Natural History Museum to identify previously recorded paleontological localities and the presence of sensitive deposits in the City
- Reviewing Opportunity Site design and maximum depths and extents of Project ground disturbance components
- Reviewing publicly available geotechnical reports for information concerning subsurface deposits and deposit depths across the City
- Identify the potential for sensitive paleontological deposits underlying the Opportunity Site that project implementation could affect
- Determining whether impacts on sensitive deposits, if present, would be significant.

If no sensitive deposits are identified or if they are sufficiently deeper than the Opportunity Site excavations and would not be encountered during construction, no further steps shall be required. If sensitive deposits are identified and could be affected by development of the Opportunity Sites, implement Mitigation Measure MM-PAL-2.

8 Greenhouse Gas Emissions

	Significant Impact	Less Than Significant or Less than Significant with Mitigation Incorporated	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
Would the project:					
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	■	☐	☐	☐
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	■	☐	☐	☐

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

As determined in the prior EIR, construction of the future development associated with the Housing Element Update could generate GHG emissions that could have a significant impact on the environment. Mitigation Measure MM-GHG-1 would be implemented to reduce GHG emissions from construction-related activities to the extent feasible. However, there is still potential for implementation of the Housing Element Update to result in significant construction related GHG emissions. Thus, the prior EIR determined construction-related impacts would remain significant and unavoidable even with implementation of mitigation. The prior EIR determined that operational emissions related to the future development associated with the Housing Element Update would not exceed the efficiency threshold developed from the City's 2016 Climate Action Plan (CAP) and Southern California Association of Governments (SCAG) population data. Implementation of Mitigation Measures MM-GHG-2 and MM-GHG-3 would reduce operational GHG emissions. However, implementation of these measures would not guarantee emissions would be reduced below statewide GHG goals. Thus, the prior EIR determined operational impacts would remain significant and unavoidable.

Pursuant to MM-AQ-1 and MM-AQ-2 a project specific Air Quality and Greenhouse Gas Emissions Study was prepared by Rincon Consultants in December 2023. The AQ/GHG Study details the analysis of potential air quality and GHG emissions impacts associated with the construction and operation of the proposed project and is included as Attachment B.

The analysis found that project construction would generate temporary short-term GHG emissions through travel to and from the worksite and from the operation of construction equipment such as graders, backhoes, and generators. Based on the CalEEMod results, construction activity for the project would generate an estimated 363 MT of CO_2e during construction. Amortized over a 30-year period (the assumed life of the project), construction of the proposed project would generate approximately 12 MT CO_2e per year.

The long-term operational emissions analysis consider the to area sources of emissions, energy use, solid waste, water use, and transportation. Annual combined (construction plus operational) GHG emissions for the project would be an estimated 319 MT CO_2e. As shown in Table 4, annual project

emissions when combined with amortized construction emissions would not exceed the SCAQMD threshold of 3,000 MT CO_2e. Therefore, impacts would be less than significant.

Table 4 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (CO_2e in metric tons)
Construction	12
Operational	
Area	4
Energy	85
Solid Waste	5
Water	3
Mobile	210
Total	**319**

See Attachment B for CalEEMod worksheets.

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

The prior EIR determined that development under the Housing Element Update would be consistent with relevant local plans and other plans, policies, and regulatory programs. In addition, implementation of MM-GHG-1 through MM-GHG-3 would reduce potential impacts associated with individual projects. Nonetheless, it is not guaranteed that emissions would align with statewide GHG goals. Therefore, the prior EIR determined that impacts associated with GHG emissions would be significant and unavoidable.

The principal State plans and policies for reducing GHG emissions are AB 32, SB 32, and AB 1279. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020; the goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030; and the goal of AB 1279 is to achieve net zero greenhouse gas emissions no later than 2045 and reduce GHG emissions by 85 percent below 1990 levels no later than 2045. The 2022 Scoping Plan expands upon earlier plans to include the AB 1279 targets. The 2022 Scoping Plan's strategies that are applicable to the proposed project include reducing fossil fuel use and vehicle miles traveled (VMT); decarbonizing the electricity sector; maximizing recycling and diversion from landfills; and increasing water conservation. The project would be consistent with these goals through project design, which includes complying with the latest Title 24 Green Building Code, Building Efficiency Energy Standards, and the AB 341 waste diversion goal of 75 percent. Twenty percent of the total number of parking spaces onsite would be constructed to support Electric Vehicle Supply Equipment (EVSE), and the project would be located within a half mile of public transit options. In addition, the project would receive electricity from Riverside Public Utilities, which is required to reduce GHG emissions by increasing procurement from eligible renewable energy by set target years as required by SB 100. Therefore, the proposed project would not conflict with the 2022 Scoping Plan.

According to the 2020-2045 RTP/SCS, the updated targets for the SCAG region are eight percent below 2005 per capita emission levels by 2020 (this value is unchanged from the previous 2020 CARB target) and 19 percent below 2005 per capita emissions levels by 2035. The revised 2035 target is higher than the previous CARB target of 13 percent for the SCAG region. The 2020-2045

RTP/SCS includes implementation strategies for focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, supporting implementation of sustainability policies, and promoting a green region. Further specific actions to reduce GHG emissions under the 2020-2045 RTP/SCS include designing transportation options that reduce the reliance on solo car trips, promoting low emission technologies such as electric vehicles and ride sharing, supporting statewide GHG emissions legislation, and pursuing funding opportunities to support local sustainable development projects that reduce GHG emissions.

The proposed project is consistent with the goals of the 2020-2045 RTP/SCS as the project would be located along a major commercial corridor within the City of Riverside, thereby facilitating mobility and accessibility for residents. The project also would include several sustainable design features, including those required by Title 24 and CALGreen standards. All proposed residences would be equipped with energy-efficient appliances and lighting, water-efficient fixtures, and water-efficient irrigation systems. The project would meet the requirements of the 2022 California Energy Code, in addition to multiple voluntary measures contained in the 2019 California Energy Code, as shown in Section 6, *Energy* under Threshold a and b analysis and Attachment B. The project would provide housing near city parks, commercial areas, and schools. The project would include multiple access points, sidewalks, and bicycle lockers to provide vehicle, bicycle, and pedestrian access to residences. In addition, the project is in close proximity to public transit options such as Riverside Transit Agency (RTA) Bus Lines 1, 13, 14, 22, and 51, as well as Dial-A-Ride services. The proposed project would establish residences on an underutilized lot that is adjacent to existing development; thus, providing connectivity with existing and neighboring residential developments. Therefore, the project would not conflict with the 2020-2045 RTP/SCS goals and impacts would be less than significant.

The project complies with or exceeds the plans, policies, regulations and GHG reduction actions/strategies outlined in the 2022 Scoping Plan, SCAG's 2020-2045 RTP/SCS, and the City of Riverside Housing Element Update. Therefore, the project would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHG emissions. Impacts would be less than significant, and no new impacts under the proposed project would occur.

Mitigation Measures

The project has incorporated the following mitigation measures outlined in the prior EIR and its associated MMRP to address GHG emissions impacts. No further mitigation measures are required.

GHG-2 Restrict Use of Natural Gas in New Development

Future development on Opportunity Sites shall utilize electrical lighting and heating to the maximum extent feasible or to the extent required by existing or future regulations. Natural gas appliances are to be avoided to the extent feasible as determined by the availability and capacity of electrical power distribution infrastructure.

GHG-3 Implement Measures to Reduce GHG Emissions During Operation

Prior to discretionary approval by the City for Opportunity Site projects subject to CEQA review (i.e. non-ministerial projects), each applicant shall be required to demonstrate that all feasible Tier 1 and Tier 2 CALGreen voluntary measures (Appendix A4 and Appendix A5 of the 2019 CALGreen) shall be implemented.

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9 Hazards and Hazardous Materials

	Significant Impact	Less Than Significant or Less than Significant with Mitigation Incorporated	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
Would the project:					
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☐	■
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	■	☐	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	■	☐	☐
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	■	☐	☐	☐
e. For a project located in 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?	☐	☐	■	☐	☐
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	■	☐	☐

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

The prior EIR determined that future development associated with the Housing Element Update would not be expected to include the transport, use, and disposal of hazardous materials. Future development would be required to comply with applicable federal and State regulations including the Resource Conservation and Recovery Act, Department of Transportation's Hazardous Materials Regulations, and California Health and Safety Code Section 25507. Compliance with existing regulations would ensure future development associated with the Housing Element Update would have a less than significant impact related to the transport, use, and disposal of hazardous materials.

The proposed project is a mixed-use residential project. As such, the construction activities associated with the project may use gasoline, diesel fuel, hydraulic fluids, oils and lubricants to maintain excavation equipment. These materials are typically used in construction projects and would not represent the transport, use, and disposal of hazardous materials. During operation of the project, any transport, use, and dispose of potential hazardous materials would be required to comply with applicable State and federal regulations. Thus, impacts would be less than significant, and no new impacts under the proposed project would occur.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

d. Would the project be located on a site that is included on a list of hazardous material 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?

The prior EIR determined that construction of future development could have the potential to encounter and release contaminated soils or groundwater, potentially exposing people or the environment to hazardous materials. The prior EIR requires implementation of Mitigation Measure MM-HAZ-1 to ensure preparation of a project-level hazardous material site assessment for sites listed on hazardous materials database. With implementation of Mitigation Measure MM-HAZ-1, potential hazard impacts associated with future development under the Housing Element Update were found to be less than significant. The project site is not included on any list complied pursuant to Section 65962.5 of the Government Code (California State Water Resources Control Board 2023; California Department of Toxic Substances Control 2023). Therefore, implementation of MM-HAZ-1 is not required, and construction of the proposed project would not result in a potential hazards to the public or the environment, and no new impacts under the proposed project would occur.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The prior EIR determined there are several Housing Element Update Opportunity Sites where ground-disturbing would occur within or immediately adjacent to a hazardous material site within 0.25 mile of a school site. Development at the applicable site would require implementation of Mitigation Measure MM-HAZ-1 would reduce the potential impact to less than significant. However, the project site is not within 0.25 miles of a school, nor is the project located on a site identified as an existing hazardous materials site. Therefore, implementation of MM-HAZ-1 is not required and no impact would occur.

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

As determined in the prior EIR, development under the Housing Element Update would not occur on Opportunity Sites within a restricted Airport Influence Areas and would not result in a change in air traffic patterns or result in a safety hazard for people residing or working in the City. Impacts would be less than significant. Based on a review of the Riverside County Airport Land Use Compatibility Map, the project is located outside of the Airport Influence Area and the Compatibility Zones (Riverside Airport Land Use Commission 2004). Further, the project site is not located within the vicinity of a private airstrip. Therefore, the project would not result in a safety hazard for people residing in the project area, no impact would occur.

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

The prior EIR determined that with compliance with the Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan, General Plan 2025 policies, and the City's Public Safety Element policies, impacts related to emergency response and evacuation plans would be less than significant. The proposed project would not impair or interfere with any adopted emergency response plan or evacuation plan as no changes would be made to the roadway and construction equipment and materials would be kept onsite. Therefore, the proposed project does not include any features that would prohibit the execution of the Local Hazard Mitigation Plan; no impact would occur.

c. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

As determined in the prior EIR, future development associated with the Housing Element Update would not include development within wildfire hazard areas. Impacts were found to be less than significant. The project is located in an urbanized area where no wildlands exist within or adjacent to the project site. Therefore, the proposed project would not expose people or structures, to a significant risk of loss, injury or death involving wildland fires; no impact would occur.

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10 Hydrology and Water Quality

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

c. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

The prior EIR determined that development associated with the Housing Element Update could temporarily increase sediment loads and affect surface water quality during ground disturbance and construction activities. Individual development projects would be subject to NPDES requirements if applicable. In addition, grading permits and erosion control plans that include BMPs would be required prior to construction. With implementation of BMPs and adherence to NPDES requirements if applicable, impacts would be less than significant. As a part of the proposed project, a Water Quality Management Plan (WQMP) has been prepared (Attachment G). The WQMP outlines specific low-impact development (LID) BMPs to address meeting water quality standards and mitigating stormwater runoff. The BMPs within the WQMP would be approved prior to development approvals and issuance of grading permits. Therefore, impacts would be less than significant, and no new impacts under the proposed project would occur.

d. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The prior EIR found that future development under the Housing Element Update could either increase or decrease impervious surface area and groundwater recharge, depending on individual site plans and the addition of pervious surfaces compared to existing conditions. The Riverside Citywide Design Guidelines and Sign Guidelines encourage the use of stormwater infiltration measures, such as infiltration beds, swales, basins, and permeable paving (City of Riverside 2019). These features would be implemented, where feasible, and would allow runoff to infiltrate the soil media and percolate into the ground to support groundwater recharge. The prior EIR also determined that none of the Housing Element Update Opportunity Sites would be situated near the Western Municipal Water District recharge basin, and the impacts on groundwater recharge would be less than significant.

The proposed project would receive water supplies from RPU RPU primarily sources its water from local groundwater in the Bunker Hill Basin, which is considered reliable during single- and multi-year dry periods. As detailed in the prior EIR, the project is not expected to substantially reduce groundwater recharge capacity, and developments under the Housing Element Update would not significantly decrease groundwater supplies as the groundwater extraction would stay within the safe yield of the basin. Consistent with the analysis of the prior EIR, impacts related to groundwater recharge and supply would be less than significant.

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

c.(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

c.(iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows

The prior EIR determined implementation of BMPs and adherence to NPDES, if applicable, would ensure impacts related to drainage patterns would be less than significant. The project would be in compliance with the citywide landscape and irrigation and mixed-use design guidelines provided in the Riverside Citywide Design Guidelines and Sign Guidelines, which would reduce the amount of erosion and surface area and stormwater runoff. Additionally, as discussed above, the project specific WQMP outlines specific LID BMPs to address runoff. Therefore, impacts would be less than significant as analyzed in the prior EIR.

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

The prior EIR determined that the City is not at risk of inundation due to tsunamis and seiches. Development projects associated with the Housing Element Update would comply with the requirements of local water quality programs, NPDES permits, General Plan 2025 policies, and the Public Safety Element Update to minimize risks related to flood risk and water quality. Compliance with requirements would reduce impacts related to inundation to less than significant.

According to FEMA Flood Insurance Rate Map (FIRM) No. 06065C0726G, the project site is located within Zone X (unshaded), which are areas of minimal flood hazard and not considered a special flood hazard area (FEMA 2008). Therefore, the project site is not expected to be inundated by flood flows and the project would not impede flood flows. Additionally, since the project is not located in a flood hazard area and would not be prone to flood, seiche, tsunami, or other inundation hazards. The project would not result in a release of pollutants due to inundation within a flood, tsunami, or seiche hazard zone. Impacts would be less than significant as analyzed in the prior EIR.

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The prior EIR determined that implementation of the Housing Element Update would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. As described in the preceding analysis, the BMPs included in the WQMP would be implemented to control construction site runoff and reduce discharges of pollutants (i.e., stormwater and other nonpoint-source runoff) to storm drain systems. In addition, the project would be required to comply with the Riverside Citywide Design Guidelines and Sign Guidelines. Therefore, the project would not conflict with or obstruct implementation of a water quality control plan and impacts would be less than significant as analyzed in the prior EIR.

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11 Land Use and Planning

	Significant Impact	Less Than Significant or Less than Significant with Mitigation Incorporated	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
Would the project:					
a. Physically divide an established community?	☐	☐	☐	■	☐
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	■	☐

a. Would the project physically divide an established community?

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The prior EIR determined that the implementation of development under the Housing Element Update would not physically divide an established community or neighborhood. The prior EIR also determined that the Housing Element Update would be consistent with Southern California Associated of Government's 2020-2045 RPT/SCS goals and adopted growth forecasts and impacts related to land use and planning would be less than significant.

The project site is located on a previously developed parcel in an urbanized setting in Riverside that is zoned MU-U-SP and is designated as Neighborhoods in the General Plan, the project would not physically divide an established community as the project consists of infill development on an underutilized site. In addition, the project involves construction of an infill development that would be consistent with the growth projections of the Housing Element Update, SCAG's 6th RHNA Cycle, and SCAG's 2020-2045 RTP/SCS. The project would also be consistent with the General Plan 2025 objectives and policies that were intended to assist the City in achieving SCAG's goals. Consistent with the prior EIR analysis, impacts would be less than significant.

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12 Mineral Resources

	Significant Impact	Less Than Significant or Less than Significant with Mitigation Incorporated	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
Would the project:					
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	■	☐	☐
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	■	☐	☐

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

Impacts regarding mineral resources were discussed in Section 3.15, Effects Not Found to be Significant, of the prior EIR. The prior EIR determined that development associated with the Housing Element Update would not result in a loss of known mineral resources that would be of value to the region and residents of the state or the loss of availability of a locally important mineral resource recovery site. There would be no impact.

The project site does not contain any Mineral Resource Zones and is not located within a petroleum field. As a result, no impacts to mineral resources would occur.

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13 Noise

	Significant Impact	Less Than Significant or Less than Significant with Mitigation Incorporated	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
Would the project result in:					
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	■	☐	☐	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	■	☐	☐	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan 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?	☐	☐	■	☐	☐

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

The prior EIR determined that construction vehicles would incrementally increase noise levels on future development sites. However, RMC Section 7.35.020 requires construction to be limited to 7:00 a.m. through 7:00 p.m. on weekdays and 8:00 a.m. through 5:00 p.m. on Saturdays, and all construction activities are prohibited on Sundays and federal holidays. Implementation of construction BMPs detailed in the prior EIR and compliance with the RMC would ensure construction noise impacts would be less than significant. The prior EIR determined that operational noise of future development facilitated by the Housing Element Update would exceed thresholds outlined in General Plan 2025. Mitigation Measure MM-NOI-1 would require a focused noise study for projects that would exceed the 60 to 65 dBA CNEL threshold. However, even with implementation of Mitigation Measure MM-NOI-1, the prior EIR determined impacts would be significant and unavoidable.

Pursuant to MM-NOI-1 a project specific Noise and Vibration Study was prepared by Rincon Consultants in December 2023, which is included as Attachment F. The Noise and Vibration Study provides an impact analysis and demonstrates the project's compliance with Title 7, Noise Control, of the RMC.

Construction noise generated by the project is exempt from the RMC's exterior noise standards because construction activities would occur during the permitted hours (between 7:00 a.m. and 7:00 p.m. on weekdays and between 8:00 a.m. and 5:00 p.m. on Saturdays). However, as shown in Table 5, construction noise may be as high as approximately 82 dBA L_{eq} during the building construction phase, which would occur approximately 109 feet from the nearest sensitive receptor located north of the project site, which would exceed the Federal Transit Administration (FTA) significance threshold of 80 dBA L_{eq}. Although construction noise is exempt under the RMC and potential impacts would be considered less than significant, implementation of the following construction BMPs would be implemented to ensure that construction noise is reduced at nearby sensitive receptors:

- To the greatest extent practicable, the quietest available type of construction equipment would be used. Newer equipment is generally quieter than older equipment. Electric-powered equipment is typically quieter than diesel- or gasoline-powered equipment, and hydraulically powered equipment is typically quieter than pneumatically powered equipment.
- All construction equipment, stationary and mobile, would be equipped with properly operating and maintained mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features that meet or exceed original factory specifications. Mobile or fixed "package" equipment (e.g., arc welders, air compressors) would be equipped with shrouds and noise-control features that are readily available for that type of equipment.
- All noisy equipment would be operated only when necessary and would be switched off when not in use.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, would be for safety warning purposes only.
- Construction employees would be trained in the proper operation and use of the equipment.
- Storage, staging, parking, and maintenance areas would be away from sensitive receptors. Where this is not possible, the storage of waste materials, earth, and other supplies would be positioned in a manner that will function as a noise barrier to the closest sensitive receivers.
- Stationary noise sources such as generators and compressors would be positioned as far away as possible from noise-sensitive areas.
- Construction equipment would be stored on the individual development site while in use so as to eliminate noise associated with repeated transport of the equipment to and from the site.
- To the extent possible, haul roads would not be designated through noise-sensitive areas.

The noise sources on the project site after completion of construction are anticipated to be those that would be typical of mixed-use development projects, such as HVAC equipment, use of recreational outdoor spaces (interior courtyard and private balconies), and landscape maintenance.

The primary on-site operational noise source from the project would be heating, ventilation, and air conditioning (HVAC) units located on the rooftop of the proposed multifamily building. A typical HVAC system generates noise levels ranging up to 72 dBA at a distance of 3 feet. The nearest sensitive receptors are located as close as approximately 70 feet from the proposed multifamily building.

The operational noise impacts of the project were assessed and found to be below the City's thresholds. Consequently, by implementing the construction BMPs, the impacts associated with both the project's construction, and operational noise levels would consistent with the general plan

and RMC. Therefore, potential noise impacts would be less than significant, and no new impacts would occur under the proposed project.

Table 5 Estimated Noise Levels by Construction Phase

Construction Phase	dBA L_{eq} (8-hour)		
	RCNM Reference Noise Level[1]	Single-family Residence to the North[2]	Walgreens to the East[3]
Grading	87	80	79
Building Construction	89	**82**	80
Architectural Coating	88	80	79
Paving	87	**81**	79

Numbers in bold would exceed the FTA construction noise threshold.

[1] All noise levels were determined at 50 feet away.

[2] All noise levels were determined at 109 feet away.

[3] All noise levels were determined at 133 feet away.

Source: Roadway Construction Noise Model (RCNM). See Attachment F for noise modeling outputs.

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

The prior EIR determined that heavy construction equipment associated with future development would potentially produce groundbourne vibration levels that are perceptible to people in the surrounding area and would be intermittent potential sources for damage to surrounding buildings. Mitigation Measure MM-NOI-3 would require projects to reduce construction-generated groundborne vibration to the extent possible. However, even with implementation of Mitigation Measure MM-NOI-3, the prior EIR determined construction impacts would be significant and unavoidable. Operation of development projects associated with the Housing Element Update would not result in significant sources of vibration, operational impacts would be less than significant.

Construction activities known to generate excessive ground-borne vibration, such as pile driving, would not be conducted during construction of the project. The greatest anticipated source of vibration during project construction would be from a vibratory roller used during paving activities, which generates a vibration level of approximately 0.21 in/sec PPV at a distance of 25 feet. Based on FTA recommendations, limiting vibration levels to below 0.2 in/sec PPV at all offsite structures would prevent architectural damage regardless of building construction type. Based on the project site plan, it is assumed the vibratory roller would be used approximately 30 feet from the nearest off-site residential structure to the north of the project site. This would result in a vibration level of approximately 0.160 in/sec PPV at this nearest residence, which would not exceed the significance threshold of 0.2 in/sec PPV. In addition, grading activity would likely occur within approximately 18 feet of the nearest offsite residential structure north of the site. Typical grading equipment, such as a large bulldozer, generate a vibration level of approximately 0.089 in/sec PPV at a distance of 25 feet away, which would result in a vibration level of approximately 0.146 in/sec PPV at the nearest residence located 18 feet away. Therefore, grading activities at the site would also not exceed the significance threshold of 0.2 in/sec PPV. Construction vibration impacts would be less than significant. The project does not include substantial vibration sources associated with operation. Therefore, operational vibration impacts would be less than significant.

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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?

As determined in the prior EIR, noise from aircraft on departure or approach to the Riverside Municipal Airport, Flabob Airport, and March Reserve Airforce Base would be audible at many of the Housing Element Update Opportunity Sites. However, none of the Opportunity Sites identified would be within the 60 or 65 dBA CNEL contour from the surrounding airports and impacts would be less than significant.

The project site is not located within an airport land use plan, or within two miles of a public or private airport. The closest airports are the Flabob Airport (RIR) and Riverside Municipal Airport (RAL), which are located approximately 3.5 miles northwest and 5.5 miles southwest of the project site, respectively. The project site is not located within the noise contours of either airport (City of Riverside 2007); therefore, the project would result in no impact related to exposure of future residents and employees to aircraft noise.

Mitigation Measures

The following mitigation measures set forth in the prior EIR and the associated MMRP to address Noise impacts will be implemented as part of the project. MM-NOI-1 has been implemented through completion of Attachment F. No additional mitigation measures are required.

NOI-1 Prepare a Focused Noise Study and Implement Findings to Reduce Traffic Noise

For Opportunity Site projects that would exceed the 60 or 65 dBA CNEL threshold (based on the noise contour maps included in GP 2025), the applicant shall prepare a detailed analysis and implement mitigation to comply with the applicable City standards outlined in GP 2025. This could include but would not be limited to actions such as:

- Installation of soundwalls to break the line of sight from noise sources such as traffic noise]
- Installation of noise-reducing insulation
- Installation of windows with sound transmission class (STC) ratings appropriate to reduce exterior-to-interior noise transmission
- Installation of HVAC Systems

NOI-3 Reduce Construction-Generated Groundborne Vibration to Extent Possible

The City of Riverside Community & Economic Development Department, Planning Division shall, to the extent possible, require that heavy construction equipment (representative equipment such as large bulldozers) is not operated within 25 feet of onsite or offsite sensitive receptors (including, but not limited to, single- and multifamily residences, institutional or care facilities, etc.). If construction is anticipated within 25 feet of onsite or offsite sensitive receptors, the City shall require pre- and post-construction surveys to confirm that vibration did not result in damage to surrounding structures. Additionally, the City shall require vibration monitoring at the structure to determine if vibration levels exceed the 0.08 PPV threshold at the structure. Should an exceedance be identified, construction would be halted and additional measures would be implemented in order to reduce vibration levels. These additional measures could include, but are not limited to:

- Using smaller or less vibration-intensive equipment
- Maximizing distance from the vibration source

14 Population and Housing

	Significant Impact	Less Than Significant or Less than Significant with Mitigation Incorporated	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
Would the project:					
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	■	☐
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	■	☐	☐

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

The prior EIR determined that the Housing Element Update would result in an additional net increase of 47,175 in City population beyond what is currently anticipated at the build-out of General Plan 2025, and the City's population is estimated to reach approximately 395,800 by 2045. No mitigation is available to reduce this impact to a less than significant level. Therefore, the prior EIR determined impacts would be significant and unavoidable.

The proposed project involves construction of a mixed-use residential building consisting of 18 multi-family residential units and 1,477 sf of retail space with an attached parking structure. According to the Department of Finance (DOF) the City's current population is approximately 313,676 persons and the average household size is 3.05 persons (DOF 2023). The project's 18 dwelling units would result in approximately 55 new residents, which would represent a 0.02 percent increase in the current population. The project site was identified as an Opportunity Site in the General Plan Housing Element for the 2021-2029 cycle which states that the site may allow up to 40 residential units. The 2021-2029 Regional Housing Needs Allocation (RHNA) allocated a minimum of 18,458 units across all wards in the City of Riverside. The proposed project would contribute to meeting the City's RHNA allocation, and therefore, would be within the anticipated growth under the Housing Element Update. The project would not result in a new impact that was not analyzed in the prior EIR

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

As determined in the prior EIR, any existing housing units removed through redevelopment associated with the Housing Element Update would be replaced with new units as required by SB 166. Impacts would be less than significant. The project site does not contain existing housing and therefore would not require the construction of replacement housing elsewhere. There would be no impact.

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15 Public Services

	Significant Impact	Less Than Significant or Less than Significant with Mitigation Incorporated	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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:	☐	☐	☐	■	☐
1 Fire protection?	☐	☐	☐	■	☐
2 Police protection?	☐	☐	☐	■	☐
3 Schools?	☐	☐	☐	■	☐
4 Parks?	☐	☐	☐	■	☐
5 Other public facilities?	☐	☐	☐	■	☐

a.1-5. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire or police protection facilities as well as schools, parks, or other public facilities, or result in the need for new or physically altered fire or police protection facilities, or schools, parks, or other public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The prior EIR determined that the increase in dwelling units associated with the Housing Element Update would increase population and could result in a permanent increase in demand for fire protection services, police protection services, public school services, and greater demand on parks and recreation and other public facilities. However, compliance with existing State and local regulations would ensure the impacts related to public services would be less than significant.

As discussed in Section 14, *Population and Housing*, the project's 18 dwelling units would result in approximately 55 new residents, which would represent a 0.02 percent increase in the current population. This population increase is consistent with the growth analyzed in the prior EIR. Consequently, the project would not require the physical impacts associated with the provisions of new or physically altered governmental facilities, to maintain acceptable service ratios, response times, or other performance objectives for fire, police, schools, parks, or other facilities. Impacts would be less than significant as analyzed in the prior EIR.

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16 Recreation

	Significant Impact	Less Than Significant or Less than Significant with Mitigation Incorporated	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	■	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	■	☐

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

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

The prior EIR determined that the increase in dwelling units associated with development under the Housing Element Update would increase the City's population and could result in a permanent greater demand for parks and recreation facilities. However, compliance with existing local regulations, including RMC Title 19 and Section 16.60, would reduce the potential impacts related to parks and recreation facilities to a level of less than significant.

The proposed project would include a community room and a 5,732-sf of common open space on the second floor situated in the center of the site, which would consist of trees, seating area, a community dining table, a BBQ area, and an enclosed private patio. In addition, 2,150 sf of private open space (i.e., balconies) would be provided to alternating units along the northern, western, and southern sides of the project site. The nearest park to the project site is the Patterson Park, located approximately 0.5 miles north, other nearby parks include Bordwell Park located 0.9 miles south of the project site, and Lincoln Park located approximately 1.2 miles southwest of the project site. The project would not lead to degradation of the existing nearby recreational facilities because the project includes dedicated open space elements within the project site and would be subject to the mandatory payment of associated Quimby Act fees . The project would not substantially increase the use of existing neighborhood or regional parks or other recreational facilities, and impacts would be less than significant as analyzed in the prior EIR.

As determined in the prior EIR, the open space requirements and park development impact fees detailed in RMC Chapter 16, General Plan 2025 Policy PR-1.2, and RMC Section 16.60 would reduce impacts related to recreational facilities to a less than significant level. The project would not substantially 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. Impact would be less than significant as analyzed in the prior EIR.

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17 Transportation

	Significant Impact	Less Than Significant or Less than Significant with Mitigation Incorporated	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
Would the project:					
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	■	☐
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	■	☐	☐	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	☐	☐	☐	☐	■
d. Result in inadequate emergency access?	☐	☐	☐	■	☐

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The prior EIR determined that all future development associated with the Housing Element Update would comply with the standard development review process, which would ensure that future developments do not conflict with existing of planned facilities supporting transit, roadway, bicycle, and pedestrian facilities. The prior EIR concluded impacts would be less than significant.

The project involves the development of a mixed-use building in an urban area. As described in the prior EIR, the City would require all future development of identified Opportunity Sites to go through a review of pedestrian, bicycle, and transit facilities in the area surrounding the individual development project to ensure that future developments do not conflict with existing or planned facilities supporting those travel modes. All pedestrian, bicycle, and transit facilities proposed would be designed using the appropriate design standards. The project does not conflict with any existing or proposed bicycle, pedestrian, or public transit facility. Therefore, it can be considered to conform to all adopted policies, plans, or programs concerning these facilities and would not result in a new impact that was not analyzed under the prior EIR. The project does not include alterations to nearby roadway alignments or facilities, nor would the project substantially change the vehicle classification mix on the surrounding roadways. Impacts would be less than significant as analyzed in the prior EIR.

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

As determined by the prior EIR, the Housing Element Update would increase population and employment within the City. However, the VMT per service population would decrease within the City, showing that travel would be more efficient on a per-person basis due to the increase of the development associated with the Housing Element Update. The Housing Element Update would result in an increase in the VMT from No Project baseline conditions, which would result in a potentially significant impact, thus, Mitigation Measure MM-TRA-1 would be implemented. However, the effectiveness of the TDM measures included in Mitigation Measure MM-TRA-1 cannot be guaranteed to reduce impacts. The prior EIR concluded impacts would be significant and unavoidable.

The City's Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (City Guidelines) describe specific project screening thresholds that can be used to identify when a project is anticipated to result in a less than significant impact without conducting a more detailed project level VMT analysis. There are three types of screening that lead agencies can apply to effectively screen projects from project-level assessment. These screening steps are summarized below (Riverside 2020):

- Transit Priority Area (TPA) Screening
- Low VMT Area Screening
- Project Type Screening
- Mixed-Use Projects
- Redevelopment Projects

Transit Priority Area (TPA) Screening

Projects located within a TPA may be presumed to have a less than significant impact absent substantial evidence to the contrary. This presumption may not be appropriate if the project:

1. Has a Floor Area Ratio (FAR) of less than 0.75;
2. Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
3. Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the City), with input from the Metropolitan Planning Organization); or
4. Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

The project is located within a TPA according to the WRGOC VMT Screening Tool; the project has a FAR of 1.26; the project does not provide more parking than necessary (42 parking spaces required, 42 parking spaces offered); the project is consistent with the SCS (see Attachment B); and the project does not replace any residential units as the project site is currently vacant. The proposed project meets the criteria under the TPA Screening.

Low VMT Area Screening

Residential and office projects located within a low VMT-generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. Employment-related projects may qualify for screening if they are expected to generate similar VMT per resident or

worker as existing land uses in the low VMT area, provided VMT thresholds are met. For this screening, the Riverside County Traffic Analysis Model (RIVTAM) travel forecasting model is used in the WRCOG area to measure VMT performance. However, the presumption may not apply if the project alters the built environment in a way that increases vehicle trips. To identify a low VMT area, analysts should use the WRCOG screening tool and apply specific thresholds. Professional judgment is crucial to ensure the project aligns with existing land use and is not misrepresented by travel demand model data.

For the purposes of this analysis, the initial VMT screening process has been conducted with the WRCOG VMT Screening Tool, as directed by the City Guidelines. The project is not within a low VMT-generating area; therefore, the Low VMT Area Screening criterion is not met.

Project Type Screening

City Guidelines identifies local serving retail projects less than 50,000 square feet or other local serving uses (e.g., day care centers, student housing, projects generating less than 110 daily vehicle trips, etc.) may be presumed to have a less than significant impact absent substantial evidence to the contrary.

While the project does include some local serving retail uses, the project does not meet secondary criteria such as a limit of 16 multi-family, condominiums, or townhouse housing units. In addition, the City Guidelines states projects that generate less than or equal to 110 daily vehicle trips may be presumed to have a less than significant impact on VMT. According to CalEEMod default assumptions, the project is anticipated to generate approximately 163 new daily vehicle trips (see Attachment B) and therefore, would exceed the City's 110 daily vehicle trip threshold. This Project Type Screening criteria is not met.

Mixed Use Projects

To identify if the proposed project requires a VMT analysis, the City may evaluate each component of a mixed-use project independently and apply the significance threshold for each project type included (e.g. residential and retail).

The project is a mixed-use development and this Mixed-Use Projects screening criteria may be met.

Redevelopment Projects

Where a project replaces existing VMT generating land uses, if the replacement leads to a net overall decrease in VMT, the project would lead to less than significant transportation impact. If the project leads to a net overall increase in VMT, then the thresholds described above should apply.

The project site is vacant and would not replace any land use currently generating VMT, therefore the project does not qualify as a redevelopment project. This Redevelopment Project Screening criterion is not met.

Conclusion

In summary, the project was evaluated consistent with the City Guidelines screening criteria. The project was found to meet the TPA Screening criteria and the Mixed Use Project screening criteria. In addition, the project site is located in a High Quality Transit Corridor (HQTC) or TPA as identified by the City Guidelines. A TPA is defined as a half mile area around an existing major transit stop or an existing stop along a HQTC. Per PRC §21064.3 a major transit stop means a site containing an

existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. Per PRC §21155 a HQTC means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours (Riverside 2020). Based on the site's proximity to pedestrian, bicycle, and transit facilities as shown in Figure 6, and according to the WRCOG VMT Screening Tool, the project site is within a TPA. Therefore, it can be presumed that the project would not have significant VMT impacts and would not need any VMT mitigation due to its location efficiency. Impacts would be less than significant, and no new impact would occur under the proposed project.

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

The prior EIR determined the Housing Element Update would not directly substantially increase hazards due to a geometric design feature or incompatible use. Future roadways would comply with City codes and standards which require design review.

The project would not substantially increase hazards by developing geometric design features or incompatible uses on the project site. The project would not make alterations to nearby roadway alignments or substantially change the vehicle classification mix on surrounding roadways. Furthermore, the project design would be verified in design review and plan check and would be required to comply with General Plan 2025 policies to reduce potential hazards due to design features. Therefore, impacts would be substantially mitigated by uniformly applicable development policies, and no new impact would occur under the proposed project.

d. Would the project result in inadequate emergency access?

As determined by the prior EIR, development under the Housing Element Update would not directly result in inadequate emergency access because individual developments would be required to comply with General Plan 2025 policies and the City's Emergency Operations Plan. The project would not include improvements that would affect emergency access. Impacts would be less than significant as determined by the prior EIR.

18 Tribal Cultural Resources

	Significant Impact	Less Than Significant or Less than Significant with Mitigation Incorporated	No Impact	Analyzed in the Prior EIR	Substantially Mitigated by Uniformly Applicable Development Policies
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or 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)?	☐	■	☐	☐	☐
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.	☐	■	☐	☐	☐

a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?*

b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

The prior EIR determined that because the Opportunity Sites under the proposed Housing Element Update are situated throughout the City in mostly urban and developed areas and in mostly unsurveyed areas, the potential for Opportunity Sites to encounter archaeological or tribal cultural resources (TCR's) is unknown. The prior EIR determined implementation of Mitigation Measure MM-TCR-1 and MM-TCR-2 would identify and preserve potential tribal cultural resources. For

Opportunity Site projects that are not eligible for the ministerial approval process (and not projects per CEQA), the prior EIR determined impacts would be less than significant with implementation of Mitigation Measures MM-CUL-2 through MM-CUL-9, MM-TCR-1, and MM-TCR-2, and with continued consultation with Native American tribes.

The project would involve grading and excavation. While not anticipated, previously unknown resources could be discovered. The NAHC was contacted on September 12, 2023, to request a search of the SLF as well as a contact list of Native Americans culturally affiliated with the project area (Attachment A). On November 3, 2023, the NAHC responded stating that the results of the SLF search were negative. See Attachment A for the NAHC response, including a Tribal contacts list. Additionally, a pedestrian field survey of the project site was conducted on November 27, 2023. The survey was conducted by transects spaced 15 meters apart oriented east to west. Ground visibility during the field survey was excellent with surface exposure of approximately 91 to 100 percent. No cultural resources were identified within the project site during the field survey.

Pursuant to Mitigation Measures MM-CUL-2 through MM-CUL-9, MM-TCR-1, and MM-TCR-2, AB 52 consultation was not conducted as part of the project's cultural resources assessment because the potential impacts to TCRs would be within the scope of the prior EIR and would not result in any of the conditions set forth in PRC Section 21166(c) or *CEQA Guidelines* Sections 15162 or 15163. Thus, with implementation of Mitigation Measures MM-CUL-2, MM-CUL-4, MM-CUL-5, MM-CUL-8, and MM-CUL-9, impacts would be reduced to less than significant levels. Therefore impacts would be less than significant with mitigation incorporated as determined by the prior EIR.

Mitigation Measures

The following mitigation measures set forth in the prior EIR and the associated MMRP to address cultural and tribal cultural resources impacts apply to the project. MM-CUL-2 has been implemented through completion of Attachment A. No additional mitigation measures are required.

CUL-2 Conduct an Archaeological Study

Prior to construction, if it is determined that the development project will involve ground disturbance of some type, the applicant shall conduct an archaeological study. This study will be conducted during project-specific CEQA analyses at sites that have not been studied in such a manner in the previous 5 years. The archaeological study shall follow the guidelines set forth by the City of Riverside Community & Economic Development Department in the document titled Consultant Requirements for Cultural Resources Survey, Studies and Reports Information Sheet (City of Riverside Community & Economic Development Department 2011) or successor document.

- **City of Riverside Community & Economic Development Department: Consultant Requirements for Cultural Resources Survey:** All consultants completing studies, surveys, or reports for cultural resources in compliance with the Planning Department's CEQA process shall include the following:
  - Executive Summary
  - Project Location (with map)
  - Project Description
  - Research and field methodology
  - Architectural description
  - Definition of area history

- Statement of significance (context statement)
- Recommendations
- Resumes of authors and/or contributors
- DPR Forms (as an appendix)
- List of sources
- Discussion of potential impacts
- Proposed Mitigation Measures
- Current setting
- Evaluation of significance in accordance with the National, State, and Local level.
- Copy of the Records Search from the Eastern Information Center (EIC)
- Record of Contact with appropriate Native American group(s)
- Contact with the Native American Heritage Commission for a Sacred Lands File (SLF) search.
- Should the archaeological study result in the identification of archaeological resources on the proposed development site or should unanticipated discoveries of previously unknown archaeological resources be made during ground-disturbing activities, MM CUL-3 through CUL-6 would be applicable.

CUL-4 Develop and implement an Archaeological Treatment Plan (ATP) for evaluation of newly discovered and/or unevaluated archaeological resources

Mitigation Measure MM-CUL-4 shall apply as follows:

- The results of an archaeological study conducted under Mitigation Measure MM-CUL-2 are unable to determine the eligibility of newly identified archaeological sites for inclusion to the CRHR and it is determined by the consulting archaeologist that additional study through Phase II testing is required;
- It is not possible to avoid impacts through the establishment of ESAs; or
- Unanticipated archaeological resources are discovered during construction on Opportunity Sites.

If it is necessary to properly evaluate such properties in such a manner, an ATP shall be developed that describes methods and procedures for conducting subsurface excavations to determine the vertical and horizontal extents of an archaeological site. The ATP shall define the parameters of archaeological testing at the site and the extent of excavation and analysis of any materials recovered. The ATP shall also include guidelines for treatment and curation of any materials recovered during the testing process. Subsequent to implementation of the ATP, a technical report describing the methods and results of archaeological testing and formal evaluations of the archaeological sites and recommendations for further treatment shall be completed. The ATP shall be approved by the City and should involve consultation and review by Native American tribes consulting on the proposed development project. An ATP shall only be necessary for newly discovered archaeological sites that require additional information to make determinations of eligibility.

PR-2023-001601 (PPE) Exhibit 10 - CEQA Appendix N Consistency Analysis

CUL-5 Implement data recovery for CRHR-eligible sites that cannot be avoided

If archaeological studies identify a cultural resource as being potentially eligible for listing in the CRHR and ESAs cannot be established or project design cannot be altered, resulting in impacts on the site, then a Phase III data recovery program shall be developed, when mutually agreed upon by Native American representatives (for prehistoric or historic-period Native American sites) and the City. The data recovery program shall be outlined in a Data Recovery Treatment Plan that details the procedures and objectives for mitigation of impacts on the archaeological site. The Data Recovery Treatment Plan shall include a research design with testable hypotheses and data requirements necessary to address these hypotheses. Additionally, the Data Recovery Treatment Plan shall identify methods of excavation, analysis, and curation of any archaeological materials recovered. The Data Recovery Treatment Plan shall also identify the treatment of any human remains discovered during data recovery procedures. If the archaeological resource is Native American (prehistoric or historic-period in age), then the City, the applicant, and the archaeologist shall engage in consultation so that Native American representatives can be involved in the development of the data recovery plan. Data recovery shall involve analysis of a representative sample of the materials recovered during excavation. For prehistoric archaeological sites, all excavations should be monitored by a representative from a geographically appropriate Native American group. At the conclusion of the data recovery program, a data recovery technical report shall be completed detailing the results of the excavations and analysis. Curation of recovered archaeological materials shall be conducted per the guidance in the Data Recovery Treatment Plan and with consultation between the City and appropriate Native American tribes. Other forms of mitigation could include additional research with archival sources, landscape studies, designation of open space, public outreach programs, and public education/public displays.

CUL-8 Employ procedures for treatment and disposition of cultural resources

If cultural resources are inadvertently discovered during the course of grading for individual Opportunity Sites, the following procedures shall be carried out for treatment and disposition of the discoveries:

1. Consulting Tribe(s) Notified: Within 24 hours of discovery, and if the resources are Native American in origin, the consulting tribe(s) shall be notified via email and phone. The applicant shall provide the City evidence of notification to consulting tribes. Consulting tribe(s) shall 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 a development site shall be thoroughly inventoried with tribal monitor oversight of the process.
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 on cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City of Riverside Community & Economic Development Department with evidence of same:
    a. Accommodate the process for onsite 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. Execute a curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore will ensure professional curation and availability 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.
c. If more than one Native American tribe or band is involved with the subsequent development project and cannot come to a consensus as to the disposition of cultural materials, curate the discovered items at the Western Science Center or Museum of Riverside by default.
d. At the completion of grading, excavation, and ground-disturbing activities on the site, provide to the City a Phase IV Monitoring Report documenting monitoring activities conducted by the project archaeologist and Native American tribal monitors within 60 days of completion of grading. This report shall document the impacts on 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 shall be submitted to the City, the Eastern Information Center, and consulting tribes.

CUL-9 Conduct Cultural Sensitivity Training

When MM-CUL-6 or MM-CUL-7 are implemented and prior to construction, the certified archaeologist and Native American monitors shall provide Cultural Sensitivity Training for all construction personnel at the pre-grading meeting with the applicant/permit holder's contractors. This shall include the procedures to be followed during ground disturbance in sensitive areas and protocols that apply in the event 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.

TCR-1 Implement Tribal Cultural Resources Protocols and Measures Determined Through Consultation

During project-level CEQA review, when required, of Opportunity Site projects that would cause a substantial adverse change in the significance of a TCR, the City can and should develop project-level protocols and mitigation measures with consulting tribes, consistent with PRC Section 21080.3.2(a), to avoid or reduce impacts on TCRs during construction and operation of future development projects. Individual project proponents shall fund the effort to identify these resources through records searches, survey, consultation, or other means, to develop minimization and avoidance methods where possible and to consult with Native American tribes participating in AB 52 consultation to develop mitigation measures for TCRs that may experience substantial adverse changes.

In the absence of any specific mitigation measures developed during AB 52 consultation, the City shall develop standard mitigation measures set forth in PRC Section 21084.3(b).

The following are standard mitigation measures for TCRs.

- Avoid and preserve the resources in place including, but not limited to, planning and constructing to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space to incorporate the resources with culturally appropriate protection and management criteria.
- Treat the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to:
  - Protecting the cultural character and integrity of the resource.
  - Protecting the traditional use of the resource.
  - Protecting the confidentiality of the resource.
  - Creating permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places.
  - Protecting the resource.

TCR-2 Conduct Consultation with City and Applicant

Prior to grading permit issuance, if there are any changes to project site design and/or proposed grades, the applicant or project sponsor and the City shall contact consulting tribes to provide an electronic copy of the revised plans for review. Additional consultation shall occur among the City, 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 individual development sites. The City and the applicant shall make all attempts to avoid and/or preserve in place as many cultural and paleontological resources as possible on the individual development 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 tribes to provide tribal monitoring for ground-disturbing activities.

19 Utilities and Service Systems

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

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

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

As determined in the prior EIR, the increase in water demand resulting from the implementation of the Housing Element Update would not be accommodated for in the 2015 Riverside Public Utilities UWMP (RPU UWMP). Future development associated with the Housing Element Update would be built using building standards for water efficiency and be designed to use less water than existing developments. Future development would comply with SB 221 and SB 610 which require a water supply assessment for projects meeting the associated criteria. Additionally, future development would be required to coordinate demands with RPU and the Western Municipal Water District (WMWD) and fund fair-share costs associated with the provision of water. Compliance with existing regulations and General Plan 2025 EIR Mitigation Measure UTIL-1, would ensure adequate water facilities are available to serve future development associated with the Housing Element Update and impacts would be less than significant.

Regarding water, the project would be located on an Opportunity Site and would be consistent with the General Plan land use designation and zoning for the project site, thus the project's estimated water supply demand would be accounted for as part of the prior EIR. However, the prior EIR, referenced the 2015 RPU UWMP and found that the Housing Element Update would necessitate an additional 28 million gallons per day (mgd) or 30,848 acre-feet per year (afy), exceeding the available capacity at that time.

The 2020 RPU UWMP, adopted on July 1, 2021, utilized updated population projections for the City through 2045 from the SCAG 2020-2045 RTP/SCS. It projected an actual water supply volume in 2020 of 86,324 afy (Riverside 2021). Considering these factors and the increased supply from various improvement projects in the RPU service area, development under the Housing Element Update and the project's water use would now have sufficient water supplies without requiring new or expanded water facilities. Furthermore, as determined in the prior EIR the project would be required to fund fair-share costs related to water provisions and ensure that water services align with the City's planned growth. Consequently, impacts would be less than significant related to water facilities are anticipated, as determined in the prior EIR.

The prior EIR determined the future development under the Housing Element Update would be adequately treated by the existing wastewater treatment facilities. The future development under the Housing Element Update would require extension, relation, and expansion of sewer lines in the City. Compliance with local, State, and federal laws, ordinances, and regulations would ensure impacts would be less than significant. In addition, the prior EIR determined the increase in wastewater generation from development under the Housing Element Update would not exceed the City's wastewater treatment capacity.

The project's estimated wastewater generation would be accommodated by the Riverside Regional Water Quality Control Plant. According to CalEEMod outputs (Attachment B), the project is anticipated to require approximately 860,912 gallons of water per year. Conservatively assuming 100 percent of the project's total water demand is wastewater consumption, the project would generate approximately 2,359 gallons of wastewater per day. The Riverside Regional Water Quality Control Plant has a capacity of approximately 40 mgd, thus the project would account for 0.0059% of the capacity of the Riverside Regional Water Quality Control Plant (Riverside 2008) and the project would not require the construction of new or expanded wastewater conveyance or treatment facilities. Additionally, the project would be consistent with the General Plan land use designation and zoning for the project site, thus the project's estimated wastewater generation would be accounted for as a part of the prior EIR. Therefore, impacts related to wastewater facilities would be less than significant as determined in the prior EIR.

As determined in the prior EIR, the future development under the Housing Element Update would be required to comply with General plan 2025, which requires the City to fund and complete storm drain improvement projects identified in the City's Capital Improvement Plan. Compliance with local, State, and federal laws, ordinances, and regulations would ensure adequate stormwater drainage facilities are available and impacts would be less than significant.

Regarding stormwater drainage, the project site would continue to connect to the existing storm drain system operated and maintained by the City. The proposed project would increase impervious surfaces over the project site due to construction of the mixed-use development. As discussed in Section 10, *Hydrology and Water Quality*, the project will be required to comply with the WQMP which outlines specific LID BMPs to address meeting water quality standards and mitigating stormwater runoff. The BMPs within the WQMP would be approved prior to development approvals and issuance of grading permits. Additionally, the project would be required to comply with existing regulatory framework and pay applicable fees to ensure that adequate stormwater drainage facilities are available to serve the Project. Impacts would be less than significant consistent with the prior EIR.

The prior EIR determined that existing electric power, natural gas, and telecommunications facilities are available throughout the City and no additional upgrades or new facilities would be required to adequately serve future development associates with the Housing Element Update. Impacts would be less than significant.

For electric power, natural gas, and telecommunication facilities, the project would not cause substantial unplanned population growth (see Section 14, *Population and Housing*), and would not result in wasteful or inefficient use or energy (see Section 6, *Energy*). The project would be developed in an area with existing services and facilities. Impacts would be less than significant, consistent with the prior EIR.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The prior EIR determined the increase in water demand resulting from development under the Housing Element Update would not be accommodated for in the 2015 RPU UWMP under normal, dry, or multiple dry year conditions. However, future development associated with the Housing Element Update would occur incrementally and would not overburden the existing water services with a substantial increase in demand at a single point in time. Compliance with existing regulations and General Plan 2025 EIR Mitigation Measure UTIL-1, would ensure adequate water facilities are available to serve future development associated with the Housing Element Update under normal, dry, and multiple dry year conditions and concluded impacts would be less than significant.

As discussed above under Threshold a, the project's estimated water supply demand would be accounted for as part of the prior EIR and RPU has assumed that 100 percent of its groundwater and recycled water supplies would remain available during a single dry year and multiple dry years (Riverside 2021).

According to the RPU UWMP, the city would have an adequate supply of water, with normal conservation efforts, to meet projected demand through 2045 in average year, single dry year, and multiple dry year scenarios (Riverside 2021). Table 6 through Table 8 show projected water supply and demand under normal year, single dry year, and multiple dry year conditions in the RPU service area through 2045.

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Table 6 Normal Year Water Supply and Demand Comparison (acre-feet per year [AFY])

Year	2025	2030	2035	2040	2045
Supply	114,923	124,893	128,193	129,693	129,693
Demand	90,712	100,803	103,260	105,807	108,447
Difference	24,211	24,090	24,934	23,886	21,245

Table 7 Single Dry Year Water Supply and Demand Comparison (AFY)

Year	2025	2030	2035	2040	2045
Supply	114,923	124,893	128,193	129,693	129,693
Demand	90,712	100,803	103,260	105,807	108,447
Difference	24,211	24,090	24,934	23,886	21,245

Table 8 Multiple Dry Year Water Supply and Demand Comparison (AFY)

Year		2025	2030	2035	2040	2045
Year 1	Supply	114,923	124,893	128,193	129,693	129,693
	Demand	90,712	100,803	103,260	105,807	108,447
	Difference	24,211	24,090	24,934	23,886	21,245
Year 2	Supply	114,923	124,893	128,193	129,693	129,693
	Demand	90,712	100,803	103,260	105,807	108,447
	Difference	24,211	24,090	24,934	23,886	21,245
Year 3	Supply	114,923	124,893	128,193	129,693	129,693
	Demand	90,712	100,803	103,260	105,807	108,447
	Difference	24,211	24,090	24,934	23,886	21,245
Year 4	Supply	114,923	124,893	128,193	129,693	129,693
	Demand	90,712	100,803	103,260	105,807	108,447
	Difference	24,211	24,090	24,934	23,886	21,245
Year 5	Supply	114,923	124,893	128,193	129,693	129,693
	Demand	90,712	100,803	103,260	105,807	108,447
	Difference	24,211	24,090	24,934	23,886	21,245

According to CalEEMod outputs (Attachment B), the project is anticipated to require approximately 860,912 gallons of water per year or 2.64 afy. RPU anticipates water demand to increase by 90,712 to 108,447 afy between 2025 and 2045. The project's water demand would account for approximately 0.0029 to 0.0024 percent of RPU's anticipated water demand and therefore would be accommodated by the water supply available for the city during normal, single dry year, and multiple dry year conditions through the year 2045. Impacts would be less than significant, consistent with the prior EIR.

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

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

The prior EIR concluded that the development under the Housing Element Update would be consistent with sustainability goals mandated by both State and local standards. Including regulations such as the California Integrated Waste Management Act, AB 341, the Riverside County Waste Management Department's Design Guidelines, and its Construction and Demolition Recycling Plan, as well as Riverside's Countywide Integrated Waste Management Plan (CIWMP). Furthermore, implementation of the Housing Element Update's development would occur gradually to prevent overwhelming solid waste collectors and landfills with a sudden surge in solid waste. The prior EIR concluded that future development would be required to adhere to General Plan 2025 policies and Final Programmatic EIR Mitigation Measures to increase solid waste diversion efforts and ensure that operational impacts on solid waste disposal are less than significant.

The project would be required to comply with General Plan 2025 policies, Final Programmatic EIR Mitigation Measures to increase solid waste diversion efforts, comply with the City's AB 341 and AB 1862 programs to implement waste management and recycling/reuse programs, and CALGreen requirements for diversion of nonhazardous construction and demolition debris. As such, the proposed project would not result in new significant impacts or substantially more severe impacts than analyzed in the prior EIR.

According to the CalEEMod results (see Attachment B), operation of the proposed project would generate approximately 14.85 tons of solid waste per year or 0.04 tons per day. The project's anticipated daily solid waste generation would account for approximately 0.00022 percent of the regions daily permitted throughput. Because the project would generate a relatively small amount of solid waste per day as compared to the permitted throughput at the receiving landfills, impacts to landfill facilities would be less than significant. In addition, the proposed project would comply with federal, State, and local statues and regulations related to solid waste, such as the City's AB 341, AB 1862 programs, and CALGreen requirements for diversion of nonhazardous construction and demolition debris. Therefore, a less than significant impact would occur as analyzed in the prior EIR.

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20 Wildfire

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

The prior EIR determined that portions of the City are classified as Very High Fire Hazard Severity Zones (VHFHSZ); however, the Opportunity Sites would not be located within wildfire hazard areas. Future development associated with the Housing Element Update would be required to comply with local regulations including the Local Hazard Mitigation Plan, General Plan 2025, and the applicable ordinances under the RMC, which would reduce potential wildfire risks. Additionally, future development associated with the Housing Element Update would be subject to the standard development review process which includes input from the Fire Department and Building & Safety Division. The prior EIR concluded that upon compliance with local regulations, detailed above, impacts related to wildfire would be less than significant.

a. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

According to the California FHSZ Viewer, the project site is not located in a FHSZ or VHFHSZ for wildland fires nor is the project site within a state responsibility area (SRA) (CALFIRE 2023). The nearest VHFHSZ is located over two miles east of the project site. Therefore, the project site is not located near a state responsibility area or classified as having a high fire hazard. Furthermore, the project does not involve any changes to offsite roads and would not affect the City's evacuation routes or emergency response plan. Moreover, the proposed project would designed, constructed, and maintained in accordance with the Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan and Safety Element. Consistency with the Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan and Safety Element would provide further guidance for adequate vehicular and emergency access to and from the site, as well as evacuation from all areas of the site. Therefore, as analyzed in the prior EIR, a less than significant impact would occur.

b. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Due to the location of the project site in a heavily urbanized area outside of a VHFHSZ and SRA, the exposure of future project occupants on the site to uncontrolled spread of wildfire is low. As described in the Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan and Safety Element, the City has systems in place to protect employees and residents in the event that wildfires are burning outside of the city limits and are spreading toward the city. Therefore, implementation of the proposed project would not exacerbate wildfire risks that would expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Therefore, as analyzed in the prior EIR, a less than significant impact would occur.

c. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The project site can be served by existing utility infrastructure, so the project plans do not required the installation of infrastructure such as roads, fuel breaks, emergency water sources, power lines, or other utilities. During the standard development review process, the City's Development Review Committee, which includes the Fire Department and Building & Safety Division, evaluates developments in high fire risk areas to ensure that improvements meet their requirements. Therefore, the proposed project would not result in temporary or ongoing impacts related to the installation or maintenance or infrastructure that would exacerbate fire risk. As analyzed in the prior EIR, a less than significant impact would occur.

d. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Project construction would not involve the grading of slopes or creation of slopes. Additionally, the project site is topographically flat, and in an urban area that is heavily developed. Future project occupants would not be exposed to significant risks from downslope flooding, landslides, or drainage changes due to wildfires. Therefore, as analyzed in the prior EIR, a less than significant impact would occur.

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21 Mandatory Findings of Significance

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

Impact Determination of the Prior EIR

The prior EIR determined that implementation of the Housing Element Update would result in significant and unavoidable impacts with respect to air quality, GHG emissions, noise and vibration, population and housing, and transportation. Mitigation measures identified in the prior EIR would reduce some of these impacts, but not to less than significant levels. As such, the significant impacts of the Housing Element Update would have the potential to cause cumulatively considerable impacts and result in environmental effects which would cause substantial adverse effects on human beings.

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

As determined in the prior EIR, development associated with the Housing Element Update would be required to implement Mitigation Measure MM-BIO-1 which includes a site-specific biological resources assessment to identify if any biological resources occur on the project site.

Pursuant to the prior EIR's Mitigation Measure MM-BIO-1, an MSHCP Consistency Analysis Report was prepared by Rincon for the proposed project and is included as Attachment C of this Appendix N checklist. The project site is in an urban area and is not within the vicinity of natural or wildland areas. As discussed in Section 4, *Biological Resources*, no special-status plant species or sensitive natural communities were recorded within the study area nor do they have potential to occur within the study area due to a lack of suitable habitat. The project would not restrict regional wildlife movement given the built-out nature of the project area.

As discussed in Section 5, *Cultural Resources*, the project site does not contain any built structures and consists of a vacant lot, therefore no built environmental historic resources would be effected. In addition, the Cultural Resources Technical Report did not identify any prehistoric or historic-period archaeological resources within the project site. Further, the geoarchaeological background research indicates the project site is underlain by early Pleistocene aged sediments which pre-date the era of human occupation and the project site is not underlain by a soil type that is prone to archaeological resource findings. Therefore, the project site has a low geological sensitivity for prehistoric and/or historic-period archaeological resources. Additionally, the project site has been disturbed since the early-twentieth century by urban development and agriculture. Because the project site has been previously disturbed, and no archaeological resources have been identified within the project site, the project would have a less than significant impact on resources related to California history or prehistory. Therefore, the proposed project would not result in a new or more significant impact in comparison to the impacts analyzed under the prior EIR, impacts would be less than significant.

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

The prior EIR determined the following cumulative impacts would be less than significant: aesthetics, agriculture and forestry resources, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, public services, recreation tribal cultural resources, utilities and service systems, and wildfire. The prior EIR also determined that the following cumulative impacts would be significant and unavoidable: air quality, GHG emissions, noise and vibration, population and housing, and transportation. Mitigation measures identified in the prior EIR would reduce some of these impacts, but not to less than significant levels.

The cumulative impact of the project when viewed in connection with the effects of past projects, other current projects, and the effects of probable future projects was fully analyzed in the prior EIR. The project as defined herein involves development of an Opportunity Site identified as a part

of the City's 6th cycle housing element. Therefore, the project is within the scope of analysis of the prior EIR and the project would not result in a new or a substantial increase in cumulative impacts.

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

In general, impacts to human beings are associated with air quality, GHG emissions and climate change, hazards and hazardous materials, and noise impacts. As detailed in analyses for air quality, GHG emissions, hazards and hazardous materials, and noise, the proposed project would not result, either directly or indirectly, in adverse effects related to air quality, GHG emissions, hazardous materials, or noise. Compliance with applicable rules, regulations, and mitigation measures included in the prior EIR, would reduce potential impacts on human beings to a less than significant level. Therefore, the project is within the scope of analysis of the prior EIR and no additional impact would occur.

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Attachment A

Cultural Resources Technical Report



1775 University Avenue Project

Cultural Resources Technical Report

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Executive Summary

Rincon Consultants, Inc. (Rincon) was retained by UCR 1775 Development LLC (client) to conduct a cultural resources study for the 1775 University Avenue Project (project), located in Riverside, Riverside County, California. The project is subject to the California Environmental Quality Act (CEQA) with the City of Riverside (City) serving as the lead agency under CEQA. In addition to CEQA, several laws and regulations govern cultural resources, including the Code of Federal Regulation (36 CFR Part 60.4), California Public Resource Code (Sections 4852, 5024.1, and 5097.98), California Assembly Bill 52, and the California Health and Safety Code (Section 7050.5). Because the proposed project is located within the city of Riverside, it is also required to be consistent with the Mitigation Monitoring and Reporting Program (MMRP) outlined in the City of Riverside's Housing Element Environmental Impact Report adopted in September 2021.

This report was prepared to summarize the results of a Cultural Resources Assessment for the project in accordance with Mitigation Measure (MM) CUL-2 of the City's MMRP (City of Riverside 2021). This study includes a review of historical aerial imagery and topographic maps, a cultural resources records search of the California Historical Resources Information System (CHRIS), a Sacred Lands File (SLF) search conducted by the Native American Heritage Commission (NAHC), geoarchaeological analysis, a pedestrian survey of the project site, and the preparation of this report. A summary of the Mitigation Measures set forth by the City's MMRP is available in Section 2.4.3 of this report.

The records search identified 732 previously recorded cultural resources within 1.0 mile of the project site including historical houses, commercial, public buildings including schools and churches, and buildings associated with agricultural processing. Also included are historic-era structures including the Southern Pacific Railroad and the Gage Canal, two historic-era refuse scatters, and two districts. None of the previously recorded cultural resources are located within the project site. Therefore, the project does not have the potential to impact any historical built environment historical resources and MM-CUL-1 of the City's MMRP does not apply. Rincon recommends a finding of ***no impact to historical resources*** pursuant to CEQA.

The SLF search, CHRIS records search and pedestrian field survey did not identify any prehistoric or historic-period archaeological resources within the project site. Geoarchaeological background research indicates the project site is underlain by alluvial fan deposits that consist of sand and minor gravel derived from stream channels. Although the lack of surface evidence of archaeological resources does not preclude their subsurface existence, the alluvial sediments underlying the project site have an episodic nature and, therefore, have an increased likelihood of burying archaeological deposits that may have been present. However, the project site has been heavily disturbed from agriculture and urban development since the early-twentieth century. The absence of known substantial prehistoric or historic-period archaeological remains within the immediate vicinity, coupled with the existing level of disturbance within the project site, suggest there is a low potential for encountering subsurface archaeological deposits during project related ground disturbance.

Based on the results of the study, and consistent with the CEQA findings of the 2021 EIR, Rincon recommends a finding of ***less than significant impact to archaeological resources with mitigation incorporated*** under CEQA. In accordance with the MMRP established by the 2021 EIR, the proposed project must adhere to MM-CUL-6 and MM-CUL-9. In the event of an unanticipated archaeological

discovery during project related development, the procedures set forth in MM-CUL-8 must be followed. These measures are presented below. The project would also be required to adhere to existing regulations regarding the unanticipated discovery of human remains, as detailed below.

CUL-6: Retain an On-Call Archaeologist for Monitoring

For development projects that require CEQA analysis, an on-call archaeological monitor shall be retained when archaeological studies under MM-CUL-2 determine that a project has a less-than-significant potential for archaeological discoveries. An archaeological monitor shall also be retained for archaeological resources that have not been determined eligible for listing in the CRHR or NRHP that are unavoidable, upon agreement between Native American representatives and the City. Applicants shall provide verification that a qualified archaeologist has been retained for an on-call basis during grading and ground-disturbance activities.

CUL-9: Conduct Cultural Sensitivity Training

When MM-CUL-6 or MM-CUL-7 are implemented and prior to construction, the certified archaeologist and Native American monitors shall provide Cultural Sensitivity Training for all construction personnel at the pre-grading meeting with the applicant/permit holder's contractors. This shall include the procedures to be followed during ground disturbance in sensitive areas and protocols that apply in the event 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.

Human Remains

No human remains are known to be present within the project site. However, the discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be of Native American origin, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner must reinter the remains in an area of the property secure from subsequent disturbance. With adherence to existing regulations, Rincon recommends a finding of ***less-than-significant impact to human remains*** under CEQA.

1 Introduction

UCR 1775 Development LLC (client) retained Rincon Consultants Inc. (Rincon) to conduct a cultural resources study for the 1775 University Avenue Project (project) located in Riverside, Riverside County, California. This technical report documents the results of the study and tasks conducted by Rincon; specifically, a review of historical aerial imagery and topographic maps, a cultural resources records search of the California Historical Resources Information System (CHRIS), a Sacred Lands File (SLF) search conducted by the Native American Heritage Commission (NAHC), geoarchaeological analysis, and a pedestrian field survey. This study has been completed pursuant to the requirements of the California Environmental Quality Act (CEQA). The City of Riverside (City) is the lead agency under CEQA.

1.1 Project Site and Description

The project site is located within the city of Riverside, Riverside County, California, and encompasses a portion of Section 24 of Township 02 South, Range 05 West on the *Riverside East, California* United States Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 1). The project site is located at 1775 and 1795 University Avenue at the corner of University Avenue and Mesa Street within Assessor's Parcel Numbers (APNs) 211-183-023 and 211-183-024 (Figure 2). The project site is bounded by residential development in the north, and commercial development in the south, east, and west.

The project consists of the construction of a mixed-use housing development with 18 multi-family residential units and 1,477 square feet of retail space on a 0.63-acre site identified as an opportunity site (Ward 1 Site 144) in the City's 6th Cycle Housing Element Update adopted in December 2001.

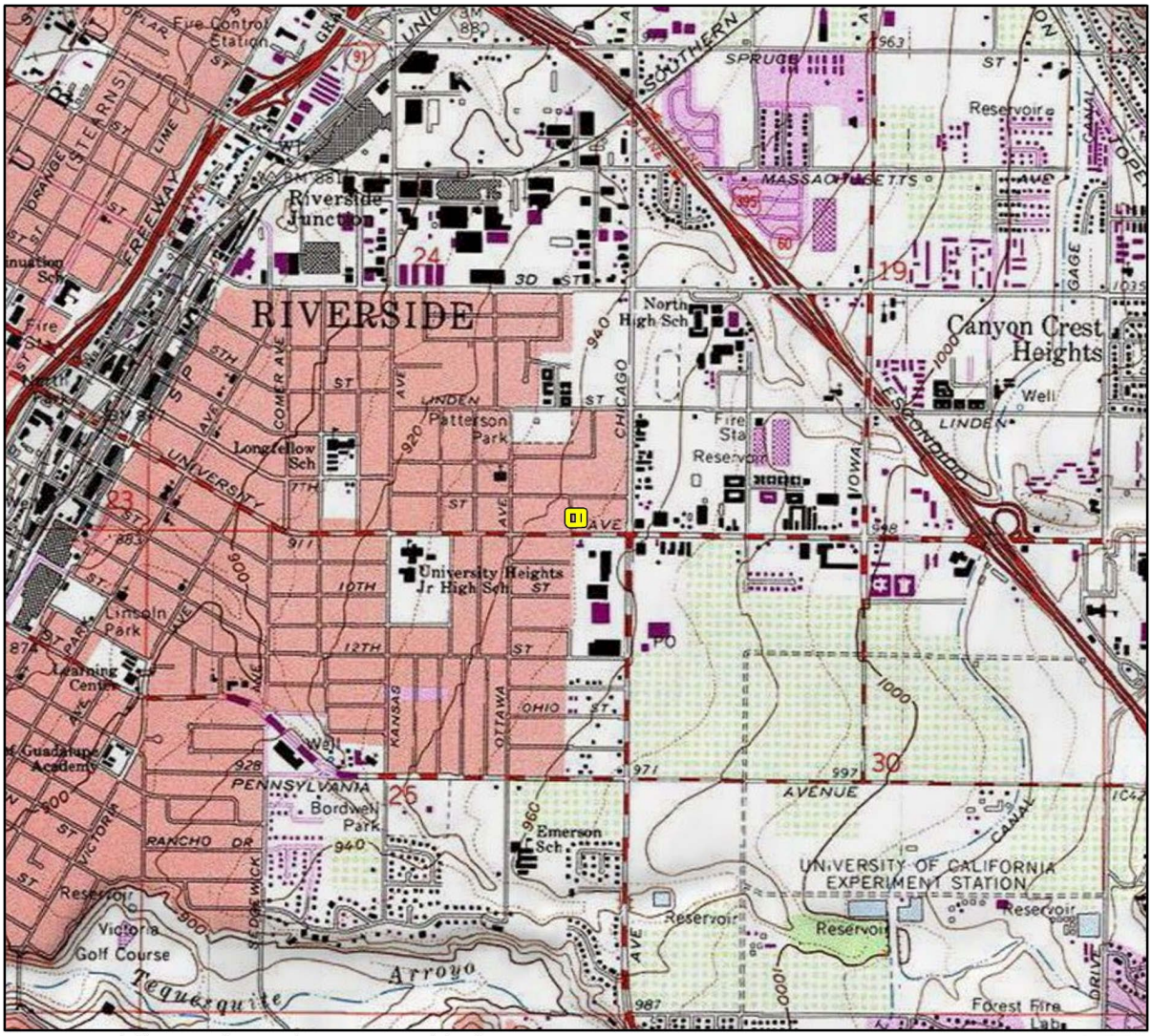
1.2 Project Construction

Project construction activities would involve the development of a commercial and residential mixed-use building. The main structure of the building is anticipated to be four stories in height. The ground floor will be used for parking, retail units, residential lobby, and related usage. The second to fourth floors of the planned building will be used as residential units. Cut and fill grading operation will be used to reach the desired grades and will not exceed three feet below ground surface.

1.3 Personnel

Rincon Project Manager and Archaeologist Mark Strother, MA, Registered Professional Archaeologist (RPA), provided management oversight for this cultural resources study. Mr. Strother meets the Secretary of the Interior's Professional Qualifications Standards for historic and prehistoric archaeology (National Park Service 1983). Archaeologist Catherine Johnson, PhD, RPA, is the primary author of this report. Mr. Strother, MA, RPA, requested the cultural resources records search from the Eastern Information Center (EIC) and the SLF search from the NAHC. Archaeologist Efrain Arroyo, MA, completed the field survey. Geographic Information Systems Analysts Isabelle Radis, MESM, and Bryan Valladares prepared the figures found in this report. Project Manager Katherin Fikan, BS, and Cultural Resources Program Manager Breana Campbell-King, MA, RPA reviewed this report for quality control.

Figure 1 Regional Location



Basemap provided by National Geographic Society, Esri and their licensors © 2023. Riverside East Quadrangle. T02S R05W S24. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

23-14963 CR
CRFig 1 Proj Locn Map

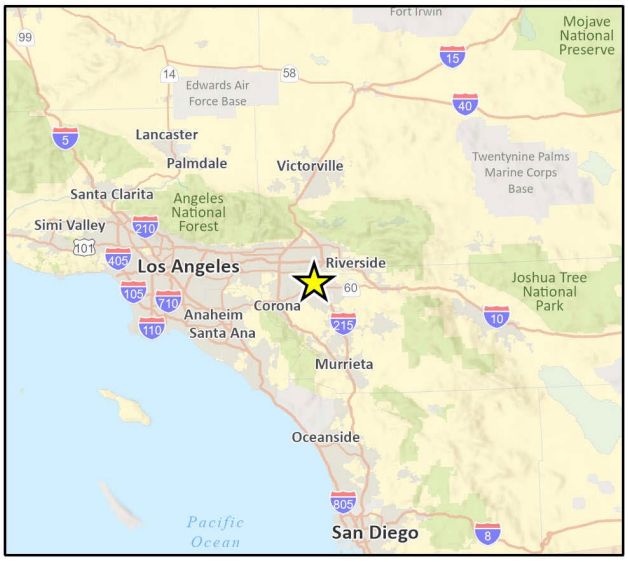


Figure 2 Project Location



Imagery provided by Microsoft Bing and its licensors © 2023.

23-14963 CR
CRFig 2 Project Site

2 Regulatory Setting

This section includes a discussion of the applicable state and local laws, ordinances, regulations, and standards governing cultural resources, which must be adhered to before and during construction of the project.

2.1 California Environmental Quality Act

California Public Resources Code (PRC) Section 21804.1 requires lead agencies to determine if a project could have a significant impact on historical or unique archaeological resources. As defined in the PRC Section 21084.1, a historical resource is a resource listed in, or determined eligible for listing in, the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources or identified in a historical resources survey pursuant to PRC Section 5024.1(g); or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant. PRC Section 21084.1 also states resources meeting the above criteria are presumed to be historically or culturally significant unless the preponderance of evidence demonstrates otherwise. Resources listed in the National Register of Historic Places (NRHP) are automatically listed in the CRHR and are, therefore, historical resources under CEQA. Historical resources may include eligible built environment resources and archaeological resources of the precontact or historic periods.

CEQA Guidelines Section 15064.5(c) provides further guidance on the consideration of archaeological resources. If an archaeological resource does not qualify as a historical resource, it may meet the definition of a “unique archaeological resource” as identified in PRC Section 21083.2. PRC Section 21083.2(g) defines a unique archaeological resource as an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: 1) it contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information, 2) has a special and particular quality such as being the oldest of its type or the best available example of its type, or 3) is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological resource does not qualify as a historical or unique archaeological resource, the impacts of a project on those resources will be less than significant and need not be considered further (CEQA Guidelines Section 15064.5[c][4]). CEQA Guidelines Section 15064.5 also provides guidance for addressing the potential presence of human remains, including those discovered during the implementation of a project.

According to CEQA, an impact that results in a substantial adverse change in the significance of a historical resource is considered a significant impact on the environment. A substantial adverse change could result from physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired (CEQA Guidelines Section 15064.5 [b][1]). Material impairment is defined as demolition or alteration in an adverse manner [of] those characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR or a local register (CEQA Guidelines Section 15064.5[b][2][A]).

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a][b]).

Section 15126.4 of the CEQA Guidelines stipulates an environmental document shall describe feasible measures to minimize significant adverse impacts. In addition to being fully enforceable, mitigation measures must be completed within a defined time period and roughly proportional to the impacts of the project. Generally, a project which is found to comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (the Standards) is considered to be mitigated below a level of significance (CEQA Guidelines Section 15126.4 [b][1]). For historical resources of an archaeological nature, lead agencies should also seek to avoid damaging effects where feasible. Preservation in place is the preferred manner to mitigate impacts to archaeological sites; however, data recovery through excavation may be the only option in certain instances (CEQA Guidelines Section 15126.4[b][3]).

2.1.1 National Register of Historic Places

Although the project does not have a federal nexus, properties which are listed in or have been formally determined eligible for listing in the NRHP are automatically listed in the CRHR. The following is therefore presented to provide applicable regulatory context. The NRHP was authorized by Section 101 of the National Historic Preservation Act and is the nation's official list of cultural resources worthy of preservation. The NRHP recognizes the quality of significance in American, state and local history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects. Per 36 CFR Part 60.4, a property is eligible for listing in the NRHP if it meets one or more of the following criteria:

Criterion A: Is associated with events that have made a significant contribution to the broad patterns of our history

Criterion B: Is associated with the lives of persons significant in our past

Criterion C: Embodies the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction

Criterion D: Has yielded, or may be likely to yield, information important in prehistory or history

In addition to meeting at least one of the above designation criteria, resources must also retain integrity. The National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, defined as follows:

Location: The place where the historic property was constructed or the place where the historic event occurred

Design: The combination of elements that create the form, plan, space, structure, and style of a property

Setting: The physical environment of a historic property

Materials: The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property

Workmanship: The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory

Feeling: A property's expression of the aesthetic or historic sense of a particular period of time

Association: The direct link between an important historic event or person and a historic property

Certain properties are generally considered ineligible for listing in the NRHP, including cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions, relocated structures, or commemorative properties. Additionally, a property must be at least 50 years of age to be eligible for listing in the NRHP. The National Park Service states that 50 years is the general estimate of time needed to develop the necessary historical perspective to evaluate significance (National Park Service 1997:41). Properties which are less than 50 years must be determined to have "exceptional importance" to be considered eligible for NRHP listing.

2.1.2 California Register of Historical Resources

The CRHR was established in 1992 and codified by PRC Sections 5024.1 and 4852. The CRHR is an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change (Public Resources Code, 5024.1(a)). The criteria for eligibility for the CRHR are consistent with the NRHP criteria but have been modified for state use in order to include a range of historical resources that better reflect the history of California (Public Resources Code, 5024.1(b)). Unlike the NRHP however, the CRHR does not have a defined age threshold for eligibility; rather, a resource may be eligible for the CRHR if it can be demonstrated sufficient time has passed to understand its historical or architectural significance (California Office of Historic Preservation 2006). Further, resources may still be eligible for listing in the CRHR even if they do not retain sufficient integrity for NRHP eligibility (California Office of Historic Preservation 2006). Generally, the California Office of Historic Preservation recommends resources over 45 years of age be recorded and evaluated for historical resources eligibility (California Office of Historic Preservation 1995:2).

A property is eligible for listing in the CRHR if it meets one or more of the following criteria:

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

Criterion 2: Is associated with the lives of persons important to our past

Criterion 3: Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values

Criterion 4: Has yielded, or may be likely to yield, information important in prehistory or history

2.1.3 California Assembly Bill 52 of 2014

As of July 1, 2015, Assembly Bill (AB) 52 was enacted and expands CEQA by defining a new resource category: "tribal cultural resources." AB 52 establishes "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the CEQA lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

PRC Section 21074 (a)(1)(A) and (B) define tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and that meets at least one of the following criteria, as summarized in CEQA Guidelines Appendix G:

1) Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC Section 5020.1(k)
2) 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 PRC Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process with California Native American tribes that must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." California Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

2.2 California Health and Safety Code

Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined if the remains are subject to the Coroner's authority. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification.

2.3 California Public Resources Code §5097.98

Section 5097.98 of the California Public Resources Code states that the NAHC, upon notification of the discovery of Native American human remains, pursuant to Health and Safety Code §7050.5, shall immediately notify those persons (i.e., the Most Likely Descendant [MLD]) that it believes to be descended from the deceased. With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

2.4 Local Regulations

The City of Riverside Municipal Code and General Plan (2025) as well as the Riverside County Cultural Heritage Ordinance (2011), covers specific information that states the County's and City's policies and implementation measures regarding cultural resources.

2.4.1 City of Riverside Municipal Code Title 20

Title 20 of the Riverside Municipal Code provides the framework for implementing the City's goals for the protection of cultural resources (City of Riverside 2015). The following text presents the purpose of Title 20:

Section 20.05.010 Purpose

Title 20 promotes the public health, safety, and general welfare of the community by providing for the identification, protection, enhancement, perpetuation, and use of improvements, buildings, structures, signs, objects, features, sites, places, areas, districts, neighborhoods, streets, works of art, natural features, and significant permanent landscaping having special historical, archaeological, cultural, architectural, community, aesthetic, or artistic value in the City for the following reasons:

1. To safeguard the city's heritage as embodied and reflected in such resources;
2. To encourage public knowledge, understanding and appreciation of the city's past;
3. To foster civic and neighborhood pride and a sense of identity based on the recognition and use of cultural resources;
4. To promote the enjoyment and use of cultural resources appropriate for the education and recreation of the people of the city;
5. To preserve diverse and harmonious architectural styles and design preferences reflecting phases of the city's history and to encourage complementary contemporary design and construction;
6. To enhance property values and to increase economic and financial benefits to the city and its inhabitants;
7. To protect and enhance the city's attraction to tourists and visitors, thereby stimulating business and industry;
8. To identify as early as possible and resolve conflicts between the preservation of cultural resources and alternative land uses;
9. To integrate the preservation of cultural resources and the extraction of relevant data from such resources into public and private land management and development processes;
10. To conserve valuable material and energy resources by ongoing use and maintenance of the existing built environment;
11. To implement the City's General Plan;
12. To work in concert with the City's Zoning Code. (Ord. 7108 §1, 2010; Ord. 6263 §1 (part), 1996).

The City of Riverside's Cultural Resources Ordinance is codified in Title 20 of the Municipal Code. The ordinance establishes the criteria and process for designating potential cultural resources (historic resources) as local landmarks, structures of merit, or historic districts.

Landmark Criteria

A cultural resource may be designated by the City Council upon the recommendation of the City's Cultural Heritage Board as a landmark if it meets one or more of the following criteria:

- It exemplifies or reflects special elements of the City's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history;
- Is identified with persons or events significant in local, state, or national history;
- Embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship;
- Represents the work of a notable builder, designer, or architect, or important creative individual;
- Embodies elements that possess high artistic values or represents a significant structural or architectural achievement or innovation;
- Reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning, or cultural landscape;
- Is one of the last remaining examples in the City, region, state, or nation possessing distinguishing characteristics of an architectural or historical type or specimen;
- Has yielded or may be likely to yield information important in history or prehistory.

Structure of Merit Criteria

A cultural resource may be designated by the City Council upon the recommendation of the City's Cultural Heritage Board as a Structure of Merit if it meets one or more of the following criteria:

1. Has a unique location or singular physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood community or of the City;
2. Is an example of a type of building which was once common but is now rare in its neighborhood, community or area;
3. Is connected with a business or use which was once common but is now rare;
4. A Cultural Resource that could be eligible under Landmark Criteria no longer exhibiting a high level of integrity, however, retaining sufficient integrity to convey significance under one or more of the Landmark Criteria;
5. Has yielded or may be likely to yield, information important in history or prehistory; or
6. An improvement or resource that no longer exhibits the high degree of integrity sufficient for Landmark designation, yet still retains sufficient integrity under one or more of the Landmark criteria to convey cultural resource significance as a Structure or Resource of Merit.

Historic District Criteria

A historic district is a geographically definable area possessing a concentration, linkage, or continuity of resources, united historically or aesthetically by plan or physical development. More than fifty (50) percent of a district's properties should contribute to the historical, architectural, archaeological, engineering, and/or cultural values that make it important. A grouping of resource or geographic area may be designated by the City Council upon the recommendation of the City's Cultural Heritage Board as a Historic District if it meets one or more of the following criteria:

- It exemplifies or reflects special elements of the City's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history; or
- Is identified with persons or events significant in local, state, or national history; or
- Embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship; or
- Represents the work of a notable builder, designer, or architect; or
- Has a unique location or singular physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood, community, or of the City; or
- Embodies a collection of elements of architectural design, detail, materials, or craftsmanship that represent a significant structural or architectural achievement or innovation; or
- Reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning; or
- Conveys a sense of historic and architectural cohesiveness through its design, setting, materials, workmanship, or association.

The full text of Title 20 can be found at https://www.riversideca.gov/municode/pdf/20/title-20.pdf (City of Riverside 2015).

2.4.2 City of Riverside General Plan 2025

The City of Riverside General Plan 2025 contains the following objectives and policies related to cultural resources:

> **Policy HP-1.3:** The City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable State and federal cultural resources protection and management laws in its planning and project review process.
>
> **Policy HP-1.4:** The City shall protect natural resources such as geological features, heritage trees, and landscapes in the planning and development review process and in park and open space planning.

2.4.3 Riverside Housing Plan Final EIR MMRP

The City of Riverside adopted its Final EIR for the Riverside Housing and Public Safety Element Updates and Environmental Justice Policies Project in September 2021 (City of Riverside 2021). Within the report is the MMRP, prepared in compliance with CEQA requirements in order to minimize or avoid potential cultural resources impacts during project implementation. The EIR discusses cultural resources Mitigation Measures (MM) on pages 12-6 through 12-11 and identifies the following requirements:

- **CUL-1: Conduct a historical resource assessment:** The individual applicants shall hire a Secretary of the Interior-qualified historic preservation professional to conduct a historical resource assessment if a structure to be affected by a subsequent development project, at the time of application, is not in a previously surveyed area, is not a historical resource for the purposes of CEQA and is at least 50 years old. The assessment shall formally evaluate the potential resource’s eligibility for listing to the CRHR, its potential eligibility as a Landmark or Structure of Merit, and its potential eligibility as a Contributor to a Historic District or

Neighborhood Conservation Area. If the resource is found eligible for any of those designations, it shall be considered a resource that qualifies as a historical resource under CEQA and is therefore subject to the provisions of the Cultural Resources Ordinance. This includes obtaining the pertinent Certificate of Appropriateness and ensuring that the project plans adhere to the SOI Standards. For resources found ineligible for any of those designations, no additional mitigation would be necessary.

- **CUL-2: Conduct an archaeological study:** Prior to construction, if it is determined that the development project will involve ground disturbance of some type, the applicant shall conduct an archaeological study. This study will be conducted during project-specific CEQA analyses at sites that have not been studied in such a manner in the previous 5 years. The archaeological study shall follow the guidelines set forth by the City of Riverside Community & Economic Development Department in the document titled Consultant Requirements for Cultural Resources Survey, Studies and Reports Information Sheet (City of Riverside Community & Economic Development Department 2011) or successor document.
  - **City of Riverside Community & Economic Development Department: Consultant Requirements for Cultural Resources Survey:** All consultants completing studies, surveys, or reports for cultural resources in compliance with the Planning Department's CEQA process shall include the following:
    - Executive Summary
    - Project Location (with map)
    - Project Description
    - Research and field methodology
    - Architectural description
    - Definition of area history
    - Statement of significance (context statement)
    - Recommendations
    - Resumes of authors and/or contributors
    - DPR Forms (as an appendix)
    - List of sources
    - Discussion of potential impacts
    - Proposed Mitigation Measures
    - Current setting
    - Evaluation of significance in accordance with the National, State, and Local level.
    - Copy of the Records Search from the Eastern Information Center (EIC)
    - Record of Contact with appropriate Native American group(s)
    - Contact with the Native American Heritage Commission for a Sacred Lands File (SLF) search.

    Should the archaeological study result in the identification of archaeological resources on the proposed development site or should unanticipated discoveries of previously unknown archaeological resources be made during ground-disturbing activities, MM CUL-3 through CUL-6 would be applicable.

- **CUL-3: Avoid archaeological sites through establishment of Environmental Sensitive Areas (ESAs):** If archaeological resources are identified either through an archaeological study or as unanticipated discoveries during construction, implementation of MM-CUL-3 would be required. Avoidance is always the preferred method of treatment of archaeological sites. Additionally, should sacred objects or objects of religious importance to Native American tribes be identified, preservation in place avoids conflicts with traditional values of tribes. Impacts on cultural resources can be avoided through establishing fencing around cultural resources with a buffer and delineating these locations as ESAs.
- **CUL-4: Develop and implement an Archaeological Treatment Plan (ATP) for evaluation of newly discovered and/or unevaluated archaeological resources:** MM-CUL-4 shall apply if the results of an archaeological study (MM-CUL-2) are unable to determine the eligibility of newly identified archaeological sites and it is determined that additional study through Phase II testing is required; it is not possible to avoid impacts through the establishment of ESAs; or unanticipated resources are discovered during construction. An ATP shall be developed that describes methods and procedures for conducting subsurface excavations to determine the vertical and horizontal extents of an archaeological site. The ATP shall also include guidelines for treatment and curation of any materials recovered during the testing process. A technical report describing the methods and results of archaeological testing and formal evaluations of the archaeological sites and recommendations for further treatment shall follow.
- **CUL-5: Implement data recovery for CRHR-eligible sites that cannot be avoided:** If archaeological studies identify a cultural resource as being potentially eligible for listing in the CRHR and ESAs cannot be established or project design cannot be altered, resulting in impacts to the site, then a Phase III data recovery program shall be developed. The data recovery program shall be outlined in a Data Recovery Treatment Plan that details the procedures and objectives for mitigation of impacts on the archaeological site. The Data Recovery Treatment Plan shall include a research design with testable hypothesis and data requirements necessary to address these hypotheses, and identify methods of excavation, analysis, and curation of any archaeological materials recovered. Additionally, the Data Recovery Treatment Plan shall identify the treatment of any human remains discovered during data recovery procedures. A data recovery technical report shall be completed detailing the results of the excavation and analysis.
- **CUL-6: Retain an on-call archaeologist for monitoring:** For development projects that require CEQA analysis, an on-call archaeological monitor shall be retained when archaeological studies under MM-CUL-2 determine that a project has a less-than-significant potential for archaeological discoveries. An archaeological monitor shall also be retained for archaeological resources that have not been determined eligible for listing in the CRHR or NRHP that are unavoidable, upon agreement between Native American representatives and the City. Applicants shall provide verification that a qualified archaeologist has been retained for an on-call basis during grading and ground-disturbance activities.
- **CUL-7: Conduct archaeological and Native American monitoring:** If cultural resource studies have identified archaeological resources determined eligible for the CRHR or NRHP that are unavoidable, a qualified archaeological monitor and Native American monitor shall monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources. The archaeologist, in consultation with consulting tribes, the applicant, and the City, shall develop an Archaeological Monitoring Plan to address the details, timing, and responsibilities of all archaeological and cultural activities. These details include:

A) The development of a rotating or simultaneous schedule in coordination with the applicant and the project archaeologist for designated Native American tribal monitors (if the resources are prehistoric in age) from the consulting tribes during all ground-disturbing activities.

B) The protocols and stipulations that the applicant, tribes, and project archaeologist shall follow in the event of inadvertent cultural resource discoveries.

C) Treatment and final disposition of any cultural resources, sacred sites, and human remains if discovered.

D) The scheduling and timing of the Cultural Sensitivity Training (MM-CUL-9).

- **CUL-8: Employ procedures for treatment and disposition of cultural resources:** If cultural resources are inadvertently discovered during ground disturbance activities, the following procedures shall be carried out:

  1) Within 24 hours of discovery, and if the resources are Native American in origin, the consulting tribe(s) shall be notified via email and phone. Consulting tribe(s) shall be allowed access to the discovery in order to assist with the significance evaluation.

  2) All discovered resources shall be temporarily curated in a secure location on site or at the office of the project archaeologist. The removal of any artifacts from a development site shall be thoroughly inventoried with tribal monitor oversight.

  3) The landowner(s) shall relinquish ownership of all cultural resources and all archaeological artifacts and non-human remains. The applicant shall relinquish the artifacts through one or more of the approved methods and provide the City of Riverside Community & Economic Development Department with evidence.

- **CUL-9: Conduct cultural sensitivity training:** When MM-CUL-6 or MM-CUL-7 are implemented and prior to construction, the certified archaeologist and Native American monitors shall provide Cultural Sensitivity Training for all construction personnel at the pre-grading meeting with the applicant/permit holder's contractors. This shall include the procedures to be followed during ground disturbance in sensitive areas and protocols that apply in the event 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.

3 Natural and Cultural Setting

This section provides background information pertaining to the natural and cultural context of the project site. It places the project site within the broader natural environment which has sustained populations throughout history. This section also provides an overview of regional indigenous history, local ethnography, and post-contact history. This background information describes the distribution and type of cultural resources documented within the vicinity of the project site to inform the cultural resources sensitivity assessment and the context within which resources have been evaluated.

3.1 Natural Setting

The project site lies within the city of Riverside in Riverside County, California, in the Los Angeles Basin with the Santa Ana Mountains to the southwest, the San Gabriel Mountains to the northwest, the San Bernardino Mountains to the north and northeast, and the San Jacinto Mountains to the southeast. It is within the Geomorphic Region of the Peninsular Ranges at an approximate elevation of 945 feet above mean sea level and is located approximately 2.50 miles southeast of the Santa Ana River, and approximately 1 mile north of Teguesquite Arroyo, a tributary of the Santa Ana River. The project site is located within a paved and graded lot and is surrounded by residential and commercial properties.

According to published geologic mapping, the project site is underlain by Quaternary aged sediments. More specifically, one surficial geologic unit comprises the project site: “Qoa” – weakly indurated alluvial fan deposits of tan to light reddish brown sand and minor gravel, dissected by stream channels from source areas (Dibblee and Minch 2003). These sediments derived from local terrains of plutonic rocks and are from the early Pleistocene era.

One soil type, AoC: Arlington fine sandy loam, is documented within the project site. The Arlington Series consist of very fine sandy loam found on level to strongly sloping alluvial fans and terraces at elevations of about 400 to 2,000 feet above mean sea level. This series is commonly found on coastal and intermediate valleys of southern California. A typical Arlington Series profile consists of brown to dark brown very fine sandy loam with a weak, fine, granular structure from 0 to 7 inches; brown to reddish brown very fine sandy loam with a massive structure from 7 to 11 inches; reddish brown to dark reddish brown loam with a moderate fine subangular blocky structure from 11 to 17 inches; reddish brown loam with a strong, fine, subangular blocky structure from 17 to 21 inches; reddish brown to dark reddish brown loam with a massive structure from 21 to 24 inches; brown weakly cemented horizon that crushes to sandy loam, with a very coarse prismatic structure, from 24 to 36 inches; and brown coarse loamy sand from 36 to 47 inches (California Soil Resource Lab 2003). The Arlington Series contains no buried A horizon soils, which is a depositional context indicative of an increased potential for the presence of buried cultural deposits.

3.2 Cultural Setting

The cultural setting for the project site is presented broadly in three overviews: Indigenous, Ethnographic, and Post-Contact. The indigenous and post-contact overviews describe human occupation before and after European contact, while the ethnographic overview provides a synchronic “snapshot” of traditional Native American culture.

3.2.1 Indigenous History

During the twentieth century, many archaeologists developed chronological sequences to explain prehistoric cultural changes in all or portions of southern California (c.f., Jones and Klar 2007; Moratto 1984). Wallace (1955, 1978) devised a prehistoric chronology for the southern California region based on early studies and focused on data synthesis that included four horizons: Early Man, Milling Stone, Intermediate, and Late Prehistoric. Though initially lacking the chronological precision of absolute dates (Moratto 1984: 159), Wallace's (1955) synthesis has been modified and improved using thousands of radiocarbon dates obtained by southern California researchers over recent decades (Byrd and Raab 2007: 217; Koerper and Drover 1983; Koerper et al. 2002; Mason and Peterson 1994). The composite prehistoric chronological sequence for southern California is based on Wallace (1955), Warren (1968), and later studies including Koerper and Drover (1983).

Early Man Horizon (ca. 10,000-6000 BCE)

Numerous pre-8000 BCE sites have been identified along the mainland coast and Channel Islands of southern California (c.f., Erlandson 1991; Johnson et al. 2002; Jones and Klar 2007; Moratto 1984; Rick et al. 2001: 609). The Arlington Springs site on Santa Rosa Island produced human femurs dated to approximately 13,000 years ago (Arnold et al. 2004; Johnson et al. 2002). On nearby San Miguel Island, human occupation at Daisy Cave (SMI-261) has been dated to nearly 13,000 years ago and included basketry greater than 12,000 years old, the earliest on the Pacific Coast (Arnold et al. 2004).

Although few Clovis- or Folsom-style fluted points have been found in southern California (e.g., Dillon 2002; Erlandson et al. 1987), Early Man Horizon sites are associated generally with a greater emphasis on hunting than later horizons. Recent data indicate that the Early Man economy was a diverse mixture of hunting and gathering, including a significant focus on aquatic resources in coastal areas (e.g., Jones et al. 2002) and on inland Pleistocene lakeshores (Moratto 1984). A warm and dry 3,000-year period called the Altithermal began around 6000 BCE. The conditions of the Altithermal are likely responsible for the change in human subsistence patterns at this time, including a greater emphasis on plant foods and small game.

Milling Stone Horizon (6000-3000 BCE)

The Milling Stone Horizon is defined as "marked by extensive use of milling stones and mullers, a general lack of well-made projectile points, and burials with rock cairns" (Wallace 1955: 219). The dominance of such artifact types indicates a subsistence strategy oriented around collecting plant foods and small animals. A broad spectrum of food resources were consumed including small and large terrestrial mammals, sea mammals, birds, shellfish and other littoral and estuarine species, near-shore fishes, yucca, agave, and seeds and other plant products (Kowta 1969; Reinman 1964). Variability in artifact collections over time and from the coast to inland sites indicates that Milling Stone Horizon subsistence strategies adapted to environmental conditions (Byrd and Raab 2007: 220). Locally available tool stone dominates lithic artifacts associated with Milling Stone Horizon sites; ground stone tools, such as manos and metates, and chopping, scraping, and cutting tools, are common. Kowta (1969) attributes the presence of numerous scraper-plane tools in Milling Stone Horizon collections to the processing of agave or yucca for food or fiber. The mortar and pestle, associated with acorns or other foods processed through pounding, were first used during the Milling Stone Horizon and increased dramatically in later periods (Wallace 1955, 1978; Warren 1968).

Two types of artifacts that are considered diagnostic of the Milling Stone period are the cogged stone and discoidal, most of which have been found on sites dating between 4,000 and 1,000 BCE (Moratto 1984: 149), though possibly as far back as 5,500 BCE (Couch et al. 2009). The cogged stone is a ground stone object that has gear-like teeth on the perimeter and is produced from a variety of materials. The function of cogged stones is unknown, but many scholars have postulated ritualistic or ceremonial uses (c.f., Dixon 1968: 64-65; Eberhart 1961: 367) based on the materials used and their location near to burials and other established ceremonial artifacts as compared to typical habitation debris. Similar to cogged stones, discoidals are found in the archaeological record subsequent to the introduction of the cogged stone. Cogged stones and discoidals were often buried purposefully, or "cached." They are most common in sites along the coastal drainages from southern Ventura County southward and are particularly abundant at some Orange County sites, although a few specimens have been found inland as far east as Cajon Pass (Dixon 1968: 63; Moratto 1984: 149). Cogged stones have been collected in Riverside County and their distribution appears to center on the Santa Ana River basin (Eberhart 1961), within which the site lies.

Intermediate Horizon (3000 BCE – 500 CE)

Wallace's Intermediate Horizon dates from approximately 3000 BCE - CE 500 and is characterized by a shift toward a hunting and maritime subsistence strategy, as well as greater use of plant foods. During the Intermediate Horizon, a noticeable trend occurred toward greater adaptation to local resources including a broad variety of fish, land mammal, and sea mammal remains along the coast. Tool kits for hunting, fishing, and processing food and materials reflect this increased diversity, with flake scrapers, drills, various projectile points, and shell fishhooks being manufactured.

Mortars and pestles became more common during this transitional period, gradually replacing manos and metates as the dominant milling equipment. Many archaeologists believe this change in milling stones signals a change from the processing and consuming of hard seed resources to the increasing reliance on acorn (c.f., Glassow et al. 1988; True 1993). Mortuary practices during the Intermediate typically included fully flexed burials oriented toward the north or west (Warren 1968: 2-3).

Late Prehistoric Horizon (500 CE – Historic Contact)

During Wallace's (1955, 1978) Late Prehistoric Horizon the diversity of plant food resources and land and sea mammal hunting increased even further than during the Intermediate Horizon. More classes of artifacts were observed during this period and high quality exotic lithic materials were used for small finely worked projectile points associated with the bow and arrow. Steatite containers were made for cooking and storage and an increased use of asphalt for waterproofing is noted. More artistic artifacts were recovered from Late Prehistoric sites and cremation became a common mortuary custom. Larger, more permanent villages supported an increased population size and social structure (Wallace 1955: 223).

Warren (1968) attributes this dramatic change in material culture, burial practices, and subsistence focus to the westward migration of desert people he called the Takic, or Numic, Tradition in Los Angeles, Orange, and western Riverside counties. This Takic Tradition was formerly referred to as the "Shoshonean wedge" (Warren 1968), but this nomenclature is no longer used to avoid confusion with ethnohistoric and modern Shoshonean groups (Heizer 1978: 5; Shipley 1978: 88, 90). The Takic expansion remains a major question in southern California prehistory and has been a matter of debate in archaeological and linguistic research. Linguistic, biological, and archaeological evidence supports the hypothesis that Takic peoples from the Southern San Joaquin Valley and/or

western Mojave Desert entered southern California ca. 3,500 years ago to occupy the Los Angeles/Orange County area (Sutton 2009). Modern Gabrieleño/Tongva in western Riverside County are generally considered by archaeologists to be descendants of these prehistoric Uto-Aztecan, Takic-speaking populations that settled along the California coast during the Late Prehistoric Horizon. Sutton argues that surrounding Cupan groups (Serrano, Cahuilla, Cupeño, and Luiseño), were biologically Yuman peoples who were in the area prior to the Takic expansion but adopted Takic languages around 1,500 years ago.

3.2.2 Ethnographic Setting

The project site is situated within the traditional territory of three Native American groups anthropologists identified in the early twentieth century (e.g., Kroeber 1908). The historically identified territories occupied by the Cahuilla, Gabrieleño, and Luiseño all exist within the project site. Below are synopses of ethnographic data for each of the three Native American groups.

Cahuilla

The project site lies within the traditional territory of the Cahuilla, though near the boundary with the Juaneño and Luiseño (Bean 1978; Heizer 1978; Kroeber 1925). The term Cahuilla likely derived from the native word káwiya, meaning “master” or “boss” (Bean 1978: 575). Traditional Cahuilla ethnographic territory extended west to east from the present-day city of Riverside to the central portion of the Salton Sea in the Colorado Desert, and south to north from the San Jacinto Valley to the San Bernardino Mountains.

The Cahuilla, like their neighbors to west, the Luiseño and Juaneño, and the Cupeño to the south, are speakers of a Cupan language. The Cupan languages are part of the Takic linguistic subfamily of the Uto-Aztecan language family. Anthropologists posit that the Cahuilla migrated to southern California approximately 2,000 to 3,000 years ago, most likely from the southern Sierra Nevada mountain ranges of east-central California with other Takic speaking social groups (Moratto 1984: 559).

Cahuilla social organization was hierarchical and contained three primary levels (Bean 1978: 580). The highest level was the cultural nationality, encompassing everyone speaking a common language. The next level included the two patrimoieties of the Wildcats (tuktum) and the Coyotes (‘istam). Every clan of the Cahuilla was in one or the other of these moieties. The lowest level consisted of the numerous political-ritual-corporate units called sibs, or a patrilineal clan (Bean 1978: 580).

Cahuilla villages were usually located in canyons or on alluvial fans near a source of accessible water. Each lineage group maintained their own houses (kish) and granaries, and constructed ramadas for work and cooking. Sweathouses and song houses (for non-religious music) were also often present. Each community also had a separate house for the lineage or clan leader. A ceremonial house, or kíš ?ámnawet, associated with the clan leader was where major religious ceremonies were held. Houses and ancillary structures were often spaced apart, and a “village” could extend over a mile or two. Each lineage had ownership rights to various resource collecting locations, “including food collecting, hunting, and other areas. Individuals also owned specific areas or resources, e.g., plant foods, hunting areas, mineral collecting places, or sacred spots used only by shamans, healers and the like” (Bean 1990:2).

The Cahuilla hunted a variety of game, including mountain sheep, cottontail, jackrabbit, mice, and wood rats, as well as predators such as mountain lion, coyote, wolf, bobcat, and fox. Various birds were consumed, including quail, duck, and dove, plus various types of reptiles, amphibians, and insects. The Cahuilla employed a wide variety of tools and implements to gather and collect food resources. For hunting, these included the bow and arrow, traps, nets, slings and blinds for hunting land mammals and birds, and nets for fishing. Rabbits and hares were commonly brought down by the throwing stick, but when communal hunts were organized, the Cahuilla often utilized clubs and very large nets to capture these animals.

Foodstuffs were processed using a variety of tools, including portable stone mortars, bedrock mortars and pestles, basket hopper mortars, manos and metates, bedrock grinding slicks, hammerstones and anvils, and many others. Food was consumed from a number of woven and carved wood vessels and pottery vessels. The ground meal and unprocessed hard seeds were stored in large finely woven baskets, and the unprocessed mesquite beans were stored in large granaries woven of willow branches and raised off the ground on platforms to keep it from vermin. The Cahuilla made pottery vessels and traded with the Yuman-speaking groups across the Colorado River and to the south.

The Cahuilla had adopted limited agricultural practices by the time Euro-Americans traveled into their territory. Bean has suggested that their "proto-agricultural techniques and a marginal agriculture" consisting of beans, squash and corn may have been adopted from the Colorado River groups to the east (Bean1978: 578). Certainly by the time of the first Romero Expedition in 1823-24, the Cahuilla were observed growing corn, pumpkins, and beans in small gardens around springs near the town of Thermal in the Coachella Valley (Bean and Mason 1962: 104). The introduction of European plants, such as barley and other grain crops, suggest an interaction with the missions or local Mexican rancheros. Despite the increasing use and diversity of crops, no evidence indicates that small-scale agriculture was anything more than a supplement to Cahuilla subsistence, and it apparently did not alter social organization.

By 1819, several Spanish mission outposts, known as *asistencias*, were established near Cahuilla territory at San Bernardino and San Jacinto, including the asistencia near Redlands, approximately 9 miles from the project site. Cahuilla interaction with Europeans at this time was not as intense as it was for native groups living along the coast, likely due to the local topography and lack of water that made the area less attractive to colonists. By the 1820s, European interaction increased as mission ranchos were established in the region and local Cahuilla were employed to work on them.

The Bradshaw Trail was established in 1862 and was the first major east-west stage and freight route through the Coachella Valley. Traversing the San Gorgonio Pass, the trail connected gold mines on the Colorado River with the coast. Bradshaw based his trail on the Cocomaricopa Trail, with maps and guidance provided by local Native Americans. Journals by early travelers along the Bradshaw Trail told of encountering Cahuilla villages and walk-in wells during their journey through the Coachella Valley. The continued influx of immigrants into the region introduced the Cahuilla to European diseases. The single worst recorded event was a smallpox epidemic that swept through Southern California in 1862-63, significantly reducing the Cahuilla population. By 1891, only 1,160 Cahuilla remained in what was left of their territory, down from an aboriginal population of 6,000–10,000 (Bean 1978: 583-584). By 1974, approximately 900 people claimed Cahuilla descent, most of whom resided on reservations.

Between 1875 and 1891, the United States established ten reservations for the Cahuilla in their traditional territory. These include the Agua Caliente, Augustine, Cabazon, Cahuilla, Los Coyotes,

Morongo, Ramona, Santa Rosa, Soboba, and Torres-Martinez reservations (Bean 1978: 585). Other groups share four of the reservations, including the Chemehuevi, Cupeño, and Serrano.

Luiseño

The project site lies within the traditional territory of the Luiseño, who inhabited the north half of San Diego County and western edge of Riverside County (Bean and Shipek 1978; Heizer 1978; Kroeber 1925). The term Luiseño was applied to the Native Americans managed by Mission San Luis Rey and later used for the Payomkawichum nation that lived in the area where the mission was founded (Mithun 2001: 539-540). Luiseño territory encompassed the drainages of the San Luis Rey River and the Santa Margarita River, covering numerous ecological zones (Bean and Shipek 1978).

Prior to European contact, the Luiseño lived in permanent, politically autonomous villages, ranging in size from 50-400 people, and associated seasonal camps. Each village controlled a larger resource territory and maintained ties to other villages through trade and social networks. Trespassing in another village's resource area was cause for war (Bean and Shipek 1978). Villages consisted of dome-shaped dwellings (kish), sweat lodges, and a ceremonial enclosure (vamkech). Leadership in the villages focused on the chief, or Nota, and a council of elders (puuplem). The chief controlled religious, economic, and war-related activities (Bean and Shipek 1978).

The Luiseño religion was focused on Chinigchinich, a mythological hero. Religious rituals took place in a brush enclosure that housed a representation of Chinigchinich. Ritual ceremonies included puberty initiation rites, burial and cremation ceremonies, hunting rituals, and peace rituals (Bean and Shipek 1978).

Luiseño subsistence focused on the acorn and was supplemented by gathering other plant resources, and shellfish, fishing, and hunting. Plant foods typically included pine nuts, seeds from various grasses, manzanita, sunflower, sage, chia, lemonade berry, prickly pear, and lamb's-quarter. Acorns were leached and served in various ways. Seeds were ground. Prey included deer, antelope, rabbit, quail, ducks, and other birds. Fish were caught in rivers and creeks. Fish and sea mammals were taken from the shore or dugout canoes. Shellfish were collected from the shore and included abalone, turbans, mussels, clams, scallops, and other species (Bean and Shipek 1978).

Gabrieleño

The project site lies within the traditional territory of the Gabrieleño. Archaeological evidence points to the Gabrieleño arriving in the Los Angeles Basin sometime around 500 BCE; however, this has been a subject of debate. Many contemporary Gabrieleño identify themselves as descendants of the indigenous people living across the plains of the Los Angeles Basin and use the native term Tongva (King 1994). This term is used in the remainder of this section to refer to the pre-contact inhabitants of the Los Angeles Basin and their descendants. Surrounding native groups included the Chumash and Tataviam to the northwest, the Serrano and Cahuilla to the northeast, and the Juaneño and Luiseño to the southeast.

The name "Gabrieleño" denotes those people who were administered by the Spanish from the San Gabriel Mission, which included people from the Gabrieleño area proper as well as other social groups (Bean and Smith 1978: 538; Kroeber 1925: Plate 57). Therefore, in the post-Contact period, the name does not necessarily identify a specific ethnic or tribal group. The names by which Native Americans in southern California identified themselves have, for the most part, been lost. Many modern Gabrieleño identify themselves as descendants of the indigenous people living across the plains of the Los Angeles Basin and refer to themselves as the Tongva (King 1994: 12). This term is

used in the remainder of this section to refer to the pre-Contact inhabitants of the Los Angeles Basin and their descendants.

Tongva lands encompassed the greater Los Angeles Basin and three Channel Islands, San Clemente, San Nicolas, and Santa Catalina. The Tongva established large, permanent villages in the fertile lowlands along rivers and streams, and in sheltered areas along the coast, stretching from the foothills of the San Gabriel Mountains to the Pacific Ocean. A total tribal population has been estimated of at least 5,000 (Bean and Smith 1978: 540), but recent ethnohistoric work suggests a number approaching 10,000 (O'Neil 2002). Houses constructed by the Tongva were large, circular, domed structures made of willow poles thatched with tule that could hold up to 50 people (Bean and Smith 1978). Other structures served as sweathouses, menstrual huts, ceremonial enclosures, and probably communal granaries. Cleared fields for races and games, such as lacrosse and pole throwing, were created adjacent to Tongva villages (McCawley 1996: 27). Archaeological sites composed of villages with various sized structures have been identified.

The Tongva subsistence economy was centered on gathering and hunting. The surrounding environment was rich and varied, and the tribe exploited mountains, foothills, valleys, deserts, riparian, estuarine, and open and rocky coastal eco-niches. Like that of most native Californians, acorns were the staple food (an established industry by the time of the early Intermediate Period). Acorns were supplemented by the roots, leaves, seeds, and fruits of a wide variety of flora (e.g., islay, cactus, yucca, sages, and agave). Fresh water and saltwater fish, shellfish, birds, reptiles, and insects, as well as large and small mammals, were also consumed (Bean and Smith 1978: 546; Kroeber 1925: 631–632; McCawley 1996: 119–123, 128–131).

A wide variety of tools and implements were used by the Tongva to gather and collect food resources. These included the bow and arrow, traps, nets, blinds, throwing sticks and slings, spears, harpoons, and hooks. Groups residing near the ocean used oceangoing plank canoes and tule balsa canoes for fishing, travel, and trade between the mainland and the Channel Islands (McCawley 1996: 7). Tongva people processed food with a variety of tools, including hammerstones and anvils, mortars and pestles, manos and metates, strainers, leaching baskets and bowls, knives, bone saws, and wooden drying racks. Food was consumed from a variety of vessels. Catalina Island steatite was used to make ollas and cooking vessels (Blackburn 1963, Kroeber 1925: 629, McCawley 1996: 129–138).

At the time of Spanish contact, the basis of Tongva religious life was the Chinigchinich cult, centered on the last of a series of heroic mythological figures. Chinigchinich gave instruction on laws and institutions, and taught the people how to dance, the primary religious act for this society. He later withdrew into heaven, where he rewarded the faithful and punished those who disobeyed his laws (Kroeber 1925: 637–638). The Chinigchinich religion seems to have been relatively new when the Spanish arrived. It was spreading south into the Southern Takic groups even as Christian missions were being built and may represent a mixture of native and Christian belief and practices (McCawley 1996: 143–144).

Deceased Tongva were either buried or cremated, with inhumation more common on the Channel Islands and the neighboring mainland coast and cremation predominating on the remainder of the coast and in the interior (Harrington 1942; McCawley 1996: 157). At the behest of the Spanish missionaries, cremation essentially ceased during the post-Contact period (McCawley 1996: 157).

3.2.3 Post-Contact Setting

Post-Contact history for the state of California is generally divided into three periods: the Spanish Period (1769–1822), Mexican Period (1822–1848), and American Period (1848–present). Although Spanish, Russian, and British explorers visited the area for brief periods between 1529 and 1769, the Spanish Period in California begins with the establishment in 1769 of a settlement at San Diego and the founding of Mission San Diego de Alcalá, the first of 21 missions constructed between 1769 and 1823. Independence from Spain in 1821 marks the beginning of the Mexican Period, and the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican-American War, signals the beginning of the American Period when California became a territory of the United States.

Spanish Period (1769 – 1822)

Spanish explorers made sailing expeditions along the coast of California between the mid-1500s and mid-1700s. Juan Rodriguez Cabrillo in 1542 led the first European expedition to observe what was known by the Spanish as Alta (upper) California. For more than 200 years, Cabrillo and other Spanish, Portuguese, British, and Russian explorers sailed the Alta California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 2003). The Spanish crown laid claim to Alta California based on the surveys conducted by Cabríllo and Vizcaíno (Bancroft 1885; Gumprecht 1999).

By the 18th century, Spain developed a three-pronged approach to secure its hold on the territory and counter against other foreign explorers. The Spanish established military forts known as presidios, as well as missions and pueblos (towns) throughout Alta California. The 1769 overland expedition by Captain Gaspár de Portolá marks the beginning of California's Historic period, occurring just after the King of Spain installed the Franciscan Order to direct religious and colonization matters in assigned territories of the Americas. Portolá established the Presidio of San Diego as the first Spanish settlement in Alta California in 1769. Franciscan Father Junípero Serra also founded Mission San Diego de Alcalá that same year, the first of the 21 missions that would be established in Alta California by the Spanish and the Franciscan Order between 1769 and 1823 (Graffy 2010).

Construction of missions and associated presidios was a major emphasis during the Spanish Period in California to integrate the Native American population into Christianity and communal enterprise. Incentives were also provided to bring settlers to pueblos or towns; just three pueblos were established during the Spanish Period, only two of which were successful and remain as California cities (San José and Los Angeles).

Spain began making land grants in 1784, typically to retiring soldiers, although the grantees were only permitted to inhabit and work the land. The land titles technically remained property of the Spanish king (Livingston 1914).

Mexican Period (1822 – 1848)

Several factors kept growth within Alta California to a minimum, including the threat of foreign invasion, political dissatisfaction, and unrest among the indigenous population. After more than a decade of intermittent rebellion and warfare, New Spain won independence from Spain in 1821. In 1822, the Mexican legislative body in California ended isolationist policies designed to protect the Spanish monopoly on trade, and decreed California ports open to foreign merchants (Dallas 1955).

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Extensive land grants were established in the interior during the Mexican Period, in part to increase the population inland from the more settled coastal areas where the Spanish had first concentrated their colonization efforts. The secularization of the missions following Mexico's independence from Spain resulted in the subdivision of former mission lands and establishment of many additional ranchos. Commonly, former soldiers and well-connected Mexican families were the recipients of these land grants, which now included the title to the land (Graffy 2010).

During the supremacy of the ranchos (1834–1848), landowners largely focused on the cattle industry and devoted large tracts to grazing. Cattle hides became a primary southern California export, providing a commodity to trade for goods from the east and other areas in the United States and Mexico. The number of nonnative inhabitants increased during this period because of the influx of explorers, trappers, and ranchers associated with the land grants. The rising California population contributed to the introduction and rise of diseases foreign to the Native American population, who had no associated immunities.

American Period (1848 – Present)

The United States went to war with Mexico in 1846. During the first year of the war, John C. Fremont traveled from Monterey to Los Angeles with reinforcements for Commodore Stockton and evaded Californian soldiers in Santa Barbara's Gaviota Pass by taking the route over the San Marcos grade instead (Kyle 2002). The war ended in 1848 with the Treaty of Guadalupe Hidalgo, ushering California into its American Period.

California officially became a state with the Compromise of 1850, which also designated Utah and New Mexico (with present-day Arizona) as US territories (Waugh 2003). Horticulture and livestock, based primarily on cattle as the currency and staple of the rancho system, continued to dominate the southern California economy through 1850s. The discovery of gold in the northern part of the state led to the Gold Rush beginning in 1848, and with the influx of people seeking gold, cattle were no longer desired mainly for their hides but also as a source of meat and other goods. During the 1850s cattle boom, rancho vaqueros drove large herds from southern to northern California to feed that region's burgeoning mining and commercial boom.

A severe drought in the 1860s decimated cattle herds and drastically affected rancheros' source of income. In addition, property boundaries that were loosely established during the Mexican era led to disputes with new incoming settlers, problems with squatters, and lawsuits. Rancheros often were encumbered by debt and the cost of legal fees to defend their property. As a result, much of the rancho lands were sold or otherwise acquired by Americans. Most of these ranchos were subdivided into agricultural parcels or towns (Dumke 1994).

Riverside County History

After the advent of the transcontinental railroad in 1869, land speculators, developers, and colonists began to migrate to Southern California. The first settlement in Riverside County was the city of Riverside, founded in 1870. Riverside County formed in 1893 from portions of San Bernardino and San Diego Counties (Lech 1998). The region played a significant role in the development of California's citrus industry. In 1873, Eliza Tibbets planted two seedless orange trees; the variety, later called the Washington Naval Orange, led to the rapid planting of citrus trees and stimulated interest in real estate. Not all areas of Riverside County took to the citrus industry: some continued to participate in dry land grain farming.

Prior to the 1880s, the Perris Valley was used primarily as grazing land for sheep and by miners extracting tin, coal, and clay from the surrounding hills. In 1882, the California Southern Railroad completed its tracks through the valley, encouraging settlement of the area. The Perris town site was laid out in the late 1880s after it was officially named a station by the Transcontinental Route of the Santa Fe Railway. Perris was named after Fredrick T. Perris, chief engineer of the California Southern Railroad and was incorporated in 1911. Perris' early success as an agricultural area led to its reputation as the vegetable basket of Riverside County (City of Perris 2018). Nearly 50 percent of the land in Perris has been used or is used currently for agricultural purposes. The Eastern Municipal Water District brought water to the valley in the 1950s and the construction of Lake Perris in the early 1970s brought recreational interest to the area.

City of Riverside History

In 1870, investors from the Southern California Colony Association, solicited by John Wesley North, laid out a mile-square town site on land that was once Rancho Jurupa, a Mexican land grant of 1838 (City of Riverside 2015b; Lech 2007, 7, 10; Zippia 2023). The first orange trees were planted in 1871 and a stream of agriculturalists, investors, and immigrants into the area drove the success of citrus crops. The citrus industry in Riverside grew with the cultivation of the newly discovered navel orange by Eliza Tibbets in 1873, and by 1882, almost half of the half a million citrus trees in California were located in Riverside (City of Riverside 2015b; Lech 2007, 7). In 1873, Riverside was given its name, and in 1893, Riverside County was formed (Riverside County 2023; Zippia 2023). By 1895, Riverside was the wealthiest city per capita (City of Riverside 2015b; Lech 2007, 7; Riverside County 2023). The Southern California Fruit Growers Exchange, later Sunkist, was founded in the late 1800s along with the Citrus Experimentation Station in 1907, making Riverside a key center of citrus machinery production (The Los Angeles Times 1897; University of California Riverside 2023).

Riverside became a charter city in 1907, with a Mayor-Council form of government. A new City Charter was established in 1950, incited by population growth and city operating problems. A City Board of Freeholders was elected and a new Charter employing a Council-Manager form of government was implemented in 1952. Since the city's founding, Riverside has grown immensely and its economy has grown more diverse and multifaceted. Today, the Riverside-San Bernardino Metropolitan Area (the Inland Empire) is one of the most populous metropolitan areas in the country (Riverside County 2023).

4 Methods

This section presents the methods for each task completed during the preparation of this study.

4.1 Background and Archival Research

4.1.1 Archival Research

Rincon completed background and archival research in support of this study in November 2023. A variety of primary and secondary source materials were consulted. Sources included, but were not limited to, historical maps, aerial photographs, and written histories of the area. The following sources were utilized to develop an understanding of the project site and its context:

- Historical aerial photographs accessed via NETR Online
- Historical aerial photographs accessed via University of California, Santa Barbara Library FrameFinder
- Historical USGS topographic maps
- U.S. Department of the Interior Bureau of Land Management General Land Office Records

4.1.2 California Historical Resources Information System Records Search

On September 12, 2023, Rincon requested a search of the CHRIS from the EIC (Appendix B). The EIC is the official state repository for cultural resources records and reports for Riverside County. The purpose of a records search is to identify previously recorded cultural resources, as well as previously conducted cultural resources studies within the Project study area and a 1-mile radius surrounding it. Rincon also reviewed the NRHP, the CRHR, the California Historical Landmarks list, and the Built Environment Resources Directory, as well as its predecessor the California State Historic Property Data File. Additionally, Rincon reviewed the Archaeological Determination of Eligibility list.

4.2 Native American Heritage Commission

4.2.1 Sacred Lands File Search

Rincon contacted the NAHC on September 12, 2023, to request a search of the SLF as well as a contact list of Native Americans culturally affiliated with the project area (Appendix C).

4.3 Field Survey

Rincon Archaeologist Efrain Arroyo, MA, conducted a pedestrian survey of the project site on November 27, 2023. Transect intervals were spaced fifteen meters apart and oriented generally from east to west. Exposed ground surfaces were examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, fire-affected rock [FAR]), ecofacts (marine shell and bone),

soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historical debris (e.g., metal, glass, ceramics). Ground disturbances such as drainages were also visually inspected. Survey accuracy was maintained using a handheld GPS unit (Geode) and a georeferenced map of the project site. Site characteristics and survey conditions were documented using field records and a digital camera. Representative site photographs are available in Appendix A. Copies of the survey notes and digital photographs are maintained at Rincon's San Diego office.

5 Findings

5.1 Known Cultural Resources Studies

The CHRIS records search and background research identified 56 cultural resources studies within 1 mile of the project site (Appendix B). No studies were located within or adjacent to the project site.

5.2 Known Cultural Resources

The CHRIS records search and background research identified 732 cultural resources within 1 mile of the project site. No cultural resources are located within or adjacent to the project site. The majority of the previously recorded cultural resources are 722 historic-age buildings, of which 705 are residential properties constructed between 1885 and 1940. Approximately half of these residences are considered not eligible for the NRHP or CRHR or for listing on any local registers, and approximately half are recognized as historically significant by the City. The remaining historic-age buildings include commercial, industrial, and public buildings constructed between 1898 and 1965. Ten cultural resources consist of eight historic sites or structures and two historic districts or elements of an historic district.

5.3 Aerial Imagery and Historical Topographic Maps Review

Rincon completed a review of historical topographic maps and aerial imagery to ascertain the development history of the project site. The earliest topographic maps are from 1878 and 1896 and depict the surrounding area of the project site as sectioned parcels of land consisting of an orchard, irrigation pump, and carpenter's shop to the west of the project site with a road heading north to Colton to the north (Bureau of Land Management 1878; 1896). A trail is also visible to the north of the project site running southeast to northwest. The project site is undeveloped. Historical topographic maps from 1901 to 1942 depict the project site as undeveloped within a parcel bordered by residential streets and buildings (NETR Online 2023; USGS 2023). The city of Riverside is depicted as highly developed with urban streets and buildings surrounding the project site, and Gage Canal is depicted running north to south approximately 0.85-mile to the east. Most of the development lies to the west of the project site, centralized around the Southern Pacific Railroad.

Aerial imagery from 1931 and 1938 confirms that much of the surrounding land is parcels of orchards bordered by tree-lined roads, and the project site appears as a graded area with residential properties within it (FrameFinder 2023). Additionally, a watercourse appears approximately 0.60-mile northeast of the project site trending northwest to southeast from the Santa Ana River, and a reservoir is visible approximately 0.40-mile to the northeast. The residences within the project site are depicted in historical topographic maps from 1942, and urban development within the city of Riverside and surrounding the project site has grown (USGS 2023). Much of the land to the south, north, and east of the project site is depicted as agricultural fields bordered by roadways and small buildings (USGS 2023). In aerial imagery from 1948, the neighboring parcels of orchards to the east and northeast of the project site have been partially renovated into agricultural-use buildings and

graded lots (NETR Online 2023). Further residential development appears within the project site and its immediate surroundings.

This growth of urbanization surrounding the project site is depicted in historical topographic maps from 1953, with additional buildings along Chicago Road and agricultural-use structures to the east, additional residential streets to the north, and University Heights Junior High School to the southwest (USGS 2023). Surrounding development continues to be apparent in topographic maps from 1967 to 2022, and the project site remains unchanged (USGS 2023). Aerial imagery from 1959 confirms the expansion of urban development (NETR Online 2023).

The residential properties within the project site appear demolished and replaced with a parking lot surrounded by commercial buildings in aerial imagery from 1959 (NETR Online 2023). Additionally, the agricultural parcels immediately south and southeast of the project site have been paved over and replaced with large commercial buildings and parking lots, which is depicted in additional aerial imagery from 1962 and topographic maps from 1967 (FrameFinder 2023; NETR Online 2023; USGS 2023). In 2005 imagery, the building in the northwestern corner of the project site is no longer present and the project site is depicted in its current condition as an empty lot (NETR Online 2023).

5.4 Geoarchaeological Review

According to published geologic mapping, the project site is underlain by early Pleistocene aged sediments which pre-date to the era of human occupation. One surficial geologic unit comprises the project site: “Qoa” – Alluvial fan deposits. Qoa sediments consist of sand and minor gravel derived from stream channels (Dibblee and Minch 2003). Alluvial sediments have an episodic nature and have an increased likelihood of burying archaeological deposits (Borejsa et al. 2014; Waters 1992), however, Qoa sediments slightly pre-date human occupation in the area of the project site. Therefore, this project site has a low geological sensitivity for prehistoric and/or historic-period archaeological resources. Sudden burial of artifacts is often identified when there are buried A horizons in a soil series. However, no buried A horizons have been previously documented within any of the soil series identified in the project site. Additionally, the project site has been disturbed since the early-twentieth century by urban development and agriculture. As the project site has been continuously disturbed, and no archaeological resources have been identified within the project site, the geoarchaeological sensitivity is considered low. Though the geoarchaeological sensitivity of the project site is identified as low, this does not preclude the potential to encounter buried archaeological deposits.

5.5 Sacred Land File Search and AB 52 Consultation

On November 3, 2023, the NAHC responded to Rincon’s SLF request, stating that the results of the SLF search were negative. See Appendix C for the NAHC response, including a Tribal contacts list. AB 52 consultation was not conducted as part of this cultural resources assessment as it was previously completed in the 2021 EIR (City of Riverside 2021).

5.6 Survey Results

Rincon Archaeologist Efrain Arroyo, MA, conducted a pedestrian field survey of the project site on November 27, 2023. The survey was conducted by transects spaced 15 meters apart oriented east to west. Ground visibility during the field survey was excellent with surface exposure of

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approximately 91 to 100 percent. Soils throughout the project site consisted of a compacted light brown silty sand with gravel (Appendix A: Photograph 1 through Photograph 3). The project site has been heavily disturbed from extensive grading resulting in a level lot barren of vegetation. Asphalt was laid over the east portion of the levelled ground and modern refuse was observed throughout the project site. No cultural resources were identified within the project site during the field survey.

6 Impacts Analysis and Conclusions

The impact analysis included here is organized based on the cultural resources thresholds included in CEQA Guidelines Appendix G: Environmental Checklist Form:

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?
b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?
c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Threshold A broadly refers to historical resources. To more clearly differentiate between archaeological and built environment resources, we have chosen to limit analysis under Threshold A to built environment resources. Archaeological resources, including those that may be considered historical resources pursuant to Section 15064.5 and those that may be considered unique archaeological resources pursuant to Section 21083.2, are considered under Threshold B.

Because the proposed project is located within the City of Riverside, it is also required to be consistent with mitigation measures set forth in the Mitigation Monitoring and Reporting Program (MMRP) outlined in the City of Riverside's Housing Element Environmental Impact Report (EIR; 2021), adopted in September 2021. These measures are considered as part of the impacts analysis below.

6.1 Built Environment Resources

MM-CUL-1 of the City's MMRP requires a historical resource assessment to evaluate the potential eligibility of any historical structure not previously surveyed within the project site that would be affected by subsequent development (City of Riverside 2021). The CHRIS records search, aerial and topographic map review, and pedestrian survey, did not identify any historic built environment resources within the project site. Therefore, the proposed project would not result in a significant impact to historical resources and Rincon recommends a finding of ***no impact to historical resources*** pursuant to CEQA.

6.2 Historical and Unique Archaeological Resources

MM-CUL-2 of the City's MMRP requires an archaeological study to identify any archaeological resources on the proposed development site prior to project-related ground disturbance (City of Riverside 2021). The SLF search, CHRIS records search, aerial and topographic map review, and pedestrian survey, did not identify any prehistoric or historic-period archaeological resources within the project site. Therefore, the proposed project would not result in a significant impact to historical or unique archaeological resources.

Geoarchaeological background research indicates the project site is underlain by early Pleistocene aged sediments which pre-date the era of human occupation. Therefore, this project site is considered as having a low geological sensitivity for prehistoric and/or historic-period archaeological resources. Sudden burial of artifacts is often identified when there are buried A horizons in a soil

series. However, no buried A horizons have been previously documented within any of the soil series identified within the project site. Additionally, the project site has been disturbed since the early-twentieth century by urban development and agriculture. As the project site has been continuously disturbed, and no archaeological resources have been identified within the project site, the geoarchaeological sensitivity is considered low.

Based on the results of the study, and consistent with the CEQA findings of the 2021 EIR, Rincon recommends a finding of ***less than significant impact to archaeological resources with mitigation incorporated*** under CEQA. In accordance with the MMRP established by the 2021 EIR, the proposed project must adhere to MM-CUL-6 and MM-CUL-9. In the event of an unanticipated archaeological discovery during project related development, the procedures set forth in MM-CUL-8 must be followed.Tthese measures are presented below. The project would also be required to adhere to existing regulations regarding the unanticipated discovery of human remains, as detailed below.

CUL-6: Retain an On-Call Archaeologist for Monitoring

For development projects that require CEQA analysis, an on-call archaeological monitor shall be retained when archaeological studies under MM-CUL-2 determine that a project has a less-than-significant potential for archaeological discoveries. An archaeological monitor shall also be retained for archaeological resources that have not been determined eligible for listing in the CRHR or NRHP that are unavoidable, upon agreement between Native American representatives and the City. Applicants shall provide verification that a qualified archaeologist has been retained for an on-call basis during grading and ground-disturbance activities.

CUL-9: Conduct Cultural Sensitivity Training

When MM-CUL-6 or MM-CUL-7 are implemented and prior to construction, the certified archaeologist and Native American monitors shall provide Cultural Sensitivity Training for all construction personnel at the pre-grading meeting with the applicant/permit holder's contractors. This shall include the procedures to be followed during ground disturbance in sensitive areas and protocols that apply in the event 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.

6.3 Human Remains

No human remains are known to be present within the project site. However, the discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be of Native American origin, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance. With adherence to existing regulations, Rincon recommends a finding of ***less-than-significant impact to human remains*** under CEQA.

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Appendix A

Site Photographs

Photograph 1 Overview of Project Site, View to the Northwest



Photograph 2 Overview of Project Site, View to the Southeast



Photograph 3 Overview of Project Site, View to the North



Appendix B

California Historical Resources Information System Records Search Results

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-03190	NADB-R - 1083752; Other - 89-90; Voided - MF-3408	1990	PEAK AND ASSOCIATES	PART III, ADDENDUM TO: CULTURAL RESOURCES ASSESSMENT OF AT&T'S PROPOSED SAN BERNARDINO TO SAN DIEGO FIBER OPTIC CABLE, SAN BERNARDINO, RIVERSIDE, AND SAN DIEGO COUNTIES, CALIFORNIA	PEAK AND ASSOCIATES	33-000805, 33-001017, 33-001057, 33-001183, 33-002013, 33-002696, 33-002701, 33-002711, 33-002725
RI-03382	NADB-R - 1084024; Voided - MF-3622	1991	PADON, BETH	HISTORIC PROPERTY CLEARANCE REPORT FOR THE PROPOSED ACQUISITION OF FOUR PARCELS IN NORTHEAST AND NORTHWEST QUADRANTS OF ROUTE 60/91/215 INTERCHANGE	LSA ASSOCIATES, INC.	33-004299
RI-03383	NADB-R - 1084072; Voided - MF-3622	1991	PADON, BETH	HISTORIC PROPERTY CLEARANCE REPORT FOR THE PROPOSED ACQUISITION OF TWO PARCELS IN SOUTHEAST AND SOUTHWEST QUADRANTS OF ROUTE 60/91/215 INTERCHANGE. SUPPLEMENT TO OCTOBER 11, 1991, HISTORIC PROPERTY CLEARANCE REPORT.	LSA ASSOCIATES, INC.	33-004495, 33-004496
RI-03491	NADB-R - 1084162; Voided - MF-3749	1991	HALLARAN, KEVIN	THE GAGE CANAL: A NARRATIVE HISTORY [EXCERPT FROM DRAFT HAER REPORT, PP 108-180)	HALLARAN AND CHRISTOPHER FORD	33-004768
RI-03605	NADB-R - 1084329; Voided - MF-3879	1993	WLODARSKI, ROBERT J.	DRAFT REPORT: AN ARCHAEOLOGICAL SURVEY REPORT DOCUMENTING THE EFFECTS OF THE RCIC I-215 IMPROVEMENT PROJECT IN MORENO VALLEY, RIVERSIDE COUNTY, TO ORANGE SHOW ROAD IN THE CITY OF SAN BERNARDINO, SAN BERNARDINO COUNTY, CALIFORNIA.	HISTORICAL, ENVIRONMENTAL, ARCHAEOLOGICAL RESEARCH TEAM, Calabasas, CA	33-003815, 33-004299, 33-004495, 33-004496, 33-004768, 33-004787, 33-004791
RI-03693	NADB-R - 1084465; Voided - MF-3996	1991	FOSTER, JOHN M., JAMES J. SCHMIDT, CARMEN A. WEBER, GWENDOLYN R. ROMANI, and ROBERTA S. GREENWOOD	CULTURAL RESOURCE INVESTIGATION: INLAND FEEDER PROJECT, METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	GREENWOOD & ASSOCIATES	33-000021, 33-000024, 33-000399, 33-000608, 33-001017, 33-001697, 33-002504, 33-002505, 33-002951, 33-003098
RI-04264	NADB-R - 1085502; Submitter - 457; Voided - MF-4745	1999	LOVE, BRUCE and BAI "TOM" TANG	HISTORIC BUILDING EVALUATION: 2643 TENTH STREET, CITY OF RIVERSIDE, RIVERSIDE COUNTY, CALIFORNIA.	CRM TECH	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-04404	NADB-R - 1085736; Voided - MF-4913	2000	JONES AND STOKES ASSOCIATES, INC.	FINAL CULTURAL RESOURCES INVENTORY REPORT FOR THE WILLIAMS COMMUNICATIONS, INC., FIBER OPTIC CABLE SYSTEM INSTALLATION PROJECT, RIVERSIDE TO SAN DIEGO, CALIFORNIA VOL I-IV.	JONES AND STOKES ASSOCIATES, INC.	33-000816, 33-000817, 33-000862, 33-001845, 33-002970, 33-003081, 33-003839, 33-004202, 33-004624, 33-004744, 33-004768, 33-007587, 33-007601, 33-008105, 33-008172, 33-009772, 33-009773, 33-009774, 33-009775, 33-009776
RI-04429	NADB-R - 1085776; Submitter - 844; Voided - MF-4938	2002	LOVE, BRUCE, BAI "TOM" TANG, MICHAEL HOGAN, and MARIAM DAHDUL	IDENTIFICATION AND EVALUATION OF HISTORIC PROPERTIES: PROPOSED WOMEN & CHILDREN'S SHELTER, 2530 THIRD STREET, CITY OF RIVERSIDE, RIVERSDIE COUNTY, CA	CRM TECH	
RI-04799	NADB-R - 1086161	2004	WLODARSKI, ROBERT J.	A PHASE I ARCHAEOLOGICAL STUDY FOR TELACU HOUSING-RIVERSIDE, INC., 1807 11TH STREET, CITY OF RIVERSIDE, COUNTY OF RIVERSIDE, CALIFORNIA	HISTORICAL, ENVIRONMENTAL, ARCHAEOLOGICAL, RESEARCH, TEAM	
RI-04813	NADB-R - 1086175; Other - 118, 119, 120, 121, 122, 123	1993	NATIONAL PARK SERVICE, HAER	CALIFORNIA CITRUS HERITAGE RECORDING PROJECT: PHOTOGRAPHS, WRITTEN HISTORICAL AND DESCRIPTIVE DATA, REDUCED COPIES OF MEASURED DRAWINGS FOR: ARLINGTON HEIGHT CITRUS LANDSCAPE, GAGE IRRIGATION CANAL, NATIONAL ORANGE COMPANY PACKING HOUSE, VICTORIA BRIDGE, AND UNION PACIFIC RAILROAD BRIDGE	NATIONAL PARK SERVICE, HISTORIC AMERICAN ENGINEERING RECORD	33-003361, 33-004768, 33-009772
RI-04997	NADB-R - 1086359; Submitter - 09-01-11-594	2001	MCKENNA ET AL.	A PHASE I CULTURAL RESOURCES INVESTIGATION OF THE PROPOSED CHILLER PLANT, TANK, AND PIPELINE SYSTEM ON THE UNIVERSITY OF CALIFORNIA, RIVERSIDE CAMPUS, RIVERSIDE, RIVERSIDE COUNTY, CALIFORNIA.	MCKENNA ET AL.	33-000495
RI-05056	NADB-R - 1086418; Submitter - 01-02-03-708	2003	MCKENNA ET AL.	A PHASE I CULTURAL RESOURCES INVESTIGATION FOR THE PROPOSED CORONA FEEDER MASTER PLAN PROJECT AREA, RIVERSIDE COUNTY, CALIFORNIA	MCKENNA ET AL	33-003832, 33-004768, 33-004791, 33-009774
RI-05622	NADB-R - 1086985	2000	DROVER, CHRISTOPHER E.	ENVIRONMENTAL IMPAT EVALUATION: AN ARCHAEOLOGICAL ASSESSMENT OF ALTERNATE PARKING A5C, UNIVERSITY OF CALIFORNIA, RIVERSIDE, RIVERSIDE CALIFORNIA	CHRISTOPHER DROVER	

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-05745	NADB-R - 1087108; Submitter - 978	2003	DOAN, U.K. and JOSH SMALLWOOD	HISTORICAL/ARCHAEOLOGICAL RESOURCES STUDY: JOHN W. NORTH PARK, CITY OF RIVERSIDE, RIVERSIDE COUNTY, CALIFORNIA	CRM TECH	33-009778
RI-05748	NADB-R - 1087111; Submitter - 994	2003	DOAN, UYEN K., MICHAEL HOGAN, and BAI TANG	ARCHAEOLOGICAL SENSITIVITY ASSESSMENT: HUNTER PARK REDEVELOPMENT PLAN AMENDMENT, CITY OF RIVERSIDE, RIVERSIDE COUNTY, CALIFORNIA	CRM TECH	33-001984, 33-004495, 33-004791, 33-008752, 33-009006, 33-010902
RI-05873	NADB-R - 1087236; Submitter - 627	2002	LOVE, BRUCE, BAI TANG, MICHAEL HOGAN, and MARIAM DAHDUL	CULTURAL RESOURCES TECHNICAL REPORT, UCR LONG RANGE DEVELOPMENT PLAN	CRM TECH	33-000495, 33-004768, 33-006015, 33-007877, 33-007878, 33-008090
RI-05996	NADB-R - 1087359; Submitter - 1128	2003	TANG, BAI, MICHAEL HOGAN, and JOSH SMALLWOOD	HISTORICAL/ARCHAEOLGICAL RESOURCES SURVEY REPORT, APNS 221-161-002, -003, -005, -024, -025, -026, 1744-1794 12TH STREET, CITY OF RIVERSIDE, RIVERSIDE COUNTY, CA	CRM TECH	
RI-05997	NADB-R - 1087360; Submitter - 1138	2003	TANG, BAI, MICHAEL HOGAN, MARIAM DAHDUL, CASEY TIBET, DANIEL BALLESTER, TERRY JACQUEMAIN, and SCOTT CRULL	HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT, ASSESSOR'S PARCEL NUMBERS 221-240-003, -004, AND -005, CITY OF RIVERSIDE COUNTY, CALIFORNIA	CRM TECH	33-013077
RI-05999	NADB-R - 1087362; Submitter - 1062	2003	TANG, BAI, MICHAEL HOGAN, CASEY TIBBET, and TERRI JACQUEMAIN	HISTORIC BUILDING EVALUATION, FORMER ROYAL CITRUS COMPANY PACKING PLANT, 3075 TENTH STREET, CITY OF RIVERSIDE, RIVERSIDE COUNTY, CA	CRM TECH	33-013079
RI-06088	Caltrans - 08230-466900; NADB-R - 1087451	1998	BRICKER, DAVID	FIRST SUPPLEMENTAL HISTORIC PROPERTY SURVEY REPORT FOR THE IMPROVEMENT OF INTERSTATE ROUTE 215/STATE ROUTE 91/ STATE ROUTE 60, RIVERSIDE COUNTY, CA	CALTRANS- DISTRICT 8	33-004495, 33-009681, 33-011517, 33-011521, 33-011523, 33-011537, 33-011539, 33-011561, 33-012149, 33-012150, 33-012151, 33-012152, 33-012153, 33-012154, 33-012155, 33-012156, 33-012157, 33-012158, 33-012159, 33-012160, 33-012162, 33-012163, 33-012164, 33-012165, 33-012166, 33-012167, 33-012168, 33-012169, 33-012170, 33-012171

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-06088		1998	David Bricker	First Supplemental Historic Architectural Survey Report for the Improvement of Interstate Route 215/State Route 91/State Route 60 Riverside, County, California	California Department of Transportation - District 8	
RI-06284	NADB-R - 1087647; Submitter - PROJECT NUMBER: LA-0779B	2006	Carla Allred	Letter Report: Proposed Cellular Tower Project(s) in Riverside County, California, Site Number(s) and Name(s): LA-0779B/Freeway Storage TCNS #17312	EarthTouch, Inc.	
RI-06332	NADB-R - 1087695; Submitter - CONTRACT #1370	2004	TANG, BAI, MICHAEL HOGAN, and CASEY TIBBET	HISTORICAL BUILDING EVALUATION, 3446 FRANKLIN AVENUE, IN THE CITY OF RIVERSIDE, RIVERSIDE COUNTY, CA	CRM TECH	
RI-06422	NADB-R - 1087785; Submitter - CONTRACT #1037	2005	HOGAN, MICHAEL, BAI TANG, MATTHEW WETHERBEE, and JOSH SMALLWOOD	ARCHAEOLOGICAL MONITORING REPORT, JOHN W. NORTH PARK IMPROVEMENT PROJECT, CITY OF RIVERSIDE, RIVERSIDE COUNTY, CA	CRM TECH	33-013941
RI-06838	Submitter - Job No. 02-06-03-1182	2006	McKenna, Jeanette A., Kristina Lindgren, and Darlene Harr	A Phase I Cultural Resources Investigation and Historic Building Survey for the Proposed New Eastside Elementary School Site in Riverside, Riverside County, California	McKenna et al.	33-015156, 33-015157, 33-015158, 33-015159, 33-015160, 33-015161, 33-015162, 33-015163, 33-015167, 33-015168, 33-015169, 33-015170, 33-015171, 33-015172, 33-015173, 33-015174, 33-015175, 33-015176, 33-015177, 33-015178, 33-015179, 33-015180, 33-015181, 33-015182
RI-07058		2002	Carolyn E. Kyle	Cultural Resource Assessment for Cingular Wireless Facility SB145-01 City of Riverside Riverside County, California	Kyle Consulting	
RI-07062		2002	Carolyn E. Kyle	Cultural Resource Assessment for Cingular Wireless Facility SB196-02 City of Riverside Riverside County, California.	Kyle	
RI-07169	Submitter - LSA Project No. PBM430T02	2004	Rod McLean	Cultural Resource Assessment: Cingular Wireless Facility No. SB-304-02, City of Riverside, Riverside County, California	LSA Associates, Inc., Irvine, CA	
RI-07296	Submitter - CRM TECH Contract #2095	2007	Tang, Bai "Tom", Michael Hogan, and Terri Jacquemain	Historic Building Evaluation: 2971 University Avenue, 3772 Bandini Avenue, and 5410 Magnolia Avenue, City of Riverside, Riverside County, California	CRM TECH	33-016211, 33-016212, 33-016213

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-07851		2007	Moses, H. Vincent and Whitmore, Catherine E.	HABS Level II (Equivalent) Historic Resources Documentation; History and Significance of the George H. Gobruegge House, 2791University Avenue Riverside, CA 92501 (APN # 211-131-023-8); Phase II: Kawa Market-Gobruegge House Project 2007	VinCate & Associates	33-016213
RI-07924	Other - RECON 4694A	2008	Zepeda-Herman, Carmen	Letter Report: Results of Cultural Resources Survey for the Expanded Gage Exchange Project (RECON No. 4694A)		33-009774
RI-07925	Submitter - SWCA Project No. 2007-586/ SWCA Cultural Resources Report Database No. 2007-586	2007	Knell, Edward J. and Kevin Hunt	Cultural Resources Survey for the Tequesquite Arroyo Trunk Sewer Project, City of Riverside, Riverside County, California	SWCA Environmental Consultants	33-004791, 33-009772
RI-08412		2009	Jeanette McKenna	Letter Report: A Summary Report on the Proposed Improvements at the Emerson Elementary Scool Campus in the City of Riverside, Riverside County, California.	McKenna et al.	
RI-08547	Submitter - CRM TECH Contract #2501; Submitter - CRM TECH Contract #2501	2011	Bai "Tom" Tang	Letter Report: Proposed Children's Playground Project	CRM TECH	
RI-08598	Submitter - McKenna et. Al Job #1497	2010	Jeanette A. McKenna	A Summary Report on the Proposed Improvements at the John W. North High School Campus in the City of Riverside County, California	McKenna et al.	
RI-08840		2012	Wayne H. Bonner and Sarah A. Williams	Cultural Resources Records Search and Site Visit Results for T-Mobile West, LCC Candidate IE25999A (UCR Parking Lot 1), 900 University Avenue, Riverside, Riverside County, California	Michael Brandman Associates	33-004768, 33-007375, 33-007877, 33-011475
RI-09118		2012	Phil Fulton and Casey Tibbet	Cultural Resource Assessment Verizon Wireless Services Ottawa Facility City of Riverside, Riverside County, California	LSA	33-023958
RI-09126		2013	Susan Underbrink	Cultural Survey Report for the University Wash Channel Stage 3 Project	TRC	

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-09143		2013	Gini Austerman	Cultural Resources Assessment West Campus Solar Farm UCR #950338 University of California, Riverside, Riverside County, California	LSA	
RI-09318		2014	Sarah A. Williams, Carrie D. Wills, and Kathleen A. Crawford	Cultural Resources Record Search and Site Visit Results for T-Mobile West, LLC Candidate IE04412A (SB196 Riverside Faith Temple), 2379 Pennsylvania Avenue, Riverside, Riverside County, California	Environmental Assessment Specialists, Inc.	
RI-09654	Other - IE04412A Historical Evaluation	2015	Kathleen A.Crawford	Direct APE Historic Architectural Assessment for T-Mobile West, LLC Candidate IE04412A (SB196 Riverside Faith Temple), 2379 Pennsylvania Avenue, Riverside, Riverside County, California	Environmental Assessment Specialists, Inc.	
RI-09676	Other - Holyoke Cultural Report	2016	Carrie D. Wills, Sarah A. Williams, and Kathleen A. Crawford	Cultural Resource Records Search and Site Visit Results for Cellco Partnership and their Controlled Affiliates doing business as Verizon Wireless Candidate 'Holyoke', 1910 Martin Luther King Boulevard, Riverside, Riverside County, CA 92507	Helix Environmental Planning, Inc.	
RI-09709	Other - Mission Lofts	2015	Jennifer Mermilliod	Cultural Resources Survey Mission Lofts Riverside, Riverside County, California	JM Reserch and Consulting	
RI-09990		1998	Roger D. Mason and Wayne H. Bonner	Cultural Resources Record Search And Literature Review For A Pacific Bell Mobile Services Telecommunications Facility: CM 043-18 City Of Riverside, California	Chambers Group Inc	
RI-10285		2017	CARRIE D. WILLS and SARAH A. WILLIAMS	CULTURAL RESOURCE RECORDS SEARCH AND SITE VISIT RESULTS FOR CELLCO PARTNERSHIP AND THEIR CONTROLLED AFFILIATES DOING BUSINESS AS VERIZON WIRELESS CANDIDATE 'HIGHLANDERS', 1080 PENNYSYLVANIA AVENUE, RIVERSIDE, RIVERSIDE COUNTY, CALIFORNIA.	HELIX ENVIRONMENTAL PLANNING, INC.	33-004768, 33-007877, 33-007878
RI-10354		2001	FRED E. BUDINGER, JR.	WITH ANTENNA LICENSING FROM THE FEDERAL COMMUNICATIONS COMMISSION (FCC), VERIZON WIRELESS, INC. IS PROPOSING THE INSTALLATION OF AN UNMANNED CELLULAR TELECOMMUNICATIONS FACILITY AT THE LOCATION SPECIFIED BELOW:	TETRA TECH, INC.	

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-10652		2003	NA	San Jacinto Branch Line Riverside County, California Determination of Eligibility and Effects Report	Myra L. Frank & Associates, Inc	33-004495, 33-006963, 33-007645, 33-007666, 33-009498, 33-009678, 33-009687, 33-009689, 33-009776, 33-011517
RI-10819		2006	Wayne H. Bonner, Marnie Aislin-Kay, and Sarah A. Williams	Cultura; Resource Records Search Results and Site Visir for Cingular Telecommunications Facility Candidate RS-0167-01 (Bordwell Park), 4850 Ottawa Street. Riverside County, California	Michael Brandman Associates	
RI-10891		2021	David Brunzell and Dylan Williams	Cultural Resources Assessment 2995-3001 Iowa Avenue City of Riverside, Riverside County, California	BCR Consulting LLC	33-029411
RI-11123		2019	Riordan Goodwin and Casey Tibbet	Cultural Resources Assessment Hacienda Village, City of Riverside, Riverside County, California	LSA	33-029846
RI-11140	Other - Project No. 18-06031.	2018	Porras, L. and C. Duran	Phase 1 Cultural Study for the 2719 and 3743 Eleventh Street Project. Rincon Consultants Project No. 18-06031. Report on filed at the Eastern Information Center, University of California, Riverside	Rincon Consultants Inc	
RI-11155		2016	Megan Wilson, Molly Valasik, and Sherri Gust	Cultural Resources Technical Report for the 2340 14th Street Project in the City of Riverside, Riverside County, California	Cogstone	
RI-11203	Caltrans - 08230-466900	2000	David Bricker and Stephen R. Hammond	Second Supplemental Historic Property Survey Report for the Improvement of Interstate Route 215/State Route 91/State Route 60, Riverside County, California	California Department of Transportation, District 08	33-029858, 33-029859, 33-029860, 33-029861, 33-029862, 33-029863, 33-029864, 33-029865, 33-029866, 33-029867, 33-029868, 33-029869, 33-029870, 33-029871, 33-029872
RI-11203		2000	David Bricker, Christie Hammond, and Stephen R. Hammond	Second Supplemental Historic Architecutal Survey Report for the Improvement of Interstate Route 215/State Route 91/State Route 60, Riverside County, California	California Department of Transportation, District 08	
RI-11203		2000	Richard V. Olson and Michael F. Rodarte	First Addendum Archaeological Survey Report for the Improvement of Interstate Route 215/State Route 91/State Route 60, Riverside County, California	California Department of Transportation, District 08	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-004495	CA-RIV-004495	Other - RCTC Parcel 5; Other - Riverside Upper Canal; Other - CRM TECH 2331; Other - Riverside Lower Canal; National Register - 2S2 from ADOE and 6Y from BERD	Structure	Historic	AH06; HP20	0801 (Angie Gustafson, Mike McGrath, EDAW Inc., San Diego, CA.); 1991 (Patricia Jertberg, LSA Associates); 1992 (Robert Wlodarski & Dan Larson, Historical, Environmental, Archaeological, Reaserch, Team (HEART), Calabasas, CA.); 1996 (Rick Starzak, Molly Fitzgerald, Myra L. Frank & Associates, Inc. Los Angeles, CA.); 2003 (Carrie Chasteen, Myra L. Frank & Associates); 2009 (Daniel Ballester, CRM TECH); 2016 (Gini Austerman, LSA)	RI-03383, RI-03605, RI-04393, RI-04628, RI-05748, RI-05754, RI-06088, RI-08247, RI-08548, RI-10159, RI-10652, RI-10675
P-33-004768	CA-RIV-004768	Other - C-Riverside East-A-2; Other - P1074-81H/MFA-1H	Site	Historic	AH06	1992 (Robert J. Wlodarski, Historical, Environmental, Archaeological, Research, Team); 1999 (S. Ashkar, Jones & Stokes)	RI-03491, RI-03508, RI-03509, RI-03605, RI-03617, RI-04391, RI-04393, RI-04404, RI-04480, RI-04813, RI-05056, RI-05873, RI-08409, RI-08840, RI-10285
P-33-009546			Building	Historic			
P-33-009678		Other - John W. North Park	Site	Historic	AH03; AH16; HP31; HP39	2003 (Carrie Chasteen, Myra L. Frank & Associates)	RI-10652
P-33-009689		Other - Citrus Tree Pergolae--Seventh Street Furniture; Other - Contributing resource of the Seventh Street Historic District; Other - Sutherland Fruit Company; Other - American Fruit Growers Inc.	Object, Element of district	Historic	HP06; HP08; HP28; HP28; HP29	1979 (Alan Curl, n/a); 1984 (Margaret Latimer-Starratt, San Antonio Orchard Company); 1985 (Stephen A. Becker, Riverside County Parks Department and Historical Comission); 1985 (OHP Staff, OHP); 1996 (Richard Starzak, Lora Zier, and Myra L., Frank & Assoc., Inc.); 2003 (Carrie Chasteen, Myra L. Frank & Associates)	RI-10652
P-33-009690		Other - University Heights Junior High School; Other - Landmark #49; Other - Eastside Social Services Center; Riverside Historic	Building	Historic	HP15	1993 (S. R. C., Office of historic Preservation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-009691		Other - Weber, Peter J., House	Building	Historic	HP02	1983 (Dr. Robert Kneisel, Lisa Conyers, Dr. Judith S. Schaeffer, Ellen McPeters, Old Riverside Foundation)	
P-33-009769		Other - Citrus Machinery Pioneering; PHI - Riv-030	Site	Historic	HP08	(n/a, n/a)	
P-33-009774		Other - C-Riverside East-C-1; Other - Southern Pacific Railroad	Other	Historic	HP11	1999 (S. Ashkar, Jones & Stokes)	RI-04404, RI-05056, RI-07924
P-33-010973		Other - Santa Fe Depot	Building	Historic		1979 (Alan Curl, Riverside Municipal Museum)	
P-33-011517		Other - Seventh Street Historic District; Other - 7th Street Historic District-Riverside	District	Historic	HP05; HP06; HP10; HP14	1996 (Richard Starzak, Lora Zier, and Myra L., Frank & Assoc., Inc.); 2003 (NA, Myra L. Frank & Associates)	RI-06088, RI-10652
P-33-011627			Building	Historic			
P-33-011628			Building	Historic			
P-33-011629		Other - 3333 Park Ave; Other - CRM TECH 844-3H; Voided - P-33-027281	Building	Historic	HP06	2001 (Jan Ostashay, PCR Services Corporation); 2002 (Bai "Tom" Tang, CRM TECH)	
P-33-011784		Other - St. John's Baptist Church; Other - Allen Chapel A.M.E. Church; National Register - 7	Building	Historic	HP16	1980 (Eleanor Ramsey, SHPO)	
P-33-011902		Other - Eastside	Site	Historic	HP03	1980 (Alan Curl and John Flippen, Riverside Municipal Museum)	
P-33-011903		Other - 2110 9th St	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011904		Other - 2111 9th St	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011906		Other - 2128 9th St	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-011907		Other - 2142 9th St	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011908		Other - 2143 9th St	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011909		Other - 2158 9th St	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011910		Other - 2159 9th St	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum)	
P-33-011911		Other - 2174 9th St	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011912		Other - 2175 9th St	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011916		Other - 2210 9th St; Voided - P-33-027615	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011917		Other - 2211 9th St; Voided - P-33-027616	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011918		Other - 2226 9th St	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011919		Other - 2227 9th St; Voided - P-33-027618	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-011920		Other - 2242 9th St; Voided - P-33-027619	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011923		Other - 2259 9th St; Voided - P-33-027620	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011924		Other - 2274 9th St	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011926		Other - 2291 9th St	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011927		Other - 2324 9th St; Voided - P-33-027623	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011928		Other - 2334 9th St; Voided - P-33-027624	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011929		Other - 2335 9th St; Voided - P-33-027625	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2020 (Jan Ostashay, PCR Services Corporation)	
P-33-011931		Other - 2354 9th S; Voided - P-33-027626	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municiple Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011932		Other - 2355 9th St; Voided - P-33-027627	Building	Historic	HP12	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011933		Other - 2365 9th ST; Voided - P-33-027628	Building	Historic	HP12	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-011934		Other - 2383 9th St; Voided - P-33-027629	Building	Historic	HP12	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011935		Other - 2384 9th St; Voided - P-33-027630	Building	Historic	HP12	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011937		Other - 2416 9th St; Voided - P-33-027631	Building	Historic	HP12	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011942		Other - 2492 9th St; Voided - P-33-027632	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverisde Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011950		Other - 2656 9th St	Building	Historic	HP12	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011954		Other - 2692 9th St; Voided - P-33-027634	Building	Historic	HP12	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011955		Other - 2711 9th St; Voided - P-33-027635	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011959		Other - 2764 9th St; Voided - P-33-027637	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011961		Other - 2788 9th St; Voided - P-33-027638	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011962		Other - 2791 9th St; Voided - P-33-027639	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-011964		Other - 2826 9th St; Voided - P-33-027640	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	RI-09736
P-33-011966		Other - 2843 9th St	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011968		Other - 2859 9th St; Voided - P-33-027642	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011969		Other - 2875 9th St; Voided - P-33-011969	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Riverside); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011971		Other - 2906 9th St; Voided - P-33-027644	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011972		Other - 2916 9th St; Voided - P-33-027645	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2020 (Jan Ostashay, PCR Services Corporation)	
P-33-011973		Other - 2916 9th St; Voided - P-33-027646	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011975		Other - 2938 9th St; Voided - P-33-027647	Building	Historic	HP03	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011977		Other - 2950 9th St; Voided - P-33-027648	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011980		Other - 2961-63 9th St; Voided - P-33-027649	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-011981		Other - 2973 9th St; Voided - P-33-027650	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011982		Other - 2982 9th St; Voided - P-33-027651	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011983		Other - 2983 9th St; Voided - P-33-027652	Building	Historic	HP03	1980 (Alan Curl and John Flipp, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011984		Other - 2994 9th St; Voided - P-33-027653	Building	Historic	HP03	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011985		Other - 2995 9th St; Voided - P-33-027654	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011987		Other - 3006 9th St; Voided - P-33-027655	Building	Historic	HP03	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-011988		Other - 3015 9th St; Voided - P-33-027656	Building	Historic	HP02	1980 (Alan Curl and John Flippen, Riverside Municipal Museum); 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-012186		Other - 2932 Sixth Street	Building	Historic	HP02	2000 (Casey Tibbet, n/a)	
P-33-012187			Building	Historic			
P-33-013076			Building	Historic			
P-33-013077	CA-RIV-007330		Site, Other	Historic			RI-05997
P-33-013079		Other - CRM TECH 1062-1H; Other - Rormer Royal Citrus Company packing plant	Structure	Historic	HP08	2003 (Casey Tibbet, CRM TECH)	RI-05999
P-33-013941	CA-RIV-007631	Other - John W. North Park; Other - CRM TECH 1037-1	Site	Historic	AH04	2004 (Shaker, Laura, CRM Tech)	RI-06422
P-33-014378				Historic		2004 (Tibbet, Casey, CRM Tech)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-014392		Other - National Orange Company; Other - National Orange Packing Company	Building	Historic		1991 (Huang, Hongwei and Marion Mitchell-Wilson, Riverside Development Department)	
P-33-014733				Historic		2003 (Tibbet, Casey, CRM Tech)	
P-33-016213		Other - 2791 University Avenue; Other - Marhta A. Schmitt House; Other - Historic George H. Gobruegge House; Voided - 33-017252	Building	Historic	HP02	2007 (Jacquemain, Terri, CRM Tech); 2007 (Catherine E. Whitmore and Moses, H. Vincent, VinCate & Associates)	RI-07296, RI-07851
P-33-016819		Other - Dole/E.T. Wall Company; Other - E.T. Wall Citrus Packing and Sorting Plant	Building	Historic	HP08	1992 (Snyder, John, Caltrans)	
P-33-016820		Other - E.T. Wall Growers & Shippers Citrus Loading	Building	Historic	HP08	1996 (Starzak, Richard, Lora Zier, Myra L. Frank and Associates, Inc., Myra L. Frank and Associates, Inc.)	
P-33-017554	CA-RIV-007508	Other - AE-PVL-1H; Other - Atlantic & Pacific Railroad; Other - Atchison, Topeka & Santa Fe Railway; Other - BNSF	Structure	Historic	HP39	2009 (Hamilton, M.C. and J. George, Applied EarthWorks, Inc. Hemet)	
P-33-023958		Other - 3841 Park Avenue; Other - Second Baptist Church; 2911 Ninth Street	Building	Historic	HP16	2012 (Casey Tibbet, LSA Associates)	RI-09118
P-33-025250		Other - 4270 Bermuda Ave	Building	Historic	HP02	2000 (Jan Ostashay, PCR Services Corporation)	
P-33-025251		Other - 4312 Bermuda Ave.	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025252		Other - 4335 Bermud Ave	Building	Historic	HP16	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025260		Other - 2635 Bowie Ct	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025261		Other - 2645 Bowie Ct	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025262		Other - 2654 Bowie Ct	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025316		Other - 3850 Douglass Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-025317		Other - 3870 Douglass Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025318		Other - 3890 Douglass Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025319		Other - 3904 Douglass Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025320		Other - 3922 Douglass Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025321		Other - 3940 Douglass Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025322		Other - 3958 Douglass Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025323		Other - 3976 Douglass Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025324		Other - 3994 Douglass Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025325		Other - 4018 Douglass Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025326		Other - 4060 Douglass Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025327		Other - 4078 Douglass Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025328		Other - 4118 Douglass Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025329		Other - 4138 Douglass Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025330		Other - 4174 Douglass Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025331		Other - 4190 Douglass Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025332		Other - 3849 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025333		Other - 3865 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025334		Other - 3866-68 Dwight Ave	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-025335		Other - 3881 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025336		Other - 3896 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025514		Other - 3897 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025515		Other - 3911 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025516		Other - 3925-27 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025545		Other - 3926 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025546		Other - 3939 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025547		Other - 3940 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025548		Other - 3954 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025549		Other - 3955 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025550		Other - 3967 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025551		Other - 3968 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025552		Other - 3982 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025553		Other - 3983-81 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025554		Other - 3996 Dwight Ave.	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025555		Other - 4011-13 Dwight Ave.	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025556		Other - 4012 Dwight Ave.	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025557		Other - 4027-29 Dwight Ave.	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-025558		Other - 4028 Dwight Ave.	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025559		Other - 4043 Dwight Ave.	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025560		Other - 4044 Dwight Ave.	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025627		Other - 4059 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025628		Other - 4060-62 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR services)	
P-33-025629		Other - 4075 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services)	
P-33-025630		Other - 4076-78 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services)	
P-33-025631		Other - 4091 Dwight Av	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services)	
P-33-025632		Other - 4092 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services)	
P-33-025633		Other - 4109-11 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services)	
P-33-025634		Other - 4110 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services)	
P-33-025635		Other - 4124-26 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services)	
P-33-025636		Other - 4139-41 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services)	
P-33-025637		Other - 4140 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-025638		Other - 4155 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services)	
P-33-025639		Other - 4156 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services)	
P-33-025640		Other - 4172 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services)	
P-33-025641		Other - 4187 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services)	
P-33-025642		Other - 4188-90 Dwight Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services)	
P-33-025643		Other - 2307 Georgia St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services)	
P-33-025755		Other - T-Mobile West LCC le04412A/SBSB 196 Riverside Faith Temple	Building	Historic	HP16	2014 (K.A Crawford, Crawford Historic Services)	
P-33-026899		Other - 4757 Kansas Ave	Building	Historic	HP02	2011 (Jan Ostashay, PCR Services Corporation)	
P-33-026900		Other - 3985 Kansas Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-026901		Other - 3985 Kansas Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026902		Other - 4035 Kansas Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026903		Other - 4216 Kansas Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026904		Other - 4494 Kansas Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026905		Other - 3851 Ottawa Ave	Other	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026906		Other - 3867 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026907		Other - 3883 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026908		Other - 3899 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Coorporation)	
P-33-026909		Other - 3913 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026910		Other - 3927 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026911		Other - 3941 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026912		Other - 3955 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026913		Other - 3969 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026914		Other - 3983 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026915		Other - 3997 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026916		Other - 4013 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026917		Other - 4029 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026918		OHP PRN - 4045 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-026919		Other - 4061 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026920		Other - 4093 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026921		Other - 4109 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026922		Other - 4125 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026923			Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026924		Other - 4157 Ottawa Ave	Building	Historic	AH02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026925		Other - 4173 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026926		Other - 4189 Ottawa Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026927		Other - 2405 Vasquez Pl	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026928		Other - 2439 Vasquez Pl	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026929		Other - 2449 Vasquez Pl	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026930		Other - 2471 Vasquez Pl	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026931		Other - 2494 Vasquez Pl	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026932		Other - 2308 Vermont Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026933		Other - 2315 Vermont Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026934		Other - 2324 Vermont Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026935		Other - 2325 Vermont Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026936		Other - 2334 Vermont Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-026937		Other - 2349 Vermont Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026938		Other - 2350 Vermont Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026939		Other - 2351 Vermont Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026940		Other - 2366 Vermont Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Service Corporation)	
P-33-026941		OHP PRN - 2374 Vermont Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026942		Other - 2389 Vermont Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026943		Other - 2393 Vermont Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026944		Other - 4271 Langston Pl	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026945		Other - 4311 Langston Pl	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026946		Other - 4326 Langston Pl	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026947		Other - 4125 Sedgewick Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026948		Other - 4149 Sedgewick Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026949		Other - 4160 Sedgewick Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026950		Other - 4240 Sedgewick Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026951		Other - 4521 Sedgewick Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026952		Other - 4531 Sedgewick Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026953		Other - 4539 Sedgewick Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026954		Other - 4549 Sedgewick Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-026955		Other - 4557 Sedgewick Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026956		Other - 4567 Sedgewick Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026957		Other - 2405 Rancho Drive	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026958		Other - 2417 Rancho Drive	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026959		Other - 2426 Rancho Drive	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026960		Other - 2438 Rancho Drive	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026961		Other - 2439 Rancho Drive	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026962		Other - 2449 Rancho Drive	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026963		Other - 2460 Rancho Drive	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026966		Other - 2483 Rancho Drive	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026990		Other - 2410 Pennslyvania Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026991		Other - 2420 Pennslyvania Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026992		Other - 2430 Pennslyvania Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026993		Other - 2440 Pennslyvania Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026994		Other - 2450 Pennslyvania Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026995		Other - 2460 Pennslyvania Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026996		Other - 2470 Pennslyvania Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026997		Other - 2480 Pennslyvania Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-026998		Other - 2490 Pennsylvania Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-026999		Other - 2500 Pennslyvania Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027000		Other - 2510 Pennslyvania Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027001		Other - 2520 Pennslyvania Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027002		Other - 2530 Pennslyvania Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027003		Other - 2540 Pennsylvania Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027004		Other - 2541 Pennsylvania Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027005		Other - 2550 Pennsylvania Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027006		Other - 2560 Pennsylvania Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027007		Other - 2570 Pennsylvania Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027008		Other - 2580 Pennsylvania Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027009		Other - 2590 Pennsylvania Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027010		Other - 2595 Pennsylvania Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027011		Other - 2127 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027012		Other - 2143 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027013		Other - 2158 10th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027014		Other - 2159 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027015		Other - 2174 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027016		Other - 2175 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027017		Other - 2190 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027018		Other - 2191 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027019		Other - 2200 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027020		Other - 2201 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027021		Other - 2210 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027022		Voided - 2211-13 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027023		Other - 2226 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027024		Other - 2227 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027025		Other - 2242 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027026		Other - 2243-45 10th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027027		Other - 2258 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027028		Other - 2275 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027029		Other - 2304 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027030		Other - 2325 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027031		Other - 2334 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027032		Other - 2345 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027033		Other - 2354 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027034		Other - 2374 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027035		Other - 2384 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027036		Other - 2430-32 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027037		Other - 2450 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027038		Other - 2470 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027039		Other - 2471 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027040		Other - 2490 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027041		Other - 2511-15 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027042		Other - 2526 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027043		Other - 2559 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027044		Other - 2611-13 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027045		Other - 2658 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027046		Other - 2659 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027047		Other - 2710 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027048		Other - 2742 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027049		Other - 2743 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027050		Other - 2758 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027051		Other - 2789 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027052		Other - 2806-16 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027053		Other - 2827 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027054		Other - 2877 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027055		Other - 2891 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027056		Other - 2929 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027057		Other - 2950 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027058		Other - 2951 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027059		Other - 2972 10th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027060		Other - 3960 Victoria Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027061		Other - 3976 Victoria Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027062		Other - 3992 Victoria Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027063		Other - 4110 Victoria Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027064		Other - 4264 Victoria Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027065		Other - 4271 Victoria Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027066		Other - 4378 Victoria Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027067		Other - 4410 Victoria Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027068		Other - 4422 Victoria Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027069		Other - 4451 Victoria Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027070		Other - 4465 Victoria Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027071		Other - 4475 Victoria Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027072		Other - 4495 Victoria Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027114		Other - 4452 Forest St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027115		Other - 4472 Forest St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027116		Other - 4473 Forest St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027183		Other - 3328 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027184		Other - 3336 Comer Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027185		Other - 3354 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027186		Other - 3360 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027187		Other - 3361 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027188		Other - 3365 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027189		Other - 3366 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027190		Other - 3379 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027191		Other - 3380 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027192		Other - 3386 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027193		Other - 3387 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027194		Other - 3397 Comer Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027195			Building	Historic	HP02	; 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027196		Other - 3410 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027197		Other - 3420 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027198		Other - 3442 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027199		Other - 3454 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027200		Other - 3493 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027201		Other - 3528 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027202		Other - 3529 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027203		Other - 3555 Comer Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027204		Other - 3568 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay)	
P-33-027205		Other - 3579 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027206		Other - 3580-3582 Comer Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027207		Other - 3591 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027208		Other - 3619 Comer Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027209		Other - 3620 Comer Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027210		Other - 3631 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027211		Other - 3632 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027212		Other - 3643 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027213		Other - 3655 Comer Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027214		Other - 3656 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027215		Other - 3667 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027216		Other - 3668 Comer Avenue	Building	Historic	HP03	; 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027217		Other - 3744 Comer Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027218		Other - 3304 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027219		Other - 3305 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027220		Other - 3312 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027221		Other - 3322 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027222		Other - 3328-30-32 Eucalyptus Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027223		Other - 3331 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027224		Other - 3339 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027225		Other - 3342 Eucalyptus Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027226		Other - 3347 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027227		Other - 3352 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027228		Other -	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027229		Other - 3360 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027230		Other - 3361 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027231		Other - 3368 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027232		Other - 3369 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027233		Other - 3377 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027234		Other - 3382 Eucalyptus Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027235		Other - 3393 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027236		Other - 3394 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027237		Other - 3409 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027238		Other - 3419 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027239		Other - 3430 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027240		Other - 3431 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027241			Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027242		Other - 3456 Eucalyptus Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027243		Other - 3469 Eucalyptus Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027244		Other - 3528 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027245		Other - 3544 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027246		Other - 3545 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027247		Other - 3553 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027248		Other - 3568 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027249		Other - 3569 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027250		Other - 3581 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027251		Other - 3595 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027252		Other - 3601Eucalyptus Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027253		Other - 3643 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027254		Other - 3653 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027255		Other - 3659 Eucalyptus Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027256		Other - 3753 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027257		Other - 2616 Mission Inn Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027263		Other - 2245 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027264		Other - 2340 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027265		Other - 2341 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027266		Other - 2354 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027267		Other - 2368 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027268		Other - 2751 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027269		Other - 2771 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027270		Other - 2800 4th Sreet	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027271		Other - 2909 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027272		Other - 2920 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027273		Other - 2921 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027274		Other - 2932 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027275		Other - 2933 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027276		Other - 2944 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027277		Other - 2957 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027278		Other - 2968 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027279		Other - 2980 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027280		Other - 3008 4th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027281							
P-33-027282		Other - 3359 Park Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027283		Other - 3407 Park Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027284		Other - 3432 Park Ave	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027285		Other - 3443 Park Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027286		Other - 3444 Park Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027287		Other - 3459 Park Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027288		Other - 3475 Park Ave	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027289		Other - 3491 Park Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027290		Other - 3511 Park Ave	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027291		Other - 3544 Park Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027292		Other - 3545 Park Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027293		Other - 3553-55-57-59 Park Ave	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027294		Other - 3558 Park Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027295		Other - 3570 Park Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027296		Other - 3645 Park Ave	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027297		Other - 2937 Park Ave	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027298		Other - 3960 Park Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027299		Other - 3973 Park Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027300		Other - 3985 Park Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027301		Other - 4037 Park Ave	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027302		Other - 4045 Park Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027303		Other - 4071 Park Ave	Building	Historic	HP06	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027304		Other - 4096 Park Avenue	Building	Historic	HP06	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027305		Other - 4104 Park Avenue	Building	Historic	HP06	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027306		Other - 4155 Park Avenue	Building	Historic	HP06	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027307		Other - 4173-77 Park Avenue	Building	Historic	HP06	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027308		Other - 4192 Park Avenue	Building	Historic	HP16	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027309		Other - 4195-97 Park Avenue	Building	Historic	HP06	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027310		Other - 4250 Park Avenue	Building	Historic	HP06	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027311		Other - 4260 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027312		Other - 4307 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027313		Other - 4322 Park Avenue	Building	Historic	HP39	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027314		Other - 4342 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027315		Other - 4343 Park Avenue	Building	Historic	HP02; HP39	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027316		Other - 4376 Park Avenue	Building	Historic	HP02; HP39	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027317		Other - 4416 Park Avenue	Building	Historic	HP02; HP06	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027318		Other - 4427	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027319		Other - 4450 Park Avenue	Building	Historic	HP02	2001 (4450 Park Avenue, PCR Services Corporation)	
P-33-027320		Other - 4460-62 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027321		Other - 4428Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027322		Other - 4472 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027323		Other - 4520 Park Avenue	Building	Historic	HP02	; 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027324		Other - 4530 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027325		Other - 4531 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027326		Other - 4539 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027327		Other - 4540 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027328		Other - 4565 Park Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027329		Other -	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027330		Other - 4625 Park Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027331		Other - 4654 Park Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027332		Other - 4657 Park Avenue	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027333		Other - 4675 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027334		Other - 4680 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027335		Other - 4681 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027336		Other - 4742 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027337		Other - 4751 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027338		Other - 4770 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027339		Other - 4778 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027340		Other - 4817 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027341		Other - 4819 Park Avenue	Building	Historic	HP02	2001 (4819 Park Avenue, PCR Services Corporation)	
P-33-027342		Other - 4831 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027343		Other - 4835 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027344		Other - 4836 Park Avenue	Building	Historic	HP02	; 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027345		Other - 4849 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027346		Other - 4856 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027347		Other - 4864 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027348		Other - 4865 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027349		Other - 4874 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027350		Other - 4878 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027351		Other - 4881 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027352		Other - 4895 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027353		Other - 4909 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027354		Other - 4914 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027355		Other - 4929 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027356		Other - 4947 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027357		Other - 4959 Park Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027361		Other - 3881 Eucalptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027362		Other - 3961 Eucalptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027363		Other - 4144 Eucalyptus Avenue	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027364		Other - 2210 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027365		Other - 2211 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027366		Other - 2226 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027367		Other - 22275th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027368		Other - 2243 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027369		Other - 2259 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027370		Other - 2274 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027371		Other - 2275 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027372			Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027373		Other - 2310 5th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027374		Other - 2311 5th Street	Building	Historic	HP02	; 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027375		Other - 2327 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027376		Other - 2359 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027377		Other - 2374 5th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027378		Other - 2375 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027379		Other - 2391 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027380		Other - 2426 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027381		Other - 2549-51-53-55 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027382		Other - 2626 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027383		Other - 2725 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027384		Other - 2726 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027385		Other - 2775 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027386		Other - 2776 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027387		Other - 2825 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027388		Other - 2826 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027389		Other - 2875 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027390		Other - 2876 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027391		Other - 2920 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027392		Other - 2932 5th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027393		Other - 2933 5th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027394		Other - 2944 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027395		Other - 2945 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027396		Other - 2956 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027397		Other - 2957 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027398		Other - 2980 5th Street	Building	Historic	HP02	; 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027399		Other - 2981 5th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027400		Other - 2210 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027401		Other - 2226 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027402		Other - 2310 7th Street	Building	Historic	HP02	; 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027403		Other - 22315 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027404		Other - 2334 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporatio)	
P-33-027405		Other - 2335 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027406		Other - 2351 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027407		Other - 2352 7th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027408		Other - 2367 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027409		Other - 2374 7th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027410		Other - 2409 7th Street	Building	Historic	HP03	2001 (Jan Ostashay, Jan Ostashay)	
P-33-027411		Other - 2418 7th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027412		Other - 2459 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027413		Other - 2490 7th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027414		Other - 2516 7th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027415		Other - 2517 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027416		Other - 2551 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027417		Other - 2583 7th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027418		Other - 2617 7th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027419		Other - 2650 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027420		Other - 2682 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027421		Other - 2683 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027422		Other - 2717 7th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027423		Other - 2750 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027424		Other - 2751 7th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027425		Other -	Building	Historic	HP20	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027426		Other - 2783 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027427		Other - 2817 7th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027428		Other - 2818 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027429		Other - 2851 7th Street	Building	Historic	HP03	; 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027430		Other - 2882 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027431		Other - 2883 7th Street	Building	Historic	HP16	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027432		Other - 2909 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027433		Other - 2921 7th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027434		Other - 2933 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027435		Other - 2934 7th Street	Building	Historic	HP03	; 2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027436		Other - 2944 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027437		Other - 2956 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027438		Other - 2957 7th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027439		Other - 2981 7th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027440		Other - 2211 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027441		Other - 2227 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027442		Other - 2243 6th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027443		Other - 2322 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027444		Other - 2340-36-38 6th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027445		Other - 2360 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027446		Other - 2361 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027447		Other - 2452 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027448		Other - 2482 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027449		Other - 2514 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027450		Other - 2517 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027451		Other - 2563 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027452		Other - 2566 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027453		Other - 2586 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027454		Other - 2625 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027455		Other - 2628 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027456		Other - 2675 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027457		Other - 2676 6th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027458		Other - 2725 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027459		Other - 2726 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027460		Other - 2776 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027461		Other - 2821 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027462		Other - 2851 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027463		Other - 2881 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027464		Other - 2908-06-10 6th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027465		Other - 2909-11 6th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027466		Other - 2920 6th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027467		Other - 2921 6th Street	Building	Historic	HP16	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027468		Other - 2932 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027469		Other - 2933 6th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027470		Other - 2944 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027471		Other - 2956 6th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027472		Other - 2957 6th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027473		Other - 2405 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027474		Other - 2415 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027475		Other - 2473 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027476		Other - 2433 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027477		Other - 2441 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027478		Other - 2451 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Corporation)	
P-33-027479		Other - 2459 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027480		Other - 2460 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027481		Other - 2469 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027482		Other - 2472 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027483		Other - 2477 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027484		Other - 2482 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services)	
P-33-027485		Other - 2487 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027486		Other - 2490 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027487		Other - 2495 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027488		Other - 2498 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027489		Other - 2501 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027490		Other - 2506 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027491		Other - 2511 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027492		Other - 2518 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027493		Other - 2523 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027494		Other - 2528 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027495		Other - 2533 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027496		Other - 2538 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027497		Other - 2545 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027498		Other - 2557 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027499		Other - 2567 Pleasant St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027541		Other - 2410 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027542		Other - 2420 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027543		Other - 2440 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027544		Other - 2450 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027545		Other - 2451 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027546		Other - 2460 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027547		Other - 2461 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027548		Other - 2470 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027549		Other - 2471 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027550		Other - 2480 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027551		Other - 2481 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027552		Other - 2490 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027553		Other - 2491 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027554		Other - 2505 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027555		Other - 2506 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027556		Other - 2514 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027557		Other - 2515 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027558		Other - 2524 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027559		Other - 2525 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027561		Other - 2533 Prospect Ave	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027636		Other - 2727 9th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027657		Other - 2711 13th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027658		Other - 2727 13th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027659		Other - 2743 13th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027660		Other - 2759 13th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027661		Other - 2791 13th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027662		Other - 2859 13th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027664		Other - 2474 14th St	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027665		Other - 2578 14th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027666		Other - 2592 14th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027667		Other - 2616 14th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027668		Other - 2636 14th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027669		Other - 2031 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027670		Other - 2063 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027671		Other - 2143 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027672		Other - 2159 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027673		Other - 2201 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027674		Other - 2211 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027675		Other - 2328 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027676		Other - 2338 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027677		Other - 2346 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027678		Other - 2351 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027679		Other - 2354 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027680		Other - 2359 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027681		Other - 2362 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027682		Other - 2374 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027683		Other - 2396 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027684		Other - 2460 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027685		Other - 2520 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027686		Other - 2530 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027687		Other - 2551 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027688		Other - 2591 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027689		Other - 2643 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027690		Other - 2659 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027691		Other - 2691 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027692		Other - 2726 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027693		Other - 2742 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027694		Other - 2743 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027695		Other - 2757 12th Street	Building	Historic	AH02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027696		Other - 2774 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027697		Other - 2775 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027698		Other - 2790 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027699		Other - 2791 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, Jan Ostashay PCR Services Corporation)	
P-33-027700		Other - 2811-12 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027701		Other - 2827 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027702		Other - 2842 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027703		Other - 2843 12th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027706		Other - 2127 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027707		Other - 2128 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027708		Other - 2142 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027709		Other - 2413 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027710		Other - 2158 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027711		Other - 2175 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027712		Other - 2190 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027713		Other - 2191 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027714		Other - 2200 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027715		Other - 2201-07 11th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027716		Other - 2211 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027717		OHP PRN - 2226 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027718		Other - 2242 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027719		Other - 2257-59 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027720		Other - 2258 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027721		Other - 2275 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027722		Other - 2290 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027723		Other - 2304 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027724		Other - 2305 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027725		Other - 2314 1th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027726		Other - 2325 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027727		Other - 2334 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027728		Other - 2344 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027729		Other - 2354 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027730		Other - 2355 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027731		Other - 2365 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027732		Other - 2365 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027733		Other - 2375 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027734		Other - 2385 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027735		Other - 2536 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027736		Other - 2550 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027737		Other -	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027738		Other - 2608 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027739		Other - 2609 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027740		Other - 2622 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027741		Other - 2623 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027742		Other - 2637 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027743			Building	Historic			
P-33-027744		Other - 2651-53 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027745		Other - 2664 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027746		Other - 2665 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-027747		Other - 2678 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027748		Other - 2679-81 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, Jan Ostashay PCR Services Corporation)	
P-33-027749		Other - 2759 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027750		Other - 2774 11th Street	Building	Historic	HP03	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027751		OHP PRN - 2826 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027752		Other - 2842 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027753		Other - 2858 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027754		Other - 2906 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-027755		Other - 2928 11th Street	Building	Historic	HP02	2001 (Jan Ostashay, PCR Services Corporation)	
P-33-028753		Other - California Iron Works; Other - Stebler Parker Co; Other - Sears, Roebuck & Co.	Building	Historic	HP16	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028755		Other - 3112 1st St	Building	Historic	HP02	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028757		Other - Inland Empire Collision	Building	Historic	HP06	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028758		Other - 3018 E. La Cadena Dr.	Building	Historic	HP06	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028759		Other - 3020 E. La Cadena Dr.	Building	Historic	HP08	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-028760		Other - 3130 1st St.	Building	Historic	HP02	2003 (Carrie Chasteen, Myra L. Frank & Associates)	
P-33-029411		Resource Name - Kmart Building	Structure	Historic	HP06	2021 (Joseph Orozco, BCR Consulting LLC)	RI-10891
P-33-029846		Hacienda Motel; 1404-1435 University Avenue	Building	Historic	HP05	2019 (Caset Tibbet, LSA Associates, Inc.)	RI-11123

Appendix C

Native American Heritage Commission Sacred Lands File Search Results

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Reginald Pagaling
Chumash

VICE-CHAIRPERSON
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

SECRETARY
Sara Dutschke
Miwok

PARLIAMENTARIAN
Wayne Nelson
Luiseño

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Stanley Rodriguez
Kumeyaay

COMMISSIONER
Laurena Bolden
Serrano

COMMISSIONER
Reid Milanovich
Cahuilla

COMMISSIONER
Vacant

EXECUTIVE SECRETARY
Raymond C. Hitchcock
Miwok, Nisenan

NAHC HEADQUARTERS
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Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

November 3, 2023

Mark Strother
Rincon Consultants, Inc.

Via Email to: mstrother@rinconconsultants.com

Re: 1775 University Avenue Project, Riverside County

Dear Mr. Strother:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Attachment B

Air Quality and GHG Emissions Report



1775 University Avenue Project

Air Quality and Greenhouse Gas Emissions Study

prepared for

Zibo Gong
UCR 1775 Development LLC
250 Whispering Pines Summit
Arcadia, CA 91006
Contact: Zibo Gong

prepared by

Rincon Consultants, Inc.
250 East 1st Street, Suite 1400
Los Angeles, California 90012

December 2023

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

1775 University Avenue Project

Air Quality and Greenhouse Gas Emissions Study

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Zibo Gong
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Los Angeles, California 90012

December 2023

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Environmental Scientists | Planners | Engineers
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Appendix A California Emission Estimator Model (CalEEMod) Outputs

PR-2023-001601 (PPE) Exhibit 10 - CEQA Appendix N Consistency Analysis

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1 Project Description and Impact Summary

1.1 Introduction

This report details the analysis of potential air quality and greenhouse gas (GHG) impacts associated with the construction and operation of the proposed 1775 University Avenue Project (herein referred to as "proposed project" or "project") in Riverside, California. Rincon Consultants, Inc. (Rincon) prepared this study under contract to Zibo Gong. for use by the City of Riverside in support of environmental documentation being prepared for the project pursuant to the California Environmental Quality Act (CEQA).

1.2 Project Summary

Project Location

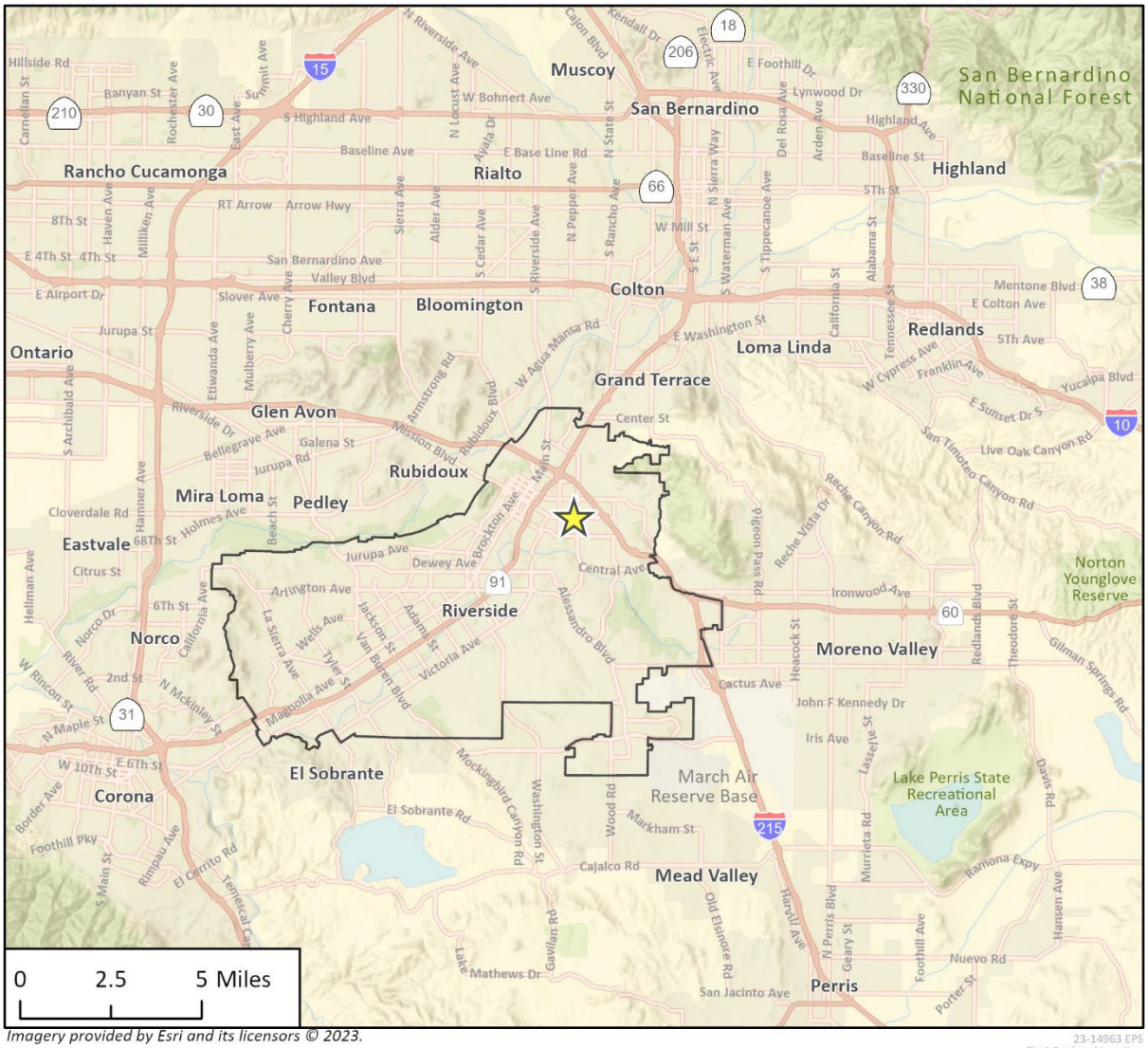
The project site is in the City of Riverside in Riverside County in southern California. The regional location of the project site is shown in Figure 1. The 0.63-acre project site (Assessor's Parcel Numbers 211-183-024; 211-183-023) is located immediately adjacent to, and north of, University Avenue at the intersection with Mesa Street. The project location is depicted in Figure 2. Surrounding land uses include single-family and multi-family residential uses to the north, and commercial and retail uses to the east, west, and south. The project site is zoned as Mixed Use-Urban and Specific Plan (University Avenue) Overlay Zone (MU-U-SP).

Project Description

The project involves the construction of a four-story, mixed-use building consisting of approximately 1,477 square feet (sf) of ground-floor commercial/retail space facing University Avenue and 18 multi-family residential units between floors two through four. The project would also provide a community room, lobby, and bicycle storage room totaling approximately 878 sf. The ground floor site plan is depicted in Figure 3.

The project would provide a total of 42 parking spaces, consisting of 36 residential spaces and 6 commercial spaces. Of the total 42 parking spaces proposed, two spaces would be ADA-accessible and 13 spaces would be designated for electric vehicles (EV). The project would also include approximately 5,732 sf of common open space and 2,150 sf of private open space.

Figure 1 Regional Location



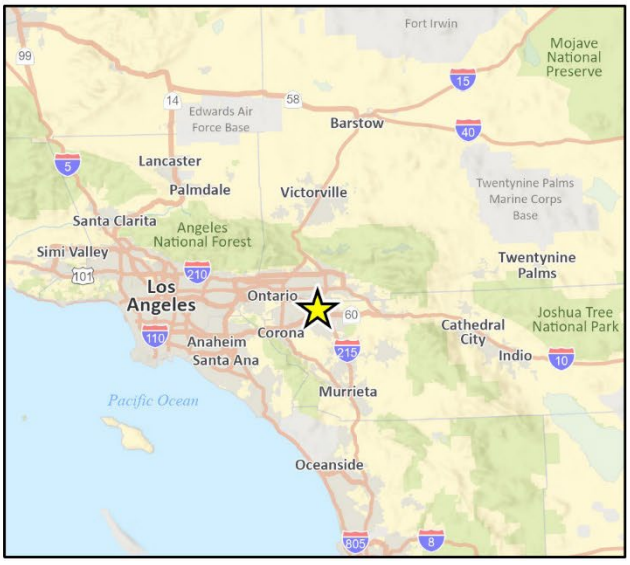


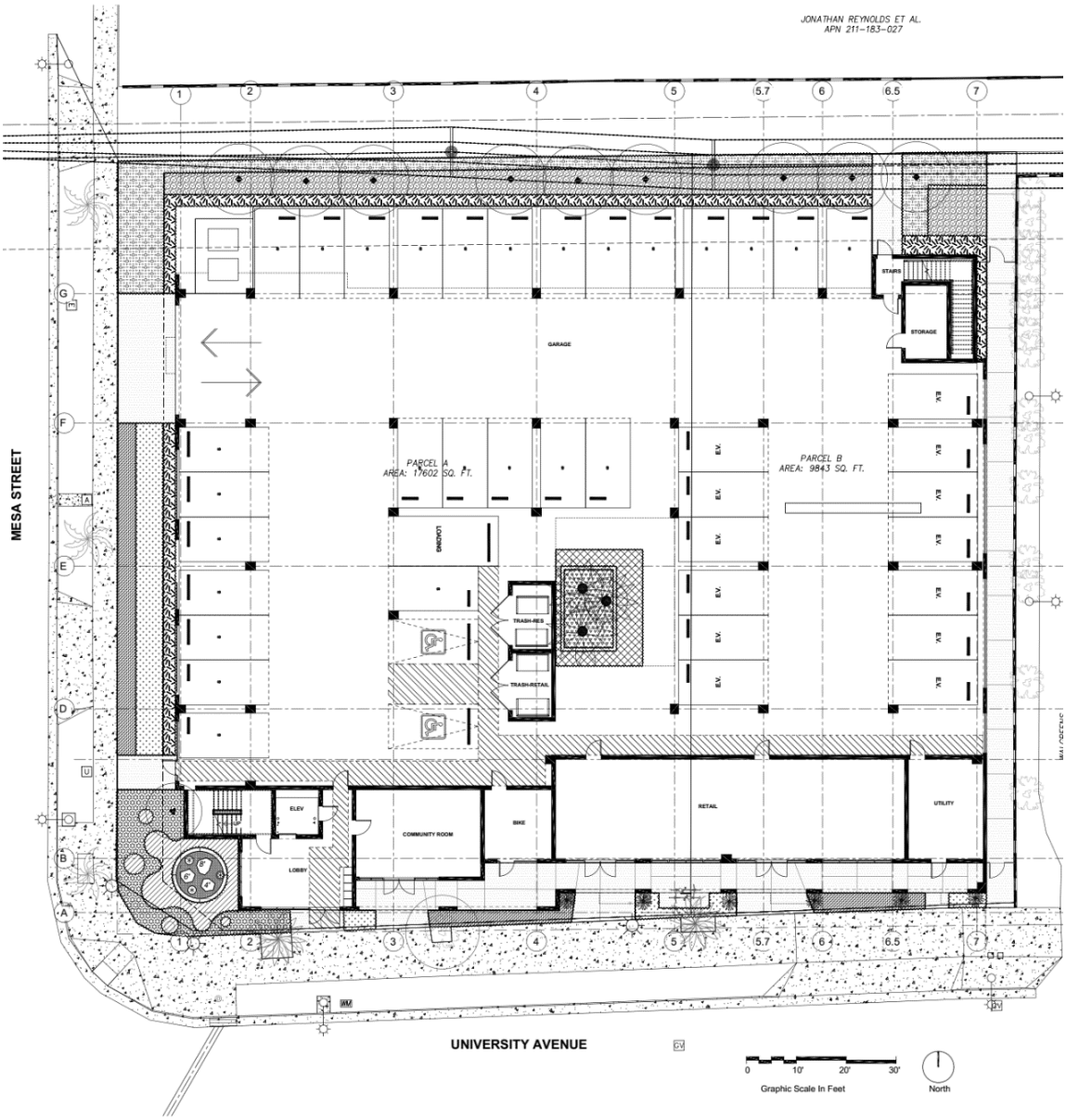
Figure 2 Project Location



Imagery provided by Microsoft Bing and its licensors © 2023.

23-14963 EPS
Fig 2 Project Location

Figure 3 Site Plan



2 Background

2.1 Air Quality

Local Climate and Meteorology

The project site is located in the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, as well as all of Orange County. The SCAB is on a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean on the southwest and high mountains forming the remainder of the perimeter (SCAQMD 1993). Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions. These factors along with applicable regulations are discussed below.

The SCAB is part of a semi-permanent high-pressure zone in the eastern Pacific. As a result, the climate is mild and tempered by cool sea breezes. This usually mild weather pattern is occasionally interrupted by periods of extreme heat, winter storms, and Santa Ana winds.[1] The annual average temperature throughout the 6,645-square-mile SCAB ranges from low 60 to high 80 degrees Fahrenheit (°F) with little variance. With more oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas.

Wind patterns across the SCAB are characterized by westerly or southwesterly onshore winds during the day and easterly or northeasterly breezes at night. Wind speed is typically higher during the dry summer months than during the rainy winter. Between periods of wind, air stagnation could occur in both the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During winter and fall, surface high-pressure systems over the SCAB, combined with other meteorological conditions, result in very strong, downslope Santa Ana winds. These winds normally continue for a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the diffusion of pollutants by inhibiting the eastward transport of pollutants. Air quality in the SCAB generally ranges from fair to poor and is similar to air quality in most of coastal Southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

Air Quality Regulations

Federal Air Quality Regulations

Ambient Air Quality Standards represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. The federal Clean Air Act (CAA) was enacted in 1970 and amended in 1977 and 1990 [42 United States Code (USC) 7401] for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity.

[1] The National Weather Service defines Santa Ana winds as "a weather condition in which strong, hot, dust-bearing winds descend to the Pacific Coast around Los Angeles from inland desert regions."

PR-2023-001601 (PPE) Exhibit 10 - CEQA Appendix N Consistency Analysis

The U.S. Environmental Protection Agency (USEPA) has set primary and secondary National Ambient Air Quality Standards (NAAQS) for ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter with a diameter of up to ten microns (PM_{10}) and up to 2.5 microns ($PM_{2.5}$), and lead (Pb). Primary standards are those levels of air quality deemed necessary, with an adequate margin of safety, to protect public health. Table 1 lists the current federal and state standards for regulated pollutants.

Table 1 Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Primary Standards	California Standard
Ozone	1-Hour	–	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.00 ppm	9.00 ppm
	1-Hour	35.00 ppm	20.00 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.030 ppm
	1-Hour	0.100 ppm	0.180 ppm
Sulfur Dioxide	Annual	0.030 ppm	–
	24-Hour	0.14 ppm	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM_{10}	Annual	–	20 µg/m³
	24-Hour	150 µg/m³	50 µg/m³
PM_{25}	Annual	12 µg/m³	12 µg/m³
	24-Hour	35 µg/m³	–
Lead	30-Day Average	–	1.5 µg/m³
	3-Month Average	0.15 µg/m³	–

ppm = parts per million; µg/m³ = micrograms per cubic meter
Source: CARB 2016

State Air Quality Regulations

CALIFORNIA AMBIENT AIR QUALITY STANDARDS

The California Clean Air Act (CCAA) was enacted in 1988 (California Health & Safety Code (H&SC) Section 39000 et seq.). While USEPA is the federal agency designated to administer air quality regulation, the California Air Resources Board (CARB) is the State equivalent in the California Environmental Protection Agency (CalEPA). Under the CCAA the State has developed the California Ambient Air Quality Standards (CAAQS), which are generally more stringent than the NAAQS. Table 1 lists the current State standards for regulated pollutants. In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. Like the federal CAA, the CCAA classifies specific geographic areas as either "attainment" or "nonattainment" areas for each pollutant, based on the comparison of measured data within the CAAQS.

California is divided geographically into 15 air basins for managing the air resources of the State on a regional basis. Areas within each air basin are considered to share the same air masses and, therefore, are expected to have similar ambient air quality. If an air basin is not in either federal or

State attainment for a criteria pollutant, the basin is classified as a nonattainment area for that pollutant. Under the CAA, once a nonattainment area has achieved the air quality standards for a criteria pollutant, it may be re-designated to an attainment area for that pollutant. To be re-designated, the area must meet air quality standards and have a 10-year plan for continuing to meet and maintain air quality standards, as well as satisfy other requirements of the federal CAA. Areas that have been re-designated to attainment are called maintenance areas.

The SCAB is currently designated as a nonattainment area with respect to the State 1-hour O_3, PM_{10}, and $PM_{2.5}$ standards, as well as the national 8-hour O_3 and $PM_{2.5}$ standards. The SCAB is designated as attainment or unclassified for the remaining State and federal standards (CARB 2023a).

Toxic Air Contaminants

A toxic air contaminant (TAC) is an air pollutant that may cause or contribute to an increase in mortality or serious illness or which may pose a present or potential hazard to human health. TACs may result in long-term health effects such as cancer, birth defects, neurological damage, asthma, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation, runny nose, throat pain, and headaches. TACs are considered either carcinogenic or non-carcinogenic based on the nature of the health effects associated with exposure. For carcinogenic TACs, potential health impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Non-carcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

TACs include both organic and inorganic chemical substances. One of the main sources of TACs in California is diesel engines that emit exhaust containing solid material known as diesel particulate matter (DPM); however, TACs may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs commonly associated with gasoline dispensing stations include the organic compounds of benzene, toluene, and xylene. Benzene is a known human carcinogen and can result in short-term acute and long-term chronic health impacts (USEPA n.d.).

In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (Assembly Bill [AB] 1807: Health and Safety Code Sections 39650–39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, identify facilities having localized impacts, ascertain health risks, notify nearby residents of significant risks, and reduce those significant risks to acceptable levels. The Children's Environmental Health Protection Act, California Senate Bill 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the statewide air quality monitoring network, and develop any additional air toxic control measures needed to protect children's health.

PR-2023-001601 (PPE) Exhibit 10 - CEQA Appendix N Consistency Analysis

STATE IMPLEMENTATION PLAN

The federal CAA Amendments mandate that states submit and implement a State Implementation Plan (SIP) for areas not meeting air quality standards. The SIP includes pollution control measures to demonstrate how the standards will be met through those measures. The SIP is established by incorporating measures established during the preparation of air quality attainment plans and adopted rules and regulations by each local air district, which are submitted for approval to CARB and the USEPA. The goal of an air quality attainment plan is to reduce pollutant concentrations below the NAAQS through the implementation of air pollutant emissions controls. Local air districts and other agencies, such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the USEPA for approval and publication in the Federal Register. All of the items included in the California SIP are listed in the Code of Federal Regulations (CFR) at 40 CFR 52.220.

As the regional air quality management district, the SCAQMD is responsible for preparing and implementing the portion of the SIP applicable to the SCAB. The air pollution control district for each county adopts rules, regulations, and programs to attain federal and state air quality standards and appropriates money (including permit fees) to achieve these objectives.

Local Air Quality Regulations

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

The 2022 AQMP was adopted by the SCAQMD Governing Board on December 2, 2022. The purpose of the AQMP is to set forth a comprehensive and integrated program that will lead the SCAB into compliance with the federal 8-hour O_3 standards, and to provide an update to the SCAQMD's commitments towards meeting the federal 24-hour $PM_{2.5}$ air quality standard. The AQMP incorporates the latest scientific and technological information and planning assumptions, including SCAG growth projections and updated emission inventory methodologies for various source categories (SCAQMD 2022).

The SCAQMD has published the *CEQA Air Quality Handbook* (approved by the SCAQMD Governing Board in 1993 and augmented with guidance for local significance thresholds [LST] in 2008). The SCAQMD guidance helps local government agencies and consultants to develop environmental documents required by the *CEQA Guidelines* and provides identification of suggested thresholds of significance for criteria pollutants for both construction and operation (see discussion of thresholds below). With the help of the *CEQA Air Quality Handbook* and associated guidance, local land use planners and consultants are able to analyze and document how proposed and existing projects affect air quality in order to meet the requirements of the CEQA review process. The SCAQMD periodically provides supplemental guidance and updates to the handbook on their website.

The following is a list of SCAQMD rules that are required of construction activities associated with the proposed project:

- **Rule 402 (Nuisance)** – This rule prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply

to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

- **Rule 403 (Fugitive Dust)** – This rule requires fugitive dust sources to implement best available control measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. This rule is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. PM_{10} suppression techniques are summarized below.
  - Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
  - All on-site roads are paved as soon as feasible, watered regularly, or chemically stabilized.
  - All material transported off-site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
  - The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
  - Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down following the workday to remove soil from pavement.
- **Rule 1113 (Architectural Coatings)** – This rule requires manufacturers, distributors, and end-users of architectural and industrial maintenance coatings to reduce ROG emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories.

SCAG 2020-2045 RTP/SCS

On September 3, 2020, SCAG's Regional Council formally adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS, also known as Connect SoCal). The 2020-2045 RTP/SCS builds upon the progress made through implementation of the 2016-2040 RTP/SCS and includes ten goals focused on promoting economic prosperity, improving mobility, protecting the environment, and supporting healthy/complete communities. The SCS implementation strategies include focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The SCS establishes a land use vision of center focused placemaking, concentrating growth in and near Priority Growth Areas, transferring of development rights, urban greening, creating greenbelts and community separators, and implementing regional advance mitigation (SCAG 2020).

City of Riverside General Plan 2025 Air Quality Element

The City of Riverside's General Plan Air Quality Element includes objectives and policies that help reduce air quality impacts (City of Riverside 2007). These objectives and policies include general measures to reduce transportation-related air quality emissions and to consider sensitive receptors in placement of land uses. The following General Plan Air Quality Element policies would be applicable to the proposed project:

Objective AQ-1: Adopt land use policies that site polluting facilities away from sensitive receptors and vice versa; improve job-housing balance; reduce vehicle miles traveled and length of work trips; and improve the flow of traffic.

Policy AQ-1.5: Encourage infill development projects within urbanized areas, which include job centers and transportation nodes.

Policy AQ-1.7: Support appropriate planned residential developments and infill housing, which reduce vehicle trips.

Policy AQ-1.8: Promote "Job/Housing Opportunity Zones" and incentives to support housing in job-rich areas and jobs in housing-rich areas, where the jobs are located at non-polluting or extremely low-polluting entities.

Policy AQ-1.15: Establish land use patterns that reduce the number and length of motor vehicle trips and promote alternative modes of travel.

Policy AQ-1.23: Increase residential and commercial densities around rail and bus stations.

Objective AQ-5: Increase energy efficiency and conservation in an effort to reduce air pollution.

Policy AQ-5.1: Utilize source reduction, recycling and other appropriate measures to reduce the amount of solid waste disposal in landfills.

Policy AQ-5.3: Continue and expand use of renewable energy resources such as wind, solar, water, landfill gas, and geothermal sources.

Policy AQ-5.7: Require residential building construction to meet or exceed energy use guidelines in Title 24 of the California Administrative Code.

Criteria Pollutants

Ozone

Ozone is produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides (NO_X) and reactive organic gases[2] (ROG). NO_X are formed during the combustion of fuels, while ROG are formed during combustion and evaporation of organic solvents. Because ozone requires sunlight to form, it usually occurs in substantial concentrations between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Carbon Monoxide

CO is a local pollutant produced by the incomplete combustion of carbon-containing fuels, such as gasoline, natural gas, oil, coal, and wood. The primary source of CO, a colorless, odorless, poisonous gas, is automobile traffic. Therefore, elevated concentrations are usually found near areas of high traffic volumes. The health effects from CO are related to its affinity for hemoglobin in the blood. At high concentrations, CO reduces the amount of oxygen in the blood, causing heart difficulty in people with chronic diseases, reduced lung capacity, and impaired mental abilities.

[2] Organic compound precursors of ozone are routinely described by several variations of three terms: hydrocarbons (HC), organic gases (OG), and organic compounds (OC). These terms are often modified by adjectives such as total, reactive, or volatile, and result in various acronyms, such as TOG (total organic gases), ROG (reactive organic gases), ROC (reactive organic compounds), and VOC (volatile organic compounds). While most of these differ in some significant way from a chemical perspective, two groups are important from an air quality perspective: non-photochemically reactive in the lower atmosphere, or photochemically reactive in the lower atmosphere (ROG and VOC).

Sulfur Dioxide

SO_2 is a combustion product, with the primary source being power plants and heavy industries that use coal or oil as fuel. SO_2 is also a product of diesel engine combustion. The health effects of SO_2 include lung disease and breathing problems for people with asthma. SO_2 in the atmosphere contributes to the formation of acid rain.

Nitrogen Dioxide

NO_2 is a byproduct of fuel combustion, with the primary sources being motor vehicles and industrial boilers and furnaces. The principal form of NO_2 produced by combustion is nitric oxide (NO), but NO reacts rapidly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 is an acute irritant. A relationship between NO_2 and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 parts per million (ppm) may occur. NO_2 absorbs blue light, gives a reddish-brown cast to the atmosphere, and reduces visibility. It can also contribute to the formation of ozone/smog and acid rain.

Particulate Matter

Suspended atmospheric PM_{10} and $PM_{2.5}$ are comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. The characteristics, sources, and potential health effects associated with PM_{10} and $PM_{2.5}$ can be different. Major man-made sources of PM_{10} are agricultural operations, industrial processes, combustion of fossil fuels, construction, demolition operations, and entrainment of road dust into the atmosphere. Natural sources include windblown dust, wildfire smoke, and sea spray salt. The finer $PM_{2.5}$ particulates are generally associated with combustion processes as well as formation in the atmosphere as a secondary pollutant through chemical reactions. $PM_{2.5}$ is more likely to penetrate deeply into the lungs and poses a serious health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the $PM_{2.5}$ that is inhaled into the lungs remains there, which can cause permanent lung damage. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance.

Current Air Quality

The SCAQMD operates a network of air quality monitoring stations throughout the SCAB. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and determine whether ambient air quality meets the California and federal standards. The monitoring station located closest to the project site is the Riverside – Rubidoux station located approximately four miles northwest of the project site. This monitoring station measures ozone, NO_2, PM_{10}, and $PM_{2.5}$.

Table 2 reports ambient air quality measurements and indicates the number of days that each standard has been exceeded at the Riverside – Rubidoux station. The ambient air quality in the area exceeded the State and Federal 8-hour ozone standard in 2020, 2021, and 2022. The area also exceeded the State 1-hour ozone and Federal $PM_{2.5}$ standards in 2020. The area did not exceed other air quality standards in 2020, 2021, or 2022.

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Table 2 Ambient Air Quality at the Monitoring Station

Pollutant	2020	2021	2022
8 Hour Ozone (ppm), 8-Hour Average	0.115	0.097	0.095
Number of days above State and Federal standards (>0.070 ppm)	82	55	70
Ozone (ppm), Worst Hour	0.143	0.117	0.122
Number of days above State standard (>0.09 ppm)	46	20	30
Number of days above Federal standard (>0.112 ppm)	6	0	0
Nitrogen Dioxide (ppm) - Worst Hour (Federal Measurements)	0.066	0.052	0.056
Number of days above State standard (>0.18 ppm)	0	0	0
Number of days above Federal standard (0.10 ppm)	0	0	0
Particulate Matter 10 microns, μg/m^3, Worst 24 Hours[1]	142.1	76.5	153.6
Number of days above Federal standard (>150 μg/m^3)	0	0	0
Particulate Matter <2.5 microns, μg/m^3, Worst 24 Hours	59.9	82.1	38.5
Number of days above Federal standard (>35 μg/m^3)	12	11	1

[1]An exceedance of a standard is not necessarily related to a violation of the standard. All values listed above represent midnight-to-midnight 24-hour averages and may be related to an exceptional event. State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers.

Source: CARB 2023b

Sensitive Receptors

The term “sensitive receptor” refers to a person in the population who is more susceptible to health effects due to exposure to an air contaminant than the population at large or to a land use that may reasonably be associated with such a person. Examples include residences, schools, playgrounds, childcare centers, churches, athletic facilities, retirement homes, and long-term health care facilities. Sensitive receptors that may be affected by air quality impacts associated with construction and operation of the proposed project include the residents of the single-family residences located adjacent to the northern project boundary, multi-family residences located 260 feet to the north of the project site, and single-family residences located 470 feet southwest of the project site.

2.2 Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth’s atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. The term “climate change” is often used interchangeably with the term “global warming,” but climate change is preferred because it conveys that other changes are happening in addition to rising temperatures. The baseline against which these changes are measured originates in historical records that identify temperature changes that occurred in the

past, such as during previous ice ages. The global climate is changing continuously, as evidenced in the geologic record which indicates repeated episodes of substantial warming and cooling. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming over the past 150 years. The United Nations Intergovernmental Panel on Climate Change (IPCC) expressed that the rise and continued growth of atmospheric CO_2 concentrations is unequivocally due to human activities in the IPCC's Sixth Assessment Report (2021). Human influence has warmed the atmosphere, ocean, and land, which has led the climate to warm at an unprecedented rate in the last 2,000 years. It is estimated that between the period of 1850 through 2019, that a total of 2,390 gigatonnes of anthropogenic CO_2 was emitted. It is likely that anthropogenic activities have increased the global surface temperature by approximately 1.07 degrees Celsius between the years 2010 through 2019 (IPCC 2021). Furthermore, since the late 1700s, estimated concentrations of CO_2, methane, and nitrous oxide in the atmosphere have increased by over 43 percent, 156 percent, and 17 percent, respectively, primarily due to human activity (USEPA 2021a). Emissions resulting from human activities are thereby contributing to an average increase in Earth's temperature.

Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons and perfluorocarbons and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are usually by-products of fossil fuel combustion, and CH_4 results from off-gassing associated with agricultural practices and landfills. Human-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and SF_6 (USEPA 2021a).

Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 30, meaning its global warming effect is 30 times greater than CO_2 on a molecule per molecule basis (IPCC 2021).[3]

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat-trapping effect of GHGs, the earth's surface would be about 33 degrees Celsius (°C) cooler (World Meteorological Organization 2021). However, since 1750, estimated concentrations of CO_2, CH_4, and N_2O in the atmosphere have increased by 47 percent, 156 percent, and 23 percent, respectively, primarily due to human activity (IPCC 2021). GHG emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation,

[3] The Intergovernmental Panel on Climate Change's (2021) *Sixth Assessment Report* determined that methane has a GWP of 30. However, the 2017 Climate Change Scoping Plan published by the California Air Resources Board uses a GWP of 25 for methane, consistent with the Intergovernmental Panel on Climate Change's (2007) *Fourth Assessment Report*. Therefore, this analysis utilizes a GWP of 25.

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are believed to have elevated the concentration of these gases in the atmosphere beyond the level of concentrations that occur naturally.

Greenhouse Gas Emissions Inventory

Global

In 2015, worldwide anthropogenic total 47,000 million MT of CO_2e, which is a 43 percent increase from 1990 GHG levels (USEPA 2021b). Specifically, 34,522 million metric tons (MMT) of CO_2e of CO_2, 8,241 MMT of CO_2e of CH_4, 2,997 MMT of CO_2e of N_2O, and 1,001 MMT of CO_2e of fluorinated gases were emitted in 2015. The largest source of GHG emissions were energy production and use (includes fuels used by vehicles and buildings), which accounted for 75 percent of the global GHG emissions. Agriculture uses and industrial processes contributed 12 percent and six percent, respectively. Waste sources contributed for three percent and two percent was due to international transportation sources. These sources account for approximately 98 percent because there was a net sink of two percent from land-use change and forestry. (USEPA 2021b).

Federal

United States GHG emissions were 6,347.7 MMT of CO_2e in 2021 or 5,593.5 MMT CO_2e after accounting for sequestration. Emissions increased by 6.8 percent from 2020 to 2021. The increase from 2020 to 2021 was driven by an increase in CO_2 emissions from fossil fuel combustion which increased seven percent relative to previous years and is primarily due to the economic rebounding after the COVID-19 Pandemic. In 2020, the energy sector (including transportation) accounted for 81 percent of nationwide GHG emissions while agriculture, industrial and waste accounted for approximately 10 percent, six percent, and three percent respectively (USEPA 2023).

California

Based on a review of the California Air Resource Board (CARB) California Greenhouse Gas Inventory for the years between 2000-2020, California produced 369.2 MMT of CO_2e in 2020, which is 35.3 MMT of CO_2e lower than 2019 levels. The 2019 to 2020 decrease in emissions is likely due in large part to the impacts of the COVID-19 pandemic. The major source of GHG emissions in California is the transportation sector, which comprises 37 percent of the State's total GHG emissions. The industrial sector is the second largest source, comprising 20 percent of the State's GHG emissions while electric power accounts for approximately 16 percent. The magnitude of California's total GHG emissions is due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions as compared to other states is its relatively mild climate. In 2016, California achieved its 2020 GHG emission reduction target of reducing emissions to 1990 levels as emissions fell below 431 MMT of CO_2e (CARB 2022). The annual 2030 statewide target emissions level is 260 MMT of CO_2e (CARB 2017).

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Long-term trends have found that each of the past three decades has been warmer than all the previous

decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. The observed global mean surface temperature for the decade from 2006 to 2015 was approximately 0.87°C (0.75°C to 0.99°C) higher than the global mean surface temperature over the period from 1850 to 1900. Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature (LSAT) obtained from station observations agree that LSAT as well as sea surface temperatures have increased. Due to past and current activities, anthropogenic GHG emissions are increasing global mean surface temperature at a rate of 0.2°C per decade. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC 2021).

According to *California's Fourth Climate Change Assessment*, statewide temperatures from 1986 to 2016 were approximately 1°F to 2°F higher than those recorded from 1901 to 1960. Potential impacts of climate change in California may include loss in water supply from snowpack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years (State of California 2018). Below is a summary of some of the potential effects that could be experienced in California as a result of climate change.

Air Quality

Higher temperatures, which are conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. As temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have been occurring at higher elevations in the Sierra Nevada Mountains (State of California 2018). If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality would worsen. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thereby improving the pollution associated with wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state (California Natural Resources Agency 2009).

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future precipitation trends and water supplies in California. This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. However, the average early spring snowpack in the western United States, including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 5.9 inches along the central and southern California coast (State of California 2018). The Sierra snowpack provides most of California's water supply by accumulating snow during the state's wet winters and releasing it slowly during the state's dry springs and summers (April and July). The snowmelt currently provides an annual average of 15 million acre-feet of water each year, and it is predicted that the snowpack will be reduced by 25 to 40 percent compared to its historic average by 2050 (California Department of Water Resources 2013). Climate change will also result in less snowfall at lower elevations and

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reduce the total snowpack, resulting in less available water (California Department of Water Resources 2013). The State of California projects that average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050 (State of California 2018).

Hydrology and Sea Level Rise

Climate change has the potential to induce substantial sea level rise in the coming century (State of California 2018). The rising sea level increases the likelihood and risk of flooding. The rate of increase of global mean sea levels over the 2001-2010 decade, as observed by satellites, ocean buoys and land gauges, was approximately 3.2 mm per year, which is double the observed 20th century trend of 1.6 mm per year (World Meteorological Organization [WMO] 2013). As a result, global mean sea levels averaged over the last decade were about 8 inches higher than those of 1880 (WMO 2013). Sea levels are rising faster now than in the previous two millennia and the rise is expected to accelerate, even with robust GHG emission control measures. The most recent IPCC report predicts a mean sea–level rise of 10 to 37 inches by 2100 (IPCC 2021). A rise in sea levels could completely erode 31 to 67 percent of southern California beaches, result in flooding of approximately 370 miles of coastal highways during 100-year storm events, jeopardize California's water supply due to saltwater intrusion, and induce groundwater flooding and/or exposure of buried infrastructure (State of California 2018). In addition, increased CO_2 emissions can cause oceans to acidify due to the carbonic acid it forms. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture

California has a $50 billion annual agricultural industry that produces over a third of the country's vegetables and two-thirds of the country's fruits and nuts (California Department of Food and Agriculture 2020). Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent; water demand could increase as hotter conditions lead to the loss of soil moisture; crop-yield could be threatened by water-induced stress and extreme heat waves; and plants may be susceptible to new and changing pest and disease outbreaks (State of California 2018). In addition, temperature increases could change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (California Climate Change Center 2006).

Ecosystems and Wildlife

Climate change, and the potential resulting changes in weather patterns, could have ecological effects on a global and local scale. Increasing concentrations of GHGs are likely to accelerate the rate of climate change. Scientists project that the annual average maximum daily temperatures in California could rise by 4.4 to 5.8°F in the next 50 years and by 5.6 to 8.8°F in the next century (State of California 2018). Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals related to (1) timing of ecological events; (2) geographic distribution and range; (3) species' composition and the incidence of nonnative species within communities; and (4) ecosystem processes, such as carbon cycling and storage (State of California 2018). Increases in wildfire would further remove sensitive habitat; increased severity in droughts would potentially starve plants and animals of water; and sea level rise will affect sensitive coastal ecosystems.

Greenhouse Gas Regulations

Federal Regulations

The U.S. Supreme Court in *Massachusetts et al. v. Environmental Protection Agency et al*. ([2007] 549 U.S. 05-1120) held that the USEPA has the authority to regulate motor-vehicle GHG emissions under the federal Clean Air Act. The USEPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines and requires annual reporting of emissions. In 2012, the USEPA issued a Final Rule that establishes the GHG permitting thresholds that determine when CAA permits under the New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities.

In 2014, the U.S. Supreme Court in *Utility Air Regulatory Group v. EPA* (134 S. Ct. 2427 [2014]) held that USEPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a major source required to obtain a PSD or Title V permit. The Court also held that PSD permits that are otherwise required (based on emissions of other pollutants) may continue to require limitations on GHG emissions based on the application of Best Available Control Technology (BACT).

State Regulations

ASSEMBLY BILL 1493 - CALIFORNIA ADVANCED CLEAN CARS PROGRAM

AB 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, USEPA granted the waiver of CAA preemption to California for its GHG emission standards for motor vehicles beginning with the 2009 model year. Pavley I regulates model years from 2009 to 2016 and Pavley II, which is now referred to as "LEV (Low Emission Vehicle) III GHG" regulates model years from 2017 to 2025. The Advanced Clean Cars program coordinates the goals of the Low Emissions Vehicles (LEV), Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs, and should provide major reductions in GHG emissions. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels (CARB 2011).

CALIFORNIA GLOBAL WARMING SOLUTIONS ACT OF 2006 (ASSEMBLY BILL 32, AND SENATE BILL 32)

The "California Global Warming Solutions Act of 2006," (AB 32), outlines California's major legislative initiative for reducing GHG emissions. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHG emissions to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 target of 431 MMT CO2e, which was achieved in 2016. CARB approved the Scoping Plan on December 11, 2008, which included GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among others (CARB 2008). Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since the Scoping Plan's approval.

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The CARB approved the 2013 Scoping Plan update in May 2014 (CARB 2014). The update defined the CARB's climate change priorities for the next five years, set the groundwork to reach post-2020 statewide goals, and highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the state's longer term GHG reduction strategies with other state policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use (CARB 2014).

On September 8, 2016, the governor signed Senate Bill (SB) 32 into law, extending the California Global Warming Solutions Act of 2006 by requiring the state to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, the CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation, such as SB 1383 and SB 100 (discussed later). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally appropriate quantitative thresholds consistent with statewide per capita goals of six MT CO2e by 2030 and two MT CO2e by 2050 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, sub-regional, or regional level), but not for specific individual projects because they include all emissions sectors in the state (CARB 2017).

ASSEMBLY BILL 1279

AB 1279, the California Climate Crisis Act, was passed on September 16, 2022, and declares the State would achieve net zero GHG emissions as soon as possible, but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. In addition, the bill states that the State would reduce GHG emissions by 85 percent below 1990 levels no later than 2045.

In response to the passage of AB 1279 and the identification of the 2045 GHG reduction target, CARB published the Final 2022 Climate Change Scoping Plan in November 2022 (CARB 2022). The 2022 Update builds upon the framework established by the 2008 Climate Change Scoping Plan and previous updates while identifying new, technologically feasible, cost-effective, and equity-focused path to achieve California's climate target. The 2022 Update includes policies to achieve a significant reduction in fossil fuel combustion, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands (NWL) to reduce emissions and sequester carbon, and the capture and storage of carbon.

The 2022 Update assesses the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan, addresses recent legislation and direction from Governor Gavin Newsom, extends and expands upon these earlier plans, and implements a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045, as well as taking an additional step of adding carbon neutrality as a science-based guide for California's climate work. As stated in the 2022 Update, "The plan outlines how carbon neutrality can be achieved by taking bold steps to reduce GHGs to meet the anthropogenic emissions target and by expanding actions to capture and store carbon through the state's NWL and using a variety of mechanical approaches" (CARB 2022). Specifically, the 2022 Update:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 and a reduction in anthropogenic emissions by 85 percent below 1990 levels.
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California's most impacted communities as driving principles throughout the document.
- Incorporates the contribution of NWL to the State's GHG emissions, as well as their role in achieving carbon neutrality.
- Relies on the most up-to-date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration, as well as direct air capture.
- Evaluates the substantial health and economic benefits of taking action.
- Identifies key implementation actions to ensure success.

In addition to reducing emissions from transportation, energy, and industrial sectors, the 2022 Update includes emissions and carbon sequestration in NWL and explores how NWL contribute to long-term climate goals. Under the Scoping Plan Scenario, California's 2030 emissions are anticipated to be 48 percent below 1990 levels, representing an acceleration of the current SB 32 target. Cap-and-Trade regulation continues to play a large factor in the reduction of near-term emissions for meeting the accelerated 2030 reduction target. Every sector of the economy will need to begin to transition in this decade to meet our GHG emissions reduction goals and achieve carbon neutrality no later than 2045. The 2022 Update approaches decarbonization from two perspectives, managing a phasedown of existing energy sources and technologies, as well as increasing, developing, and deploying alternative clean energy sources and technology.

SENATE BILL 97 - CEQA: GREENHOUSE GAS EMISSIONS

SB 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in CEQA documents. In March 2010, the California Natural Resources Agency (Resources Agency) adopted amendments to the CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and climate change impacts.

SENATE BILL 375 - 2008 SUSTAINABLE COMMUNITIES AND CLIMATE PROTECTION ACT

SB 375, signed in August 2008, enhances the state's ability to reach AB 32 goals by directing CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. In addition, SB 375 directs each of the state's 18 major Metropolitan Planning Organizations (MPOs) to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. SCAG was assigned targets of an 8 percent reduction in GHGs from transportation sources by 2020 and a 19 percent reduction in GHGs from transportation sources by 2035. In the SCAG region, SB 375 also provides the option for the coordinated development of sub

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regional plans by the sub regional councils of governments and the county transportation commissions to meet SB 375 requirements.

SENATE BILL 1383 - SHORT-LIVED CLIMATE POLLUTANTS

Adopted in September 2016, SB 1383 requires CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. The bill requires the California Department of Resources Recycling and Recovery (CalRecycle), in consultation with CARB, to adopt regulations that achieve:

- 50-percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020; and
- 75-percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2025.

The bill also mandates various state and local agencies develop further strategies to reduce emissions generated by specific industries such as agriculture. The stated goal is to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

SENATE BILL 100 - CALIFORNIA RENEWABLES PORTFOLIO STANDARD PROGRAM

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

EXECUTIVE ORDER B-55-18 TO ACHIEVE CARBON NEUTRALITY

On September 10, 2018, Governor Brown issued Executive Order B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

ASSEMBLY BILL 341 - CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT

The California Integrated Waste Management Act of 1989, as modified by AB 341, requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows: (1) diversion of 25 percent of all solid waste by January 1, 1995, through source reduction, recycling, and composting activities; (2) diversion of 50 percent of all solid waste on and after January 1, 2000; and (3) diversion of 75 percent of all solid waste by 2020, and annually thereafter. CalRecycle is required to develop strategies to implement AB 341, including source reduction.

CLEAN ENERGY, JOBS, AND AFFORDABILITY ACT OF 2022 (SENATE BILL 1020)

Adopted on September 16, 2022, SB 1020 creates clean electricity targets for eligible renewable energy resources and zero-carbon resources to supply 90 percent of retail sale electricity by 2035, 95 percent by 2040, 100 percent by 2045, and 100 percent of electricity procured to serve all state

agencies by 2035. This bill shall not increase carbon emissions elsewhere in the western grid and shall not allow resource shuffling.

California Building Standards Code

The California Code of Regulations (CCR) Title 24 is referred to as the California Building Standards Code. It consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility for persons with physical and sensory disabilities. The current iteration is the 2022 Title 24 standards. The California Building Standards Code's energy-efficiency and green building standards are outlined below.

PART 6 – BUILDING ENERGY EFFICIENCY STANDARDS/ENERGY CODE

CCR Title 24, Part 6 is the Building Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. New construction and major renovations must demonstrate their compliance with the current Energy Code through submittal and approval of a Title 24 Compliance Report to the local building permit review authority and the California Energy Commission (CEC). The 2022 Title 24 standards are the applicable building energy efficiency standards for the proposed project because they became effective on January 1, 2023.

PART 11 – CALIFORNIA GREEN BUILDING STANDARDS

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 California Building Standards Code). The 2022 CALGreen includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures. It also includes voluntary tiers with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory CALGreen standards and may adopt additional amendments for stricter requirements.

Regional and Local Regulations

2020 – 2045 SCAG REGIONAL TRANSPORTATION PLAN

On September 3, 2020, the SCAG's Regional Council formally adopted the 2020-2045 RTP/SCS entitled Connect SoCal. The 2020-2045 RTP/SCS builds upon the progress made through implementation of the 2016-2040 RTP/SCS and includes 10 goals focused on promoting economic prosperity, improving mobility, protecting the environment, and supporting healthy/complete communities. The SCS implementation strategies include focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The SCS establishes a land use vision of center- focused placemaking, concentrating growth in and near Priority Growth Areas, transferring of development rights, urban greening, creating greenbelts and community separators, and implementing regional advance mitigation (SCAG 2020).

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CITY OF RIVERSIDE GENERAL PLAN 2025

The City of Riverside General Plan 2025 includes several objectives and policies related to GHG emissions and increased sustainability. The Land Use and Urban Design Element of the General Plan includes the following objectives and policies that would be applicable to the project (City of Riverside 2007):

- **Objective LU-8: Emphasize smart growth principles through all steps of the land use development process.**
  - **Policy LU-8.1:** Ensure well-planned infill development Citywide, allow for increased density in selected areas along established transportation corridors.
  - **Policy LU-8.3:** Allow for mixed-use development at varying intensities at selected areas as a means of revitalizing underutilized urban parcels.
- **Objective LU-9:** Provide for continuing growth within the General Plan Area, with land uses and intensities appropriately designated to meet the needs of anticipated growth and to achieve the community's objectives.
  - **Policy LU-9.6:** Discourage strip commercial development and encourage a pattern of alternating land uses along major arterials with “nodes” of commercial development separated by other uses such as residential, institutional or office.
  - **Policy LU-9.7:** Protect residentially designated areas from encroachment by incompatible uses and from the effects of incompatible uses in adjacent areas. Uses adjacent to planned residential areas should be compatible with the planned residential uses and should employ appropriate site design, landscaping and building design to buffer the non-residential uses.

The Circulation and Community Mobility Element also includes objectives and policies that would be applicable to the project:

- **Objective CCM-9: Promote and support an efficient public multi-modal transportation network that connects activity centers in Riverside to each other and to the region.**
  - **Policy CCM-9.1:** Encourage increased use of public transportation and multi-modal transportation as means of reducing roadway congestion, air pollution and non-point source water pollution, through such techniques as directing new growth along transportation corridors.

CITY OF RIVERSIDE EPAP/CAP

The Riverside Restorative Growthprint (RRG) was adopted in 2016 and combines two plans: the Economic Prosperity Action Plan (RRG-EPAP) and the Climate Action Plan (RRG-CAP), which work in conjunction to spur entrepreneurship and smart growth while advancing the City of Riverside’s GHG emission reduction goals. The adoption of the RRG will result in actions to reduce GHG emissions that align with the City’s planning priorities and its vision of a future “green” economy based on sustainable businesses. The RRG-EPAP identifies the measures and strategies in the RRG-CAP with the greatest potential to drive local economic prosperity through clean-tech investment, entrepreneurship, and expansion of local green businesses.

In 2014, Riverside was one of 12 cities that collaborated with the Western Riverside Council of Governments on a Subregional Climate Action Plan (Subregional CAP) that included 36 measures to guide Riverside’s GHG reduction efforts through 2020. The RRG-CAP expands upon the Subregional

CAP and provides a path for the City to achieve deep reductions in GHG emissions through 2035, while the RRG-EPAP provides a framework for smart growth and low-carbon economic development. The RRG-CAP provides a roadmap for the City to achieve deep GHG emissions reductions through 2035. The RRG-CAP prioritizes the implementation of policies that enable the City to fulfill the requirements of AB 32 and SB 375. The following measures from the RRG-CAP are applicable to the project:

- **Measure SR-12:** Electric Vehicle Plan and Infrastructure Facilitate electric vehicle use by providing necessary infrastructure.
- **Measure SR-13:** Construction & Demolition Waste Diversion to exceed requirement by diverting 90% of C&D waste from landfills by 2035.
- **Measure E-2:** Shade Trees Strategically plant trees at new residential developments to reduce the urban heat island effect.
- **Measure T-2:** Bicycle Parking Provide additional options for bicycle parking.
- **Measure T-6:** Density Improve jobs-housing balance and reduce vehicle miles traveled by increasing household and employment densities.
- **Measure 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.

3 Impact Analysis

3.1 Methodology

Criteria pollutant and GHG emissions for project construction and operation were calculated using the California Emissions Estimator Model (CalEEMod), Version 2022.1. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. The model was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air districts. CalEEMod allows for the use of default data (e.g., emission factors, trip lengths, meteorology, source inventory) provided by the various California air districts to account for local requirements and conditions, and/or user-defined inputs. The calculation methodology and input data used in CalEEMod can be found in the CalEEMod User's Guide (CAPCOA 2022). The input data and subsequent construction and operation emission estimates for the proposed project are discussed below. CalEEMod output files for the project are included in Appendix A to this report.

Construction Emissions

Project construction would primarily generate temporary criteria pollutant and GHG emissions from construction equipment operation on-site, construction worker vehicle trips to and from the site, and from import of materials to the site. Construction input data for CalEEMod include, but are not limited to: (1) the anticipated start and finish dates of construction activity; (2) inventories of construction equipment to be used; and (3) areas to be excavated and graded. The analysis assessed maximum daily emissions from individual construction activities, including site preparation, grading, building construction, paving, and architectural coating. Construction would require heavy equipment during demolition, site preparation, grading, building construction, and paving. Construction equipment estimates are based on surveys of construction projects within California conducted by members of CAPCOA. Note that there would be no demolition phase since the existing site is vacant.

Construction emissions were modeled in CalEEMod to occur over 17 months, starting in July 2024 with completion anticipated in December 2025. This report was completed prior to the estimated construction start date; this represents a conservative analysis because CalEEMod assumes more efficient emission factors (e.g., cleaner construction equipment) each year in the future. Construction emissions associated with development of the proposed project were quantified using the types and quantities of equipment for each construction phase as provided by the applicant. CalEEMod also estimates off-site emissions from worker, vendor, and hauling truck trips. The number of worker and vendor trips are based on CalEEMod defaults. Based on the project's preliminary grading plan, project construction is assumed to require 150 cubic yards of material import. No material export would be required for project construction.

The quantity, duration, and the intensity of construction activity influences the amount of construction emissions and their related pollutant concentrations that occur at any one time. The emission forecasts modeled for this report reflect conservative assumptions where a relatively large amount of construction is occurring in a relatively intensive manner. If construction is delayed

or occurs over a longer period, emissions could be reduced because of (1) a more modern and cleaner-burning construction equipment fleet mix than assumed in the CalEEMod, and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

Consistent with the industry standard, total construction GHG emissions resulting from a project were amortized over 30 years and added to operational GHG emissions to account for their contribution to GHG emissions over the lifetime of the project.

Operational Emissions

In CalEEMod, operational sources of criteria pollutant emissions include area, energy, and mobile sources; GHG emissions include water, refrigerant, and solid waste sources in addition to area, energy, and mobile sources. The residential units, common areas, and lobby of the project were combined and attributed to the "Apartments – Mid Rise" land use subtype, while the proposed retail space was modeled as "Strip Mall." The enclosed parking on the first floor was modeled as "Enclosed Parking with Elevator." The modeling analyzed 18 total dwelling units.

Energy Sources

Emissions from energy use typically include electricity and natural gas use. Electricity emissions only apply to GHG emissions (as the energy is generated off-site and therefore may not be relevant for local and regional air quality conditions) and are calculated by multiplying the energy use times the carbon intensity of the utility district per kilowatt hour (CAPCOA 2022). The default electricity consumption values in CalEEMod include the CEC-sponsored California Commercial End Use Survey and Residential Appliance Saturation Survey studies.

Electricity emissions are calculated by multiplying the energy use times the carbon intensity of the utility district per kilowatt hour (CAPCOA 2022). The project would be served by Riverside Public Utilities (RPU). Therefore, RPU's specific energy intensity factors (i.e., the amount of CO_2, CH_4, and N_2O per kilowatt-hour) are used in the calculations of GHG emissions.

Area Sources

Emissions associated with area sources, including consumer products, landscape maintenance, and architectural coating were calculated in CalEEMod and standard emission rates were utilized from CARB, USEPA, and emission factor values provided by the local air district (CAPCOA 2022).

Waste Sources

Operational emissions from waste generation were also calculated in CalEEMod and are based on the IPCC's methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (CAPCOA 2022). Waste disposal rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by the California Department of Resources Recycling and Recovery (CalRecycle).

Water and Wastewater Sources

Operational emissions from water and wastewater usage calculated in CalEEMod were based on the default electricity intensity from the CEC's 2006 Refining Estimates of Water-Related Energy Use in California using the average values for northern and southern California.

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Mobile Sources

Mobile emissions are estimated by multiplying the project trip rate, average trip length, and the vehicle emission factors. CalEEMod default trip generation rates for "Apartments – Mid Rise" and "Strip Mall" were used. These default rates are based on based on the Institute of Transportation Engineers (ITE)'s *Trip Generation Manual, 10th Edition*.

3.2 Significance Thresholds

Air Quality

To determine whether a project would result in a significant impact to air quality, Appendix G of the CEQA Guidelines requires consideration of whether a project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Regional Significance Thresholds

The SCAQMD recommends quantitative regional significance thresholds for temporary construction activities and long-term project operation in the SCAB, shown in Table 3.

Table 3 SCAQMD Regional Significance Thresholds

Construction Thresholds	Operational Thresholds
75 pounds per day of VOC	55 pounds per day of VOC
100 pounds per day of NO_X	55 pounds per day of NO_X
550 pounds per day of CO	550 pounds per day of CO
150 pounds per day of SO_X	150 pounds per day of SO_X
150 pounds per day of PM_{10}	150 pounds per day of PM_{10}
55 pounds per day of $PM_{2.5}$	55 pounds per day of $PM_{2.5}$

VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter measuring 10 microns or less in diameter; $PM_{2.5}$ = particulate matter measuring 2.5 microns or less in diameter; SCAQMD = South Coast Air Quality Management District

Source: SCAQMD 2019

Localized Significance Thresholds

In addition to the above regional thresholds, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the *CEQA Air Quality Handbook* (1993). LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities and have been developed for NO_X, carbon monoxide, PM_{10}, and $PM_{2.5}$. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality

exceedance of the most stringent applicable federal or State ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), distance to the sensitive receptor, and project size. LSTs have been developed for emissions within construction areas up to five acres in size. However, LSTs only apply to emissions in a fixed stationary location and are not applicable to mobile sources, such as cars on a roadway (SCAQMD 2008). As such, LSTs are typically applied only to construction emissions because the majority of operational emissions are associated with project-generated vehicle trips.

The project is located in SRA 23 (Metropolitan Riverside County). The SCAQMD provides LST lookup tables for project sites that measure one, two, or five acres. The project site is approximately 0.63 acres. Therefore, the LST analysis uses one-acre LSTs. LSTs are provided for receptors at a distance of 82 feet to 1,640 feet from the project disturbance boundary to the sensitive receptors. The border of construction activity would be approximately 20 feet from the nearest off-site sensitive receptors (i.e., the single-family homes approximately 20 feet to the north of the project site). According to the SCAQMD's publication, *Final LST Methodology*, projects with boundaries located closer than 82 feet to the nearest receptor should use the LSTs for receptors located at 82 feet. Therefore, the analysis below uses the LST values for 82 feet (approximately 25 meters). LSTs for construction in SRA 23 on a one-acre site with a receptor 82 feet away are shown in Table 4.

Table 4 SCAQMD LSTs for Construction (SRA 23)

Pollutant	Allowable Emissions for a 1-acre Site in SRA 23 for a Receptor 82 Feet Away (lbs/day)
Gradual conversion of NO_X to NO_2	118
Carbon Monoxide	602
PM_{10}	4
$PM_{2.5}$	3

VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter measuring 10 microns or less in diameter; $PM_{2.5}$ = particulate matter measuring 2.5 microns or less in diameter; SCAQMD = South Coast Air Quality Management District

Source: SCAQMD 2009

Health Risk Thresholds

SCAQMD has developed significance thresholds for the emissions of TACs based on health risks associated with elevated exposure to such compounds. For carcinogenic compounds, cancer risk is assessed in terms of incremental excess cancer risk. A project would result in a potentially significant impact if it would generate a Maximum Incremental Cancer Risk of 10 in one million or a cancer burden of 0.5 excess cancer cases in areas exceeding one in one million risk. Additionally, non-carcinogenic health risks are assessed in terms of a Hazard Index. A project would result in a potentially significant impact if it would result in a chronic and acute Hazard Index greater than 1.0 (SCAQMD 2019).

Greenhouse Gas Emissions

Based on Appendix G of the CEQA Guidelines, impacts related to GHG emissions from the project would be significant if the project would:

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- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions.

The majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15064[h][1]).

To determine a project-specific threshold, guidance on GHG significance thresholds in the region from SCAQMD, the air district in which the project site is located, was used. The SCAQMD's GHG CEQA Significance Threshold Working Group considered a tiered approach to determine the significance of residential and commercial projects. The draft tiered approach is outlined in meeting minutes dated September 29, 2010 (SCAQMD 2010):

- **Tier 1.** If the project is exempt from further environmental analysis under existing statutory or categorical exemptions, there is a presumption of less than significant impacts with respect to climate change. If not, then the Tier 2 threshold should be considered.
- **Tier 2.** Consists of determining whether the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The concept embodied in this tier is equivalent to the existing concept of consistency in CEQA Guidelines Section 15064(h)(3), 15125(d) or 15152(a). Under this Tier, if the proposed project is consistent with the qualifying local GHG reduction plan, it is not significant for GHG emissions. If there is not an adopted plan, then a Tier 3 approach would be appropriate.
- **Tier 3.** Establishes a screening significance threshold level to determine significance. The Working Group has provided a recommendation of 3,000 MT CO_2e per year for nonindustrial projects.
- **Tier 4.** Establishes a service population threshold to determine significance. The Working Group has provided a recommendation of 4.8 MT CO_2e per year for land use projects.

Tier 1 would not apply to the project as it is not exempt from environmental analysis. For Tier 2, the City of Riverside has not adopted a CAP with GHG emission targets post-2020, therefore, the City does not have an applicable GHG reduction plan. Therefore, the most applicable project-specific threshold is SCAQMD's 3,000 MT CO_2e per year threshold for nonindustrial projects, in accordance with Tier 3. The SCAQMD's 3,000 MT CO_2e per year threshold is frequently used by jurisdictions across Southern California to determine GHG emissions impacts from nonindustrial projects.

3.3 Impact Analysis

Air Quality

Air Quality Threshold 1
Would the project conflict with or obstruct implementation of the applicable air quality plan? *(Less Than Significant)*.

A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding forecasts used in the development of the AQMP. The 2022 AQMP, the most recent AQMP adopted by the SCAQMD, incorporates local city general plans and the Southern California Association of Governments (SCAG)'s 2020 RTP/SCS socioeconomic forecast projections of regional population, housing, and employment growth (SCAQMD 2022, SCAG 2020).

The population growth forecasts in SCAG's 2020 RTP/SCS estimate that the City of Riverside population would increase from 325,300 persons in 2016 to 395,800 persons in 2045 (SCAG 2020). Based on California Department of Finance E-5 estimates, the average household size in the City of Riverside is 3.05 persons (California Department of Finance 2023). Therefore, the 18-unit project would result in a population increase of approximately 55 persons. The population addition of 55 residents would be negligible to the overall population of the City.

The 2020 RTP/SCS projects an increase from 94,500 households to 115,100 households by 2045. The proposed project would develop 18 residential units; therefore, the project's contribution to housing in the city would be within SCAG growth projections.

Given the aforementioned, the proposed project would be consistent with the underlying assumptions of the emissions forecasts contained in the 2022 AQMP. As discussed below, the project would not generate criteria pollutant emissions that would exceed SCAQMD thresholds for ozone precursors (ROG and NO_X) and $PM_{2.5}$. Impacts would be less than significant.

Air Quality Threshold 2
Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard *(Less Than Significant)*.

The SCAB has been designated as a federal nonattainment area for ozone and $PM_{2.5}$ and a state nonattainment area for ozone, PM_{10}, and $PM_{2.5}$. The SCAB is designated unclassifiable or in attainment for all other federal and state standards.

Construction Emissions

Project construction would generate temporary air pollutant emissions associated with fugitive dust (PM_{10} and $PM_{2.5}$) and exhaust emissions from heavy construction equipment and construction vehicles in addition to VOC emissions that would be released during the drying of architectural coating and paving phases. Table 5 summarizes the estimated maximum daily emissions of pollutants during project construction. As shown therein, construction-related emissions would not exceed SCAQMD regional thresholds. Therefore, project construction would not 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. Impacts would be less than significant.

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Table 5 Project Construction Emissions

	Emissions (pounds per day)				
	ROG	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Maximum Daily Emissions	20.6	19.9	22.2	4.0	2.3
SCAQMD Threshold	75	100	550	150	55
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**
Maximum On-site Emissions	20.6	19.6	20.3	3.7	2.2
Localized Significance Thresholds[1]	N/A	118	602	4	3
Exceed LST?	**No**	**No**	**No**	**No**	**No**

[1] Allowable emissions (pounds per day) as a function of receptor distance (25 meters) from site boundary. LST for Source Receptor Area 23: Riverside Metropolitan County.

Source: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds

Note: Some numbers may not add up precisely due to rounding. See Appendix C for complete modeling results.

For a conservative estimate of project emissions, construction and operational emissions were modeled during winter and summer, then reported for the maximum day during the winter or summer, whichever was highest. Maximum daily emission estimates were then compared to the SCAQMD thresholds and LSTs measured in pounds-per-day.

Operational Emissions

Operation of the project would generate criteria air pollutant emissions associated with area sources (e.g., architectural coatings, consumer products, and landscaping equipment), energy sources (i.e., use of natural gas for space and water heating), and mobile sources (i.e., vehicle trips to and from the project site). Table 6 summarizes the project's maximum daily operational emissions by emission source. As shown therein, operational emissions would not exceed SCAQMD regional thresholds for criteria pollutants. Therefore, project operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment, and impacts would be less than significant.

Table 6 Project Operational Emissions

	Maximum Daily Emissions (lbs/day)					
Emission Source	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Mobile	1	1	6	<1	1	<1
Area	1	<1	2	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Project Emissions	2	1	8	<1	1	<1
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day = pounds per day; TOG = total organic gases; NO_x = nitrogen oxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter no more than 10 microns; $PM_{2.5}$ = particulate matter with a diameter no more than 2.5 microns; SO_x = sulfur oxide

Notes: Some numbers may not add up precisely due to rounding considerations. See Appendix C for complete modeling results.

Air Quality Threshold 3
Expose sensitive receptors to substantial pollutant concentrations *(Less Than Significant)*.

Toxic Air Contaminants

CONSTRUCTION

Construction-related activities would result in short-term, project-generated emissions of DPM exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, building construction, and other construction activities. DPM was identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of DPM (discussed in the following paragraphs) outweighs the potential non-cancer health impacts (CARB 2021).

Generation of DPM from construction projects typically occurs in a single area for a short period. Construction of the proposed project would occur over approximately 17 months. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that a person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period (assumed to be the approximate time that a person spends in a household). OEHHA recommends this risk be bracketed with 9-year and 70-year exposure periods. Health risk assessments should be limited to the period/duration of activities associated with the project.

The maximum $PM_{2.5}$ emissions, which is used to represent DPM emissions for this analysis, would occur during site preparation and grading activities. While grading emissions represent the worst-case condition, such activities would occur for less than one month, or 0.9 percent for a 9-year health risk calculation period and less than 0.3 percent for a 30-year and 70-year health risk calculation period. $PM_{2.5}$ emissions would decrease for the remaining construction period because construction activities such as building construction, architectural coating, and paving would require less construction equipment. Therefore, DPM generated by project, construction is not expected to create conditions where the probability that the Maximally Exposed Individual would contract cancer is greater than 10 in one million. This impact would be less than significant.

OPERATION

CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities). CARB guidelines provide the recommended siting distances both for the development of sensitive land uses in proximity to TAC sources and for the addition of new TAC sources in proximity to existing sensitive land uses. Residential land uses do not generate substantial TAC emissions based on the air toxic sources listed in CARB's guidelines. Therefore, the expected hazardous TACs generated on site (e.g., cleaning solvents, paints, landscape pesticides, etc.) for the proposed land uses would be below thresholds warranting further study under the California Accidental Release Program. The project would not expose off-

site sensitive receptors to significant amounts of carcinogenic or TACs. Therefore, operational impacts would be less than significant.

Air Quality Threshold 4
Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people *(Less Than Significant)*.

Sensitive receptors in the project vicinity include single-family residences at the project boundaries to the north. Construction activities would be temporary and transitory and associated odors would cease upon construction completion. Such odors disperse rapidly with distance. Accordingly, the proposed project would not create objectionable odors affecting a substantial number of people during construction, and short-term impacts would be less than significant.

The project does not include land uses typically associated with odor complaints such as sewage treatment plants, landfills, recycling facilities, and agricultural uses. Vehicles approaching, idling, and leaving the site may release odorous exhaust emissions. Odors of this nature disperse rapidly with distance and do not typically result in odor impacts. Additionally, the project site is located adjacent to University Avenue, an arterial road, so vehicle exhaust is already prevalent in the project area. For these reasons, operational odor impacts would be less than significant.

Greenhouse Gas Emissions

GHG Emissions Threshold 1
Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment? *(Less Than Significant)*.

GHG Emissions Threshold 2
Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions? *(Less Than Significant)*.

Project-generated Greenhouse Gas Emissions

Project construction would generate temporary short-term GHG emissions through travel to and from the worksite and from the operation of construction equipment such as graders, backhoes, and generators. Based on the CalEEMod results, construction activity for the project would generate an estimated 363 MT of CO_2e (as shown in Table 7) during construction. Amortized over a 30-year period (the assumed life of the project), construction of the proposed project would generate approximately 12 MT CO_2e per year. Emissions from construction are amortized for the purpose of comparison with annual operational emissions over the estimated 30-year life of the project.

Table 7 Estimated Construction GHG Emissions

Year	Project Emissions (MT/yr CO_2e)
2024	119
2025	244
Total	**363**
Total Amortized over 30 Years	**12**

See Appendix A for CalEEMod worksheets.

Operational Emissions

Long-term emissions relate to area sources, energy use, solid waste, water use, and transportation, as shown in Table 8. As shown in the table, annual GHG emissions for the project would be an estimated 319 MT CO_2e. Each of these sources is discussed below the table.

Table 8 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (MT CO_2e)
Construction	12
Operational	
Area	4
Energy	85
Waste	5
Water	3
Refrigerants	<1
Mobile	210
Total	**319**
SCAQMD Threshold	**3,000**
Threshold Exceeded?	**No**

See Appendix A for CalEEMod worksheets.

Area emissions include consumer product use, the reapplication of architectural coatings, and landscape maintenance equipment. As shown in Table 8, area emissions would be 4 MT CO_2e per year.

Operation of the proposed project would consume both electricity and natural gas. Project operation would consume an estimated 181,613 kilowatt-hours (kWh) of electricity and 240,818 thousand British thermal units (kBTU) of natural gas per year (refer to Appendix A). Electricity would be supplied to the project site by RPU. The generation of electricity used by the project would occur at off-site power plants, some of which would be generated by the combustion of fossil fuels that yields CO_2, and to a smaller extent N_2O and CH_4. Overall energy use at the project site would generate an estimated 85 MT CO_2e per year.

The CalEEMod output for GHG emissions from solid waste relies on current waste disposal rates provided by CalRecycle. Solid waste generation associated with the project would generate an estimated 5 MT CO_2e per year.

Based on the amount of electricity generated in order to supply and convey water for the proposed project, the project would generate three MT CO_2e per year.

Mobile source GHG emissions were based on CalEEMod default trip generation rates for the single-family residential unit. The proposed project would generate an estimated 562,514 annual VMT and mobile sources associated with the project would emit an estimated 210 MT CO_2e per year.

As shown in Table 8, annual project emissions when combined with amortized construction emissions would not exceed the SCAQMD threshold of 3,000 MT CO_2e. Therefore, impacts would be less than significant.

Consistency with Applicable Plans

2022 Scoping Plan

The principal state plans and policies for reducing GHG emissions are AB 32, SB 32, and AB 1279. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020; the goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030; and the goal of AB 1279 is to achieve net zero greenhouse gas emissions no later than 2045, and reduce GHG emissions by 85 percent below 1990 levels no later than 2045. The 2022 Scoping Plan expands upon earlier plans to include the AB 1279 targets. The 2022 Scoping Plan's strategies that are applicable to the proposed project include reducing fossil fuel use and vehicle miles traveled; decarbonizing the electricity sector, maximizing recycling and diversion from landfills; and increasing water conservation. The project would be consistent with these goals through project design, which includes complying with the latest Title 24 Green Building Code and Building Efficiency Energy Standards and the AB 341 waste diversion goal of 75 percent. Twenty percent of the total number of parking spaces onsite would be constructed to support Electric Vehicle Supply Equipment (EVSE), and the project would be located within a half mile of public transit options. In addition, the project would receive electricity from RPU, which is required to reduce GHG emissions by increasing procurement from eligible renewable energy by set target years as required by SB 100. Therefore, the project would not conflict with the 2022 Scoping Plan.

Connect SoCal: 2020-2045 SCAG RTP/SCS

According to the 2020-2045 RTP/SCS, the updated targets for the SCAG region are eight percent below 2005 per capita emission levels by 2020 (this value is unchanged from the previous 2020 CARB target) and 19 percent below 2005 per capita emissions levels by 2035. The revised 2035 target is higher than the previous CARB target of 13 percent for the SCAG region. The 2020-2045 RTP/SCS includes implementation strategies for focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, supporting implementation of sustainability policies, and promoting a green region. Further specific actions to reduce GHG emissions under the 2020-2045 RTP/SCS include designing transportation options that reduce the reliance on solo car trips, promoting low emission technologies such as electric vehicles and ride sharing, supporting statewide GHG emissions legislation, and pursuing funding opportunities to support local sustainable development projects that reduce GHG emissions. Table 9 shows the project's consistency with applicable goals from the 2020-2045 RTP/SCS. As shown therein, the project would not conflict with the 2020-2045 RTP/SCS goals .

Table 9 Project Consistency with the SCAG 2020-2045 RTP/SCS

Goals	Consistency
Goal 2: Improve mobility, accessibility, reliability, and travel safety for people and goods	**Consistent.** The project would be located along a major commercial corridor within the City of Riverside, thereby facilitating mobility and accessibility for residents. The project would provide pedestrian access to local schools and parks, including Patterson Park and John W. North High School to the north, Bobby Bonds park and Cesar E. Chavez Community Center to the west, UC Riverside and Knight High School to the east, and Bordwell Park to the south, as well as commercial uses on University Avenue. Therefore, the project would have accessible and reliable travel options and be designed to reduce reliance on solo vehicle trips.
Goal 5: Reduce greenhouse gas emissions and improve air quality	**Consistent.** The project would include several sustainable design features, including those required by Title 24 and CALGreen standards. All proposed residences would be equipped with energy-efficient appliances and lighting, water-efficient fixtures, and water-efficient irrigation systems. The project would meet the requirements of the 2022 California Energy Code, in addition to several voluntary measures contained in the 2019 California Energy Code (See Table 10).
Goal 6: Support healthy and equitable communities	**Consistent.** The project would provide housing near city parks, commercial areas, and schools. Furthermore, the project would include design features such as sidewalks and multiple access points to the project site. These features would promote active transportation and foster efficient development patterns within the project site vicinity.
Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options	**Consistent.** The project would include multiple access points, sidewalks, and bicycle lockers to provide vehicle, bicycle, and pedestrian access to residences. The project would provide pedestrian access to local schools and parks as discussed under Goal 2. Public transit options located in close proximity to the project site include Riverside Transit Agency (RTA) Bus Lines 1, 13, 14, 22, and 51, in addition to Dial-A-Ride services. The project would include improvement of pedestrian and bicycle facilities, and site access would be provided along several access points. Proposed on-site facilities would establish residences on an underutilized lot adjacent to existing development. Therefore, the project would provide connectivity with planned neighboring residential developments.

Source: SCAG 2020

City of Riverside Housing Element Update Mitigation Monitoring and Reporting Program

The City of Riverside adopted the General Plan 2025 Housing Element Update in 2021. As part of the Housing Element Update approval process, a Mitigation Monitoring and Reporting Program (MMRP) was developed. The mitigation measures identified in the MMRP represent conditions of approval with which future development on Opportunity Sites within the City must comply.

The project's consistency with GHG-related measures contained in the City of Riverside Housing Element Update MMRP is shown in Table 10. As shown therein, the proposed project would demonstrate compliance with applicable mitigation measures. Therefore, the project would be consistent with the City Housing Element Update..

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Table 10 Project Consistency with the City of Riverside Housing Element Update MMRP

Mitigation Measure/Condition of Approval	Consistency
GHG-2: Future development on Opportunity Sites shall utilize electrical lighting and heating to the maximum extent feasible or to the extent required by existing or future regulations. Natural gas appliances are to be avoided to the extent feasible as determined by the availability and capacity of electrical power distribution infrastructure.	**Consistent.** The project would not include natural gas connections, and would utilize electrical appliances, lighting, and heating .
GHG-3: Prior to discretionary approval by the City for Opportunity Site projects subject to CEQA review, each applicant shall be required to demonstrate that all feasible Tier 1 and Tier 2 CALGreen voluntary measures (Appendix A4 and Appendix A5 of the 2019 CALGreen) shall be implemented.	**Consistent.** The project would comply with all standards set forth in the 2022 CBC Title 24, which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources during operation. Furthermore, in accordance with the City's MMRP, the project would achieve the following voluntary measures from Appendix A4 of the 2019 California Green Building Standards for residential developments: ▪ A4.103.1 Selection: An infill site is selected ▪ A4.103.2 (2) Community Connectivity: Locate project within a ¼ mile true walking distance of at least seven basic services, readily accessible by pedestrians. ▪ A4.106.2.2 (1) Soil Protection: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction occupancy. ▪ A4.106.2.2 (1) Soil Protection: Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. ▪ A4.106.2.3 Topsoil protection (Tier 2):. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. Heavy equipment or vehicle traffic and material storage outside the construction areas shall be limited to areas that are planned to be paved. ▪ A4.106.3 (2) Landscape design: Utilize at least 75% native California or drought tolerant plant and tree species appropriate for the climate zone region. ▪ A4.106.7 Reduction of heat island effect for nonroof areas (4): Locate 50% of parking underground or use multi-level parking. ▪ A4.106.8.2 EV charging for new construction (Tier 2): Twenty percent of the total number of parking spaces on a building site, provided for all types of parking facilities, but in no case less than one, shall be EV spaces capable of supporting future EVSE. ▪ A4.106.9.1 Short-term bicycle parking: Provide permanently anchored bicycle racks within 100 feet of the visitor's entrance, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity with a minimum of one two-bike capacity rack. ▪ A4.106.9.2 Long-term bicycle parking for multifamily buildings. Provide onsite bicycle parking for at least one bicycle per every two dwelling units. ▪ A4.303.1 Kitchen faucets: The maximum flow rate of kitchen faucets shall not exceed 1.5 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.5 gallons per minute at 60 psi.

Source: City of Riverside 2021

Conclusion

In summary, the plan consistency analysis provided above demonstrates that the project complies with or exceeds the plans, policies, regulations and GHG reduction actions/strategies outlined in SCAG's 2020-2045 RTP/SCS, the 2022 Scoping Plan, and the City of Riverside Housing Element Update MMRP. Therefore, the project would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHG emissions. Impacts would be less than significant.

4 Conclusions

4.1 Air Quality Summary

As shown in Table 5 and Table 6, project construction and operational emissions would not exceed applicable significance thresholds for all criteria pollutants. Furthermore, growth facilitated by the proposed project would not exceed SCAG growth projections and would not conflict with the SCAQMD's 2022 AQMP. The project's criteria pollutant emissions impacts would be less than significant.

The project would generate TAC emissions including DPM exhaust emissions associated with use of heavy-duty diesel construction equipment. As discussed under Air Quality Threshold 3, health risks at the nearest sensitive receptors resulting from construction and operation of the project would not cause a significant impact. Thus, impacts from the project's TAC emissions would be less than significant.

The project does not include land uses typically associated with odor complaints such as sewage treatment plants, landfills, recycling facilities, and agricultural uses. During construction, the project would temporarily generate diesel exhaust odors from use of heavy-duty equipment and 0during operation the project would generate vehicle exhaust and fugitive fuel vapors may be released. These types of odors dissipate quickly with distance and do not typically result in odor impacts. Additionally, as the project site is located adjacent to an arterial road, East Palmdale Boulevard, vehicle exhaust is already prevalent. For these reasons, operational odor impacts would be less than significant.

As detailed above, construction and operation of the project would not result in significant air quality impacts.

4.2 Greenhouse Gas Emissions Summary

The project would result in an overall GHG emissions of 319 MT CO_2e per year. The majority of these emissions would result from vehicle trips to and from the site.

The City of Riverside has not adopted a CAP that meets the requirements under CEQA Guidelines Section 15183.5 for a qualified GHG reduction plan. Therefore, this project-level analysis utilizes thresholds set forth by the SCAQMD. As shown in Table 8, the proposed project's emissions would be approximately 319 MT CO_2e per year, which does not exceed the SCAQMD threshold of 3,000 MT CO_2e per year. Therefore, the project's incremental contribution to a global climate would be less than significant. The project would comply with or exceed the plans, policies, regulations and GHG reduction actions/strategies outlined in SCAG's 2020-2045 RTP/SCS, the 2022 Scoping Plan, and the City of Riverside Housing Element Update MMRP, as discussed in Table 9 and Table 10. Therefore, the project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions.

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Appendix A

California Emission Estimator Model (CalEEMod) Outputs

1775 University Apts Detailed Report

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7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	1775 University Apts
Construction Start Date	7/1/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	14.2
Location	33.97599139844317, -117.35038447597927
County	Riverside-South Coast
City	Riverside
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5407
EDFZ	11
Electric Utility	City of Riverside
Gas Utility	Southern California Gas
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Apartments Mid Rise	18.0	Dwelling Unit	0.63	33,270	1,000	—	58.0	—
Strip Mall	1.48	1000sqft	0.00	1,477	0.00	—	—	Retail use
Enclosed Parking with Elevator	42.0	Space	0.00	17,699	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.67	2.25	19.9	22.2	0.03	0.90	3.09	4.00	0.83	1.41	2.25	—	3,610	3,610	0.14	0.06	1.63	3,633
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.49	20.6	14.2	16.2	0.03	0.57	0.32	0.89	0.52	0.08	0.60	—	2,453	2,453	0.10	0.05	0.04	2,471
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.38	1.75	8.17	9.53	0.02	0.30	0.19	0.49	0.28	0.06	0.32	—	1,460	1,460	0.06	0.03	0.39	1,471
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.25	0.32	1.49	1.74	< 0.005	0.05	0.03	0.09	0.05	0.01	0.06	—	242	242	0.01	< 0.005	0.06	244

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.67	2.25	19.9	22.2	0.03	0.90	3.09	4.00	0.83	1.41	2.25	—	3,610	3,610	0.14	0.06	1.63	3,633
2025	2.35	1.95	13.8	16.3	0.03	0.51	0.32	0.82	0.47	0.08	0.54	—	2,469	2,469	0.10	0.05	1.52	2,488
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.49	2.08	14.2	16.2	0.03	0.57	0.32	0.89	0.52	0.08	0.60	—	2,453	2,453	0.10	0.05	0.04	2,471
2025	2.34	20.6	13.8	15.9	0.03	0.51	0.32	0.82	0.47	0.08	0.54	—	2,445	2,445	0.10	0.05	0.04	2,463
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.67	0.56	4.00	4.68	0.01	0.17	0.17	0.34	0.15	0.06	0.21	—	713	713	0.03	0.01	0.19	718
2025	1.38	1.75	8.17	9.53	0.02	0.30	0.19	0.49	0.28	0.04	0.32	—	1,460	1,460	0.06	0.03	0.39	1,471
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.12	0.10	0.73	0.85	< 0.005	0.03	0.03	0.06	0.03	0.01	0.04	—	118	118	< 0.005	< 0.005	0.03	119
2025	0.25	0.32	1.49	1.74	< 0.005	0.05	0.03	0.09	0.05	0.01	0.06	—	242	242	0.01	< 0.005	0.06	244

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.04	1.75	0.96	7.72	0.02	0.04	1.17	1.20	0.04	0.30	0.33	9.60	2,258	2,267	1.05	0.07	5.54	2,320
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.74	1.47	0.99	4.97	0.01	0.04	1.17	1.20	0.04	0.30	0.33	9.60	2,167	2,176	1.05	0.07	0.38	2,224

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.83	1.57	0.74	6.00	0.01	0.02	1.08	1.10	0.02	0.27	0.29	9.60	1,797	1,807	1.04	0.07	2.39	1,855
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.15	0.29	0.13	1.09	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	1.59	298	299	0.17	0.01	0.39	307

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.75	0.70	0.63	5.74	0.01	0.01	1.17	1.18	0.01	0.30	0.31	—	1,404	1,404	0.06	0.06	5.29	1,429
Area	0.27	1.05	0.27	1.96	< 0.005	0.02	—	0.02	0.02	—	0.02	0.00	328	328	0.01	< 0.005	—	329
Energy	0.01	< 0.005	0.06	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	512	512	0.02	< 0.005	—	513
Water	—	—	—	—	—	—	—	—	—	—	—	1.61	14.0	15.6	0.17	< 0.005	—	20.9
Waste	—	—	—	—	—	—	—	—	—	—	—	7.99	0.00	7.99	0.80	0.00	—	28.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.25	0.25
Total	1.04	1.75	0.96	7.72	0.02	0.04	1.17	1.20	0.04	0.30	0.33	9.60	2,258	2,267	1.05	0.07	5.54	2,320
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.71	0.65	0.68	4.84	0.01	0.01	1.17	1.18	0.01	0.30	0.31	—	1,319	1,319	0.06	0.06	0.14	1,340
Area	0.03	0.82	0.25	0.11	< 0.005	0.02	—	0.02	0.02	—	0.02	0.00	322	322	0.01	< 0.005	—	322
Energy	0.01	< 0.005	0.06	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	512	512	0.02	< 0.005	—	513
Water	—	—	—	—	—	—	—	—	—	—	—	1.61	14.0	15.6	0.17	< 0.005	—	20.9
Waste	—	—	—	—	—	—	—	—	—	—	—	7.99	0.00	7.99	0.80	0.00	—	28.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.25	0.25

Total	0.74	1.47	0.99	4.97	0.01	0.04	1.17	1.20	0.04	0.30	0.33	9.60	2,167	2,176	1.05	0.07	0.38	2,224
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.66	0.60	0.65	4.69	0.01	0.01	1.08	1.09	0.01	0.27	0.28	—	1,245	1,245	0.06	0.06	2.14	1,267
Area	0.17	0.96	0.03	1.28	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	26.3	26.3	< 0.005	< 0.005	—	26.3
Energy	0.01	< 0.005	0.06	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	512	512	0.02	< 0.005	—	513
Water	—	—	—	—	—	—	—	—	—	—	—	1.61	14.0	15.6	0.17	< 0.005	—	20.9
Waste	—	—	—	—	—	—	—	—	—	—	—	7.99	0.00	7.99	0.80	0.00	—	28.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.25	0.25
Total	0.83	1.57	0.74	6.00	0.01	0.02	1.08	1.10	0.02	0.27	0.29	9.60	1,797	1,807	1.04	0.07	2.39	1,855
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.12	0.11	0.12	0.86	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	206	206	0.01	0.01	0.35	210
Area	0.03	0.18	0.01	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	4.35	4.35	< 0.005	< 0.005	—	4.36
Energy	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	84.7	84.7	< 0.005	< 0.005	—	84.9
Water	—	—	—	—	—	—	—	—	—	—	—	0.27	2.31	2.58	0.03	< 0.005	—	3.46
Waste	—	—	—	—	—	—	—	—	—	—	—	1.32	0.00	1.32	0.13	0.00	—	4.63
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	0.15	0.29	0.13	1.09	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	1.59	298	299	0.17	0.01	0.39	307

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.91	0.76	6.13	7.46	0.01	0.27	—	0.27	0.25	—	0.25	—	1,058	1,058	0.04	0.01	—	1,062
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.45	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	78.3	78.3	< 0.005	< 0.005	—	78.5
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.0	13.0	< 0.005	< 0.005	—	13.0
Demolition	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	1.25	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	14.9	14.9	< 0.005	< 0.005	0.03	15.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.46	2.46	< 0.005	< 0.005	< 0.005	2.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90	0.75	6.04	7.23	0.01	0.32	—	0.32	0.29	—	0.29	—	1,064	1,064	0.04	0.01	—	1,067
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.13	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.3	23.3	< 0.005	< 0.005	—	23.4
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.86	3.86	< 0.005	< 0.005	—	3.87
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.83	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	144	144	0.01	< 0.005	0.57	146
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.94	2.94	< 0.005	< 0.005	0.01	2.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.49	0.49	< 0.005	< 0.005	< 0.005	0.49
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.54	2.13	19.6	20.3	0.03	0.90	—	0.90	0.83	—	0.83	—	3,153	3,153	0.13	0.03	—	3,164
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.54	0.56	< 0.005	0.02	—	0.02	0.02	—	0.02	—	86.4	86.4	< 0.005	< 0.005	—	86.7
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.3	14.3	< 0.005	< 0.005	—	14.4
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.11	1.88	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	324	324	0.01	0.01	1.28	329
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.15	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	133	133	< 0.005	0.02	0.28	140
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.26	8.26	< 0.005	< 0.005	0.02	8.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.65	3.65	< 0.005	< 0.005	< 0.005	3.83
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.37	1.37	< 0.005	< 0.005	< 0.005	1.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.60	0.60	< 0.005	< 0.005	< 0.005	0.63

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.38	1.97	13.9	14.8	0.03	0.57	—	0.57	0.52	—	0.52	—	2,020	2,020	0.08	0.02	—	2,026
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.38	1.97	13.9	14.8	0.03	0.57	—	0.57	0.52	—	0.52	—	2,020	2,020	0.08	0.02	—	2,026
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48	0.40	2.80	2.99	0.01	0.11	—	0.11	0.11	—	0.11	—	407	407	0.02	< 0.005	—	408
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.07	0.51	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	67.4	67.4	< 0.005	< 0.005	—	67.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.10	1.74	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	300	300	0.01	0.01	1.19	305
Vendor	0.01	< 0.005	0.18	0.06	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	157	157	< 0.005	0.02	0.44	165
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.12	1.32	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	276	276	0.01	0.01	0.03	279
Vendor	0.01	< 0.005	0.19	0.06	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	157	157	< 0.005	0.02	0.01	165
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.28	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	56.3	56.3	< 0.005	< 0.005	0.10	57.1
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.7	31.7	< 0.005	< 0.005	0.04	33.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.33	9.33	< 0.005	< 0.005	0.02	9.46
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.25	5.25	< 0.005	< 0.005	0.01	5.50
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.23	1.85	13.5	14.7	0.03	0.50	—	0.50	0.46	—	0.46	—	2,020	2,020	0.08	0.02	—	2,026
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.23	1.85	13.5	14.7	0.03	0.50	—	0.50	0.46	—	0.46	—	2,020	2,020	0.08	0.02	—	2,026
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.06	7.74	8.40	0.01	0.29	—	0.29	0.27	—	0.27	—	1,158	1,158	0.05	0.01	—	1,162
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.19	1.41	1.53	< 0.005	0.05	—	0.05	0.05	—	0.05	—	192	192	0.01	< 0.005	—	192
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.09	0.09	1.61	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	294	294	0.01	0.01	1.08	299
Vendor	0.01	< 0.005	0.17	0.05	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	155	155	< 0.005	0.02	0.44	163
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.10	1.22	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	270	270	0.01	0.01	0.03	274

Vendor	0.01	< 0.005	0.18	0.05	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	155	155	< 0.005	0.02	0.01	162
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.74	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	157	157	0.01	0.01	0.27	159
Vendor	< 0.005	< 0.005	0.10	0.03	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	88.9	88.9	< 0.005	0.01	0.11	93.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.0	26.0	< 0.005	< 0.005	0.04	26.4
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.7	14.7	< 0.005	< 0.005	0.02	15.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	0.66	6.00	8.13	0.01	0.25	—	0.25	0.23	—	0.23	—	1,218	1,218	0.05	0.01	—	1,222
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.02	0.02	0.16	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.4	33.4	< 0.005	< 0.005	—	33.5
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.52	5.52	< 0.005	< 0.005	—	5.54
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.08	1.02	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	227	227	0.01	0.01	0.02	230
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.29	6.29	< 0.005	< 0.005	0.01	6.38
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.04	1.04	< 0.005	< 0.005	< 0.005	1.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	0.41	3.28	3.28	0.01	0.12	—	0.12	0.11	—	0.11	—	501	501	0.02	< 0.005	—	503
Architectural Coatings	—	20.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.1	15.1	< 0.005	< 0.005	—	15.2
Architectural Coatings	—	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.50	2.50	< 0.005	< 0.005	—	2.51
Architectural Coatings	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.24	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	54.1	54.1	< 0.005	< 0.005	0.01	54.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.65	1.65	< 0.005	< 0.005	< 0.005	1.67
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.28
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.45	0.41	0.36	3.29	0.01	0.01	0.66	0.67	0.01	0.17	0.17	—	799	799	0.03	0.04	3.01	813
Strip Mall	0.31	0.28	0.27	2.45	0.01	< 0.005	0.50	0.51	< 0.005	0.13	0.13	—	605	605	0.02	0.03	2.29	616
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.75	0.70	0.63	5.74	0.01	0.01	1.17	1.18	0.01	0.30	0.31	—	1,404	1,404	0.06	0.06	5.29	1,429
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.42	0.38	0.39	2.78	0.01	0.01	0.66	0.67	0.01	0.17	0.17	—	750	750	0.03	0.04	0.08	762
Strip Mall	0.29	0.26	0.29	2.06	0.01	< 0.005	0.50	0.51	< 0.005	0.13	0.13	—	569	569	0.03	0.03	0.06	578
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.71	0.65	0.68	4.84	0.01	0.01	1.17	1.18	0.01	0.30	0.31	—	1,319	1,319	0.06	0.06	0.14	1,340
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.07	0.07	0.07	0.50	< 0.005	< 0.005	0.11	0.12	< 0.005	0.03	0.03	—	119	119	0.01	0.01	0.20	121
Strip Mall	0.05	0.04	0.05	0.36	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	—	87.0	87.0	< 0.005	< 0.005	0.15	88.5
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.12	0.11	0.12	0.86	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	206	206	0.01	0.01	0.35	210

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	244	244	0.01	< 0.005	—	244
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	34.5	34.5	< 0.005	< 0.005	—	34.6
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	156	156	0.01	< 0.005	—	157
Total	—	—	—	—	—	—	—	—	—	—	—	—	434	434	0.02	< 0.005	—	435
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	244	244	0.01	< 0.005	—	244
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	34.5	34.5	< 0.005	< 0.005	—	34.6
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	156	156	0.01	< 0.005	—	157
Total	—	—	—	—	—	—	—	—	—	—	—	—	434	434	0.02	< 0.005	—	435
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	40.3	40.3	< 0.005	< 0.005	—	40.4

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	5.71	5.71	< 0.005	< 0.005	—	5.72
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	25.9	25.9	< 0.005	< 0.005	—	25.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	71.9	71.9	< 0.005	< 0.005	—	72.1

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	< 0.005	0.06	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	74.4	74.4	0.01	< 0.005	—	74.6
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.80	2.80	< 0.005	< 0.005	—	2.81
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.06	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	77.2	77.2	0.01	< 0.005	—	77.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	< 0.005	0.06	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	74.4	74.4	0.01	< 0.005	—	74.6
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.80	2.80	< 0.005	< 0.005	—	2.81
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.01	< 0.005	0.06	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	77.2	77.2	0.01	< 0.005	—	77.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.3	12.3	< 0.005	< 0.005	—	12.3
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.46	0.46	< 0.005	< 0.005	—	0.47
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.8	12.8	< 0.005	< 0.005	—	12.8

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.03	0.01	0.25	0.11	< 0.005	0.02	—	0.02	0.02	—	0.02	0.00	322	322	0.01	< 0.005	—	322
Consumer Products	—	0.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.25	0.23	0.02	1.85	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.16	6.16	< 0.005	< 0.005	—	6.18
Total	0.27	1.05	0.27	1.96	< 0.005	0.02	—	0.02	0.02	—	0.02	0.00	328	328	0.01	< 0.005	—	329

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.03	0.01	0.25	0.11	< 0.005	0.02	—	0.02	0.02	—	0.02	0.00	322	322	0.01	< 0.005	—	322
Consumer Products	—	0.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.03	0.82	0.25	0.11	< 0.005	0.02	—	0.02	0.02	—	0.02	0.00	322	322	0.01	< 0.005	—	322
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	3.65	3.65	< 0.005	< 0.005	—	3.66
Consumer Products	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.03	0.03	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.70	0.70	< 0.005	< 0.005	—	0.70
Total	0.03	0.18	0.01	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	4.35	4.35	< 0.005	< 0.005	—	4.36

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.40	12.2	13.6	0.14	< 0.005	—	18.2
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.21	1.78	1.99	0.02	< 0.005	—	2.69
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.61	14.0	15.6	0.17	< 0.005	—	20.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.40	12.2	13.6	0.14	< 0.005	—	18.2
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.21	1.78	1.99	0.02	< 0.005	—	2.69
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.61	14.0	15.6	0.17	< 0.005	—	20.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	0.23	2.01	2.25	0.02	< 0.005	—	3.02
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.03	0.29	0.33	< 0.005	< 0.005	—	0.44
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.27	2.31	2.58	0.03	< 0.005	—	3.46

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	7.16	0.00	7.16	0.72	0.00	—	25.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.84	0.00	0.84	0.08	0.00	—	2.92
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	7.99	0.00	7.99	0.80	0.00	—	28.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	7.16	0.00	7.16	0.72	0.00	—	25.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.84	0.00	0.84	0.08	0.00	—	2.92
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	7.99	0.00	7.99	0.80	0.00	—	28.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.18	0.00	1.18	0.12	0.00	—	4.15

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.14	0.00	0.14	0.01	0.00	—	0.48
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.32	0.00	1.32	0.13	0.00	—	4.63

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.25	0.25
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.24
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.25	0.25
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetatio	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	7/15/2024	8/20/2024	5.00	27.0	—
Site Preparation	Site Preparation	8/21/2024	8/31/2024	5.00	8.00	—
Grading	Grading	9/1/2024	9/15/2024	5.00	10.0	—
Building Construction	Building Construction	9/20/2024	10/20/2025	5.00	282	—
Paving	Paving	11/1/2025	11/15/2025	5.00	10.0	—
Architectural Coating	Architectural Coating	11/16/2025	12/1/2025	5.00	11.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2.00	6.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	1.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Demolition	Sweepers/Scrubbers	Diesel	Average	1.00	8.00	36.0	0.46
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41

Site Preparation	Tractors/Loaders/Backh	Diesel	Average	1.00	8.00	84.0	0.37
Site Preparation	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Site Preparation	Sweepers/Scrubbers	Diesel	Average	1.00	8.00	36.0	0.46
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Plate Compactors	Diesel	Average	2.00	8.00	8.00	0.43
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Skid Steer Loaders	Diesel	Average	1.00	8.00	71.0	0.37
Grading	Sweepers/Scrubbers	Diesel	Average	1.00	8.00	36.0	0.46
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Cement and Mortar Mixers	Diesel	Average	3.00	8.00	10.0	0.56
Building Construction	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Building Construction	Plate Compactors	Diesel	Average	2.00	8.00	8.00	0.43
Building Construction	Air Compressors	Diesel	Average	4.00	8.00	37.0	0.48
Building Construction	Generator Sets	Diesel	Average	2.00	8.00	14.0	0.74
Building Construction	Pressure Washers	Diesel	Average	1.00	8.00	14.0	0.30
Building Construction	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Building Construction	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50
Building Construction	Sweepers/Scrubbers	Diesel	Average	1.00	8.00	36.0	0.46
Paving	Surfacing Equipment	Diesel	Average	1.00	7.00	84.0	0.37
Paving	Scrapers	Diesel	Average	1.00	8.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	7.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43

Paving	Sweepers/Scrubbers	Diesel	Average	1.00	8.00	36.0	0.46
Architectural Coating	Pressure Washers	Diesel	Average	1.00	8.00	37.0	0.48
Architectural Coating	Cement and Mortar Mixers	Diesel	Average	2.00	8.00	10.0	0.56
Architectural Coating	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Architectural Coating	Sweepers/Scrubbers	Diesel	Average	1.00	8.00	36.0	0.46

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	10.0	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	22.5	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	1.90	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	20.9	18.5	LDA,LDT1,LDT2

Building Construction	Vendor	5.07	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	17.5	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.17	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	67,372	22,457	2,216	739	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)

Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	4.00	0.00	—
Grading	150	—	10.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Strip Mall	0.00	0%
Enclosed Parking with Elevator	0.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	873	0.03	< 0.005
2025	0.00	873	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	97.9	88.4	73.6	33,976	936	845	704	324,723

Strip Mall	65.5	62.1	30.2	21,878	711	675	328	237,791
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	15
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	2
Conventional Wood Stoves	0
Catalytic Wood Stoves	1
Non-Catalytic Wood Stoves	1
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
67371.75	22,457	2,216	739	—

5.10.3. Landscape Equipment

Season	Unit	Value

Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	101,865	873	0.0330	0.0040	232,071
Strip Mall	14,413	873	0.0330	0.0040	8,747
Enclosed Parking with Elevator	65,335	873	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	732,128	19,379
Strip Mall	109,405	0.00
Enclosed Parking with Elevator	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	13.3	—
Strip Mall	1.55	—
Enclosed Parking with Elevator	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	26.3	annual days of extreme heat

Extreme Precipitation	2.65	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	1.71	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	97.0
AQ-PM	89.4
AQ-DPM	32.0
Drinking Water	77.4
Lead Risk Housing	77.0
Pesticides	0.00

Toxic Releases	55.4
Traffic	46.6
Effect Indicators	—
CleanUp Sites	58.5
Groundwater	25.2
Haz Waste Facilities/Generators	63.1
Impaired Water Bodies	0.00
Solid Waste	35.7
Sensitive Population	—
Asthma	66.0
Cardio-vascular	74.0
Low Birth Weights	40.9
Socioeconomic Factor Indicators	—
Education	73.1
Housing	72.2
Linguistic	71.4
Poverty	81.4
Unemployment	66.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	9.354548954
Employed	3.541639933
Median HI	17.2334146
Education	—

Bachelor's or higher	28.11497498
High school enrollment	23.31579623
Preschool enrollment	45.68202233
Transportation	—
Auto Access	19.63300398
Active commuting	24.3295265
Social	—
2-parent households	14.47452842
Voting	3.002694726
Neighborhood	—
Alcohol availability	55.70383678
Park access	81.35506224
Retail density	51.55909149
Supermarket access	61.56807391
Tree canopy	47.23469781
Housing	—
Homeownership	34.99294238
Housing habitability	22.43038624
Low-inc homeowner severe housing cost burden	19.62017195
Low-inc renter severe housing cost burden	31.25882202
Uncrowded housing	20.60823816
Health Outcomes	—
Insured adults	15.33427435
Arthritis	17.5
Asthma ER Admissions	41.5
High Blood Pressure	8.4
Cancer (excluding skin)	68.9

Asthma	4.5
Coronary Heart Disease	10.9
Chronic Obstructive Pulmonary Disease	6.0
Diagnosed Diabetes	7.2
Life Expectancy at Birth	25.4
Cognitively Disabled	50.3
Physically Disabled	57.4
Heart Attack ER Admissions	54.2
Mental Health Not Good	7.3
Chronic Kidney Disease	7.4
Obesity	5.4
Pedestrian Injuries	68.5
Physical Health Not Good	6.4
Stroke	5.6
Health Risk Behaviors	—
Binge Drinking	88.4
Current Smoker	7.0
No Leisure Time for Physical Activity	4.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	67.0
Elderly	60.0
English Speaking	37.5
Foreign-born	46.8
Outdoor Workers	27.0
Climate Change Adaptive Capacity	—

Impervious Surface Cover	63.9
Traffic Density	42.0
Traffic Access	59.0
Other Indices	—
Hardship	91.5
Other Decision Support	—
2016 Voting	14.6

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	80.0
Healthy Places Index Score for Project Location (b)	5.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification

Land Use	Assumes 1ksf of landscaped area (part of open space). Residential use includes lobby, common, and utility/storage
Construction: Construction Phases	Construction phase durations and dates per applicant provided data
Construction: Off-Road Equipment	Equipment list per applicant provided data. CalEEMod defaults used for demo/site prep in absence of available data. Compactor and sweeper scrubber added to each phase per applicant provided data.
Operations: Hearths	No woodstoves per SCAQMD Rule 445

Attachment C

Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis Report

Rincon Consultants, Inc.
250 East 1st Street, Suite 1400
Los Angeles, California 90012
213-788-4842

November 10, 2023
Project No: 23-14963

Zibo Gong
UCR 1775 Development LLC
250 Whispering Pines Summit
Arcadia, California 91006
Via email: zibsgong@gmail.com

Subject: Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis Report for 1775 University Avenue Project, Riverside, California 92507

Dear Mr. Gong,

This Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis summarizes potential impacts to biological resources for the proposed 0.63-acre 1775 University Avenue Project (project site), located in the city of Riverside, Riverside County, California. Rincon Consultants, Inc. (Rincon) performed a desktop background review and a habitat assessment consisting of a reconnaissance field survey to confirm habitat conditions of the study area. The study area includes the 0.63-acre project site plus an additional 500-foot buffer area. This report identifies and analyzes the impacts on the biological resources on-site along with proposed conditions of approval as appropriate to reduce impacts. This report also analyzes the project's consistency with the MSHCP.

Project Description and Location

Feng Xiao Architect, Inc is developing 18 multi-family residential units and 946 square feet of retail space at 1775 and 1795 University Avenue (Assessor's Parcel Numbers (APNs) 211-183-023 and 211-183-024). Figure 1 and Figure 2 in Attachment 1 show the regional location and study area for the project. The study area currently consists primarily of commercial retail and residential housing. The site is zoned as Mixed-Use Urban and Specific Plan (University Avenue) Overlay Zone (MU-U-SP) by the City of Riverside (City) Planning Division, and it is identified as an opportunity site (Ward 1 Site 144) in the City of Riverside's 6th Cycle Housing Element Update adopted in December 2021. The Study Area is located in the city of Riverside, between State Route 91 and Interstate 215.

Methodology

Biological Resources

Desktop Background Review

Rincon conducted a desktop assessment to preliminarily evaluate the potential biological impacts within the study area. The assessment consisted of a review of aerial imagery (Google Earth Pro 2023) and of occurrences of special-status plant and wildlife species records within the United States (U.S.) Geological Survey (USGS) Riverside East 7.5-minute quadrangle and surrounding eight quadrangles: Fontana, Lake Mathews, Perris, Redlands, Riverside West, San Bernadino South, Steele Peak, and Sunnymead. Rincon evaluated species occurrence records contained within the California Natural

Diversity Database (CNDDB; California Department of Fish and Wildlife [CDFW] 2023a), Biogeographic Information and Observation System (BIOS; CDFW 2023b), and the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPAC) system (USFWS 2023a). The online Inventory of Rare and Endangered Plants of California (California Native Plant Society [CNPS] 2023) was also queried to obtain comprehensive information regarding State and federally listed plant species considered to have potential to occur within the USGS 7.5-minute topographic quadrangle and the surrounding eight quadrangles. Rincon also reviewed the MSHCP policies and criteria for their applicability to the site based on location within the Plan area and to inform the field assessment.

Vegetation communities occurring in the study area were identified using aerial photography and the classification system provided in *A Manual of California Vegetation, Second Edition* (Sawyer et al. 2009). Suitable plant habitat characteristics were determined using the Calflora database (Calflora 2023). We supplemented the results of the database queries with Rincon's professional biological knowledge to develop a list of special-status species potentially occurring in the vicinity and to evaluate potential impacts to biological resources based on the proposed project. We also assessed the potential for waters of the U.S. and/or waters of the state based on a review of the USGS National Hydrography Dataset (USGS 2023a) and USFWS (2023a) National Wetlands Inventory Wetlands (NWI) Mapper to identify potential riparian/wetland resources in the Study Area.

Reconnaissance Survey

A reconnaissance pedestrian survey was conducted within the Study Area on September 29, 2023, by Rincon biologist Jorge Saavedra-Alvarado to field verify vegetation communities, existing habitats, and site conditions. A wandering pedestrian transect approach was used to cover the approximate 0.63-acre project site. The 500-foot buffer area was surveyed visually from accessible project site and road locations. During the survey, Rincon mapped vegetation communities/land covers and paid special attention to the potential presence of sensitive biological resources that could trigger regulatory requirements. The pedestrian survey was conducted to document existing conditions, evaluate the potential for impacts to regulated biological resources, and assess project consistency with the MSCP. Photos of the Study Area and existing conditions are included in Attachment 2.

Existing Conditions

Project Setting and Site Conditions

The project site encompasses approximately 0.63 acre or 27,442 square feet and encompasses APN 211-183-023 and 211-183-024. The project site is located on University Avenue between Chicago Avenue and Ottawa Avenue. Attachment 1, Figure 1 shows the location of the project site in the region and Attachment 1, Figure 2 shows the site condition in the context of the surrounding area. The project site is currently undeveloped.

The project site supports sparse vegetation limited to the herbaceous layer with roughly the entire eastern half of the project site paved over with asphalt. The western half of the project site contains well-compacted sandy surface soils. The entire property is flat with an average elevation of 991 feet above sea level (AMSL). The project site is currently dominated by disturbed/developed habitat with surrounding ornamental trees (listed in the Vegetation Community section below).

Soils

The U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey has classified the soils on the project site as Arlington fine sandy loam, 2-8 percent slope. Arlington series

is described as a well-drained soil type with slow to medium runoff and slow permeability. Soils are displayed in Attachment 1, Figure 3.

Vegetation Community/Habitat Classification

As previously stated, the majority of the project site is devoid of vegetation. Plant species documented on site were sparse, limited to the herbaceous layer, and were comprised of mostly invasive plant species. Such species documented include Bermuda grass (*Cynodon dactylon*), Russian thistle (*Salsola tragus*), and common Mediterranean grass (*Schismus barbatus*). Trees were immediately bordering the property, with some branches encroaching on the property boundary. Tree species observed include black popular (*Populus nigra*), blue jacaranda (*Jacaranda mimosifolia*), and California fan palm (*Washingtonia filifera*). Vegetation communities and land cover are displayed in Attachment 1, Figure 4.

Wildlife Populations

General wildlife species documented onsite or within the vicinity during the site visit were limited to avian species and include mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), house finch (*Carpodacus mexicanus*), and barn swallow (*Hirundo rustica*).

Regional Connectivity

The project site is not located within or adjacent to extensive native open space habitat and does not represent a wildlife travel route, crossing or regional movement corridor between large open space habitats. The project site is bordered on all sides by high density residential/urban development. The project is not located within an MSHCP-designated existing or proposed core, non-contiguous habitat block, constrained linkage, or linkage area.

Summary of Consistency with MSHCP Policies

Criteria Area

The project site is located within the Western Riverside MSHCP Area Plan for the Cities of Riverside/Norco. This Area Plan includes the entirety of the cities of Riverside and Norco with a target conservation acreage of 3,465 – 3,615 acres for the Area Plan. The project site is not located within an MSHCP criteria cell, group, or linkage area. Therefore, no Habitat Evaluation and Acquisition Negotiation Strategy (HANS) or Joint Project Review (JPR) are required. The following summarizes the project's consistency with MSHCP conservation goals respective of each MSHCP regulated resource section.

Criteria Area Species Survey Area (Section 6.3.2)

The project site does not occur within a predetermined survey area for MSHCP criteria area or narrow endemic plant species; therefore, no surveys are required (Western Riverside County Regional Conservation Authority [RCA] MSHCP Information Map Tool 2023). The project is consistent with MSHCP Section 6.3.2.

Amphibian Species Survey Area (Section 6.3.2)

The project site is not within the Amphibian Species Survey Area; therefore, no surveys are required (RCA MSHCP Information Map Tool 2023). The project is consistent with MSHCP Section 6.3.2.

Mammal Species Survey Aera (Section 6.3.2)

The project site is not within the Mammal Species Survey Area; therefore, no surveys are required (RCA MSHCP Information Map Tool 2023). The project is consistent with MSHCP Sections 6.3.2.

Burrowing Owl Survey Area (Section 6.3.2)

The project site is not within the Burrowing Owl Survey Area; therefore, no surveys are required (RCA MSHCP Information Map Tool 2023). No burrows or features suitable for burrowing owl were observed in the project site or the surrounding 500-foot buffer. The potential for burrowing owl to occur on the project site is unlikely. The project is consistent with MSHCP Section 6.3.2.

MSHCP Riparian/Riverine Areas and Vernal Pools (Section 6.1.2)

No MSHCP Section 6.1.2 riparian, riverine, or vernal pool resources occur onsite. The site is entirely a disturbed or developed land cover and no aquatic resources were observed during the site reconnaissance. As a result, no impacts to riparian, riverine, or vernal pool resources will occur and an MSHCP Determination of Biologically Equivalent or Superior Preservation (DBESP) will not be required. The project is consistent with MSHCP Section 6.1.2.

Urban/Wildlands Interface (6.1.4)

The MSHCP Urban/Wildlands Interface guidelines presented in Section 6.1.4 are intended to address indirect effects associated with locating commercial, mixed uses and residential developments in proximity to a MSHCP Conservation Area. The project site is within the urbanized portion of the City of Riverside and is not located adjacent to an existing or proposed MSHCP Conservation Area. The nearest MSHCP Conservation Area lies along the Santa Ana River approximately two miles northwest of the project site. The project is consistent with MSHCP Section 6.1.4.

Fuels Management (6. 4)

The fuels management guidelines presented in Section 6.4 of the MSHCP are intended to address brush management activities around new development within or adjacent to MSHCP Conservation Areas. The project site is not located adjacent to an existing or proposed MSHCP Conservation Area. The nearest MSHCP Conservation Area lies along the Santa Ana River approximately two miles northwest of the project site. The project is consistent with MSHCP Section 6.4.

Special Status Biological Resources

Plant or animal taxa may have “special status” due to declining populations, vulnerability to habitat change, or because they have restricted ranges. Some are listed as threatened or endangered by the USFWS or by the CDFW and are protected by the federal Endangered Species Act (ESA) and California Endangered Species Act (CESA). Others have been identified as sensitive or as special status species by the USFWS, the CDFW, or by conservation organizations that track sensitive species, including the CNPS. This section also discusses MSHCP-covered species that have potential to occur with the study area as listed in Volume II, Table 2-2.

For the purpose of this MSHCP Consistency Analysis Report, special status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS under the ESA; those listed or candidates for listing as Rare, Threatened, or Endangered by the CDFW under the CESA or Native Plant Protection Act (NPPA); those identified as Fully Protected (FP) under Sections 3511, 4700, 5050, and 5515 of the CFGC; those recognized as Species of Special

Concern (SSC) by the CDFW; and CDFW Special Plants, specifically those occurring on lists 1 through 4 of the CNPS California Rare Plant Ranking (CRPR) system and in the CNPS Inventory of Rare and Endangered Vascular Plants of California occurring of the CNPS CRPR system. See Table 1 and Table 2 for the definitions of Ranks 1 through 4 and Table 2 for the definitions of the Rank Threat Code Extensions (CNPS 2023).

Table 1 California Rare Plant Rank Definitions

Rank	Definition
1A	Presumed Extirpated in California and either Extent or Rare elsewhere
1B	Rare, Threatened, or Endangered in California and elsewhere
2A	Presumed Extirpated in California but common elsewhere
2B	Rare, Threatened, or Endangered in California, but more common elsewhere
3	Need more information (a Review List)
4	Plants of Limited Distribution (a Watch List)

Table 2 California Rare Plant Rank Threat Code Extensions

Threat Rank	Definitions
.1	Seriously endangered in California (over 78% of occurrences threatened / high degree and immediacy of threat)
.2	Fairly endangered in California (20-78% occurrences threatened)
.3	Not very endangered in California (<20% of occurrences threatened)

Federal and State Jurisdictional Wetlands and Waters

Our review of the USGS National Hydrography Dataset and USFWS NWI Mapper indicated a lack of wetlands or streams, and no evidence of aquatic resources was observed on the site during the field survey. A formal aquatic jurisdictional delineation was not performed as part of this assessment as no potential jurisdictional wetlands and waters were observed during the survey.

Non-Wetland Waters of the United States

The study area does not contain any Non-Wetland Waters of the U.S.

Wetland Waters of the United States

The study area does not contain any Wetland Waters of the U.S..

Waters of the State

The study area does not contain any Waters of the State.

CDFW Streambeds

The study area does not contain any CDFW Streambeds.

Special Status Wildlife

Based on the results of the desktop assessment, 113 special status wildlife species are documented by the CNDDB within the nine-USGS quadrangle search area, and three species are noted by the USFWS IPAC (USFWS 2023) with a potential to occur based on the geographical area and habitats known in the region (Attachment 3). Of these 113 species, five species were determined to have low potential to occur and include four bat species (all considered state Species of Special Concern) and the Cooper's hawk (state Watch List). The remaining 108 species are not likely to occur within the Study Area due to 1) lack of suitable breeding, foraging, nesting, roosting, wintering, and/or transitory habitat within the Study Area, and/or 2) lack of recent occurrence records (> 25 years) documented within the vicinity of the study area. Additionally, the site is located in an urbanized area surrounded by development, effectively isolating it from natural habitats and extant populations of sensitive species.

Nesting Birds

While not all birds are designated as special status species, destruction of their eggs, nests, and nestlings is prohibited by federal and state law. Section 3503.5 of the CFGC specifically protects birds of prey, and their nests and eggs, against take, possession, or destruction. Section 3503 of the CFGC also incorporates restrictions imposed by the federal MBTA with respect to migratory birds (which consists of all native bird species). Nesting birds are likely to be present within or adjacent to the project site during the bird nesting season (January 1 through July 1 for raptors, and March 1 through September 15 for passerines). Specifically in the black popular, blue jacaranda, and Mexican fan palm trees bordering the property. The surrounding buffer area also supports a diversity of ornamental trees and disturbed areas suitable for nesting birds including Cooper's hawk. If initial ground disturbance and vegetation/tree trimming or removal is required during the nesting bird season, the project may impact nesting birds through injury, mortality, or disruption of normal adult behaviors resulting in the abandonment or harm to eggs and nestlings. Construction occurring within the vicinity of nesting birds may also indirectly impact individuals through construction noise, dust, and vibration from equipment. Recommended conditions of approval to avoid potential impacts to Cooper's hawk and for compliance with CFGC 3503, CFGC 3503.5, and the MBTA are provided in the section below (COA -1).

Roosting Bats

Four species of bats protected under CFGC have low potential to occur within the project site and 500 foot buffer area. CNNDDB historical records document pallid bat, western mastiff bat, western yellow bat and pocket free-tailed within the Riverside East 7.5-minute quadrangle and surrounding eight quadrangles. Bats are known to roost in tree cavities, under leaves, and in palm trees between palm fronds. Adjacent to the project site is row of Mexican fan palm trees suitable for roosting bats. Impacts to protected bat species are not anticipated as tree removal is not proposed as part of project implementation. In the event project implementation is redesigned to remove or trim fam palms trees a habitat assessment and roosting bat survey is recommended to comply with CFGC.

Special-Status Plants and Sensitive Natural Communities

No species status plant species or sensitive natural communities were recorded within the study area nor do they have potential to occur within the study area due to a lack of suitable habitat. The disturbed/developed nature of the site does not support the soil conditions or vegetation communities required by special-status plant species occurring in the region.

Conclusions

Based on the disturbed/developed site conditions, it is not expected to support rare plants, sensitive vegetation communities, or special-status wildlife species with the exception of potentially nesting birds (common species but protected under the MBTA and CDFG Code). Accordingly, impacts to biological resources would be less than significant with implementation of the following Conditions of Approval (COA).

Conditions of Approval

COA BIO-1 - The following avoidance measures are recommended to comply with the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC): Project-related activities shall occur outside of the bird breeding season (typically January 1 to September 15 to account for both passerines and raptors) to the extent practicable. If construction must occur within the bird breeding season, then no more than three days prior to initiation of ground disturbance and/or vegetation removal, a nesting bird and raptor pre-construction survey shall be conducted by a qualified biologist within the disturbance footprint plus a 100-foot buffer (500-foot for raptors), where feasible.

Pre-construction nesting bird and raptor surveys shall be conducted during the time of day when birds are active and shall factor in sufficient time to perform this survey adequately and completely. A report of the nesting bird and raptor survey results, if applicable, shall be submitted to the lead agency for review and approval prior to ground and/or vegetation disturbance activities.

If nests are found, their locations shall be flagged. An appropriate avoidance buffer ranging in size from 25 to 50 feet for passerines, and up to 500 feet for raptors depending upon the species and the proposed work activity, shall be determined, and demarcated by a qualified biologist with bright orange construction fencing or other suitable flagging. Active nests shall be monitored at a minimum of once per week until it has been determined the nest is no longer being used by either the young or adults. No ground disturbance shall occur within this buffer until the qualified biologist confirms the breeding/nesting is completed, and all the young have fledged. If no nesting birds are observed during pre-construction surveys, no further actions shall be necessary. In the event work is phased, delayed, and/or there is more than a 7-day lapse in construction disturbance activities for a project segment during nesting season, a nesting bird survey shall be conducted before work continues.

MSHCP Consistency Determination

The project has been determined to be consistent with the MSHCP. If you have any questions regarding this submission or any of the information provided herein, please contact either Jorge Saavedra-Alvarado (jsalvarado@rinconconsultants.com), Andrea Maben (amaben@rinconconsultants.com) or Angie Harbin (aharbin@rinconconsultants.com).

Sincerely,
Rincon Consultants, Inc.

Andrea Maben
Senior Project Manager

Angie Harbin
Director of Natural Resources

Attachments

Attachment 1 Figures
Attachment 2 Representative Site Photographs
Attachment 3 Special-Status Species Potential to Occur Table

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Attachment 1

Figures

Figure 1 Regional Location

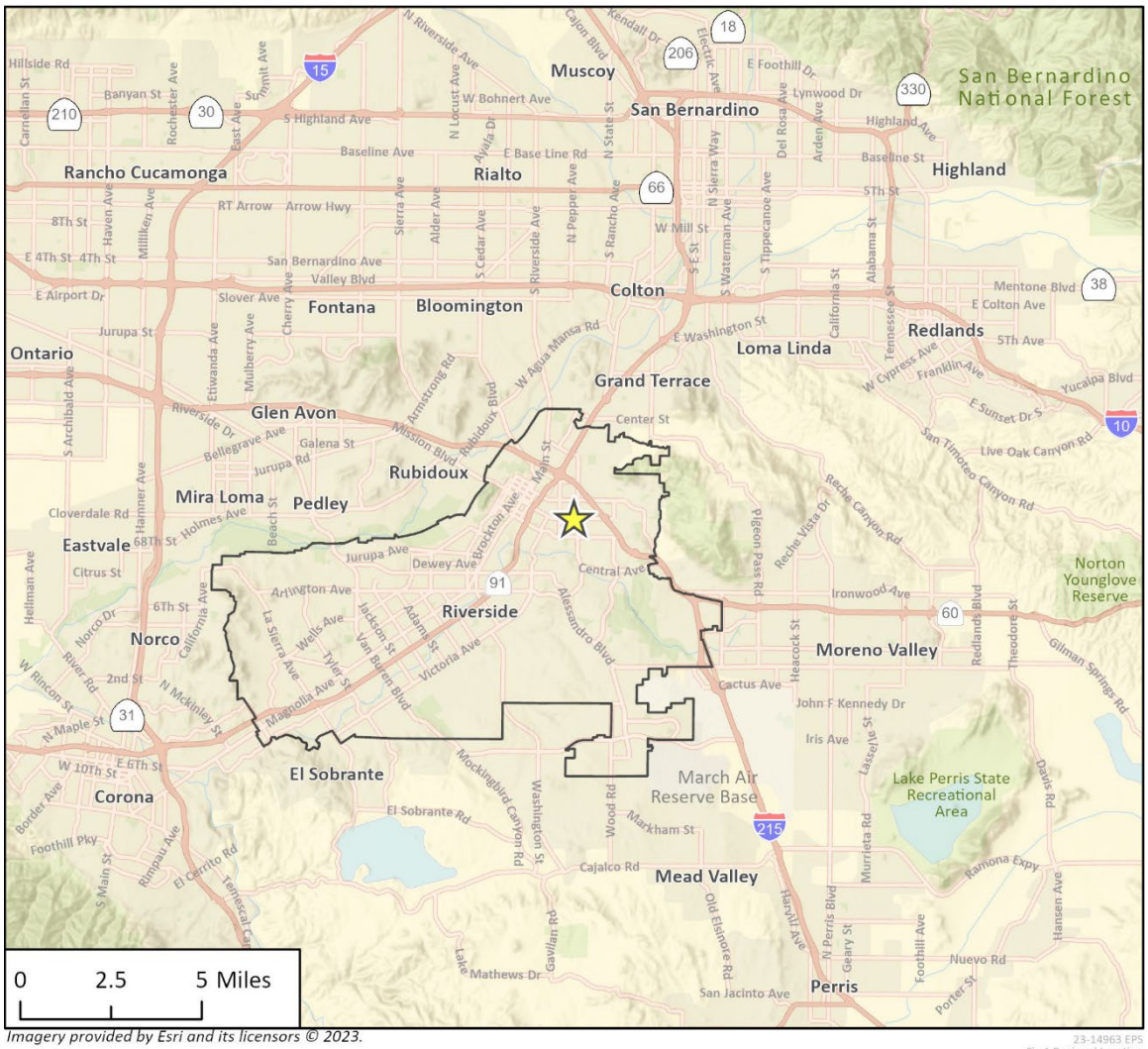


Figure 2 Study Area

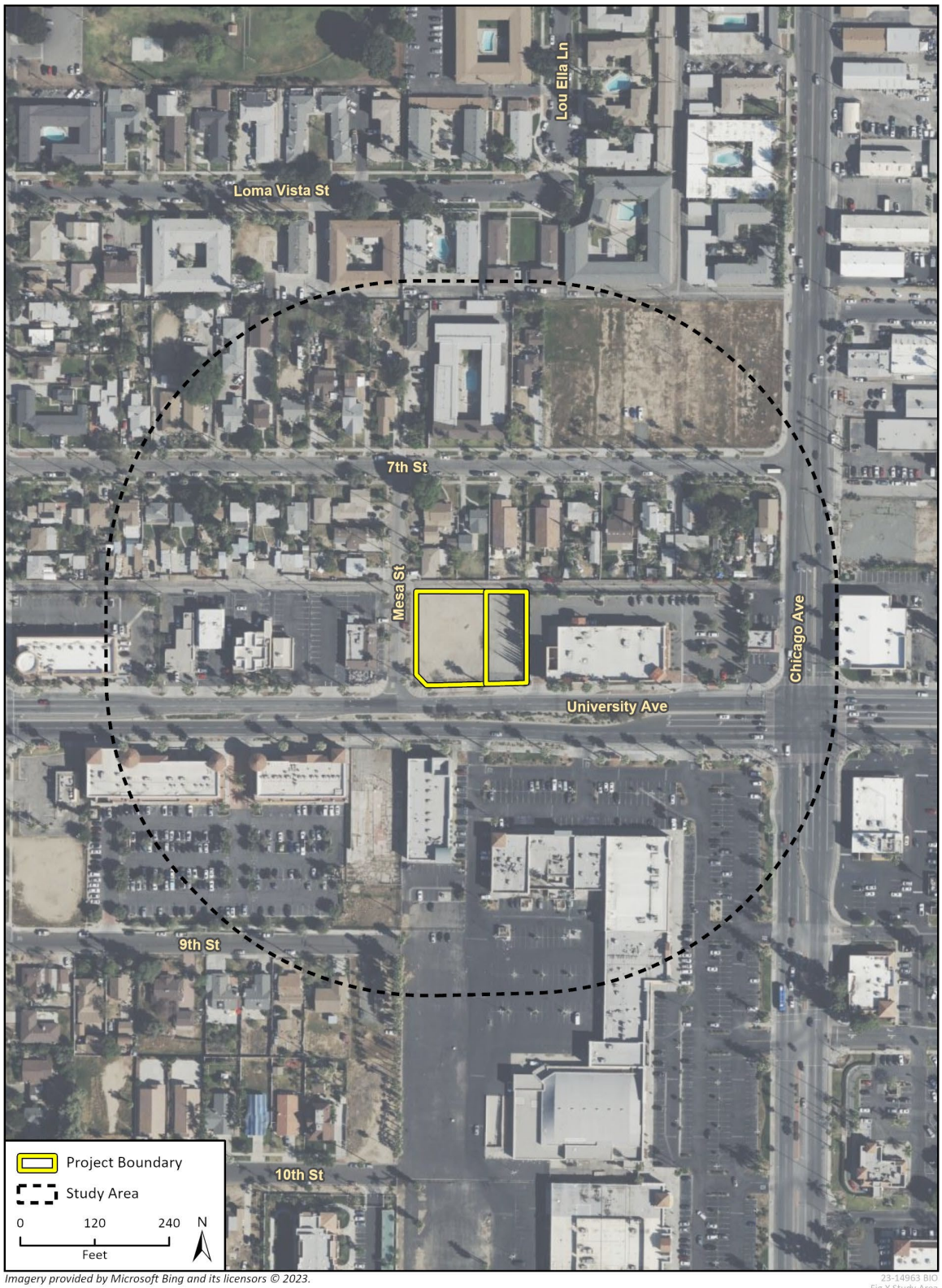


Figure 3 Soils Map

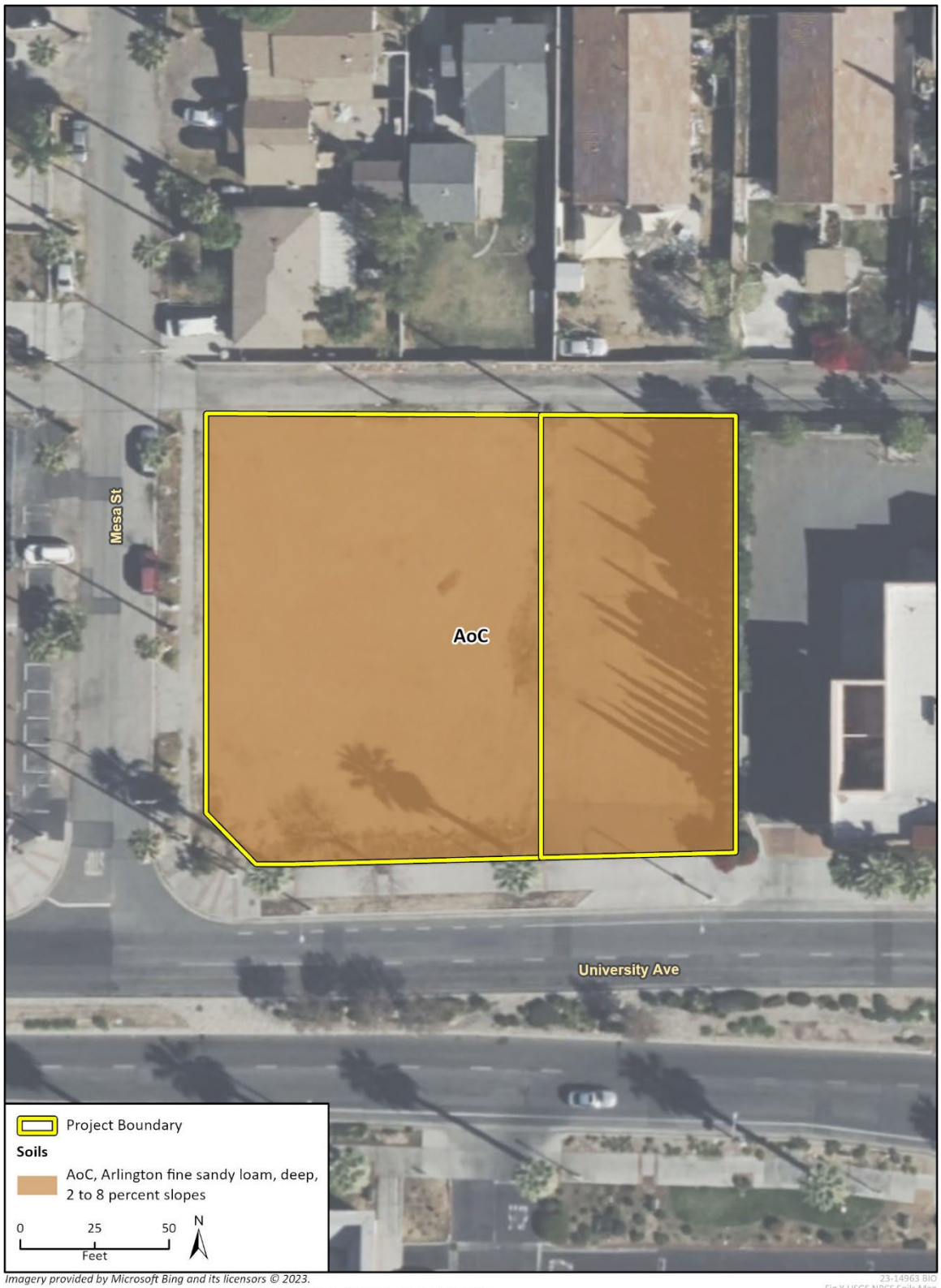
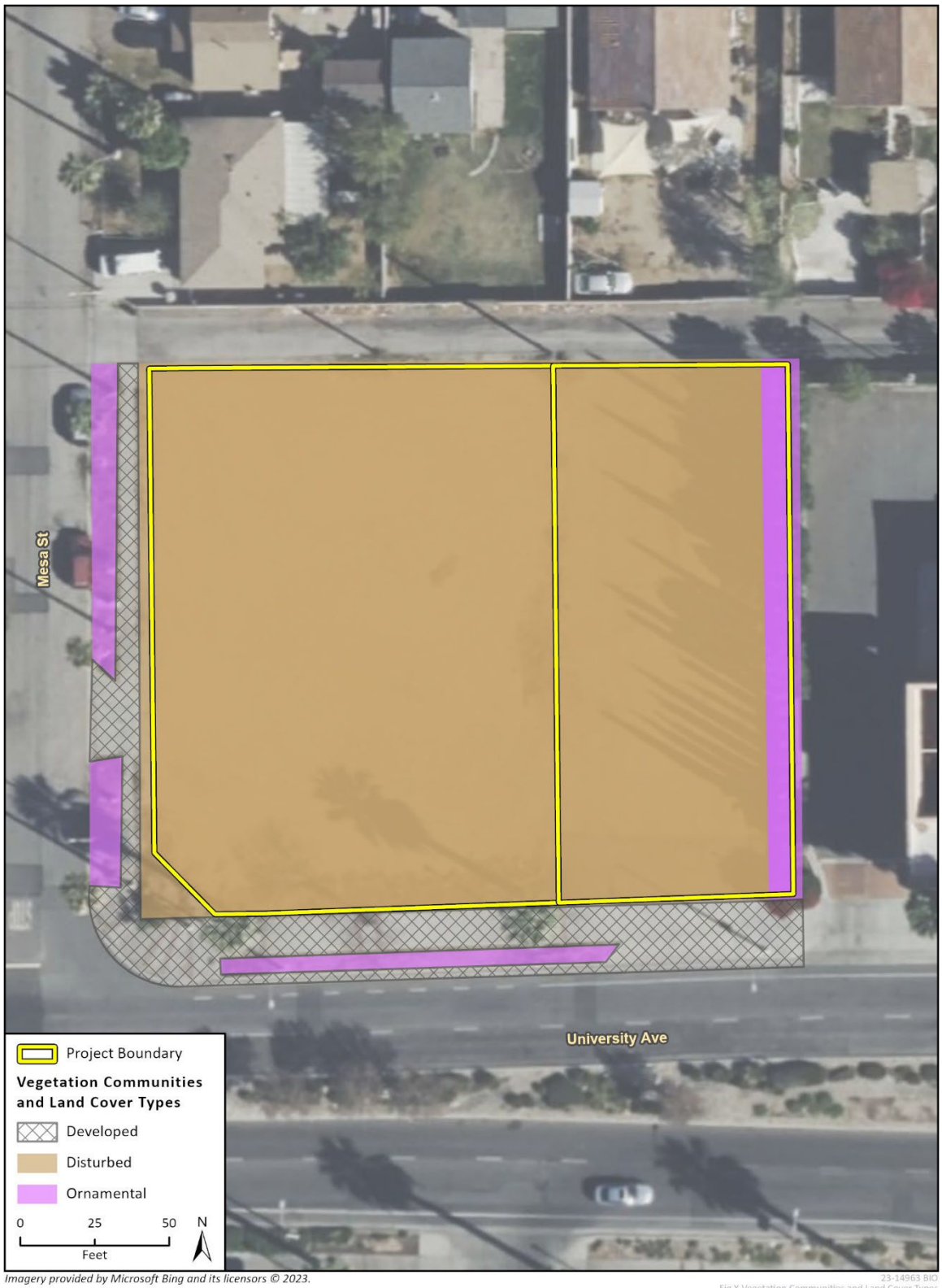


Figure 4 Vegetation Communities and Land Cover



Attachment 2

Representative Site Photographs



Photograph 1. View facing west, showing palm trees and vacant lot.



Photograph 2. View facing west, showing palm trees and surrounding commercial land cover.



Photograph 3. View facing southwest, showing roadside yellow jacaranda trees.



Photograph 4. View facing north, showing vacant lot and adjacent alleyway.



Photograph 5. View facing east, showing trash, debris and ornamental trees.



Photograph 7. View facing southwest, showing compacted sediment in vacant lot.



Photograph 8. View facing north, showing asphalt paving and alleyway in eastern portion of project site.

Attachment 3

Special-Status Species Potential to Occur Table

Special-Status Species Potential to Occur Within 9-USGS Quadrangle Search Area

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations	Comments based on lit review
Plants and Lichens					
Abronia villosa var. aurita chaparral sand-verbena	None/None G5T2?/S2 1B.1	Annual herb. Chaparral, coastal scrub, desert dunes. Sandy. Elevations: 245-5250ft. (75-1600m.) Blooms (Jan)Mar-Sep.	**No potential.**	Not observed. No suitable habitat.	
Allium marvinii Yucaipa onion	None/None G1/S1 1B.2	Perennial bulbiferous herb. Chaparral. In openings on clay soils. Elevations: 2495-3495ft. (760-1065m.) Blooms Apr-May.	**No potential.**	Not observed. No suitable habitat.	
Allium munzii Munz's onion	FE/ST G1/S1 1B.1	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, valley and foothill grassland. Clay, mesic. Elevations: 975-3510ft. (297-1070m.) Blooms Mar-May.	**No potential.**	Not observed. No suitable habitat.	
Ambrosia pumila San Diego ambrosia	FE/None G1/S1 1B.1	Perennial rhizomatous herb. Chaparral, coastal scrub, valley and foothill grassland, vernal pools. Alkaline (sometimes), clay (sometimes), disturbed areas (often), sandy (sometimes). Elevations: 65-1360ft. (20-415m.) Blooms Apr-Oct.	**No potential.**	Not observed. No suitable habitat.	
Arenaria paludicola marsh sandwort	FE/SE G1/S1 1B.1	Perennial stoloniferous herb. Marshes and swamps. Openings, sandy. Elevations: 10-560ft. (3-170m.) Blooms May-Aug.	**No potential.**	Not observed. No suitable habitat.	
Astragalus hornii var. *hornii* Horn's milk-vetch	None/None GUT1/S1 1B.1	Annual herb. Meadows and seeps, playas. Alkaline, lake margins. Elevations: 195-2790ft. (60-850m.) Blooms May-Oct.	**No potential.**	Not observed. No suitable habitat.	
Atriplex coronata var. *notatior* San Jacinto Valley crownscale	FE/None G4T1/S1 1B.1	Annual herb. Playas, valley and foothill grassland, vernal pools. Alkaline. Elevations: 455-1640ft. (139-500m.) Blooms Apr-Aug.	**No potential.**	Not observed. No suitable habitat.	
Atriplex parishii Parish's brittlescale	None/None G1G2/S1 1B.1	Annual herb. Chenopod scrub, playas, vernal pools. Alkaline. Elevations: 80-6235ft. (25-1900m.) Blooms Jun-Oct.	**No potential.**	Not observed. No suitable habitat.	
Atriplex serenana var. *davidsonii* Davidson's saltscale	None/None G5T1/S1 1B.2	Annual herb. Coastal bluff scrub, coastal scrub. Alkaline. Elevations: 35-655ft. (10-200m.) Blooms Apr-Oct.	**No potential.**	Not observed. No suitable habitat.	
Berberis nevinii Nevin's barberry	FE/SE G1/S1 1B.1	Perennial evergreen shrub. Chaparral, cismontane woodland, coastal scrub, riparian scrub. Gravelly (sometimes), sandy (sometimes). Elevations: 230-2705ft. (70-825m.) Blooms (Feb)Mar-Jun.	**No potential.**	Not observed. No suitable habitat.	

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Brodiaea filifolia thread-leaved brodiaea	FT/SE G2/S2 1B.1	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools. Clay (often). Elevations: 80-3675ft. (25-1120m.) Blooms Mar-Jun.	**No potential.**	Not observed. No suitable habitat.	
Calochortus plummerae Plummer's mariposa-lily	None/None G4/S4 4.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Granitic, rocky. Elevations: 330-5580ft. (100-1700m.) Blooms May-Jul.	**No potential.**	Not observed. No suitable habitat.	
Carex comosa bristly sedge	None/None G5/S2 2B.1	Perennial rhizomatous herb. Coastal prairie, marshes and swamps, valley and foothill grassland. Lake margins, wet places; site below sea level is on a Delta island. Elevations: 0-2050ft. (0-625m.) Blooms May-Sep.	**No potential.**	Not observed. No suitable habitat.	
Caulanthus simulans Payson's jewelflower	None/None G4/S4 4.2	Annual herb. Chaparral, coastal scrub. Granitic, sandy. Elevations: 295-7220ft. (90-2200m.) Blooms (Feb)Mar-May(Jun).	**No potential.**	Not observed. No suitable habitat.	
Centromadia pungens ssp. *laevis* smooth tarplant	None/None G3G4T2/S2 1B.1	Annual herb. Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland. Alkaline. Elevations: 0-2100ft. (0-640m.) Blooms Apr-Sep.	**No potential.**	Not observed. No suitable habitat.	
Chloropyron maritimum ssp. *maritimum* salt marsh bird's-beak	FE/SE G4?T1/S1 1B.2	Annual herb (hemiparasitic). Coastal dunes, marshes and swamps. Limited to the higher zones of salt marsh habitat. Elevations: 0-100ft. (0-30m.) Blooms May-Oct(Nov).	**No potential.**	Not observed. No suitable habitat.	
Chorizanthe parryi var. *parryi* Parry's spineflower	None/None G3T2/S2 1B.1	Annual herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Openings, Rocky (sometimes), sandy (sometimes). Elevations: 900-4005ft. (275-1220m.) Blooms Apr-Jun.	**No potential.**	Not observed. No suitable habitat.	
Chorizanthe polygonoides var. *longispina* long-spined spineflower	None/None G5T3/S3 1B.2	Annual herb. Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools. Clay (often). Elevations: 100-5020ft. (30-1530m.) Blooms Apr-Jul.	**No potential.**	Not observed. No suitable habitat.	
Cuscuta obtusiflora var. *glandulosa* Peruvian dodder	None/None G5T4?/SH 2B.2	Annual vine (parasitic). Marshes and swamps. Freshwater marsh. Elevations: 50-920ft. (15-280m.) Blooms Jul-Oct.	**No potential.**	Not observed. No suitable habitat.	
Dodecahema leptoceras slender-horned spineflower	FE/SE G1/S1 1B.1	Annual herb. Chaparral, cismontane woodland, coastal scrub. Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. Elevations: 655-2495ft. (200-760m.) Blooms Apr-Jun.	**No potential.**	Not observed. No suitable habitat.	

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Dudleya multicaulis many-stemmed dudleya	None/None G2/S2 1B.2	Perennial herb. Chaparral, coastal scrub, valley and foothill grassland. In heavy, often clayey soils or grassy slopes. Elevations: 50-2590ft. (15-790m.) Blooms Apr-Jul.	**No potential.**	Not observed. No suitable habitat.	
Eriastrum densifolium ssp. *sanctorum* Santa Ana River woollystar	FE/SE G4T1/S1 1B.1	Perennial herb. Chaparral, coastal scrub. In sandy soils on river floodplains or terraced fluvial deposits. Elevations: 300-2000ft. (91-610m.) Blooms Apr-Sep.	**No potential.**	Not observed. No suitable habitat.	
Galium californicum ssp. *primum* Alvin Meadow bedstraw	None/None G5T2/S2 1B.2	Perennial herb. Chaparral, lower montane coniferous forest. Grows in shade of trees and shrubs at the lower edge of the pine belt, in pine forest-chaparral ecotone. Granitic, sandy soils. Elevations: 4430-5580ft. (1350-1700m.) Blooms May-Jul.	**No potential.**	Not observed. No suitable habitat.	
Harpagonella palmeri Palmer's grapplinghook	None/None G4/S3 4.2	Annual herb. Chaparral, coastal scrub, valley and foothill grassland. Clay soils; open grassy areas within shrubland. Elevations: 65-3135ft. (20-955m.) Blooms Mar-May.	**No potential.**	Not observed. No suitable habitat.	
Helianthus nuttallii ssp. *parishii* Los Angeles sunflower	None/None G5TX/SX 1A	Perennial rhizomatous herb. Marshes and swamps. Elevations: 35-5005ft. (10-1525m.) Blooms Aug-Oct.	**No potential.**	Not observed. No suitable habitat.	
Horkelia cuneata var. *puberula* mesa horkelia	None/None G4T1/S1 1B.1	Perennial herb. Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. Elevations: 230-2660ft. (70-810m.) Blooms Feb-Jul(Sep).	**No potential.**	Not observed. No suitable habitat.	
Imperata brevifolia California satintail	None/None G3/S3 2B.1	Perennial rhizomatous herb. Chaparral, coastal scrub, meadows and seeps, mojavean desert scrub, riparian scrub. Mesic sites, alkali seeps, riparian areas. 3-. Elevations: 0-3985ft. (0-1215m.) Blooms Sep-May.	**No potential.**	Not observed. No suitable habitat.	
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	None/None G4T2/S2 1B.1	Annual herb. Marshes and swamps, playas, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1-. Elevations: 5-4005ft. (1-1220m.) Blooms Feb-Jun.	**No potential.**	Not observed. No suitable habitat.	
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	None/None G5T3/S3 4.3	Annual herb. Chaparral, coastal scrub. Dry soils, shrubland. 4-. Elevations: 5-2905ft. (1-885m.) Blooms Jan-Jul.	**No potential.**	Not observed. No suitable habitat.	
Lycium parishii Parish's desert-thorn	None/None G4/S1 2B.3	Perennial shrub. Coastal scrub, sonoran desert scrub. Elevations: 445-3280ft. (135-1000m.) Blooms Mar-Apr.	**No potential.**	Not observed. No suitable habitat.	

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Malacothamnus parishii Parish's bush-mallow	None/None GXQ/SX 1A	Perennial deciduous shrub. Chaparral, coastal scrub. In a wash. Elevations: 1000-1495ft. (305-455m.) Blooms Jun-Jul.	**No potential.**	Not observed. No suitable habitat.	
Monardella pringlei Pringle's monardella	None/None GX/SX 1A	Annual herb. Coastal scrub. Sandy hills. Elevations: 985-1310ft. (300-400m.) Blooms May-Jun.	**No potential.**	Not observed. No suitable habitat.	
Myosurus minimus ssp. *apus* little mousetail	None/None G5T2Q/S2 3.1	Annual herb. Valley and foothill grassland, vernal pools. Alkaline soils. Elevations: 65-2100ft. (20-640m.) Blooms Mar-Jun.	**No potential.**	Not observed. No suitable habitat.	
Nasturtium gambelii Gambel's water cress	FE/ST G1/S1 1B.1	Perennial rhizomatous herb. Marshes and swamps. Freshwater and brackish marshes at the margins of lakes and along streams, in or just above the water level. Elevations: 15-1085ft. (5-330m.) Blooms Apr-Oct.	**No potential.**	Not observed. No suitable habitat.	
Navarretia fossalis spreading navarretia	FT/None G2/S2 1B.1	Annual herb. Chenopod scrub, marshes and swamps, playas, vernal pools. San Diego hardpan and San Diego claypan vernal pools; in swales and vernal pools, often surrounded by other habitat types. Elevations: 100-2150ft. (30-655m.) Blooms Apr-Jun.	**No potential.**	Not observed. No suitable habitat.	
Phacelia stellaris Brand's star phacelia	None/None G1/S1 1B.1	Annual herb. Coastal dunes, coastal scrub. Open areas. Elevations: 5-1310ft. (1-400m.) Blooms Mar-Jun.	**No potential.**	Not observed. No suitable habitat.	
Pseudognaphalium leucocephalum white rabbit-tobacco	None/None G4/S2 2B.2	Perennial herb. Chaparral, cismontane woodland, coastal scrub, riparian woodland. Sandy, gravelly sites. Elevations: 0-6890ft. (0-2100m.) Blooms (Jul)Aug-Nov(Dec).	**No potential.**	Not observed. No suitable habitat.	
Ribes divaricatum var. parishii Parish's gooseberry	None/None G5TX/SX 1A	Perennial deciduous shrub. Riparian woodland. Salix swales in riparian habitats. Elevations: 215-985ft. (65-300m.) Blooms Feb-Apr.	**No potential.**	Not observed. No suitable habitat.	
Senecio aphanactis chaparral ragwort	None/None G3/S2 2B.2	Annual herb. Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. Elevations: 50-2625ft. (15-800m.) Blooms Jan-Apr(May).	**No potential.**	Not observed. No suitable habitat.	
Sidalcea neomexicana salt spring checkerbloom	None/None G4/S2 2B.2	Perennial herb. Chaparral, coastal scrub, lower montane coniferous forest, mojavean desert scrub, playas. Alkali springs and marshes. Elevations: 50-5020ft. (15-1530m.) Blooms Mar-Jun.	**No potential.**	Not observed. No suitable habitat.	
Sphenopholis obtusata prairie wedge grass	None/None G5/S2 2B.2	Perennial herb. Cismontane woodland, meadows and seeps. Open moist sites, along rivers and springs, alkaline desert seeps. Elevations: 985-6560ft. (300-2000m.) Blooms Apr-Jul.	**No potential.**	Not observed. No suitable habitat.	

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Symphyotrichum defoliatum San Bernardino aster	None/None G2/S2 1B.2	Perennial rhizomatous herb. Cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, meadows and seeps, valley and foothill grassland. Vernally mesic grassland or near ditches, streams and springs; disturbed areas. Elevations: 5-6695ft. (2-2040m.) Blooms Jul-Nov.	**No potential.**	Not observed. No suitable habitat.	
Texosporium sancti-jacobi woven-spored lichen	None/None G3/S2 3	Crustose lichen (terricolous). Chaparral. Open sites; in California with Adenostoma fasciculatum, Eriogonum, Selaginella. Found on soil, small mammal pellets, dead twigs, and on Selaginella. Elevations: 195-2165ft. (60-660m.)	**No potential.**	Not observed. No suitable habitat.	
Trichocoronis wrightii var. *wrightii* Wright's trichocoronis	None/None G4T3/S1 2B.1	Annual herb. Marshes and swamps, meadows and seeps, riparian forest, vernal pools. Mud flats of vernal lakes, drying riverbeds, alkali meadows. Elevations: 15-1425ft. (5-435m.) Blooms May-Sep.	**No potential.**	Not observed. No suitable habitat.	
Invertebrates/Crustaceans					
Bombus crotchii Crotch bumble bee	None/SCE G2/S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	**No potential.**	Not observed. No suitable habitat.	
Branchinecta lynchi Vernal pool fairly shrimp	FT/MSHCP	Inhabit seasonally astatic pools filled by winter/spring rains. Hatch in warm water later in the season.	**No potential**	Not observed. No suitable habitat.	
Euphydryas editha quino quino checkerspot butterfly	FE/None G5T1T2/S1S2	Sunny openings within chaparral and coastal sage shrublands in parts of Riverside and San Diego counties. Hills and mesas near the coast. Need high densities of food plants Plantago erecta, P. insularis, and Orthocarpus purpurescens.	**No potential.**	Not present. No suitable habitat.	
Linderiella santarosae Santa Rosa Plateau fairy shrimp	MSHCP	Inhabit seasonally astatic pools filled by winter/spring rains. Hatch in warm water later in the season.	**No potential**	Not observed. No suitable habitat.	
Rhaphiomidas terminatus abdominalis Delhi Sands flower-loving fly	FE/None G1T1/S1	Found only in areas of the Delhi Sands formation in southwestern San Bernardino and northwestern Riverside counties. Requires fine, sandy soils, often with wholly or partly consolidated dunes and sparse vegetation. Oviposition req. shade.	**No potential.**	Not observed. No suitable habitat.	

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Streptocephalus woottoni Riverside fairy shrimp	FE/None G1G2/S2	Endemic to Western Riverside, Orange, and San Diego counties in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub. Inhabit seasonally astatic pools filled by winter/spring rains. Hatch in warm water later in the season.	**No Potential**	Not observed. No suitable habitat.	
Fish					
Catostomus santaanae Santa Ana sucker	FT/None G1/S1	Endemic to Los Angeles Basin south coastal streams. Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	**No potential.**	Not observed. No suitable habitat.	
Gila orcuttii arroyo chub	None/None G2/S2 SSC	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave and San Diego river basins. Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	**No potential.**	Not observed. No suitable habitat.	
Oncorhynchus mykiss irideus pop. 10 steelhead - southern California DPS	FE/SCE G5T1Q/S1	Federal listing refers to populations from Santa Maria River south to southern extent of range (San Mateo Creek in San Diego County). Southern steelhead likely have greater physiological tolerances to warmer water and more variable conditions.	**No potential.**	Not observed. No suitable habitat.	
Rhinichthys osculus ssp. *8* Santa Ana speckled dace	None/None G5T1/S1 SSC	Headwaters of the Santa Ana and San Gabriel rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temps of 17-20 C. Usually inhabits shallow cobble and gravel riffles.	**No potential.**	Not observed. No suitable habitat.	
Amphibians					
Rana muscosa southern mountain yellow-legged frog	FE/SE G1/S2 WL	Disjunct populations known from southern Sierras (northern DPS) and San Gabriel, San Bernardino, and San Jacinto Mtns (southern DPS). Found at 1,000 to 12,000 ft in lakes and creeks that stem from springs and snowmelt. May overwinter under frozen lakes. Often encountered within a few feet of water. Tadpoles may require 2 - 4 yrs to complete their aquatic development.	**No potential.**	Not observed. No suitable habitat.	
Spea hammondii western spadefoot	None/None G2G3/S3S4 SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	**No potential.**	Not observed. No suitable habitat.	

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Reptiles					
Anniella stebbinsi Southern California legless lizard	None/None G3/S3 SSC	Generally south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.	**Unlikely**	Not Present. Limited suitable habitat.	Sandy soils in the project site and study area is limited. Suitable vegetation not present.
Arizona elegans occidentalis California glossy snake	None/None G5T2/S2 SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	**No potential.**	Not observed. No suitable habitat.	
Aspidoscelis hyperythra orange-throated whiptail	None/None G5/S2S3 WL	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food: termites.	**No potential.**	Not observed. No suitable habitat.	
Aspidoscelis tigris stejnegeri coastal whiptail	None/None G5T5/S3 SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	**Unlikely**	Not Present. Limited suitable habitat.	Sandy soils in the project site and study area is limited. Very isolated from natural areas
Coleonyx variegatus abbotti San Diego banded gecko	None/None G5T5/S1S2 SSC	Coastal and cismontane Southern California. Found in granite or rocky outcrops in coastal scrub and chaparral habitats.	**No potential.**	Not observed. No suitable habitat.	
Crotalus ruber red-diamond rattlesnake	None/None G4/S3 SSC	Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	**No potential.**	Not observed. No suitable habitat.	
Emys marmorata western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	**No potential.**	Not observed. No suitable habitat.	

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Phrynosoma blainvillii coast horned lizard	None/None G4/S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	**Unlikely**	Not observed. Limited marginal but isolated habitat.	Sandy soils in the project site and study area may provide marginal habitat. Site isolated from suitable vegetation and known populations.
Salvadora hexalepis virgultea coast patch-nosed snake	None/None G5T4/S3 SSC	Brushy or shrubby vegetation in coastal Southern California. Require small mammal burrows for refuge and overwintering sites.	**No potential.**	Not observed. No suitable habitat.	
Thamnophis hammondii two-striped gartersnake	None/None G4/S3S4 SSC	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	**No potential.**	Not observed. No suitable habitat.	
Birds					
Accipiter cooperii Cooper's hawk	None/None G5/S4 WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	**Low potential.**	Not observed. Potential habitat in adjacent street trees.	Known to nest in ornamental trees.
Agelaius tricolor tricolored blackbird	None/ST G1G2/S2 SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	**No potential.**	Not observed. No suitable habitat.	
Aimophila ruficeps canescens southern California rufous-crowned sparrow	None/None G5T3/S4 WL	Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	**No potential.**	Not observed. No suitable habitat.	
Artemisiospiza belli belli Bell's sparrow	None/None G5T2T3/S3 WL	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range. Nest located on the ground beneath a shrub or in a shrub 6-18 inches above ground. Territories about 50 yds apart.	**No potential.**	Not observed. No suitable habitat.	
Asio otus long-eared owl	None/None G5/S3? SSC	Riparian bottomlands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses. Require adjacent open land, productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.	**No potential.**	Not observed. No suitable habitat.	

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Athene cunicularia burrowing owl	None/None G4/S2 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	**Unlikely**	Not observed. Limited suitable habitat in the study area.	Species is well adapted to the urban environment. No suitable burrows present on site.
Buteo regalis ferruginous hawk	None/None G4/S3S4 WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	**No potential**	Not observed. No suitable habitat.	
Buteo swainsoni Swainson's hawk	None/ST G5/S4	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**No potential.**	Not observed. No suitable habitat.	
Cathartes aura Turkey vulture	MSHCP Covered Species		**Unlikely**	Not observed. Limited suitable foraging habitat in the study area.	Species is well adapted to the urban environment.
Coccyzus americanus occidentalis western yellow-billed cuckoo	FT/SE G5T2T3/S1	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	**No potential.**	Not observed. No suitable habitat.	
Coturnicops noveboracensis yellow rail	None/None G4/S2 SSC	Summer resident in eastern Sierra Nevada in Mono County. Freshwater marshlands.	**No potential.**	Not observed. No suitable habitat.	
Elanus leucurus white-tailed kite	None/None G5/S3S4 FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**No potential.**	Not observed. No suitable habitat.	
Empidonax traillii extimus southwestern willow flycatcher	FE/SE G5T2/S3	Riparian woodlands in Southern California. .	**No potential.**	Not observed. No suitable habitat.	
Eremophila alpestris actia California horned lark	None/None G5T4Q/S4 WL	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	**Unlikely**	Not observed. Limited suitable habitat in the study area.	Limited suitable habitat in the study area. Sandy soils present, no suitable vegetation.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations	Comments based on lit review
Falco columbarius merlin	None/None G5/S3S4 WL	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.	**No potential.**	Not observed. No suitable habitat in the study area	
Haliaeetus leucocephalus bald eagle	FD/SE G5/S3 FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	**No potential.**	Not observed. No suitable habitat in the study area	
Icteria virens yellow-breasted chat	None/None G5/S4 SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	**No potential.**	Not observed. No suitable habitat in the study area	
Lanius ludovicianus loggerhead shrike	None/None G4/S4 SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	**No potential.**	Not observed. No suitable habitat in the study area	
Laterallus jamaicensis coturniculus California black rail	None/ST G3T1/S2 FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	**No potential.**	Not observed. No suitable habitat in the study area	
Pandion haliaetus osprey	None/None G5/S4 WL	Ocean shore, bays, freshwater lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	**No potential.**	Not observed. No suitable habitat in the study area	
Polioptila californica californica coastal California gnatcatcher	FT/None G4G5T3Q/S2 SSC	Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	**No potential.**	Not observed. No suitable habitat in the study area	
Setophaga petechia yellow warbler	None/None G5/S3 SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	**No potential.**	Not observed. No suitable habitat in the study area	

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations	Comments based on lit review
Vireo bellii pusillus least Bell's vireo	FE/SE G5T2/S3	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	**No potential.**	Not observed. No suitable habitat in the study area	
Mammals					
Antrozous pallidus pallid bat	None/None G4/S3 SSC	Found in a variety of habitats including deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in crevices of rock outcrops, caves, mine tunnels, buildings, bridges, and hollows of live and dead trees which must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Low potential**	Not observed. Limited suitable habitat in the study area.	Palm trees near project site may provide suitable roosting habitat.
Chaetodipus fallax fallax northwestern San Diego pocket mouse	None/None G5T3T4/S3S4 SSC	Inhabits coastal sage scrub, sagebrush scrub, grasslands, and chaparral communities. Found in open, sandy areas in southwestern California and northern Baja California. Prefers moderately gravelly and rocky substrates.	**No potential.**	Not observed. No suitable habitat in the study area	
Dipodomys merriami parvus San Bernardino kangaroo rat	FE/SCE G5T1/S1 SSC	Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains. Needs early to intermediate seral stages.	**No potential.**	Not observed. No suitable habitat in the study area	
Dipodomys stephensi Stephens' kangaroo rat	FT/ST G2/S3	Found primarily in annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass & filaree. Will burrow into firm soil and use the burrows of California ground squirrels and pocket gophers. Occurs only in southern California.	**No potential.**	Not observed. No suitable habitat in the study area	
Eumops perotis californicus western mastiff bat	None/None G4G5T4/S3S4 SSC	Occurs in open, semi-arid to arid habitats, including coniferous and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces and caves, and buildings. Roosts typically occur high above ground.	**Low potential**	Not observed. Limited suitable habitat in the study area.	Palm trees near project site may provide suitable roosting habitat.
Lasiurus xanthinus western yellow bat	None/None G4G5/S3 SSC	Occurs in arid regions of the southwestern United States. Typically found in riparian woodlands, oak or pinyon-juniper woodland, desert wash, palm oasis habitats, and urban or suburban areas. Roosts in trees, often between palm fronds.	**Low potential**	Not observed. Limited suitable habitat in the study area.	Palm trees near project site may provide suitable roosting habitat.
Neotoma lepida intermedia San Diego desert woodrat	None/None G5T3T4/S3S4 SSC	Occurs in scrub habitats of southern California from San Luis Obispo County to San Diego County.	**No potential.**	Not observed. No suitable habitat in the study area	

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations	Comments based on lit review
Nyctinomops femorosaccus pocketed free-tailed bat	None/None G5/S3 SSC	Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs.	**Low potential**	Not observed. Limited suitable habitat in the study area.	Palm trees near project site may provide suitable roosting habitat.
Onychomys torridus ramona southern grasshopper mouse	None/None G5T3/S3 SSC	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	**No potential.**	Not observed. No suitable habitat in the study area	
Perognathus longimembris brevinasus Los Angeles pocket mouse	None/None G5T2/S1S2 SSC	Lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin. Open ground with fine, sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead.	**No potential.**	Not observed. No suitable habitat in the study area	
Taxidea taxus American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	**No potential.**	Not observed. No suitable habitat in the study area	

Regional Vicinity refers to within a 9-quad search radius of site.

Status (Federal/State)
FE = Federal Endangered
FT = Federal Threatened
FPE = Federal Proposed Endangered
FPT = Federal Proposed Threatened
FD = Federal Delisted
FC = Federal Candidate
SE = State Endangered
ST = State Threatened
SCE = State Candidate Endangered
SCT = State Candidate Threatened
SR = State Rare
SD = State Delisted
SSC = CDFW Species of Special Concern
MSHCP = MSHCP Covered Species
FP = CDFW Fully Protected
WL = CDFW Watch List

CRPR (CNPS California Rare Plant Rank)
1A = Presumed extirpated in California, and rare or extinct elsewhere
1B = Rare, Threatened, or Endangered in California and elsewhere
2A = Presumed extirpated in California, but common elsewhere
2B= Rare, Threatened, or Endangered in California, but more common elsewhere
3 = Need more information (Review List)
4 = Limited Distribution (Watch List)

CRPR Threat Code Extension
.1 = Seriously endangered in California (>80% of occurrences threatened/high degree and immediacy of threat)
.2 = Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat)
.3 = Not very endangered in California (<20% of occurrences threatened/low degree and immediacy of threat)

Other Statuses
G1 or S1 Critically Imperiled Globally or Subnationally (state)
G2 or S2 Imperiled Globally or Subnationally (state)
G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)
G4/5 or S4/5 Apparently secure, common and abundant
GH or SH Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery

Additional notations may be provided as follows
T – Intraspecific Taxon (subspecies, varieties, and other designations below the level of species)
Q – Questionable taxonomy that may reduce conservation priority
? – Inexact numeric rank

Attachment D

Geotechnical Report prepared by Cal Land Engineering & Associates, Inc (Cal)

Cal Land Engineering & Associates, Inc.
Land Surveying, Geotechnical, Environmental, and Civil Engineering

October 25, 2023

UCR 1775 Development LLC
250 Whispering Pines Summit
Arcadia, CA 91006

Attention: Mr. Zibo Gong

Subject: Report of Geotechnical Engineering Investigation, Proposed Mix-Use Condominium Development, 1775 & 1795 University Avenue, APN: 211-183-023 & -024, Riverside, California. CLE Project No.: 23-027-003GE

Gentlemen:

In accordance with your request, CalLand Engineering (CLE) is pleased to submit this Geotechnical Engineering Report for the subject site. The purpose of this report was to evaluate the subsurface conditions and provide recommendations for foundation designs and other relevant parameters of the proposed construction.

Based on the findings and observations during our investigation, the proposed construction of the subject site for the intended use is considered feasible from the geotechnical engineering viewpoints, provided that specific recommendations set forth herein are followed.

This opportunity to be of service is sincerely appreciated. If you have any questions pertaining to this report, please call the undersigned.

Respectfully submitted,
Cal Land Engineering and Associates, Inc. (CLE)

Jack C. Lee, GE 2153
Principal Engineer



Brianna Gonzalez Limon
Project Engineer

Abe Kazemzadeh
Project Engineer

Dist: (4) Addressee

REPORT OF GEOTECHNICAL ENGINEERING INVESTIGATION

Proposed 18-unit
Mix-Use Apartment Development

At
1775 & 1795 University Avenue
APN: 211-183-023 & -024
Riverside, California

Prepared by
CALLAND ENGINEERING (CLE)
Project No.: 23-027-003GE
October 25, 2023

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1.0 INTRODUCTION

1.1 Purpose

This report presents a summary of our preliminary geotechnical engineering investigation for the proposed construction at the subject site. The purposes of this investigation were to evaluate the subsurface conditions at the area of proposed construction and to provide recommendations pertinent to grading, foundation design and other relevant parameters of the development.

1.2 Scope of Services

Our scope of services included:

- Review of available soil engineering data of the area.
- Subsurface exploration consisting of logging and sampling of two 8-inch diameter hollow stem auger borings to a maximum depth of 21.5 feet below the existing grade at the subject site. The exploration was logged by a CLE engineer. Boring logs are presented in Appendix A.
- Laboratory testing of representative samples to establish engineering characteristics of the on-site soil. The laboratory test results are presented in Appendices A and B.
- Engineering analyses of the geotechnical data obtained from our background studies, field investigation, and laboratory testing.
- Preparation of this report presenting our findings, conclusions, and recommendations for the proposed construction.

1.3 Proposed Construction

Based on the provided information, it is our understanding that the subject site will be developed for construction of a commercial and residential mix use building. The main structure of the building is anticipated to be four stories in height. The ground floor will be used for parking, retail units, residential lobby and related usage. Second to fourth floors of the planned building will be used as residential units. Column loads are unknown at this time, but are expected to be light to medium. Cut and fill grading operation will be used to reach the desired grades.

1.4 Site Location

The site is a vacant lot and it is located northeast corner of University Avenue and Mesa Street, in the City of Riverside, California. The approximate location of the site is presented in the attached Site Location Map (Figure 1).

The site is bounded on the east by the existing commercial complex and bounded on the north by a 15 feet wide alley. Based on our field observation, the site is relatively flat with the difference in elevation over the entire site less than 6 feet. No major surface erosions were observed during our subsurface investigation.

2.0 SUBSURFACE EXPLORATION AND LABORATORY TESTING

2.1 Subsurface Exploration

Our subsurface exploration consisted of drilling two 8-inch diameter hollow stem auger borings to a maximum depth of 21.5 feet at the locations shown on the attached Site Plan, Plate 1. The excavation of the boring was supervised and logged by a CLE engineer. Relatively undisturbed and bulk samples were collected for laboratory testing. Boring logs are presented in Appendix A.

2.2 Laboratory Testing

Representative samples were tested for the following parameters: in-situ moisture content and density, consolidation, direct shear strength, percent of fines, expansion index, and corrosion potential. Results of our laboratory testing along with a summary of the testing procedures are presented in Appendix B. In-situ moisture and density test results are presented on the boring logs in Appendix A.

3.0 SUMMARY OF GEOTECHNICALCONDITIONS

3.1 Soil Conditions

The “Geologic Map of the Riverside (east)/(south 1/2) of San Bernardino Quadrangles, San Bernardino and Riverside County, California.” by T. W. Dibblee, shown on the attached Regional Geology Map (Figure 3), indicated the site and adjacent areas are underlain by alluvium (Map Symbol Qoa).

Based on our subsurface investigation, the onsite near surface soils consist predominantly of medium grained clayey sand (SC) and silty sand (SM). In general, these soils exist in the loose to medium dense and slightly moist to moist conditions. Underlying the surface soils, fine to medium grained brown silty sand (SM) and sand/silty sand mixtures (SP-SM) were disclosed in the borings to the depths explored (21.5 feet below the existing ground surface). These soils exist in medium dense to dense and slightly moist to moist conditions. In general, the soils become denser as depth increases.

4.0 SEISMICITY

4.1 Faulting

Based on our study, there are no known active faults crossing the property. The nearest known active regional fault is the San Jacinto; SBV+SJV+A+C fault zones located 6.7 miles from the site.

4.2 Seismicity

The subject site is located in Southern California, which is a tectonically active area. The type and magnitude of seismic hazards affecting the site depend on the distance to causative faults, the intensity, and the magnitude of the seismic event. Table 1 indicates the distance of the fault zones and the associated maximum magnitude earthquake that can be produced by nearby seismic events. As indicated in Table 1, the San Jacinto; SBV+SJV+A+C Fault zones are considered to have the most significant effect to the site from a design standpoint.

TABLE 1

Characteristics and Estimated Earthquakes for Regional Faults

Fault Name	Approximate Distance to Site (mile)	Maximum Magnitude Earthquake (Mw)
San Jacinto; SBV+SJV+A+C	6.7	7.7
San Jacinto; SBV+SJV+A+CC+B	6.7	7.9
San Jacinto; SBV+SJV+A+CC+B +SM	6.7	7.9
San Jacinto; SBV+SJV+A	6.7	7.6
San Jacinto; SBV	6.7	7.1
San Jacinto: SJV+A	7.0	7.4
San Jacinto; SJV+A+CC	7.0	7.6
San Jacinto; SJV+A+CC +B	7.0	7.6
San Jacinto: SJV	7.0	7.0
S. San Andreas; PK+ CC+BB+NM+SM+NSB+SSB+BG	14.0	7.5
S. San Andreas; BB+NM+SM+NSB+SSB+BG+CO	14.0	8.0
S. San Andreas; SSB+BG	14.0	7.3
Cucamonga	14.8	6.7
San Jacinto: A+CC+B	15.0	7.5
San Jacinto; A	15.0	7.3
Elsinore; W+GI+T+J+CM	16.0	7.7
Chino, alt 2	16.2	6.8
Chino, alt 1	16.6	6.7
Elsinore; W	17.1	7.0
Cleghorn	20.8	6.8

Reference: 2008 National Seismic Hazard Maps - Source Parameters

4.3 Estimated Earthquake Ground Motions

In order to estimate the seismic ground motions at the subject site, CLE has utilized the seismic hazard map published by California Geological Survey. According to this report, the peak ground alluvium acceleration at the subject site for a 2% and 10% probability of exceedance in 50 years is about 0.745g and 0.489g, respectively (USGS, 2008 Deaggregation of Seismic Hazards). Site modified peak ground acceleration (PGA_M), corresponding to USGS Seismic Design Maps, ASCE 7-16 Standard, is 0.685g.

4.4 Seismic Design Criteria

Based on our studies on seismicity, there are no known active faults crossing the property. However, the subject site is located in southern California, which is a tectonically active area. Based on ASCE 7-16 Standard, CBC 2022, the following seismic related values may be used:

Seismic Parameters (Latitude: 33.976016, Longitude:-117.350097)	Site Class "D"
Mapped 0.2 Sec Period Spectral Acceleration, **S_S**	1.5g
Mapped 1.0 Sec Period Spectral Acceleration, **S_1**	0.6g
Site Coefficient for Site Class "D", **F_a**	1.2
Site Coefficient for Site Class "D", **F_v**	1.7
Maximum Considered Earthquake Spectral Response Acceleration Parameter at 0.2 Second, **S_{MS}**	1.8g
Maximum Considered Earthquake Spectral Response Acceleration Parameter at 1.0 Second, **S_{M1}**	1.02g
Design Spectral Response Acceleration Parameters for 0.2 sec, **S_{DS}**	1.2g
Design Spectral Response Acceleration Parameters for 1.0 Sec, **S_{D1}**	0.68g

The Project Structural Engineer should be aware of the information provided above to determine if any additional structural strengthening is warranted.

4.5 Seismic Design Category

Based on ASCE 7-16 Standard, Section 11.6 Seismic Design Category, Risk Category I, II or III structures located where the mapped spectral response acceleration parameter at 1-second period, S_1, is more than or equal to 0.75 shall be assigned to Seismic Design Category E. S_1 for our site is 0.600g which is less than 0.75. Where S_1 is less than 0.75, the Seismic Design Category is permitted to be determined from Table 11.6-1 and 11.6.2 using the value of **S_{DS}** and **S_{D1}**. The value of **S_{DS}** for our site is 1.2g>0.5g and **S_{D1}** is 0.68>0.2, therefore based on Table 11.6-1 and 11.6.2, Seismic Design Category for the site is "D".

4.6 Groundwater

No groundwater or seepage was encountered in the borings to the maximum depths explored (21.5 feet below the existing grade), during our subsurface investigation. Based on our review of the "Groundwater Level Report for Well Station No. 339690N1173590W001 and 339840N1173750W001" by California Department of Water Resources, the historical regional ground water level is at least 146 feet below the existing ground surface. Groundwater is, therefore, not anticipated to be a constraint for the planned near surface construction.

5.0 CONCLUSIONS

Based on the results of our subsurface investigation, it is our opinion that the proposed improvements are feasible from a geotechnical standpoint, provided the recommendations contained herein are incorporated in the design and construction. The following is a summary of the geotechnical design and construction factors that may affect the development of the site:

5.1 Seismicity

Based on our studies on seismicity, there are no known active faults crossing the property. However, the site is located in a seismically active region and is subject to seismically induced ground shaking from nearby and distant faults, which is a characteristic of all Southern California.

5.2 Liquefaction and Seismic Induced Hazards

Liquefaction is the transformation of a granular material from a solid to a liquid state as a result of increasing pore-water pressure. The material will then lose strength and can flow if unrestrained, thus leading to ground failure. Liquefaction can be triggered in saturated cohesionless material by short-term cyclic loading, such as shaking due to an earthquake. Ground failure that results from liquefaction can be manifested as flow landsliding, lateral spread, loss of bearing capacity, or settlement.

Based on our review of the "Riverside County Parcel, Geologic Report" by RCIT, Map My County, it is our understanding that the site and adjacent areas are located within the low potential liquefaction zone and liquefaction. Liquefaction analysis is not required due to low potential of liquefaction zone, however, the property owner should be aware of the potential risks associated with the liquefaction zone.

It is recommended that the proposed structures be designed and constructed in accordance with the recommendations presented in this report and the current building codes and supported by the strengthened foundation as recommended in this report to reduce the potential of any adverse effect as the results of the potential liquefaction.

5.3 Excavatability

Based on our subsurface investigation, excavation of the subsurface materials should be able to be accomplished with conventional earthwork equipment.

5.4 Groundwater

No ground water was encountered during our field investigation to a depth of approximately 21.5 feet. In our opinion, groundwater will not be a problem during the near surface construction.

6.0 RECOMMENDATIONS

Based on the subsurface conditions exposed during field investigation and laboratory testing program, it is recommended that the following recommendations be incorporated in the design and construction phases of the project.

6.1 Site Grading

6.1.1 Site Preparation

Prior to initiating grading operations, any existing vegetation, trash, debris, over-sized materials (greater than 8 inches), and other deleterious materials within construction areas should be removed from the subject site.

6.1.2 Surficial Soil Removals

Based on our field exploration and laboratory data obtained to date, it is recommended that the existing surficial soils be removed to a minimum depth of 4 feet below the existing grade or two feet below the bottom of the footing, whichever is deeper. The recommended removal should be extended at least 4 feet beyond the proposed building lines. The existing near surface soils should also be removed to a depth of about 18-inches within the proposed driveway and concrete flatwork areas. Locally deeper removals may be necessary to expose competent natural ground. The actual removal depths should be determined in the field as conditions are exposed. Visual inspection and/or testing may be used to define removal requirements.

6.1.3 Treatment of Removal Bottoms

Soils exposed within areas approved for fill placement should be scarified to a depth of 6 to 10 inches, conditioned to near optimum moisture content, then compacted in-place to minimum project standards.

6.1.4 Structural Backfill

The onsite soils may be used as compacted fill provided they are free of organic materials and debris. Fills should be placed in relatively thin lifts (6 to 8 inches), brought to near optimum moisture content, then compacted to at least 90 percent relative compaction based on laboratory standard ASTM D-1557-12.

6.2 Foundation Design

6.2.1 Bearing Value

An allowable bearing value of 2000 pounds per square foot (psf) may be used for design of continuous and pad footings with a minimum of 18 and 24 inches in width, respectively. All footings should be a minimum of 24 inches deep. This allowable bearing value may be increased by 200 psf. for each additional foot of depth or width to a maximum value of 2500 psf. This allowable bearing value may be increased by one third (1/3) when considering short duration seismic or wind loads.

6.2.2 Settlement

Settlement of the footings placed as recommended, and subject to no more than allowable loads is not anticipated to exceed ¾ inch. Differential settlement between adjacent columns is not anticipated to exceed ½ inch.

6.2.3 Lateral Resistance

The active earth pressure to be utilized for cantilever retaining wall designs may be computed as an equivalent fluid having a density of 35 pcf when the slope of the backfill behind the wall is level. Where the slope of the backfill is 2:1 (horizontal to vertical), an equivalent fluid pressure of 65 PCF may be used. These values assume free-draining condition.

Passive earth pressure may be computed as an equivalent fluid pressure of 300 pcf, with a maximum earth pressure of 2000 psf. An allowable coefficient of friction between soil and concrete of 0.30 may be used with the dead load forces.

When combining passive pressure and frictional resistance, the passive pressure component should be reduced by one third (1/3).

7.2.4 Wall Seismic Loading

Earthquake earth pressure distribution on retaining walls retaining more than 6 feet of soils when the slope of the backfill behind the wall is level may be computed as 23H psf. Resultant seismic lateral earth pressure can be applied assuming an inverted triangular distribution, with the resultant applied at a height of 2/3H measured from the bottom of wall footings. The earthquake-induced pressure should be added to the static earth pressure. Design of walls less than 6 feet in height may neglect the additional seismic pressure.

6.2.5 Retaining Wall Backfill and Wall Drainage

Walls may be backfilled with onsite soils. A free-drainage, selected backfill (SE of 30 or greater), should be used against the retaining wall to the top of the wall. The upper 18 inches of backfill should consist of native soils. All backfill should be compacted to at least 90 percent of the laboratory maximum dry density (ASTM D-1557-12).

Any proposed retaining walls at the site should be provided with backdrains to reduce the potential for the buildup of hydrostatic pressure. Backdrains should consist of 4-inch (minimum) diameter perforated PVC pipe surrounded by a minimum of 1 cubic foot per lineal foot of clean coarse gravel wrapped in filter fabric (Mirafi 140 or the equivalent) placed at the base of the wall. The drain should be covered by no less than 18 inches (vertical) of compacted wall backfill soils. The backdrain should outlet through non-perforated PVC pipe or weepholes. Alternatively, commercially available drainage fabric (i.e., J-drain) could be used. The fabric manufacturer's recommendations should be followed in the installation of the drainage fabric backdrain.

If there is not enough room for placing the above mentioned drainage systems, an alternative system such as pre-fabricated drainage system AQUADRAIN 100 BD with a 3-inch drain pipe set in gravel behind the wall, to prevent the buildup of hydrostatic pressure. This drainpipe may be connected to a 3-inch drain collector pipe connected to a sump pump.

6.2.6 Foundation Construction

It is anticipated that the entire structure will be underlain by onsite soils of very low expansion potential. All footings should be founded at a minimum depth of 24 inches below the lowest adjacent ground surface and founded on competent soil. All continuous footings should have at least two No. 4 reinforcing bar placed both at the top and two No. 4 reinforcing bar placed at the bottom of the footings.

6.2.7 Concrete slab and Flatwork

Concrete slabs and flatworks should be a minimum of 4 inches thick and reinforced with a minimum of No. 3 reinforcing bar spaced 16-inch each way or its equivalent. All slab reinforcement should be supported to ensure proper positioning during placement of concrete.

In order to comply with the requirements of the 2022 CalGreen Section 4.505.2.1 within the moisture sensitive concrete slabs, a minimum of 4-inch thick base of ½ inch or larger clean aggregate should be provided with a vapor barrier in direct contact with concrete. A 10-mil Polyethylene vapor retarder, with joints lapped not less than 6 inches, should be placed above the aggregate and in direct contact with the concrete slab. As an alternate method, 2 inches of sand then 10-mil polyethylene membrane and another 2 inches of sand over the membrane and under the concrete may be used, provided this request for an alternative method is approved by City or County Building Officials.

6.3 Temporary Trench Excavation and Backfill

All trench excavations should conform to CAL-OSHA and local safety codes. All utility trenches backfill should be brought to near optimum moisture content and then compacted to obtain a minimum relative compaction of 90 percent of ASTM D-1557-12.

7.0 INSPECTION

As a necessary requisite to the use of this report, the following inspection is recommended:

- Temporary excavations.
- Removal of surficial and unsuitable soils.
- Backfill placement and compaction.
- Utility trench backfill.

The geotechnical engineer should be notified at least 1 day in advance of the start of construction. A joint meeting between the client, the contractor, and the geotechnical engineer is recommended prior to the start of construction to discuss specific procedures and scheduling.

8.0 CORROSION POTENTIAL

Chemical laboratory tests were conducted on the existing onsite near surface materials sampled during CLE's field investigation to aid in evaluation of soil corrosion potential and the attack on concrete by sulfate soils. The testing results are presented in Appendix B.

According to 2022 CBC and ACI 318-19 (Reapproved 22), Section 19.3, Table 19.3.1.1, exposure category is Sulfate (S) and exposure class is (S0). A "negligible" exposure to sulfate can be expected for concrete placed in contact with the onsite soils. Therefore, Type II cement or its equivalent may be used for this project and minimum compressive strength of concrete should be 2,500 psi.

Based on the resistivity test results, it is estimated that the subsurface soils are moderately corrosive to buried metal pipe. It is recommended that any underground steel utilities be blasted and given protective coating. Should additional protective measures be warranted, a corrosion specialist should be consulted.

9.0 PERCOLATION RATE/PERMEABILITY

Percolation rate and permeability of the subsurface material, encountered in the percolation borings P-1 and P-2 were measured by performing shallow percolation test method. The borings were drilled by utilizing 8-inch diameter auger boring on August 28, 2023.

The boring P-1 and P-2 were drilled to the depth of 8 feet below the existing surface, then two inches of gravel placed at the bottom of each hole prior to pre-soaking. Presoaking was performed and measurements showed 6 inches or more water seeps away in less than 25 minutes. Rate of surface water drop was measured every 10 minutes for a period of one hour and twenty minutes or when stabilization with respect to water infiltration was reached. Upon completion of tests, the borings were backfilled with soil cuttings.

Infiltration calculations for Boring P-1 and P-2 @ 8 feet are provided below:

P-1 @ 8'

Percolation Rate Conversion to Infiltration Rate (Porchet Method, aka Inverse Borehole Method):

Initial Depth to Water, D0 = 66.00 inches

Final Depth to Water, Df = 81.80 inches

Total Depth of Test Hole, DT = 96 inches

Test Hole Radius, r = 4.0 inches.

The conversion equation is used:

Ho is the initial height of water at the selected time interval.

Ho = DT - D0 =96.0 – 66.00 = 30.00 inches

Hf is final height of water at the selected time interval.

Hf = DT - Df = 96.00 – 81.80 = 14.20 inches

ΔH is the change in height over the time interval.

ΔH = ΔD = Ho - Hf = 30.00 – 14.20 = 15.8 inches

Havg is the average head height over the time interval.

Havg = (Ho + Hf)/2 = (30.00 + 14.20)/2 = 22.10 inches

"It" is the tested infiltration rate.

$$It = \frac{\Delta H(60r)}{\Delta t(r + 2Havg)} = \frac{15.80\ (60 \times 4)}{10(4+2 \times 22.10)} = 3792/482 = 7.867 \text{ inch/hour}$$

Factor of Safety: 4.00; Design Infiltration Rate: 7.867/4.00 = 1.96 inch/hour.

P-2 @ 8'

Percolation Rate Conversion to Infiltration Rate (Porchet Method, aka Inverse Borehole Method):

Initial Depth to Water, D0 = 66.00 inches

Final Depth to Water, Df = 85.90 inches

Total Depth of Test Hole, DT = 96.00 inches

Test Hole Radius, r = 4.0 inches.

The conversion equation is used:

Ho is the initial height of water at the selected time interval.

Ho = DT - D0 = 96.00 – 66.00 = 30.0 inches

Hf is final height of water at the selected time interval.

Hf = DT - Df = 96.00 – 85.90 = 10.10 inches

ΔH is the change in height over the time interval.

ΔH = ΔD = Ho - Hf = 30.00 – 10.10 = 19.90 inches

Havg is the average head height over the time interval.

Havg = (Ho + Hf)/2 = (30.0 + 19.90)/2 = 24.95 inches

"It" is the tested infiltration rate.

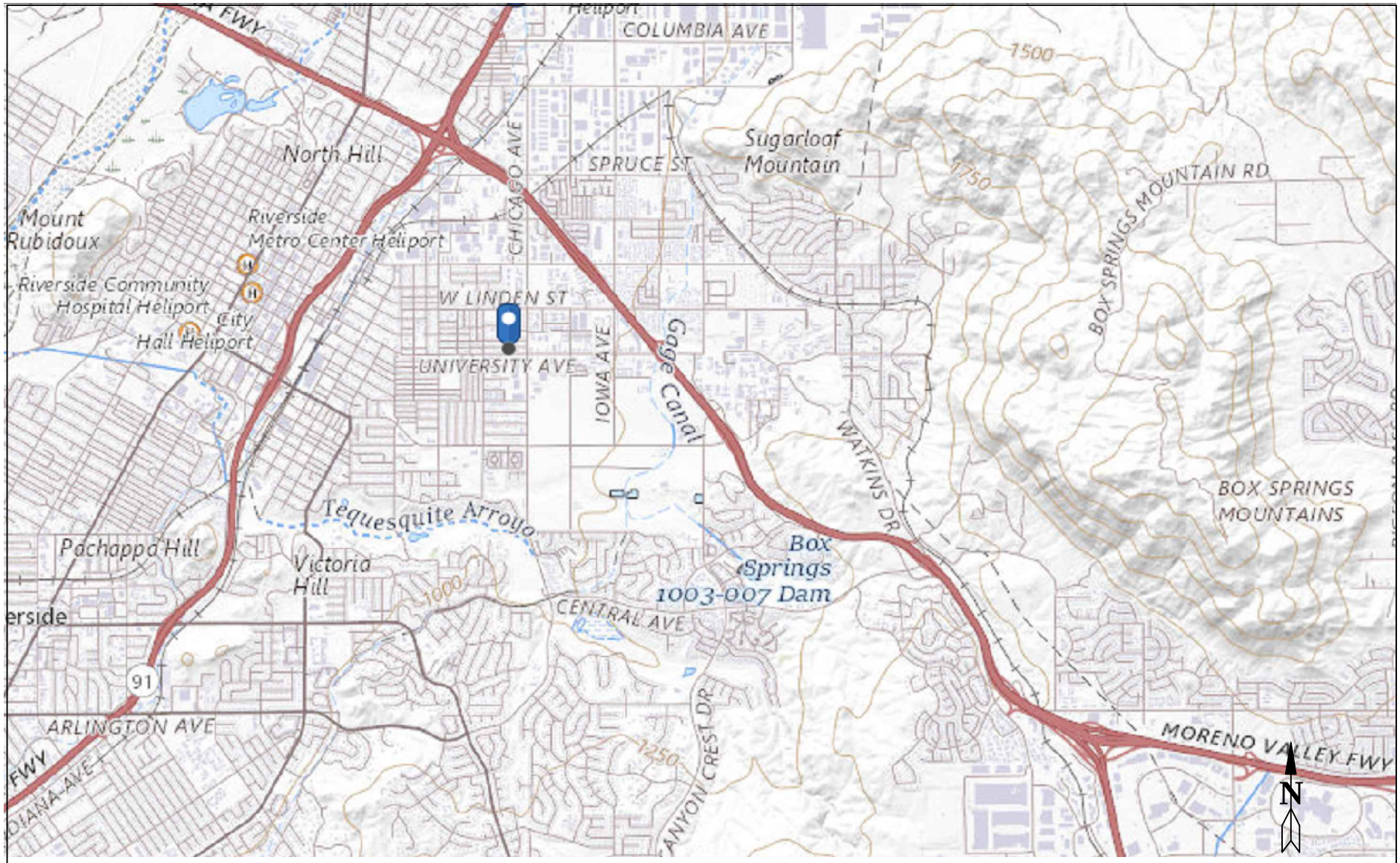
$$It = \frac{\Delta H(60r)}{\Delta t(r + 2Havg)} = \frac{19.90(60 \times 4)}{10(4+2 \times 24.95)} = 4776/539 = 8.86 \text{ inch/hour}$$

Factor of Safety: 4.00; Infiltration Rate: 8.86**/**4= 2.21 inch/hour,

Use Design Infiltration Rate: 7.867/4.00 = 1.96 inch/hour.

10.0 REMARKS

The conclusions and recommendations contained herein are based on the findings and observations at the exploratory locations. However, soil materials may vary in characteristics between locations of the exploratory locations. If conditions are encountered during construction, which appear to be different from those disclosed by the exploratory work, this office should be notified so as to recommend the need for modifications. This report has been prepared in accordance with generally accepted professional engineering principles and practice. No warranty is expressed or implied. This report is subject to review by controlling public agencies having jurisdiction.



Maps modified from "The National Map" by California Geological Survey

SCALE AS SHOWN

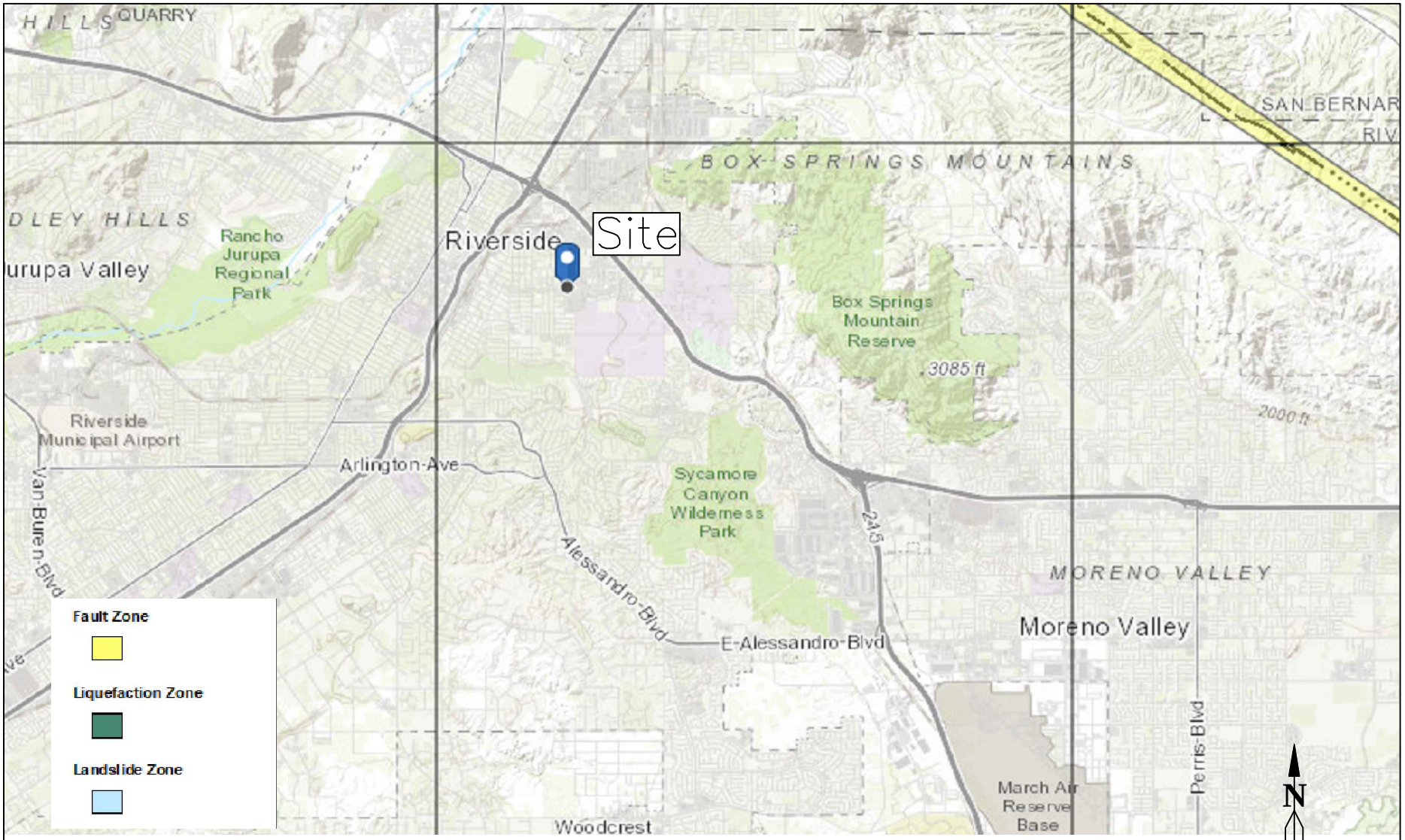
CAL LAND
ENGINEERING & ASSOCIATES, Inc.

Site Location Map

1775 & 1795 University Avenue, Riverside, California

Project No.: 23-027-003

FIGURE 1



SCALE AS SHOWN

Maps modified from "Seismic Hazard Zone" by California Geological Survey

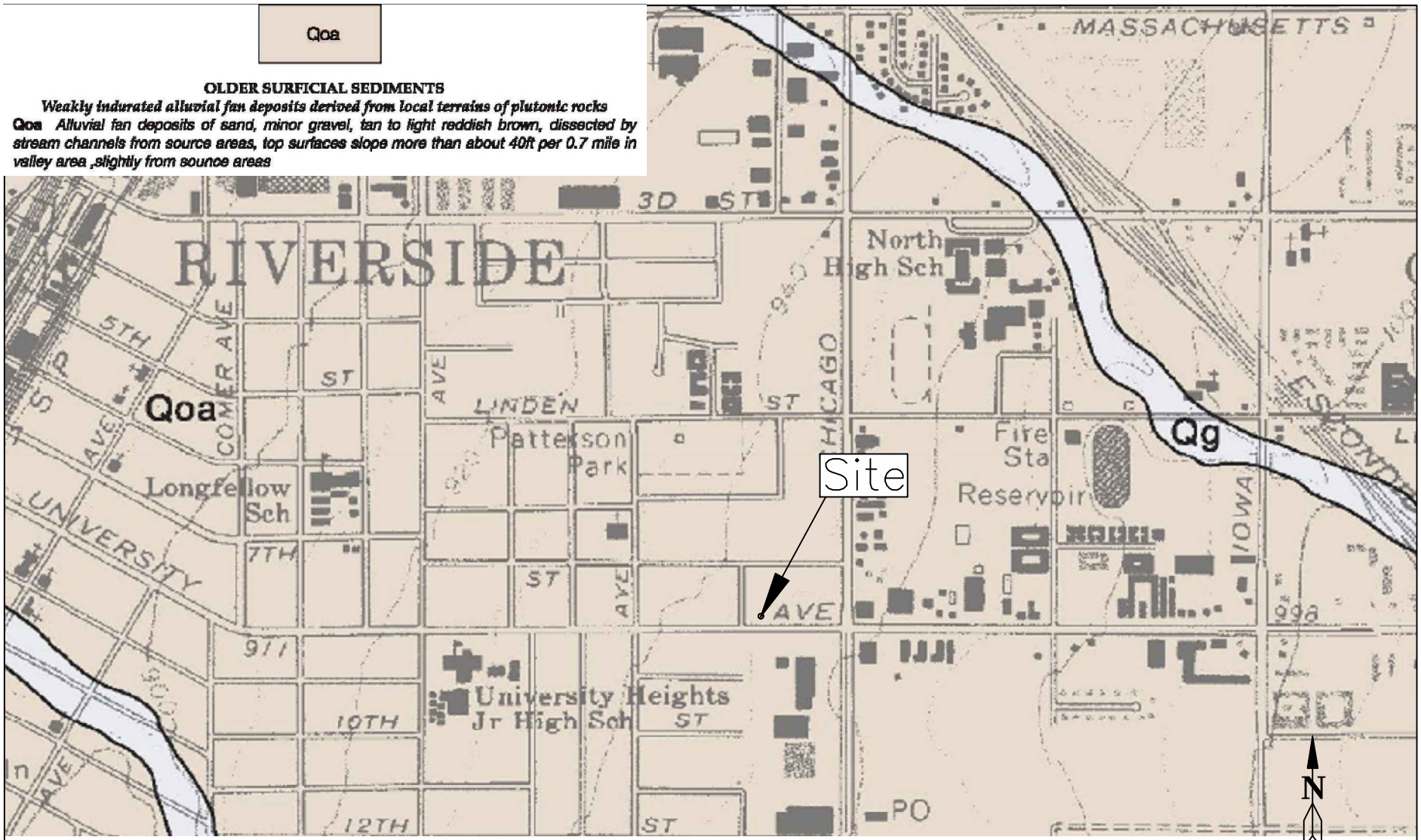
CAL LAND
ENGINEERING & ASSOCIATES, Inc.

Seismic Hazard Map

1775 & 1795 University Avenue, Riverside, California

Project No.: 23-027-003

FIGURE 2



SCALE AS SHOWN

Maps modified from "Geologic map of the Riverside East/south 1/2 of San Bernardino South quadrangles, San Bernardino and Riverside County, California by Dibblee, T.W., and Minch, J.A.., 2003

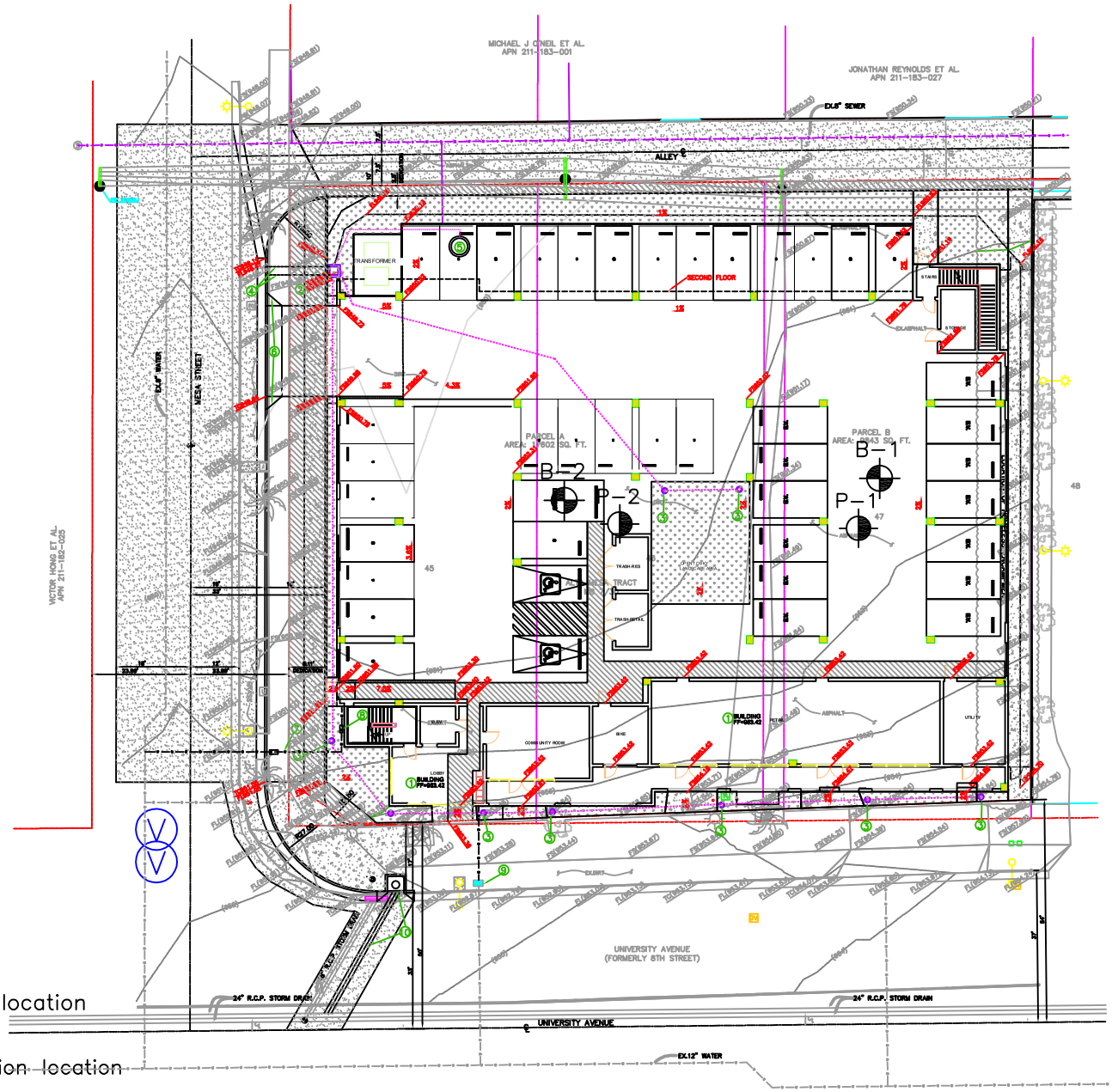
CAL LAND ENGINEERING & ASSOCIATES, Inc.

Regional Geology Map

1775 & 1795 University Avenue, Riverside, California

Project No.: 23-027-003

FIGURE 3



LEGEND

B–1 Approximate boring location

P–1 Approximate percolation location

N

SCALE: 1" = 40'

CAL LAND
ENGINEERING & ASSOCIATES, Inc.

SITE PLAN

1775 & 1795 University Avenue, Riverside, California

Project No.: 23–027–003

PLATE 1

APPENDIX A
FIELD INVESTIGATION

Subsurface conditions were explored by drilling two 8-inch diameter hollow stem auger borings to a maximum depth of 21.5 feet below the existing grade at the subject site at approximate locations shown on the enclosed Site Plan, Plate 1

The drilling of the test borings was supervised by a CLE engineer, who continuously logged the borings and visually classified the soils in accordance with the Unified Soil Classification System. Ring samples were taken at frequent intervals. These samples were obtained by driving a sampler with successive blows of 140-pound hammer dropping from a height of 30 inches.

Representative undisturbed samples of the subsurface soils were retained in a series of brass rings, each having an inside diameter of 2.42 inches and a height of 1.00 inch. All ring samples were transported to our laboratory. Bulk surface soil samples were also collected for additional classification and testing.

CalLand Engineering and Associates, Inc.

BORING LOG B-1

PROJECT LOCATION: 1775 & 1795 University Ave, Riverside, California
PROJECT NO.: 23-027-003
DATE DRILLED: 8/28/2023
SAMPLE METHOD: Hollow Stem
ELEVATION: N/A
LOGGED BY: AM & HF

B: Bulk Bag
S: Standard Penetration Test
R: Ring Sample

Depth (ft)	Sample: Bulk	Sample: Undisturbed	Sample: Blows/6"	USCS Symbol	Dry Unit Wt. (pcf)	Moisture (%)	Description of Material
	B		4	SC		10.2	Clayey sand, medium grained, medium brown, moist, loose to medium dense Percent of Fines: 49.6
2		R	10 12	SC	104.6	9.9	Clayey sand, medium grained, medium brown, moist, medium dense
			8				
5		R	14 18	SM	107.3	10.7	Silty sand, medium grained, medium brown, moist, medium dense Percent of Fines: 31.2
			12				
10		R	19 23	SM	106.4	3.0	Silty sand, light brown, fine grained, slightly moist, medium dense Percent of Fines: 27.3
			15				
15		R	24 28	SM	110.3	7.6	Silty sand, light brown, fine grained, slightly moist, dense Percent of Fines: 28.9
			14				
20		S	21 25	SP/ SM		5.1	Sand and silty sand, light brown, fine grained, slightly moist, dense Percent of Fines: 11.2
25							Total Depth: 21.5 feet No Groundwater Hole Backfilled Hammer Driving Weight: 140 lbs Hammer Driving Height: 30 inches
30							
35							

PLATE A-1

CalLand Engineering and Associates, Inc.

BORING LOG B-2

PROJECT LOCATION: 1775 & 1795 University Ave, Riverside, California
PROJECT NO.: 23-027-003
DATE DRILLED: 8/28/2023
SAMPLE METHOD: Hollow Stem
ELEVATION: N/A
LOGGED BY: AM & HF

B: Bulk Bag
S: Standard Penetration Test
R: Ring Sample

Depth (ft)	Sample: Bulk	Sample: Undisturbed	Sample: Blows/6"	USCS Symbol	Dry Unit Wt. (pcf)	Moisture (%)	Description of Material
	B		5	SM		3.2	, loose to medium denseSilty sand, fine grained, medium brown, sightly moist Percent of Fines: 31.9
2		R	11 12	SM	106.8	3.7	Silty sand, fine grained, medium brown, slightly moist, medium dense
5		R	11 22 26	SM	108.4	5.5	Silty sand, fine grianed, light brown, slightly moist, dense
10		R	12 25 28	SM	109.6	3.7	Silty sand, fine grianed, light brown, slightly moist, dense
15							Total Depth: 11.5 feet No Groundwater Hole Backfilled Hammer Driving Weight: 140 lbs Hammer Driving Height: 30 inches
20							
25							
30							
35							

PLATE A-2

APPENDIX B

LABORATORY TESTING

During the subsurface exploration, CLE personnel collected relatively undisturbed ring samples and bulk samples. The following tests were performed on selected soil samples:

Moisture-Density

The moisture content and dry unit weight were determined for each relatively undisturbed soil sample obtained in the test borings in accordance with ASTM D2937 standard. The results of these tests are shown on the boring logs in Appendix A.

Shear Tests

Shear tests were performed in a direct shear machine of strain-control type in accordance with ASTM D3080 standard. The rate of deformation was 0.010 inch per minute. Selected samples were sheared under varying confining loads in order to determine the Coulomb shear strength parameters: internal friction angle and cohesion. The shear test results are presented in the attached plates.

Consolidation Tests

Consolidation tests were performed on selected undisturbed soil samples in accordance with ASTM D2435 standard. The consolidation apparatus is designed for a one-inch high soil filled brass ring. Loads are applied in several increments in a geometric progression and the resulting deformations are recorded at selected time intervals. Porous stones are placed in contact with the top and bottom of each specimen to permit addition and release of pore fluid. The samples were inundated with water at a load of two kilo-pounds (kips) per square foot, and the test results are shown on the attached Figures.

Expansion Index

Laboratory Expansion Index test was conducted on the existing onsite near surface materials sampled during CLE's field investigation to aid in evaluation of soil expansion potential. The test is performed in accordance with ASTM D-4829. The testing result is presented below:

Sample Location	Expansion Index	Expansion Potential
B-1 @ 0-3'	9	Very Low

Corrosion Potential

Chemical laboratory tests were conducted on the existing onsite near surface materials sampled during CLE's field investigation to aid in evaluation of soil corrosion potential and the attack on concrete by sulfate soils. These tests are performed in accordance with California Test Method 417, 422, 532, and 643. The testing results are presented below:

Sample Location	pH	Chloride (ppm)	Sulfate (% by weight)	Min. Resistivity (ohm-cm)
B-1 @ 0-3'	8.18	170	0.0038	4,400

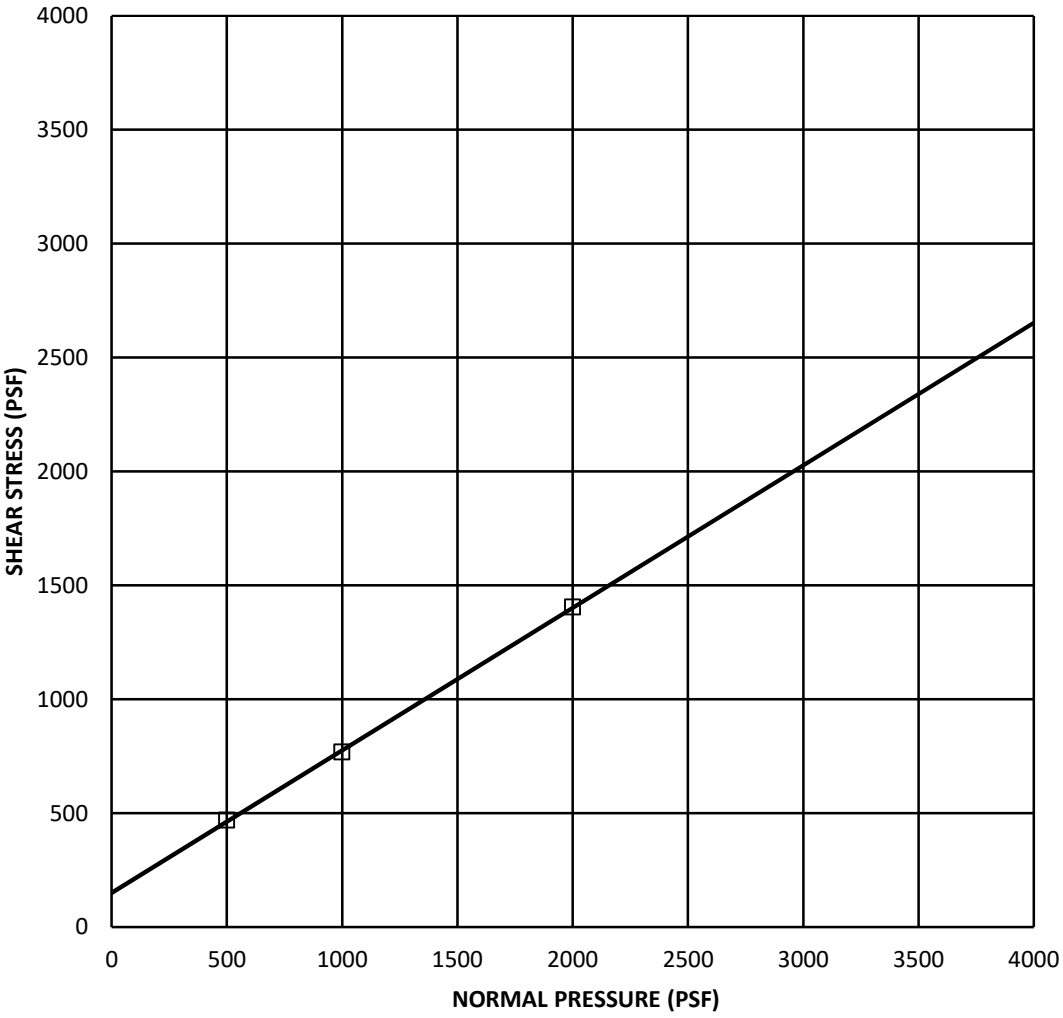
Percent Passing the #200 Sieve

Percent of soil passing the #200 sieve was determined for selected soil samples in accordance with ASTM D1140 standard. The test results are presented in the following table:

Sample Location	% Passing #200
B-1@ 0-3'	49.6
B-1@ 5'	31.2
B-1@ 10'	27.3
B-1@ 15'	28.9
B-1@ 20'	11.2

Percolation Tests

The percolation rate and permeability of the subsurface material, encountered in the percolation borings were measured by performing shallow percolation test method in accordance with the County of Riverside Department of Environmental Health procedure as set forth in the Riverside County – Low Impact Development RMP Design Handbook. The results of percolation tests for percolation borings are presented in the attached Percolation Data Sheets



SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	COHESION (PSF)	FRICTION ANGLE (DEG)
□	B-1	N/A	2.0	RING	SC	150	32

Vertical Loads (PSF)	Moisture Content Before Test (%)	Moisture Content After Test (%)
500	9.9	22.4
1000	9.9	21.9
2000	9.9	21.6

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Land Surveying, Geotechnical, Environmental & Civil Engineering

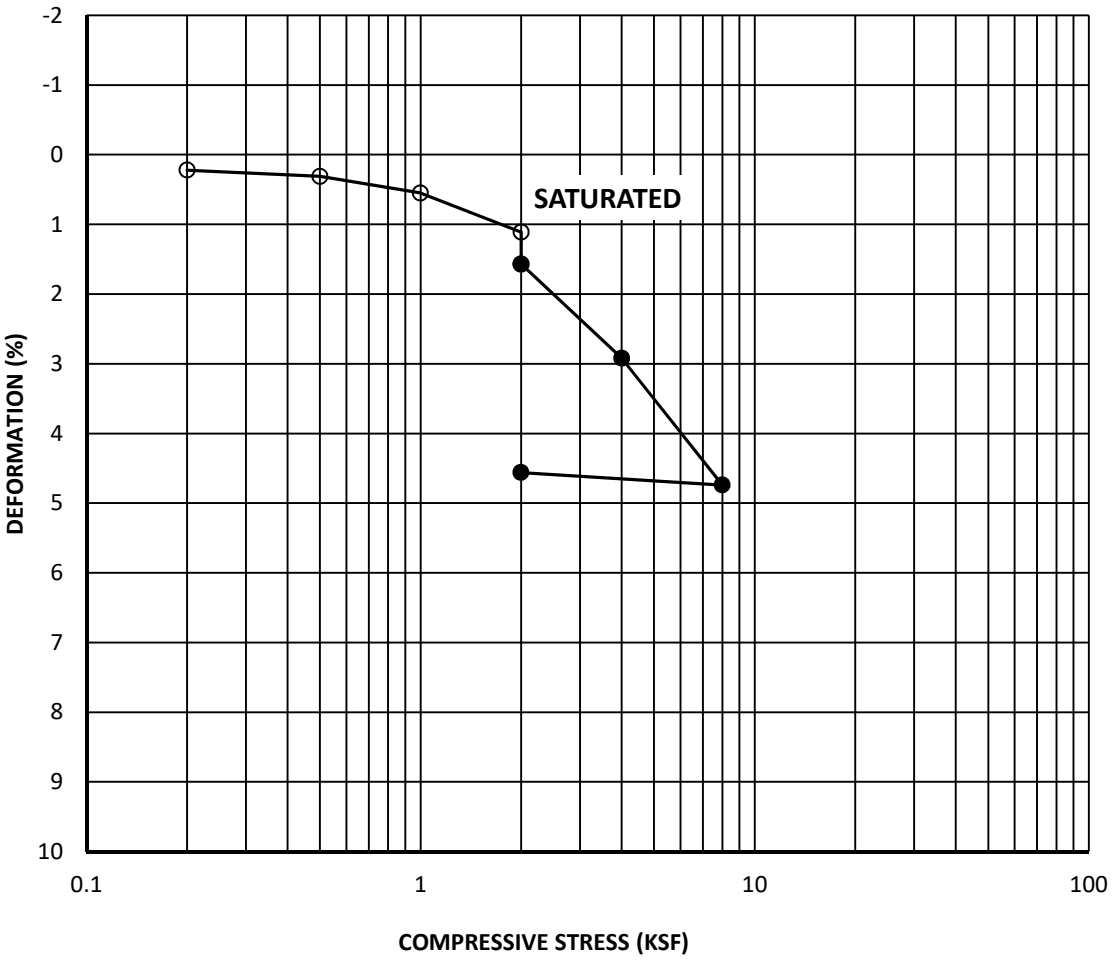
Project Address:
APN: 211-183-023 & -024
1775 & 1795 University Ave
Riverside, California

DIRECT SHEAR

(ASTM D3080)

10/23

FIGURE 4



SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SOIL TYPE	INIT. MOISTURE CONTENT (%)	INIT. DRY DENSITY (PCF)	INIT. VOID RATIO
○	B-1	N/A	5	SM	10.7	107.3	0.570

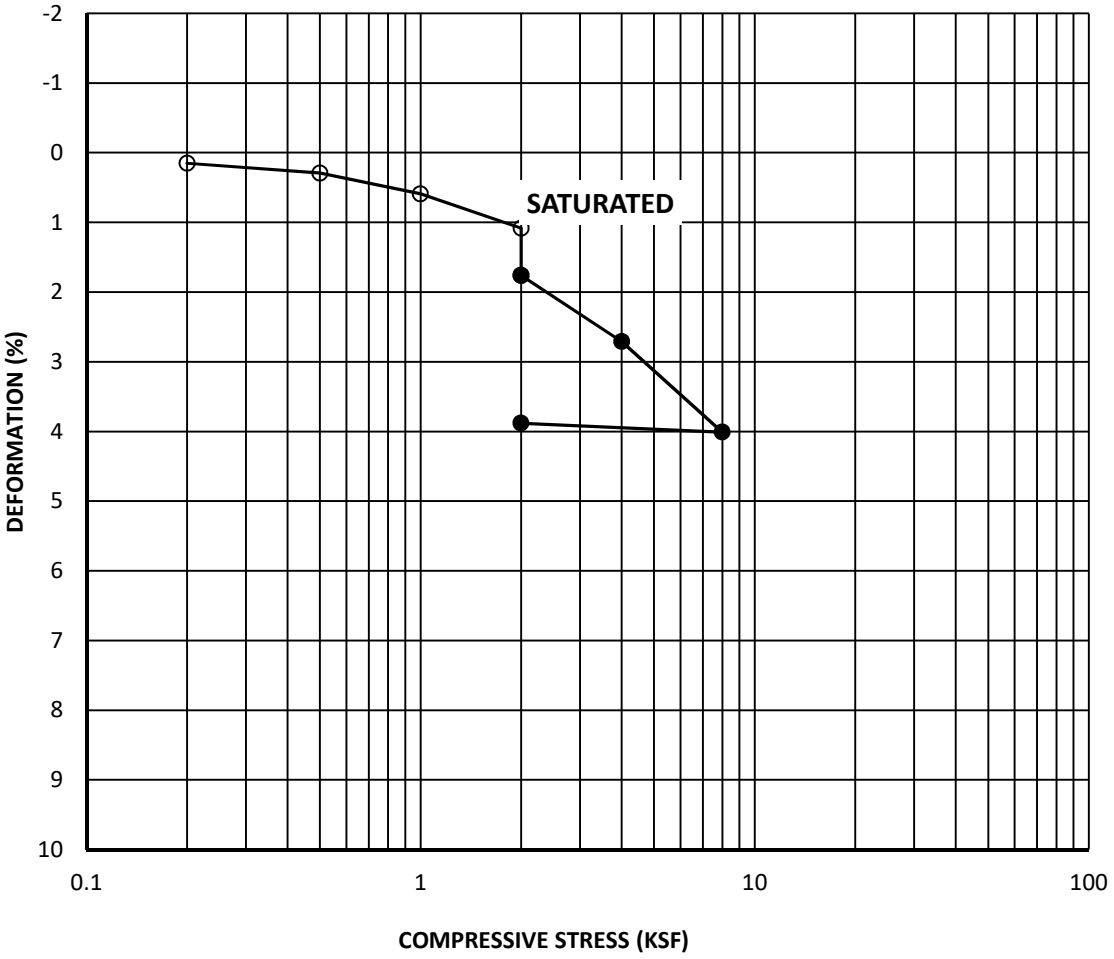
CalLand Engineering and Associates, Inc. Land Surveying, Geotechnical, Environmental & Civil Engineering	Project Address: APN:211-183-023, -& -024 1775 & 1795 Univerity Avenue Riverside, California

CONSOLIDATION

(ASTM D2435)

10/23

FIGURE 5



SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SOIL TYPE	INIT. MOISTURE CONTENT (%)	INIT. DRY DENSITY (PCF)	INIT. VOID RATIO
◯	B-1	N/A	10	SM	3.0	108.4	0.554

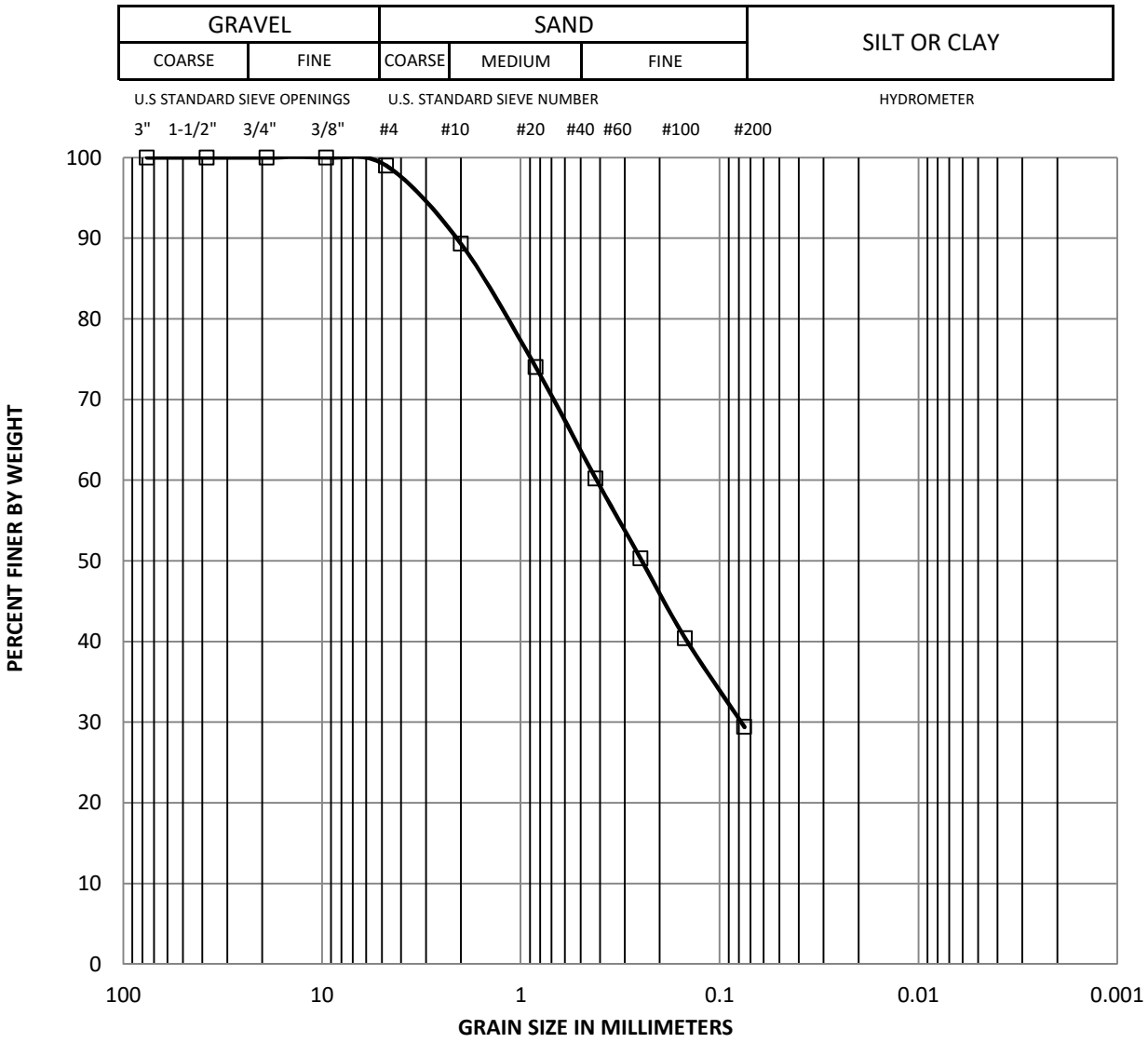
CalLand Engineering and Associates, Inc. Land Surveying, Geotechnical, Environmental & Civil Engineering	Project Address: APN:211-183-023, -& -024 1775 & 1795 Univerity Avenue Riverside, California

CONSOLIDATION

(ASTM D2435)

10/23

FIGURE 6



SYMBOL	SAMPLE ID	DEPTH (FT)	SAMPLE TPYE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
□	P-1	8	BULK	SM	N/A	N/A

CalLand Engineering, Inc
dba Quartech Consultants
Geotechnical, Environmental & Civil Engineering Services

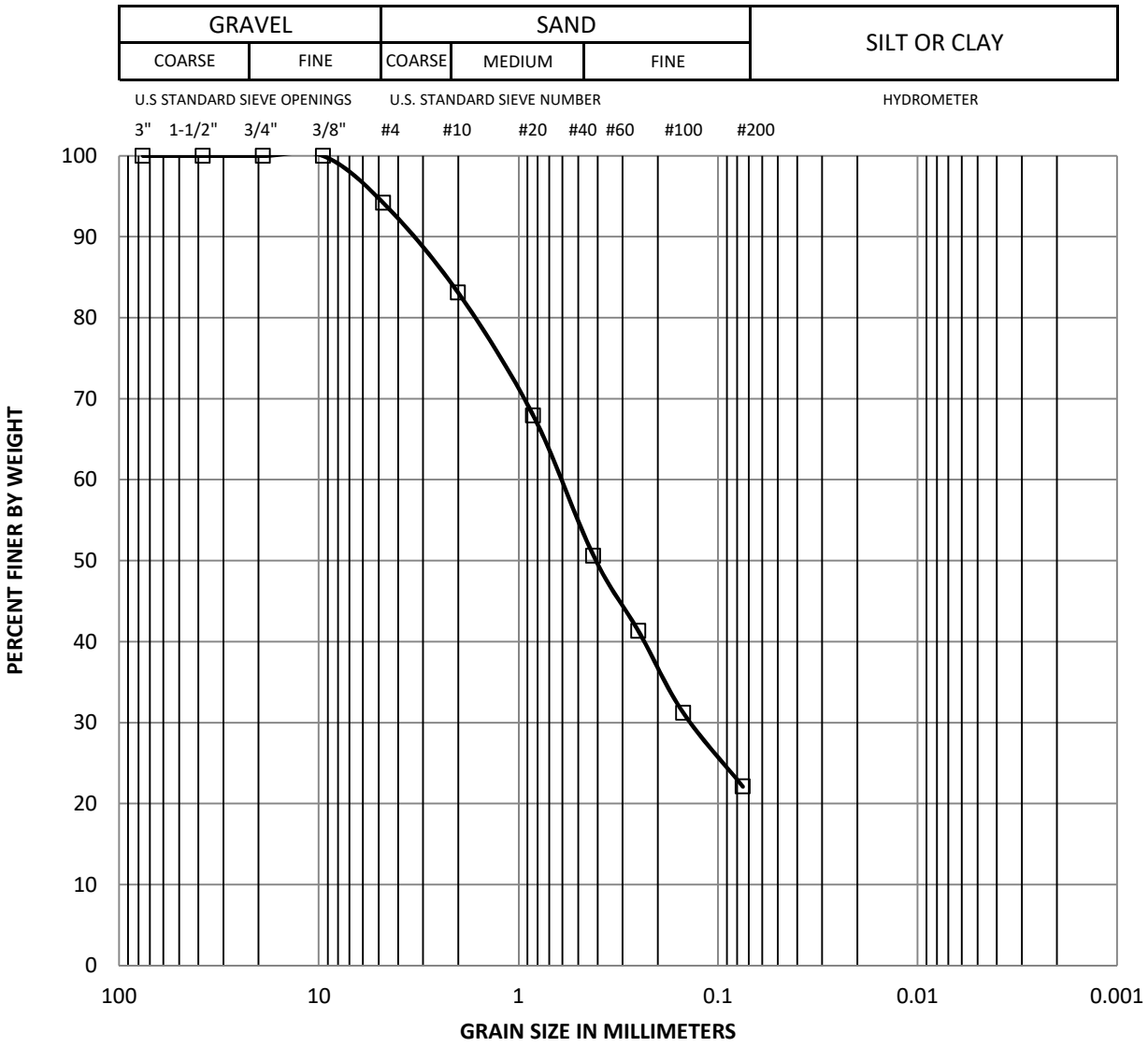
Project Address:
APN: 211-183-023 024
1775 & 1779 University Drive
Riverside, California

GRAIN SIZE DISTRIBUTION CURVE

(ASTM D422)

10/23

FIGURE 7



SYMBOL	SAMPLE ID	DEPTH (FT)	SAMPLE TPYE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
□	P-2	8	BULK	SM	N/A	N/A

CalLand Engineering, Inc
dba Quartech Consultants
Geotechnical, Environmental & Civil Engineering Services

Project Address:
APN: 211-183-023 024
1775 & 1779 University Drive
Riverside, California

GRAIN SIZE DISTRIBUTION CURVE

(ASTM D422)

10/23

FIGURE 8

Percolation Test Data Sheet

Project:	**1775 & 1795 University Ave., Riverside, C**		Project No:	**23-027-003**	Date:	8/28/2023
Test Hole No:	P-1		Tested By:	HF		
Depth of Test Hole, Dt:	8.0' = 96"	USCS Soil Classification:		Silty Sand (SM)		
Test Hole Diminensions (inches)				Length	Width	
Diameter if round= 8"		Sides if Rectangular		N/A	N/A	
Sandy Soil Criteria Test*						

Trial No	Start Time	Stop Time	Time Interval (min)	Initial Depth to Water (in)	Final Depth to Water (in)	Change in Water Level (in)	Greater than or Equal to 6" (y/n)
1	11:25 AM	11:35 AM	10	66.00	85.80	19.80	yes
2	11:43 AM	11:53 AM	10	66.00	85.40	19.40	yes

* If two consecutive measurements show that six inches of water seeps away in less that 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Otherwise, presoak (fil) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of 0.25".

Trial No	Start Time	Stop Time	Δt Initial Interval (min)	Do Initial Depth to Water (in)	Df Final Depth to Water (in)	ΔD Change in Water Level (in)	Percolation Rate (min/in)
1	11:58 AM	12:08 PM	10	66.00	85.00	19.00	0.526
2	12:11 PM	12:21 PM	10	66.00	84.20	18.20	0.549
3	12:24 PM	12:34 PM	10	66.00	83.40	17.40	0.575
4	12:37 PM	12:47 PM	10	66.00	82.70	16.70	0.599
5	12:50 PM	1:00 PM	10	66.00	81.90	15.90	0.629
6	1:03 PM	1:13 PM	10	66.00	81.80	15.80	0.633
7	1:16 PM	1:26 PM	10	66.00	81.80	15.80	0.633
8	1:29 PM	1:39 PM	10	66.00	81.80	15.80	0.633
9							
10							
11							
12							
13							
14							
15							

Comments:

Percolation Test Data Sheet

Project:	**1775 & 1795 University Ave., Riverside, C**		Project No:	**23-027-003**	Date:	8/28/2023
Test Hole No:	P-2		Tested By:	HF		
Depth of Test Hole, Dt:	8.0' = 96"	USCS Soil Classification:		Silty Sand (SM)		
Test Hole Diminensions (inches)				Length	Width	
Diameter if round= 8"		Sides if Rectangular		N/A	N/A	
Sandy Soil Criteria Test*						

Trial No	Start Time	Stop Time	Time Interval (min)	Initial Depth to Water (in)	Final Depth to Water (in)	Change in Water Level (in)	Greater than or Equal to 6" (y/n)
1	2:00 AM	2:10 AM	10	66.00	87.50	21.50	yes
2	2:18 AM	2:28 AM	10	66.00	87.40	21.40	yes

* If two consecutive measurements show that six inches of water seeps away in less that 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Otherwise, presoak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of 0.25".

Trial No	Start Time	Stop Time	Δt Initial Interval (min)	Do Initial Depth to Water (in)	Df Final Depth to Water (in)	ΔD Change in Water Level (in)	Percolation Rate (min/in)
1	2:33 AM	2:43 AM	10	66.00	87.20	21.20	0.472
2	2:46 AM	2:56 AM	10	66.00	86.80	20.80	0.481
3	2:59 AM	3:09 AM	10	66.00	86.50	20.50	0.488
4	3:12 AM	3:22 AM	10	66.00	86.10	20.10	0.498
5	3:25 AM	3:35 AM	10	66.00	86.00	20.00	0.500
6	3:38 AM	3:48 AM	10	66.00	85.90	19.90	0.503
7	3:51 AM	4:01 AM	10	66.00	85.90	19.90	0.503
8	4:04 AM	4:14 AM	10	66.00	85.90	19.90	0.503
9							
10							
11							
12							
13							
14							
15							

Comments:

Attachment E

Paleontological Resources Assessment

Rincon Consultants, Inc.
8825 Aero Drive, Suite 120
San Diego, California 92123
760-918-9444

January 8, 2024
Project No: 23-14963

Zibo Gong
UCR 1775 Development, LLC
250 Whispering Pines Summit
Arcadia, California 91006
Via email: zibsgong@gmail.com

Subject: 1775 University Avenue Project, Paleontological Resources Assessment
1775 and 1795 University Avenue, Riverside, California 92507

Dear Mr. Gong:

Rincon Consultants, Inc. (Rincon) was retained by UCR 1775 Development, LLC to conduct a paleontological resource assessment for the 1775 University Avenue Project (project) in Riverside, California. The goals of this assessment are to identify the geologic units that may be impacted by development of the project, determine the paleontological sensitivity of geologic units in the project site, assess potential for impacts to paleontological resources from development of the project, and recommend mitigation measures to reduce impacts to scientifically significant paleontological resources, as necessary. This assessment is written to fulfill Mitigation Measure (MM) PAL-1 of the City of Riverside 6th Cycle Housing and Public Safety Element Updates and Environmental Justice Policies Draft Environmental Impact Report (prior EIR).

Paleontological resources, or fossils, are the evidence of once-living organisms preserved in the rock record. They include both the fossilized remains of ancient plants and animals and the traces thereof (e.g., trackways, imprints, burrows, etc.). Paleontological resources are not found in "soil" but are contained within the geologic deposits or bedrock that underlies the soil layer. Typically, fossils are greater than 5,000 years old (i.e., older than middle Holocene in age) and are typically preserved in sedimentary rocks. Although rare, fossils can also be preserved in volcanic rocks and low-grade metamorphic rocks under certain conditions (Society of Vertebrate Paleontology [SVP] 2010). Fossils occur in a non-continuous and often unpredictable distribution within some sedimentary units, and the potential for fossils to occur within sedimentary units depends on several factors. It is possible to evaluate the potential for geologic units to contain scientifically important paleontological resources, and therefore evaluate the potential for impacts to those resources and provide mitigation for paleontological resources if they are discovered during construction of a development project.

This paleontological resource assessment consisted of a review of existing geologic maps and primary literature regarding geologic units within the project site and vicinity. Following the literature review and records search, this report assessed the paleontological sensitivity of the geologic units underlying the project site and determined the potential for impacts to significant paleontological resources. Per the prior EIR, if this investigation determines that paleontologically sensitive deposits are present within this project site and that those deposits could be affected by project development, then MM PAL-2 would be required. MM PAL-2 requires that the applicant shall retain a qualified paleontologist to direct paleontological mitigation program, including full-time monitoring during ground-disturbing activities that occur within the paleontologically sensitive deposit; collection, preparation, and curation of recovered fossils (if necessary); and submitting a report documenting the results of the mitigation program to the City of Riverside. MM PAL-3 would require avoidance and

minimization measures if paleontological resources and/or paleontologically sensitive deposits are exposed during project construction and remain exposed after construction.

Project Site and Description

The project site is located at 1755 and 1795 University Avenue in Riverside, California. The project site consists of 0.63-acre site within the *Riverside East, California* United States Geological Survey 7.5-minute topographic quadrangle. The project site was identified as a site for potential future housing development (i.e., opportunity site) by the City of Riverside's Housing Element Update. The project site is currently undeveloped, but historic aerial images show that it previously contained a commercial building and parking lot (NETR Online 2023).

The project involves the construction of a mixed-use building that includes residential and commercial units with an attached parking structure. No underground levels or major underground utility work is anticipated. Ground disturbance is anticipated to reach a maximum depth of 3 feet.

Regulatory Setting

This study has been completed to comply with MM PAL-1 of the prior EIR and in accordance with state and local regulations.

State Regulations

California Environmental Quality Act – Paleontological Resources

Paleontological resources are protected under CEQA, which states in part a project will "normally" have a significant effect on the environment if it, among other things, will disrupt or adversely affect a paleontological site except as part of a scientific study. Specifically, in Section VII(f) of Appendix G of the State CEQA Guidelines, the Environmental Checklist Form, the question is posed thus: "Will the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature." To determine the uniqueness of a given paleontological resource, it must first be identified or recovered (i.e., salvaged). Therefore, CEQA mandates mitigation of adverse impacts, to the extent practicable, to paleontological resources.

CEQA does not define "a unique paleontological resource or site." However, the Society of Vertebrate Paleontology (SVP) has defined a "significant paleontological resource" in the context of environmental review as follows:

> Fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are typically to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years) (SVP 2010).

The loss of paleontological resources meeting the criteria outlined above (i.e., a significant paleontological resource) would be a significant impact under CEQA, and the CEQA lead agency is responsible for ensuring that impacts to paleontological resources are mitigated, where practicable, in compliance with CEQA and other applicable statutes.

California Public Resources Code

Section 5097.5 of the Public Resources Code states:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

Here "public lands" means those owned by, or under the jurisdiction of, the state or any city, county, district, authority, or public corporation, or any agency thereof. Consequently, public agencies are required to comply with Public Resources Code Section 5097.5 for their own activities, including construction and maintenance, and for permit actions (e.g., encroachment permits) undertaken by others.

Local Regulations

City of Riverside General Plan 2025

The Historic Preservation Element of the City of Riverside's General Plan 2025 addresses paleontological resources. Policy HP-1.3 states: "The City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable State and federal cultural resources protection and management laws in its planning and project review process."

Methods

Rincon evaluated the paleontological sensitivity of the geologic units which underlie the project site using published geologic maps and primary literature. Rincon assigned a paleontological sensitivity to the geologic units in the project site. The potential for impacts to significant paleontological resources is based on the potential for ground disturbance to directly impact paleontologically sensitive geologic units. The County of Riverside (2015) has defined paleontological sensitivity and developed a system for assessing paleontological sensitivity, as discussed below.

Paleontological Resources Sensitivity

Riverside County has been inventoried for geologic formations known to potentially contain paleontological resources. Lands with high, low, or undetermined potential for finding paleontological resources are mapped (County of Riverside 2015: Figure OS-8). These guidelines define the various levels of paleontological resource potential (i.e., "sensitivity") and provide detailed protocols for the mitigation of adverse impacts to fossil resources during Project development.

- **High Potential.** Sedimentary rock units with high potential for containing significant nonrenewable paleontological resources include rock units in which vertebrate or significant invertebrate fossils have been found or determined likely to be present. These units include, but are not limited to, sedimentary formations that contain significant non-renewable paleontological resources anywhere within their geographical extent and sedimentary rock units temporally or lithologically suitable for the preservation of fossils. High sensitivity includes not only the potential for yielding abundant vertebrate fossils, but also for production of a few significant fossils that may provide new and significant data. High sensitivity areas are mapped as either "High A" or "High B," according to the following criteria:
    - **High Sensitivity A.** Based on geologic formations or mapped rock units that are known to contain or have the correct age and depositional conditions to contain significant paleontological resources. These include rocks of Silurian or Devonian age and younger that

have potential to contain remains of fossil fish, and Mesozoic and Cenozoic rocks that contain fossilized body elements and trace fossils such as tracks, nests and eggs.

- **High Sensitivity B.** Equivalent to High A but is based on the occurrence of fossils at a specified depth below the surface. This category indicates fossils that are likely to be encountered at or below 4 feet of depth and may be impacted during construction activities. The qualified paleontologist approved by the County ("Project Paleontologist") will create and implement a project-specific PRMMP to be approved by the County Geologist prior to the issuance of a grading permit. Construction monitoring and details covering the treatment of fossil discoveries are included in the PRMMP. Any significant specimens discovered will need to be prepared, identified, and curated into a museum. A final report documenting the significance of the finds will also be required.

- **Low Potential.** Lands for which previous field surveys and documentation show a low potential for containing significant paleontological resources subject to adverse impacts. The mapping of low potential was determined based on actual documentation and was not generalized to cover all areas of a particular rock unit on a geologic map. Mitigation is not typically required unless a fossil is encountered during site development. If a fossil is encountered, the County Geologist shall be notified, and a paleontologist shall be retained by the Project proponent. In such cases, the paleontologist shall document the extent and potential significance of the paleontological resources on the site and establish appropriate mitigation measures for further site development.
- **Undetermined Potential.** Areas underlain by sedimentary rocks for which literature or unpublished studies are not available have undetermined potential for containing significant paleontological resources. A field survey is required prior to the commencement of construction activities by a qualified vertebrate paleontologist to assess the unit's paleontological potential as either High or Low.
- **High Potential.** Sedimentary rock units with high potential for containing significant nonrenewable paleontological resources include rock units in which vertebrate or significant invertebrate fossils have been found or determined likely to be present. These units include, but are not limited to, sedimentary formations that contain significant non-renewable paleontological resources anywhere within their geographical extent and sedimentary rock units temporally or lithologically suitable for the preservation of fossils. High sensitivity includes not only the potential for yielding abundant vertebrate fossils, but also for production of a few significant fossils that may provide new and significant data. High sensitivity areas are mapped as either "High A" or "High B," according to the following criteria:
  - **High Sensitivity A.** Based on geologic formations or mapped rock units that are known to contain or have the correct age and depositional conditions to contain significant paleontological resources. These include rocks of Silurian or Devonian age and younger that have potential to contain remains of fossil fish, and Mesozoic and Cenozoic rocks that contain fossilized body elements and trace fossils such as tracks, nests and eggs.
  - **High Sensitivity B.** Equivalent to High A but is based on the occurrence of fossils at a specified depth below the surface. This category indicates fossils that are likely to be encountered at or below 4 feet of depth and may be impacted during construction activities. The qualified paleontologist approved by the County ("Project Paleontologist") will create and implement a project-specific PRMMP to be approved by the County Geologist prior to the issuance of a grading permit. Construction monitoring and details covering the treatment of fossil discoveries are included in the PRMMP. Any significant specimens discovered will need to be prepared, identified, and curated into a museum. A final report documenting the significance of the finds will also be required.

- **Low Potential.** Lands for which previous field surveys and documentation show a low potential for containing significant paleontological resources subject to adverse impacts. The mapping of low potential was determined based on actual documentation and was not generalized to cover all areas of a particular rock unit on a geologic map. Mitigation is not typically required unless a fossil is encountered during site development. If a fossil is encountered, the County Geologist shall be notified, and a paleontologist shall be retained by the Project proponent. In such cases, the paleontologist shall document the extent and potential significance of the paleontological resources on the site and establish appropriate mitigation measures for further site development.
- **Undetermined Potential.** Areas underlain by sedimentary rocks for which literature or unpublished studies are not available have undetermined potential for containing significant paleontological resources. A field survey is required prior to the commencement of construction activities by a qualified vertebrate paleontologist to assess the unit's paleontological potential as either High or Low.

Geologic Setting

The project site is situated in the Peninsular Ranges, one of the eleven major geomorphic provinces in California (California Geological Survey 2002). In general, the Peninsular Ranges consist of northwest-southeast trending mountain ranges and faults (Norris and Webb 1976). These mountains are generally comprised of Mesozoic to Cenozoic plutonic and extrusive igneous and Cretaceous marine sedimentary rocks. The Peninsular Ranges province also contains sedimentary basins such as the Los Angeles Basin which have accumulated thick sequences of Cenozoic marine and terrestrial sedimentary rocks. Locally, the project site is located approximately 2.4 miles east of the Santa Ana River and 2.3 miles west of the Box Springs Mountains.

The geology of the region was mapped by Morton and Miller (2006), who identified a single geologic unit, Quaternary old alluvial fan deposits, underlying the project site. Quaternary old alluvial fan deposits consist of late to middle Pleistocene-aged silt, sand, and gravel. Pleistocene-aged alluvial sediments are known to produce significant paleontological resources in western Riverside County, including mastodon (*Mammut*), saber-toothed cat (*Smilodon*), American lion (*Panthera atrox*), and other mammals, reptiles, birds, amphibians, and fish (Jefferson 2010; Paleobiology Database 2023). For this reason, these sediments are assigned High A paleontological sensitivity (County of Riverside 2015).

Paleontological Setting

Rincon requested a paleontological records search of the Natural History Museum of Los Angeles County (NHMLA) on December 20, 2023. This records search recovered no known fossil localities within the project site (Bell 2024). The nearest known fossil localities within the NHMLA collections lie approximately 9 miles west of the project site. Jefferson (2010) reported other, potentially closer fossil localities (from "Riverside"), but it is highly unlikely these localities occur in the project site.

Findings and Recommendations

The project site is underlain by a single geologic unit with High A paleontological sensitivity. Excavations for this project are expected to consist of small amounts of grading to form level building pads in the project site. The grade throughout most of the project site will be raised, so only minor amounts of sediment currently within the site will be excavated. The site was previously developed (NETR Online 2023), so any sediment that will be impacted by grading will likely be previously disturbed and, therefore, have low paleontological potential.

Given the relatively small volume of sediment that will be impacted by grading and the likelihood that this sediment is previously disturbed, this project is not expected to significantly impact paleontological resources. Therefore, MM PAL-2 of the prior EIR is not required for this project.

Sincerely,
Rincon Consultants, Inc.



Andrew McGrath, PhD
Paleontologist/Project Manager



Jennifer DiCenzo, BA
Senior Paleontologist/Program Manager

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Attachment F

Noise and Vibration Study



1775 University Avenue

Noise and Vibration Study

prepared for

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December 2023

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Appendix A Noise Monitoring Data
Appendix B Construction Noise Modeling

1 Project Description and Impact Summary

1.1 Introduction

This study analyzes the potential noise and vibration impacts associated with the construction and operation of the proposed 1775 University Avenue project (hereafter referred to as proposed project or project) located in the City of Riverside (City), California. Rincon Consultants, Inc. (Rincon) prepared this study under contract to the project applicant UCR 1775 Development LLC, for the City of Riverside in support of the environmental documentation being prepared pursuant to the California Environmental Quality Act (CEQA). Table 1 provides a summary of project impacts.

Table 1 Summary of Impacts

Impact Statements	Proposed Project's Level of Significance
Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Less than significant impact with mitigation incorporated (Construction) Less than significant impact (Operation)
Would the project result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Less than significant impact with mitigation incorporated (Construction) Less than significant impact (Operation)
For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No impact

1.2 Project Summary

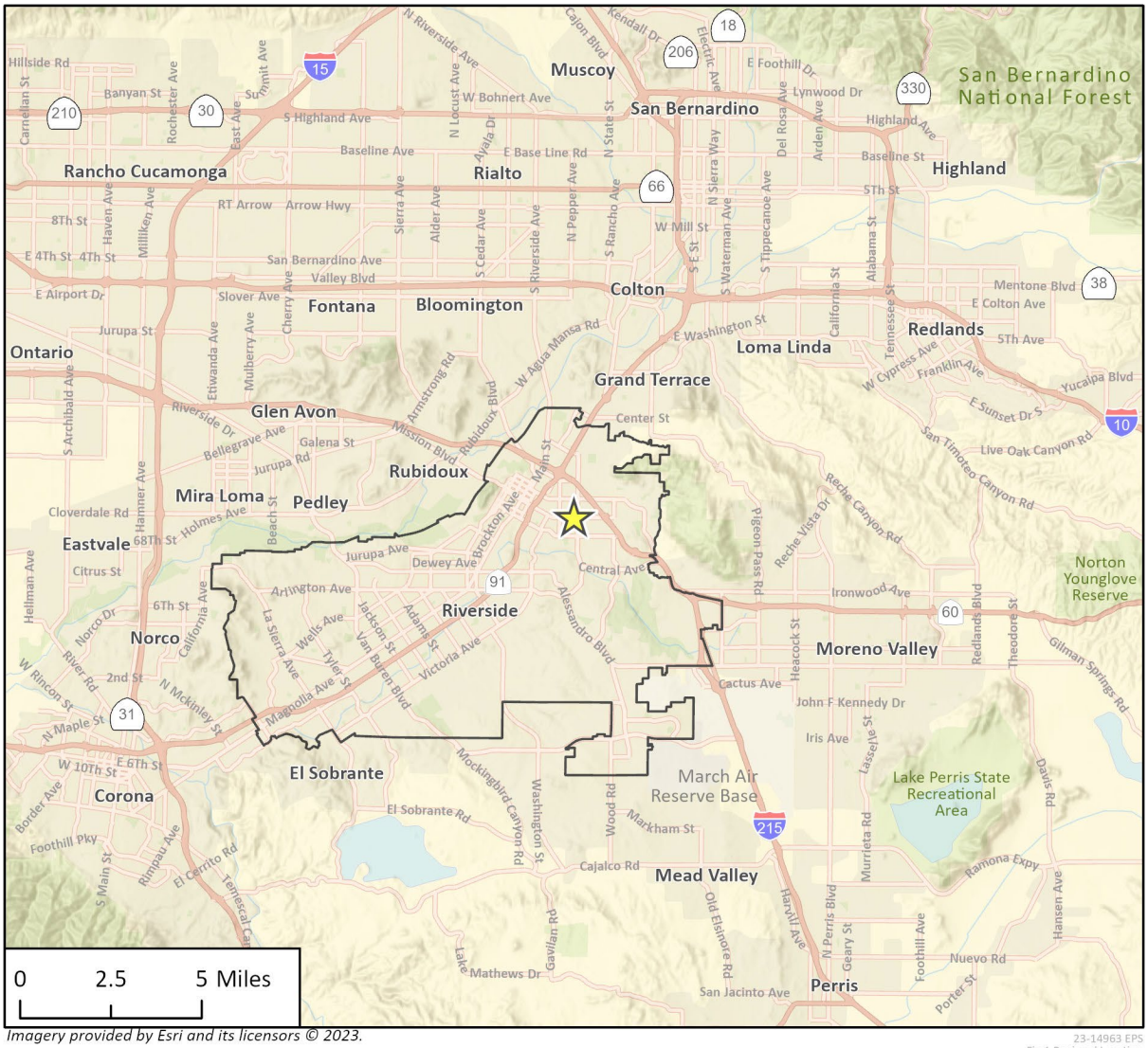
Project Location

The project site encompasses 0.63 acres in the City of Riverside, located on an existing vacant lot comprised of Assessor's Parcel Numbers (APNs) 211-183-024 and 211-183-023. The project site is bounded to the north by an alley, to the east by a single-story Walgreens and associated parking lot, to the south by University Avenue, and to the west by Mesa Street.

Figure 1 shows the regional location of the project site and Figure 2 depicts the project boundary, including noise measurement locations taken for this study. Currently, the site is vacant and consists of portions of both dirt and pavement, with metal fencing atop a retaining wall running along the eastern property line separating the site from the adjacent Walgreens property. Access to the site is currently available via entrances located directly to the north, south, and west of the property from the respective roadways.

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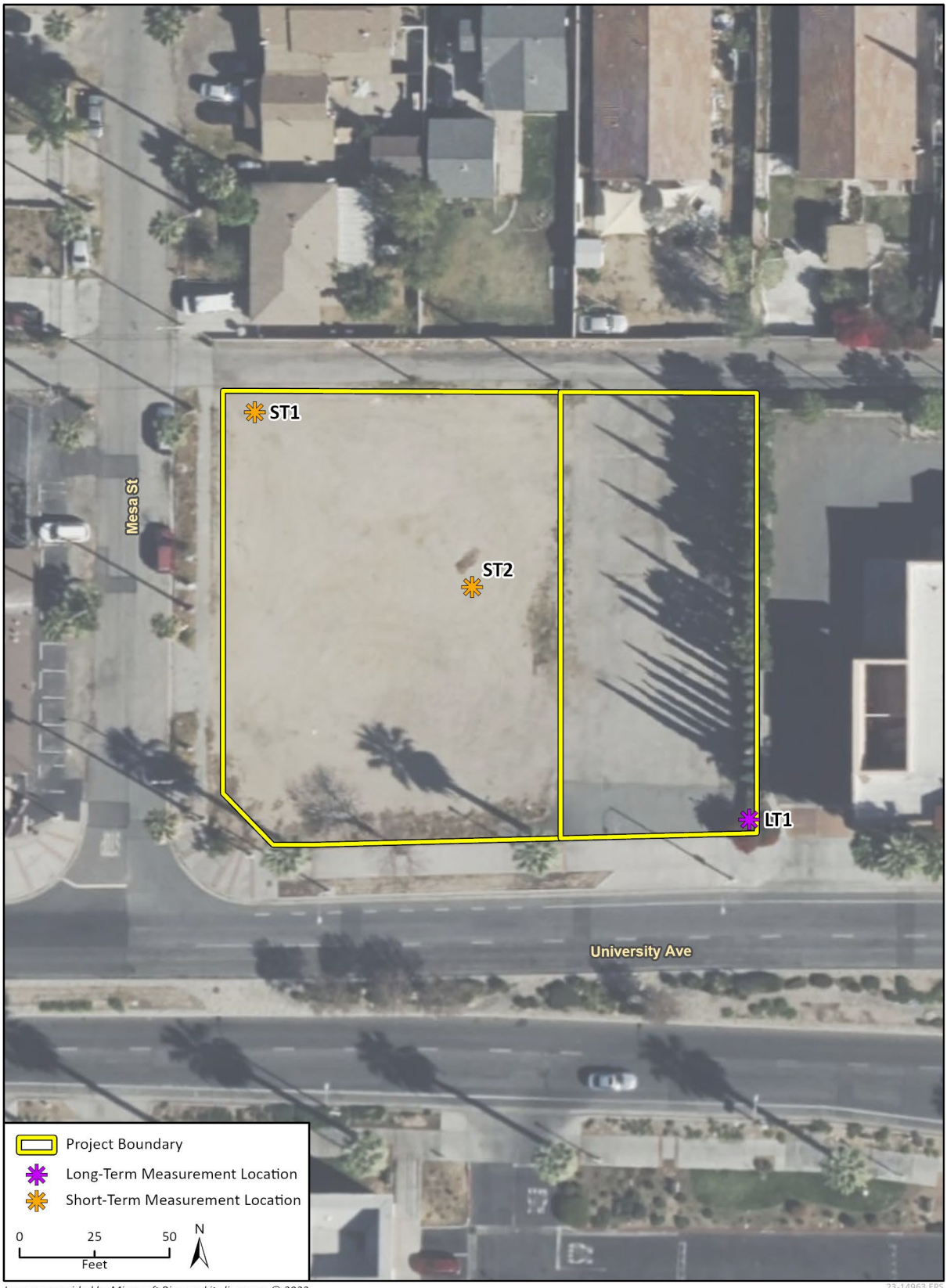
Figure 1 Regional Location



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23-14963 EPS
Fig 1 Regional Location

Figure 2 Project Boundary and Approximate Noise Measurement Locations



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Fig X Noise Measurement Location

Project Description

The project would include the construction of a four-story mixed-use multifamily building, consisting of 18 total residential units arranged as three-bedroom rowhouse/stacked dwelling units above a parking structure and 1,477 square feet of retail space. General descriptions of the space use throughout the proposed building are as follows:

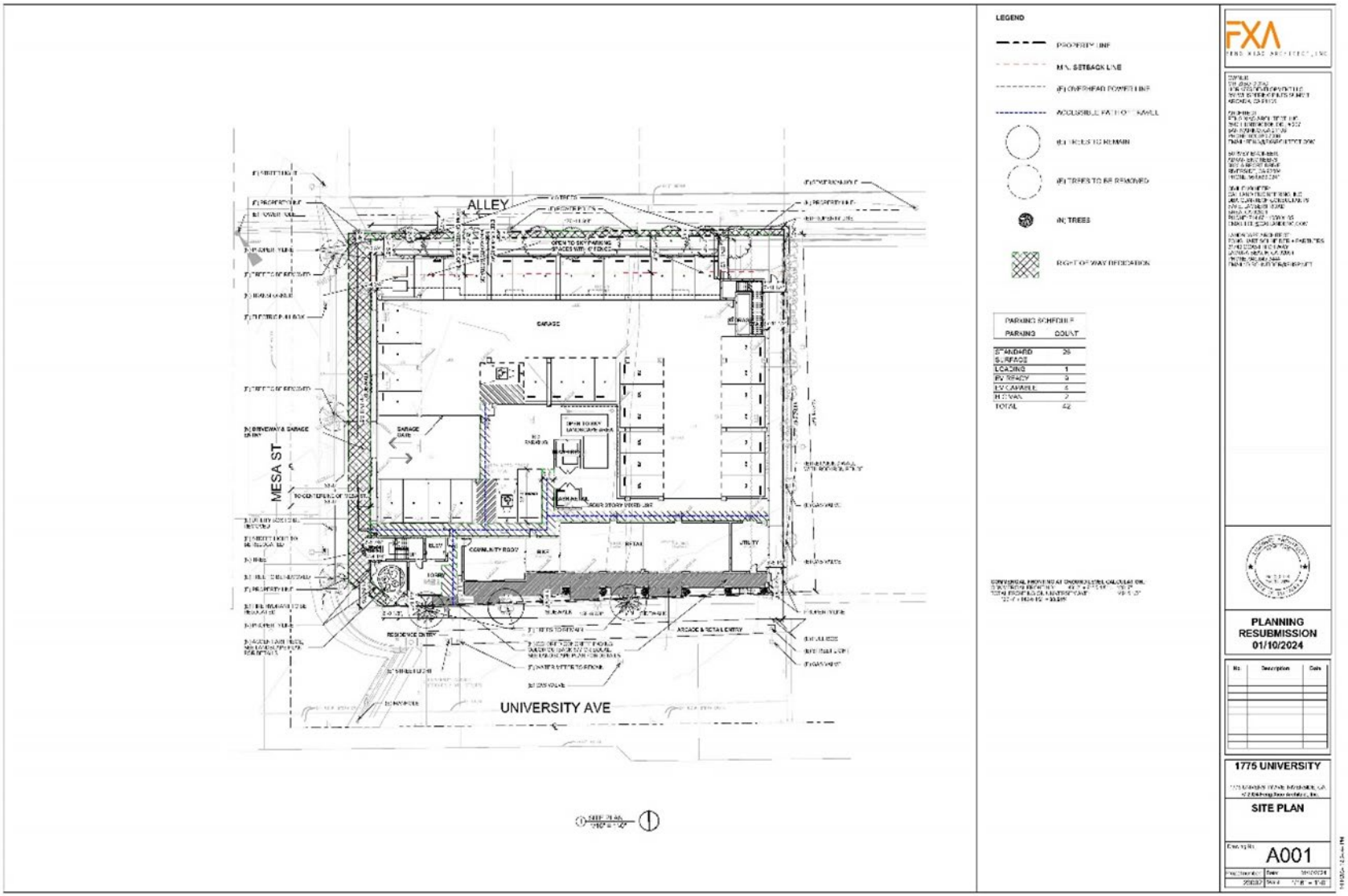
- Rowhouse residential units along the alley to the north, University Avenue to the south, and Mesa Street to the west.
- Common open space (internal courtyard) at the center of the site.
- Retail in the southwestern portion of the site.
- Lobby and amenity space along University Avenue.

The building would be located at the center of the site, with parking provided via the ground floor parking structure accessible via University Avenue. Private open space would be provided via private patios and balconies, while common open space would be provided via an internal courtyard lawn area intended for light recreation and pet use. Landscaping would be provided within and on the borders of the project site and consist of vegetation suited to Riverside's climate. The project would have a density of 28.57 units per gross acre. The proposed site plan for the project is shown in Figure 3.

Construction

Construction activities include demolition, site preparation, grading, building construction, paving, and architectural coating. Construction of the project is anticipated to take approximately one and a half years, beginning in July 2024 and ending in December 2025. Construction would primarily take place five days a week, occurring between the hours of 7:00 a.m. to 4:00 p.m. Monday through Friday. Saturday construction may occur, however the hours have yet to be determined by the project applicant. No blasting or pile driving activities would be performed.

Figure 3 Site Plan Overview



2 Background

2.1 Overview of Sound Measurement

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (California Department of Transportation [Caltrans] 2013).

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response, which is most sensitive to frequencies around 4,000 Hertz and less sensitive to frequencies around and below 100 Hertz (Kinsler, et. al. 1999). Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dBA; dividing the energy in half would result in a 3 dBA decrease (Crocker 2007).

Human perception of noise has no simple correlation with sound energy: the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not "sound twice as loud" as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible; and that an increase (or decrease) of 10 dBA sounds twice (or half) as loud (Crocker 2007).

Sound changes in both level and frequency spectrum as it travels from the source to the receptor. The most obvious change is the decrease in level as the distance from the source increases. The manner by which noise reduces with distance depends on factors such as the type of sources (e.g., point or line, the path the sound will travel, site conditions, and obstructions). Noise levels from a point source typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance (e.g., construction, industrial machinery, ventilation units). Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site, such as a parking lot or smooth body of water, receives no additional ground attenuation and the changes in noise levels with distance (drop-off rate) result from simply the geometric spreading of the source. An additional ground attenuation value of 1.5 dBA per doubling of distance applies to a soft site (e.g., soft dirt, grass, or scattered bushes and trees) (Caltrans 2013). Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this "shielding" depends on the size of the object and the frequencies of the noise levels. Natural terrain features such as hills and dense woods, and man-made features such as buildings and walls, can significantly alter noise levels. Generally, any large structure blocking the line of sight will provide at least a 5 dBA reduction in source noise levels at the receptor (Federal Highway Administration [FHWA] 2011). Structures can substantially reduce exposure to interior noise as well. The FHWA's guidelines indicate that modern building construction generally provides an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows.

The impact of noise is not a function of loudness alone. The time of day when noise occurs, and the duration of the noise are also important factors of project noise impact. Most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed. One of the most frequently used noise metrics is the equivalent noise level (L_{eq}); it considers both duration and sound power level. L_{eq} is defined as the single steady A-weighted level equivalent to the same amount of energy as that contained in the actual fluctuating levels over time.

Noise that occurs at night tends to be more disturbing than that occurring during the day. Community noise is usually measured using Day-Night Average Level (L_{dn}), which is the 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. It is also measured using CNEL, which is the 24-hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (Caltrans 2013). Noise levels described by L_{dn} and CNEL usually differ by about 1 dBA. The relationship between the peak-hour L_{eq} value and the L_{dn}/CNEL depends on the distribution of traffic during the day, evening, and night.

2.2 Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent structures. The number of cycles per second of oscillation makes up the vibration frequency, described in terms of Hz. The frequency of a vibrating object describes how rapidly it oscillates. The normal frequency range of most groundborne vibration that can be felt by the human body starts from a low frequency of less than 1 Hz and goes to a high of about 200 Hz (Crocker 2007).

While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration. Vibration in buildings, such as from nearby construction activities, may cause windows, items on shelves, and pictures on walls to rattle. Vibration of building components can also take the form of an audible low-frequency rumbling noise, referred to as groundborne noise. Groundborne noise is usually only a problem when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 Hz), or when foundations or utilities, such as sewer and water pipes, physically connect the structure and the vibration source (Federal Transit Administration [FTA] 2018). Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants and vibration-sensitive land uses.

Vibration amplitudes are usually expressed in peak particle velocity (PPV), which is normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used in monitoring of blasting vibration and other construction activities because it is related to the stresses that are experienced by buildings (Caltrans 2020).

2.3 Sensitive Receptors

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Sensitive receptors are defined as places where noise could interfere with regular activities such as sleeping, talking, and recreating, which include hospitals, residences, convalescent homes, schools, libraries, churches, and other religious institutions. Noise sensitive receptors near the site include the single-family residences along the northern project boundary.

Vibration sensitive receptors are similar to noise sensitive receptors, including residences and institutional uses such as schools, churches, and hospitals. However, vibration sensitive receptors also include buildings where vibrations may interfere with vibration-sensitive equipment. Vibration sensitive receptors near the site include the single-family residences along the northern project boundary and the adjacent Walgreens located east of the project site.

2.4 Project Noise Setting

The most prominent source of noise in the project site vicinity is vehicular traffic on University Avenue, Chicago Avenue, and Mesa Street. To characterize ambient noise levels in the project vicinity, two short-term (15-minute) and one long-term (24-hour) noise level measurements were conducted on December 13–14, 2023. The noise measurement locations are shown in Figure 2. Short-term noise measurement (ST) 1 was conducted at the northwestern project boundary to capture noise levels attributable to Mesa Street, while ST 2 was conducted near the center of the project site to determine general ambient noise levels at the site. Long-term noise measurement (LT) 1 was conducted at the southeastern project boundary to capture noise levels attributable to University Avenue.

Table 2 and Table 3 summarize the results of the short-term and long-term noise measurements, respectively. Table 4 lists the recorded traffic volumes observed during the short-term noise measurements.

Table 2 Short-Term Noise Level Measurement Results

Measurement Location	Measurement Location	Sample Times[1]	Approximate Distance to Primary Noise Source	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)
ST 1	Northwestern property boundary, adjacent to Mesa St	11:20 – 11:35 a.m.	Approximately 40 feet to Mesa St centerline	59.7	54.1	67.0
ST 2	Center of project site	11:03 – 11:18 a.m.	Approximately 37 feet to University Ave westbound centerline	58.3	54.6	76.1

Note: dBA = A-weighted decibels; L_{eq} = equivalent noise level; L_{min} = minimum noise level, L_{max} = maximum noise level

[1] All short-term measurements were collected on December 13, 2023.

Detailed sound level measurement data are included in Appendix A.

Table 3 Long-Term Noise Level Measurement Results

Sample Time	dBA L_{eq}	Sample Time	dBA L_{eq}
24-hour Measurement – December 13–14, 2023			
11:45 a.m.	63	11:45 p.m.	56
12:45 p.m.	65	12:45 a.m.	56
1:45 p.m.	62	1:45 a.m.	59
2:45 p.m.	65	2:45 a.m.	55
3:45 p.m.	62	3:45 a.m.	60
4:45 p.m.	63	4:45 a.m.	63
5:45 p.m.	63	5:45 a.m.	63
6:45 p.m.	63	6:45 a.m.	65
7:45 p.m.	60	7:45 a.m.	71
8:45 p.m.	62	8:45 a.m.	61
9:45 p.m.	64	9:45 a.m.	73
10:45 p.m.	60	10:45 a.m.	60
24-hour Noise Level (dBA CNEL)			**68.6**

dBA = A-weighted decibels; L_{eq} = equivalent noise level; CNEL = community equivalent noise level

See Figure 2 for Approximate Noise Measurement Locations; see Appendix A for full measurement details.

Table 4 Traffic Counts During On-site Noise Measurements

Measurement	Roadway	Traffic	Autos	Medium Trucks	Heavy Trucks
ST 1	University Ave	15-minute count	235	8	1
		One-hour equivalent	940	32	4
Percent			**96%**	**3%**	**1%**

Note: Detailed sound level measurement data are included in Appendix A.

2.5 Regulatory Setting

Federal

FTA Transit Noise and Vibration Impact Assessment Manual

The Federal Transit Administration (FTA) provides reasonable criteria for assessing construction noise and vibration impacts based on the potential for adverse community reaction in the *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018). The *Transit Noise and Vibration Impact Assessment Manual* specifies daytime noise thresholds of 80 dBA L_{eq} for residential land uses and 85 dBA L_{eq} for commercial land uses.

State

California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires each county and city to adopt a General Plan that includes a Noise Element prepared per guidelines adopted by the Governor's Office of Planning and Research. The

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purpose of the Noise Element is to limit the exposure of the community to excessive noise levels. CEQA requires all known environmental effects of a project to be analyzed, including environmental noise impacts.

2022 California Building Code

The California Building Code is Title 24 of the California Code of Regulations. The 2022 California Building Code Part 2, Volume 1, Chapter 12, Section 1206.4, *Allowable interior noise levels*, requires that interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric is evaluated as either the Ldn or the CNEL, consistent with the noise element of the local general plan.

Local

City of Riverside General Plan 2025 Noise Element

The City of Riverside has adopted General Plan (GP) 2025, a strategic, long-range planning guide that accounts for the growth, needs, and vision of the City through the year 2025. Within GP 2025 is a Noise Element, which aims to control and abate environmental noise and to protect the citizens of the City from excessive exposure to noise. The Noise Element specifies the maximum allowable unmitigated exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. In addition, the Noise Element identifies several policies to minimize the impacts of excessive noise levels throughout the community (City of Riverside 2007).

Relative to the 1775 University Avenue project, relevant objectives and policies within the Riverside GP 2025 are as follows:

Objective N-1 Minimize noise levels from point sources throughout the community and, wherever possible, mitigate the effects of noise to provide a safe and healthful environment.

- **Policy N-1.1** Continue to enforce noise abatement and control measures particularly within residential neighborhoods.
- **Policy N-1.2** Require the inclusion of noise-reducing design features in development consistent with standards in Figure N–10 (Noise/Land Use Compatibility Criteria), Title 24 California Code of Regulations and Title 7 of the Municipal Code.
- **Policy N-1.3** Enforce the City of Riverside Noise Control Code to ensure that stationary noise and noise emanating from construction activities, private developments/residences and special events is minimized.
- **Policy N-1.4** Incorporate noise considerations into the site plan review process, particularly with regard to parking and loading areas, ingress/egress points and refuse collection areas.
- **Policy N-1.5** Avoid locating noise-sensitive land uses in existing and anticipated noise-impacted areas.
- **Policy N-1.8** Continue to consider noise concerns in evaluating all proposed development decisions and roadway projects.

Objective N-4 Minimize ground transportation-related noise impacts.

Policy N-4.1 Ensure that noise impacts generated by vehicular sources are minimized through the use of noise reduction features (e.g., earthen berms, landscaped walls, lowered streets, improved technology).

The Noise Element establishes compatibility standards for land uses in the City. As shown in Table 5, under Policy N-1.2, the Noise Element sets normally acceptable, conditionally acceptable, and generally unacceptable ambient noise levels for proposed developments based on land use.

Table 5 Land Use Compatibility for Community Noise Exposure

	Community Noise Exposure, L_{dn} or CNEL, dBA			
Land Use Category	**Normally Acceptable**	**Conditionally Acceptable**	**Normally Unacceptable**	**Conditionally Unacceptable**
Single Family Residential	<60	60-65	65-70	>70
Infill Single Family Residential	<65	65-75	75-80	>80
Commercial – Motels, Hotels, Transient Lodging	<60	60-70	70-80	>80
Schools, Libraries, Churches, Hospitals, Nursing Homes	<60	60-70	70-80	>80
Amphitheaters, Concert Halls, Auditoriums, Meeting Halls	N/A	<65	N/A	>65
Sports Arenas, Outdoor Spectator Sports	N/A	<70	N/A	>70
Playgrounds, Neighborhood Parks	<70	N/A	70-75	>75
Golf Courses, Riding Stables, Water Recreation, Cemeteries	<70	N/A	70-80	>80
Office Buildings – Business, Commercial & Professional	<65	65-75	>75	N/A
Industrial, Manufacturing, Utilities, Agriculture	<70	70-80	>80	N/A
Freeway Adjacent Commercial, Office, and Industrial Uses	<65	65-80	>80	N/A

Normally Acceptable. Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable. New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable. New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Conditionally Unacceptable. New construction or development should generally not be undertaken, unless it can be demonstrated that noise reduction requirements can be employed to reduce noise impacts to an acceptable level. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Source: City of Riverside General Plan 2025 Noise Element, Figure N-10 (City of Riverside 2007).

City of Riverside Municipal Code

The City of Riverside Municipal Code (RMC) sets forth the City's standards, guidelines, and procedures concerning the regulation of operational noise. Specifically, noise levels in the City are regulated by RMC Title 7, Noise Control. These regulations are intended to implement the goals, objectives, and policies of the General Plan, protect the public health, safety, and welfare of the City, and to control unnecessary, excessive, and/or annoying noise in the City.

EXTERIOR NOISE

Section 7.25.010 of RMC Title 7 establishes exterior noise standards for various land use categories. These noise standards specify acceptable exterior noise levels for each land use category and are shown below in Table 6.

Table 6 City of Riverside Exterior Noise Standards

Land Use Category	Time	Acceptable Noise Level (dBA)
Residential	Day (7 AM to 10 PM) Night (10 PM to 7 AM)	55 45
Office/Commercial	Any time	65
Industrial	Any time	70
Community Support	Any time	60
Public Recreation Facility	Any time	65
Non-Urban	Any time	70

Source: RMC Title 7, Table 7.25.010A.

In addition, RMC Section 7.25.010(A) indicates that it is unlawful for any person to cause or allow the creation of any noise that exceeds the following levels as measured at the property line of a receiving land use.

- The exterior noise standard of the applicable land use category up to five decibels for a cumulative period of more than 30 minutes in any hour; or
- The exterior noise standard of the applicable land use category plus five decibels for a cumulative period of more than 15 minutes in any hour; or
- The exterior noise standard of the applicable land use category plus ten decibels for a cumulative period of more than five minutes in any hour; or
- The exterior noise standard of the applicable land use category plus 15 decibels for a cumulative period of more than one minute in any hour; or
- The exterior noise standard of the applicable land use category plus 20 decibels or the maximum measured ambient noise level, for any period of time.

If the measured exterior ambient noise level exceeds that permissible within any of the first four noise limits, the allowable noise exposure standard shall be increased in five decibel increments in each category, as appropriate, to encompass the ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under that category shall be increased to reflect the maximum ambient noise level.

In addition, pursuant to RMC Section 7.35.020(G), noise sources associated with permitted construction, repair, remodeling, or grading of any real property (provided a permit has been obtained from the City as required) are exempt from these exterior noise standards provided that construction activity does not occur between 7:00 p.m. and 7:00 a.m. on weekdays, between 5:00 p.m. and 8:00 p.m. on Saturdays, or at any time on Sunday or a federal holiday.

INTERIOR NOISE

Section 7.30.15 establishes interior sound level limits for various land use categories, shown in Table 7. These noise standards apply within structures located in designated zones with windows opened or closed as is typical of the season.

Table 7 City of Riverside Interior Noise Standards

Land Use Category	Time	Acceptable Noise Level (dBA)
Residential	Day (7 AM to 10 PM) Night (10 PM to 7 AM)	45 35
School	7 AM to 10 PM (while school is in session)	45
Hospital	Anytime	45

Source: RMC Title 7, Table 7.30.015.

In addition, RMC Section 7.30.015 indicates that it is unlawful for any person to operate, or cause to be operated, any source of sound indoors that exceeds the following levels when measured inside another dwelling unit, school, or hospital:

- The interior noise standard of the applicable land use category up to five decibels for a cumulative period of more than five minutes in any hour; or
- The interior noise standard of the applicable land use category plus five decibels for a cumulative period of more than one minute in any hour; or
- The interior noise standard of the applicable land use category plus ten decibels or the maximum measured ambient noise level, for any period of time.

If the measured interior ambient noise level exceeds that permissible within the first two noise limit categories, the allowable noise exposure standard shall be increased in 5-dB increments in each category, as appropriate, to reflect the interior ambient noise level. If the interior ambient noise level exceeds the third noise limit category, the maximum allowable interior noise level under said category shall be increased to reflect the maximum interior ambient noise level.

3 Methodology and Significance Thresholds

3.1 Methodology

Construction Noise

Construction noise was estimated using the FHWA Roadway Construction Noise Model (RCNM) (FHWA 2006). RCNM predicts construction noise levels for a variety of construction operations based on empirical data and the application of acoustical propagation formulas. Using RCNM, construction noise levels were estimated at noise-sensitive receptors near the project site. RCNM provides reference noise levels for standard construction equipment, with an attenuation rate of 6 dBA per doubling of distance for stationary equipment.

Variation in power imposes additional complexity in characterizing the noise source level from construction equipment. Power variation is accounted for by describing the noise at a reference distance from the equipment operating at full power and adjusting it based on the duty cycle of the activity to determine the L_{eq} of the operation (FHWA 2006). Each phase of construction has a specific equipment mix, depending on the work to be accomplished during that phase. Each phase also has its own noise characteristics; some have higher continuous noise levels than others, and some have high-impact noise levels.

Construction activity would result in temporary noise in the project area, exposing surrounding sensitive receptors to increased noise levels. The project would involve demolition, site preparation, grading, building construction, paving, and architectural coating. Construction noise would typically be higher during the heavier periods of initial construction (i.e., demolition and grading) and would be lower during the later construction phases. Construction equipment is typically dispersed in various areas of the site, with only a limited amount of equipment operating near a given location at a particular time. The FTA *Transit Noise and Vibration Impact Assessment* (FTA 2018) document recommends evaluating construction noise impacts from the center of the construction site, stating that the distance variable in its recommended construction noise calculation “assumes that all equipment operates at the center of the project.” Therefore, it is a common, industry-standard practice to analyze average construction noise from the center of the site because this is the approximate center of where noise would be generated as equipment moves around the site throughout the workday. In accordance with FTA recommendations, construction noise for all phases was analyzed from the center of the site.

Construction activities would only be permitted to occur between the hours of 7:00 a.m. and 7:00 p.m. on weekdays and between 8:00 a.m. and 5:00 p.m. on Saturdays pursuant to the City of Riverside Municipal Code, Section 7.35.020(G). Construction noise is typically loudest during activities that involve excavation and moving soil, such as site preparation and grading. Noise levels from each phase of construction were modeled in RCNM based on the equipment list provided by the applicant.

Construction Vibration

The project does not include any substantial vibration sources associated with operation. Thus, construction activities have the greatest potential to generate ground-borne vibration affecting

nearby receptors, especially during grading and paving of the project site. The greatest vibratory source during construction in the project vicinity would be a roller used during grading. Neither blasting nor pile driving would be required for construction of the project. Construction vibration estimates are based on vibration levels reported by the FTA (FTA 2018). Table 8 shows typical vibration levels for various pieces of construction equipment used in the assessment of construction vibration (FTA 2018).

Table 8 Vibration Levels Measured during Construction Activities

Equipment	PPV at 25 feet (in/sec)
Vibratory Roller	0.21
Large Bulldozer	0.089
Loaded Trucks	0.076
Small Bulldozer	0.003

PPV = peak particle velocity; in/sec = inches per second

Source: FTA 2018

On-site Stationary Operational Noise

The noise sources on the project site after completion of construction are anticipated to be those that would be typical of mixed-use development projects, such as HVAC equipment, use of recreational outdoor spaces (interior courtyard and private balconies), and landscape maintenance.

The primary on-site operational noise source from the project would be heating, ventilation, and air conditioning (HVAC) units located on the rooftop of the proposed multifamily building. A typical HVAC system generates noise levels ranging up to 72 dBA at a distance of 3 feet. The nearest sensitive receptors are located as close as approximately 70 feet from the proposed multifamily building.

Traffic Noise

Noise affecting the project site is primarily from traffic on University Avenue. Project traffic noise increases were estimated using the most recent 24-hour average daily traffic (ADT) volumes published by the City of Riverside (City of Riverside 2023) and trips generated by the project using CalEEMod operational defaults based on provided project information. Existing, project, and combined traffic volumes used in this analysis are shown in Table 9.

Table 9 Existing, Project, and Combined Roadway ADT Volumes

Roadway	Segment	Existing ADT (Year)	Project ADT Distribution	Future ADT (Existing + Project ADT)
University Ave	Between Kansas Ave and Chicago Ave	26,900 (2003)	163	27,063

ADT = average daily traffic

Source: City of Riverside 2023.

The posted speed limits on University Avenue and Chicago Avenue are 35 and 40 miles per hour, respectively. No speed limit is posted for Mesa Street. For determining noise-land use compatibility, exterior traffic noise level increases were calculated based on the increases in project distribution ADT. As a mixed-use development with residential and commercial retail land uses, the vehicle mix would be similar to existing conditions.

3.2 Significance Thresholds

Appendix G of the CEQA Guidelines states noise impacts of the project would be significant if the project would:

a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
b) Generate excessive groundborne vibration or groundborne noise levels.
c) For a project located within the vicinity of a private airstrip or an airport or public use airport, expose people residing or working in the project area to excessive noise levels.

Construction Noise

As described previously in Section 2.5, the City of Riverside Municipal Code provides an exemption to the exterior noise limits for temporary construction work as long as a permit has been obtained from the City as required and said work does not occur during the following days and times: between 7:00 p.m. and 7:00 a.m. on weekdays, 5:00 p.m. and 8:00 a.m. on Saturdays, or at any time on Sunday or a federal holiday.

Because the City does not have specific noise level criteria for assessing construction noise impact, construction noise was still considered to present a conservative and complete environmental review. The Federal Transit Administration (FTA) has developed guidance for determining if construction of a project would expose various land uses to significant noise levels or if a project would result in a substantial temporary increase in noise levels (FTA 2018). These noise limits are presented below in Table 10.

Table 10 FTA Construction Noise Criteria

	L_{eq}, equip (8 hr), dBA	
Land Use	**Day (7:00 a.m. to 10:00 p.m.)**	**Night (10:00 p.m. to 7:00 a.m.)**
Residential	80	70
Commercial	85	85
Industrial	90	90

Source: Federal Transit Administration 2018, Table 7-3.

Based on FTA guidance shown in Table 10, a significant impact would occur if project-generated construction noise exceeds 80 dBA L_{eq} noise limit at the nearest single-family residences or 85 dBA L_{eq} at the Walgreens to the east of the project site.

Construction Vibration

The City of Riverside has not adopted thresholds for construction vibration impacts; therefore, the vibration thresholds established in *The Transit Noise and Vibration Assessment Manual* (FTA 2018), presented below in Table 11, were used to evaluate potential construction vibration impacts related to potential damage of surrounding buildings.

Table 11 Criteria for Vibration Damage Potential

Building Category	PPV (in/sec)
I. Reinforced concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Nonengineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

in/sec = inches per second; PPV = peak particle velocity

Source: FTA 2018

As shown in Table 11, vibration impacts from construction of the project would be significant if vibration levels exceed 0.2 in/sec PPV at nearby residential structures and 0.3 in/sec PPV at nearby commercial structures. This is the limit where minor cosmetic (i.e., non-structural) damage may occur to these buildings. Therefore, for a conservative analysis of potential impacts to the surrounding buildings, construction vibration impacts would be significant if vibration levels exceed 0.2 in/sec PPV at all nearby buildings.

Operational Noise

Noise generated by operation of the project is governed by the exterior noise standards in the City's Municipal Code (shown in Table 6). These limits are 55 dBA during daytime hours (7:00 a.m. to 10:00 p.m.) and 45 dBA during nighttime hours (10:00 p.m. to 7:00 a.m.) at a residential property line and 65 dBA during any hours at a commercial property line. Therefore, a significant impact would occur if noise levels generated by stationary operational sources (e.g., rooftop HVAC equipment) at the project exceed these noise limits at the nearest residential and commercial property lines.

Traffic Noise

A project would normally have a significant effect on the environment related to noise if its implementation would substantially increase the ambient noise levels above a certain threshold for adjoining areas (i.e., cause a noise level increase due to an increased number of project-related vehicle trips on surrounding roadways). The following thresholds of significance, similar to those recommended by the Federal Aviation Administration (FAA), are used to assess traffic noise impacts at sensitive receptor locations. A significant impact would occur if traffic noise were to increase the existing noise environment by the following:

- Greater than 1.5 dBA for ambient noise environments of 65 dBA CNEL and higher.
- Greater than 3 dBA for ambient noise environments of 60 to 64 CNEL.
- Greater than 5 dBA for ambient noise environments of less than 60 dBA CNEL.

On-Site Land Use Compatibility

The results of ambient noise measurements performed for the project indicate that a portion of the project site is within the "Conditionally Acceptable" range for infill single-family residential land uses according to the Riverside noise and land use compatibility standards from the General Plan (City of Riverside 2006). However, as a result of the Supreme Court decision regarding the assessment of the environment's impacts on projects (*California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD)*, 62 Cal. 4th 369 (No. S 213478) issued December 17,

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2015), it is generally no longer the purview of the CEQA process to evaluate the impact of existing environmental conditions on any given project. As a result, while the noise from existing sources (e.g., adjacent roadways) is taken into account as part of the baseline condition, the direct effects of exterior noise from nearby noise sources relative to land use compatibility of a proposed project is typically no longer a required topic for impact evaluation under CEQA. Generally, no determination of significance is required except for certain school projects, projects affected by airport noise, and projects that would exacerbate existing conditions (i.e., projects that would have a significant operational impact).

4 Impact Analysis

Threshold 1:	Would the project expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Impact N-1 CONSTRUCTION ACTIVITIES WOULD BE CONDUCTED IN ACCORDANCE WITH THE CITY'S NOISE CONTROL ORDINANCE AND ARE EXEMPT FROM THE NOISE LEVEL STANDARDS. HOWEVER, CONSTRUCTION OF THE PROJECT WOULD RESULT IN A SUBSTANTIAL TEMPORARY OR PERIODIC INCREASE IN AMBIENT NOISE LEVELS AT ADJACENT SENSITIVE RECEPTORS; THEREFORE, IMPLEMENTATION OF CONSTRUCTION BEST MANAGEMENT PRACTICES ARE RECOMMENDED TO REDUCE CONSTRUCTION NOISE TO THE GREATEST EXTENT PRACTICAL. OPERATIONAL NOISE INCREASES WOULD NOT EXCEED CITY STANDARDS. EXTERIOR AND INTERIOR NOISE LEVELS FOR THE PROPOSED PROJECT WOULD NOT EXCEED THE CITY'S NOISE COMPATIBILITY STANDARDS.

Construction

As described under Section 3.1, construction equipment would be moving around the project site over the course of a workday. Therefore, due to the complex nature of construction activity within the project site throughout a typical day, construction noise was evaluated at the center of the project site. Table 12 presents the expected noise levels at the closest sensitive receptors from the center of the project site based on the conservatively assumed combined use of all construction equipment during each phase of construction.

Table 12 Estimated Noise Levels by Construction Phase

	dBA L_{eq} (8-hour)		
Construction Phase	RCNM Reference Noise Level[1]	Single-family Residence to the North[2]	Walgreens to the East[3]
Grading	87	80	79
Building Construction	89	**82**	80
Architectural Coating	88	80	79
Paving	87	**81**	79

Numbers in bold would exceed the FTA construction noise threshold.

[1] All noise levels were determined at 50 feet away.

[2] All noise levels were determined at 109 feet away.

[3] All noise levels were determined at 133 feet away.

Source: Roadway Construction Noise Model (RCNM). See Appendix B for modeling outputs.

Construction noise generated by the project is exempt from the City's Municipal Code exterior noise standards as it would occur during the permitted hours (between 7:00 a.m. and 7:00 p.m. on weekdays and between 8:00 a.m. and 5:00 p.m. on Saturdays). However, as shown in Table 12, construction noise may be as high as approximately 82 dBA L_{eq} during the building construction phase, which would occur approximately 109 feet from the nearest sensitive receptor located north of the project site, exceeding the FTA's significance threshold of 80 dBA L_{eq}.

Although construction noise is exempt per the City's Municipal Code and would therefore be considered less than significant, implementation of the following construction best management practices would ensure that construction noise is reduced at nearby sensitive receptors to the greatest extent practical.

- To the greatest extent practicable, the quietest available type of construction equipment could be used. Newer equipment is generally quieter than older equipment. Electric-powered equipment is typically quieter than diesel- or gasoline-powered equipment, and hydraulically powered equipment is typically quieter than pneumatically powered equipment.
- All construction equipment, stationary and mobile, would be equipped with properly operating and maintained mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features that meet or exceed original factory specifications. Mobile or fixed "package" equipment (e.g., arc welders, air compressors) would be equipped with shrouds and noise-control features that are readily available for that type of equipment.
- All noisy equipment would be operated only when necessary and would be switched off when not in use.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, would be for safety warning purposes only.
- Construction employees would be trained in the proper operation and use of the equipment.
- Storage, staging, parking, and maintenance areas would be away from sensitive receptors. Where this is not possible, the storage of waste materials, earth, and other supplies would be positioned in a manner that will function as a noise barrier to the closest sensitive receivers.
- Stationary noise sources such as generators and compressors would be positioned as far away as possible from noise-sensitive areas.
- Construction equipment would be stored on the individual development site while in use so as to eliminate noise associated with repeated transport of the equipment to and from the site.
- To the extent possible, haul roads would not be designated through noise-sensitive areas.

Operation

Mechanical Equipment

The primary on-site operational noise source from the project would be from HVAC units that are anticipated to be on the rooftop of the proposed building. Rooftop HVAC units would be located as close as approximately 70 feet from the nearest single-family residence to the north of the project site. Detailed mechanical specifications for the future HVAC systems are not available at this stage of project design. Typical HVAC equipment generates noise levels ranging up to 72 dBA at a distance of 3 feet. At a distance of 70 feet, noise levels from HVAC noise would attenuate to approximately 45 dBA at the nearest single-family residence to the north. This is a conservative analysis because it does not account for acoustical shielding from the rooftop parapet walls or from the rooftop edge blocking the line of sight. Therefore, noise generated by HVAC equipment would not exceed the City's 45 dBA nighttime exterior noise level limit and mechanical equipment noise impacts would be less than significant.

Other Operational Noise Sources

On-site noise sources such as landscape maintenance, low-speed traffic on internal driveways, conversations, and use of the internal courtyard common space would be intermittent and typical of

noise generated by neighboring land uses. Therefore, noise from these sources would not substantially contribute to overall ambient noise levels in the project vicinity.

Off-Site Traffic

The project would not make substantial alterations to nearby roadway alignments or substantially change the vehicle classification mix on surrounding roadways. Therefore, the primary factor affecting off-site noise levels would be increased traffic volumes. The project is anticipated to generate 163 new daily vehicle trips according to CalEEMod default estimates based on provided project operational information (Rincon Consultants, Inc. 2023). As shown previously in Table 9, the ADT volumes on University Avenue would increase from 26,900 vehicles to 27,063 vehicles due to project-generated traffic. This increase in traffic on University Avenue would result in a noise increase of approximately 0.03 dBA CNEL. This would not exceed the most stringent significance threshold of 1.5 dBA CNEL identified in Section 3.2, *Significance Thresholds*. Therefore, increases in traffic noise would be less than significant.

Onsite Land Use Compatibility

The primary source of exterior noise at the project site is vehicular traffic along University Avenue. As shown in Section 2.4, the existing noise level at the project site is approximately 69 dBA CNEL at the approximate location of the multifamily building footprint nearest University Avenue. This noise level categorizes the property within the "Conditionally Acceptable" range for infill single-family residential land uses;[1] therefore, the proposed project would be consistent with the City's exterior noise limit compatibility standards.

Standard building construction practices typically provide an exterior-to-interior noise reduction of 25 dBA. Using this assumption, interior noise levels in the residential units closest to University Avenue would be 44 dBA CNEL, which is below the State's required interior limit of 45 dBA CNEL. Therefore, the project would be consistent with the State's interior noise limit compatibility standards.

Mitigation Measures

No mitigation measures would be required.

Threshold 2:	Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Impact N-2 PROJECT CONSTRUCTION WOULD NOT CREATE EXCESSIVE LEVELS OF VIBRATION THAT COULD CAUSE STRUCTURAL DAMAGE TO SURROUNDING OFFSITE BUILDINGS OR DISTURB SLEEP AT NEARBY SENSITIVE RESIDENTIAL RECEPTORS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Construction activities known to generate excessive ground-borne vibration, such as pile driving, would not be conducted during construction of the project. The greatest anticipated source of vibration during project construction would be from a vibratory roller used during paving activities, which generates a vibration level of approximately 0.21 in/sec PPV at a distance of 25 feet. Based on FTA recommendations, limiting vibration levels to below 0.2 in/sec PPV at all offsite structures would prevent architectural damage regardless of building construction type. Based on the project

[1] The City does not provide a compatibility standard for multi-family residences; therefore, the infill single-family residential standard is conservatively used.

site plan, it is assumed the vibratory roller would be used approximately 30 feet from the nearest off-site residential structure to the north of the project site. This would result in a vibration level of approximately 0.160 in/sec PPV at this nearest residence, which would not exceed the significance threshold of 0.2 in/sec PPV. Additionally, grading activity would likely occur within approximately 18 feet of the nearest offsite residential structure north of the site. Typical grading equipment, such as a large bulldozer, generates a vibration level of approximately 0.089 in/sec PPV at a distance of 25 feet away, which would result in a vibration level of approximately 0.146 in/sec PPV at the nearest residence located 18 feet away. Therefore, grading activities at the site would also not exceed the significance threshold of 0.2 in/sec PPV. Construction vibration impacts would be less than significant.

The project does not include substantial vibration sources associated with operation. Therefore, operational vibration impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Threshold 3:	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?

Impact N-3 THE PROJECT IS NOT LOCATED WITHIN THE VICINITY OF A PRIVATE AIRSTRIP OR AN AIRPORT INFLUENCE AREA. THEREFORE, THE PROJECT WOULD NOT EXPOSE PEOPLE RESIDING OR WORKING IN THE PROJECT AREA TO EXCESSIVE AVIATION-RELATED NOISE AND THE PROJECT WOULD HAVE NO IMPACT.

The project site is not located within an airport land use plan, or within two miles of a public or private airport. The closest airports are the Flabob Airport (RIR) and Riverside Municipal Airport (RAL), which are located approximately three and a half miles northwest and five and a half miles southwest of the project site, respectively. The project site is not located within the noise contours of either airport (City of Riverside 2007); therefore, the project would result in no impact related to exposure of future residents and employees to aircraft noise.

Mitigation Measures

No mitigation measures would be required.

5 Conclusion

The project would generate both temporary construction-related noise and long-term noise associated with operation of the project. Construction noise could exceed the 80 dBA L_{eq} significance threshold due to proximity of construction activity at the site relative to nearby residences to the north. However, construction noise is exempt per the City's Municipal Code and implementation of construction best management practices would ensure that construction noise is reduced at nearby sensitive receptors to the greatest extent practical. Therefore, impacts from construction noise would be less than significant.

The project's operational and stationary noise sources (e.g., HVAC units) would not exceed City standards at the nearest property lines. Therefore, stationary noise impacts would be less than significant.

The project would generate approximately 163 new daily vehicle trips on University Avenue, resulting in a noise increase of up to 0.03 dBA CNEL on this roadway. This is well below the threshold of 1.5 dBA CNEL, therefore the off-site traffic noise increase would be less than significant.

The project would generate groundborne vibration during construction only. Groundborne vibration would not exceed the 0.2 in/sec PPV vibration threshold at the nearest structures, and construction-related vibration impacts would be less than significant.

The project site is not within two miles of any public airport or public use airport. Therefore, no substantial noise exposure would occur to construction workers, employees, or users of the project from aircraft noise.

Conclusively, the project would result in less than significant noise and vibration impacts with mitigation incorporated.

6 References

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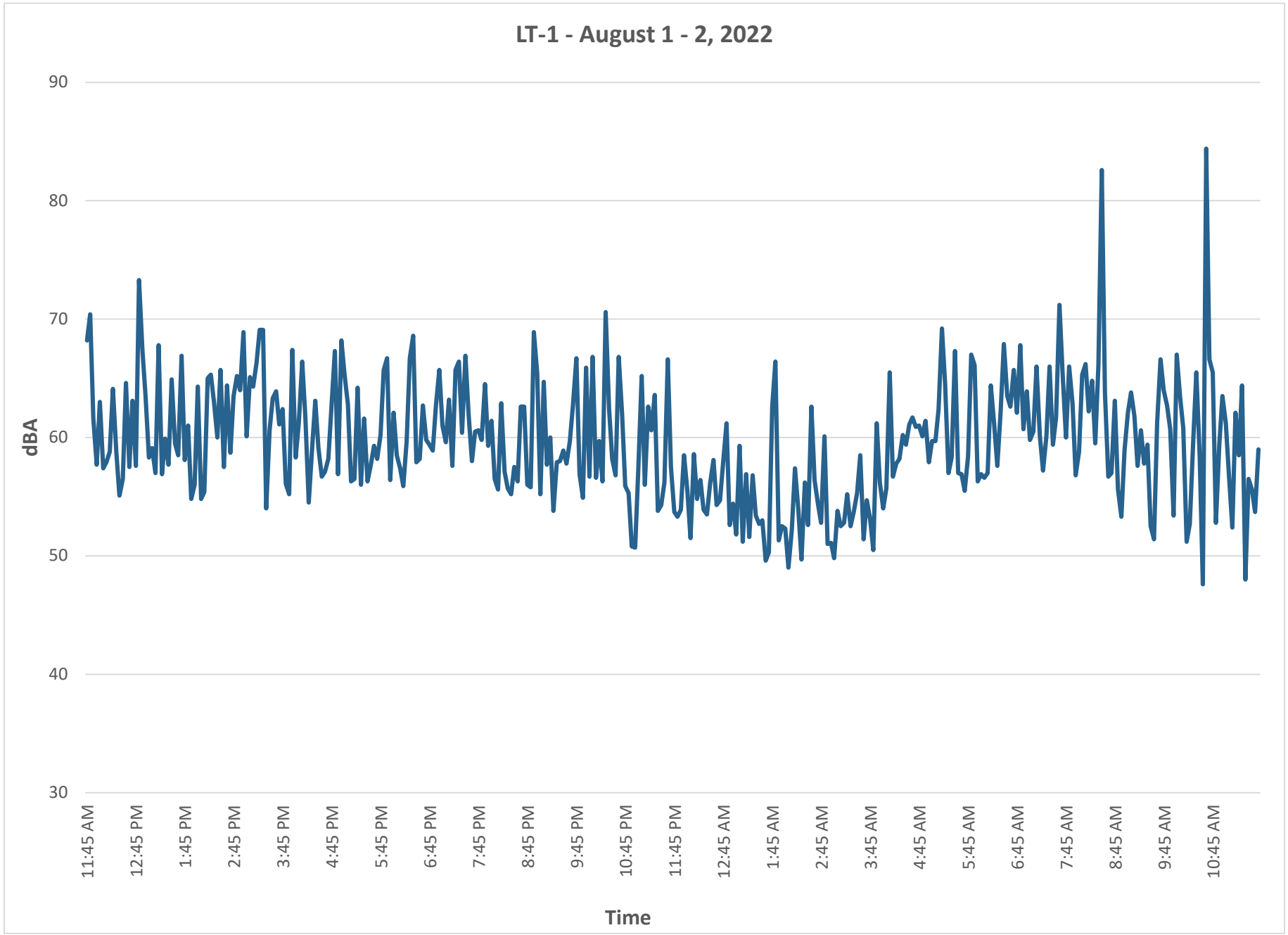
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Appendix A

Noise Monitoring Data


LT-1 - August 1 - 2, 2022
90
80
70
60
50
40
30
dBA
11:45 AM
12:45 PM
1:45 PM
2:45 PM
3:45 PM
4:45 PM
5:45 PM
6:45 PM
7:45 PM
8:45 PM
9:45 PM
10:45 PM
11:45 PM
12:45 AM
1:45 AM
2:45 AM
3:45 AM
4:45 AM
5:45 AM
6:45 AM
7:45 AM
8:45 AM
9:45 AM
10:45 AM
Time

Appendix B

Construction Noise Modeling

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 12/07/2023
Case Description: 1775 University Ave Construction Noise

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Architectural Coating	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40	85.0		50.0	0.0
Concrete Mixer Truck	No	40	85.0		50.0	0.0
Water Jet deleading	No	20		92.1	50.0	0.0

Results

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Concrete Mixer Truck	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Water Jet deleading	92.1	85.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	92.1	87.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 12/05/2023
Case Description: 1775 University Ave Construction Noise

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Bldg Constr	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40	85.0		50.0	0.0
Concrete Mixer Truck	No	40	85.0		50.0	0.0
Concrete Saw	No	20	90.0		50.0	0.0
Concrete Mixer Truck	No	40	85.0		50.0	0.0
Compactor (ground)	No	20		83.2	50.0	0.0
Generator	No	50	82.0		50.0	0.0
Pumps	No	50		80.9	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Concrete Mixer Truck	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Saw	90.0	83.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Compactor (ground)			83.2	76.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator			82.0	79.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pumps			80.9	77.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total		90.0	88.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 12/05/2023
Case Description: 1775 University Ave Construction Noise

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Grading	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40	80.0		50.0	0.0
Backhoe	No	40	80.0		50.0	0.0
Compactor (ground)	No	20		83.2	50.0	0.0
Dozer	No	40	85.0		50.0	0.0
Excavator	No	40	85.0		50.0	0.0
Grader	No	40	85.0		50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Backhoe	80.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	80.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	83.2	76.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Grader			85.0	81.0	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A				
	Total		85.0	87.0	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A				

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 12/07/2023
Case Description: 1775 University Ave Construction Noise

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Paving	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50	85.0		50.0	0.0
Roller	No	20	85.0		50.0	0.0
Scraper	No	40	85.0		50.0	0.0
Pavement Scarafier	No	20		89.5	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Paver	85.0	82.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	85.0	78.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pavement Scarafier	89.5	82.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	89.5	87.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Attachment G

Water Quality Management Plan

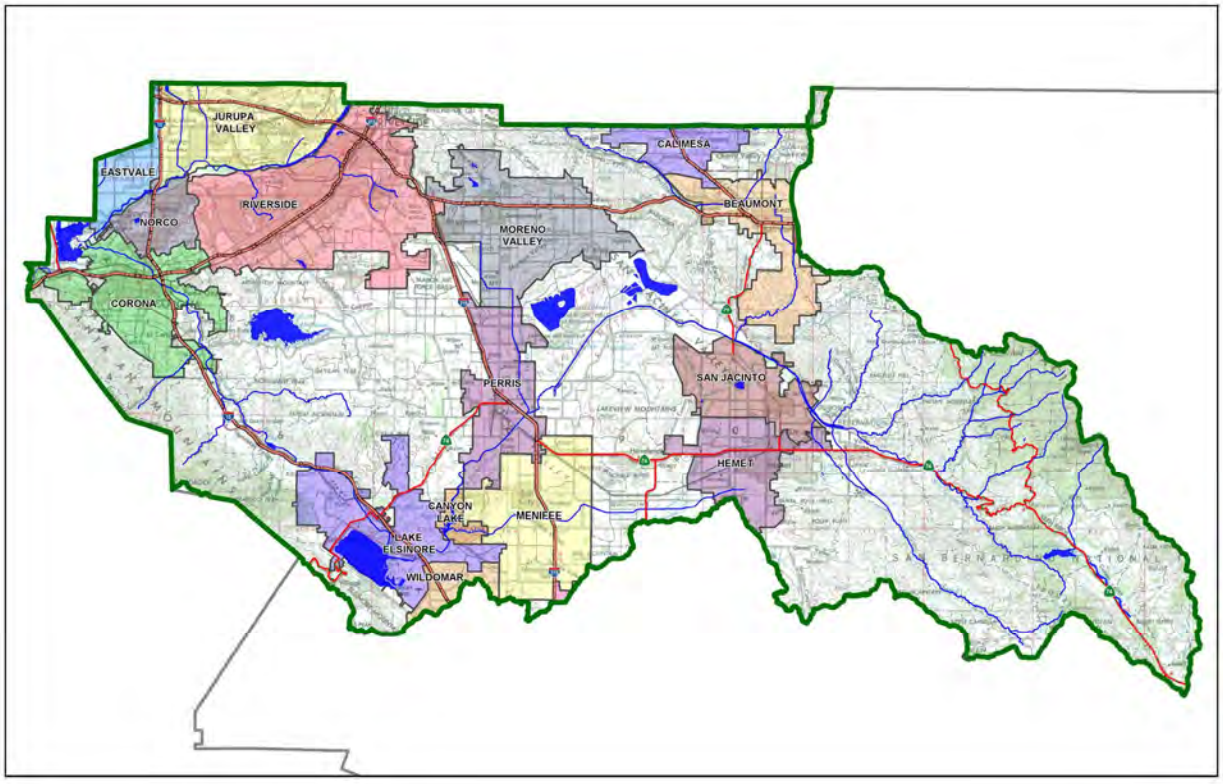
Project Specific Water Quality Management Plan

*A Template for Projects located within the **Santa Ana Watershed** Region of Riverside County*

Project Title: 18 unit Apartment Building

Public Works No: PWXX-XXXX

Design Review/Case No: PXX-XXXX



☒ **Preliminary**
☐ **Final**

Original Date Prepared: September 13, 2023

Revision Date(s):

Prepared for Compliance with
Regional Board Order No. **R8-2010-0033**

Contact Information:

Prepared for:
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Tel: (626) 377- 1916

Prepared by:
Cal Land Engineering, Inc.
576 E. Lambert Road,
Brea, CA 92821
Tel: (714) 671-1050

OWNER'S CERTIFICATION

This Project-Specific Water Quality Management Plan (WQMP) has been prepared for UCR 1775 Development LLC / Zibo Gong by Cal Land Engineering, Inc. for the 18 unit Arpatment and small commercial and parking structure project.

This WQMP is intended to comply with the requirements of City of Riverside for Design Review for the development of a 34,521 S.F. Building area and total 42 parking spaces, Planning Case No. DP-2023-00849, which includes the requirement for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater BMPs until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under City of Riverside Water Quality Ordinance (Municipal Code Section14.12.315).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

Owner's Signature	Date
UCR 1775 Development LLC/ Zibo Gong	Owner
Owner's Printed Name	Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan meet the requirements of Regional Water Quality Control Board Order No. **R8-2010-0033** and any subsequent amendments thereto."

Preparer's Signature	Date
Jack Lee	Engineer
Preparer's Printed Name	Preparer's Title/Position

Preparer's Licensure: 40870

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Section A: Project and Site Information

The Project site is approximately 25,624 SF (0.5882 acre). The disturbed area is approximately 25,624 S.F. (0.5882 acre). The proposed development is for the new 18 unit Apartment building, small commercial and parking Structure.

PROJECT INFORMATION	
Type of Project:	Mixed use (Commercial and residential)
Planning Area:	UU-U-SP MIXED USE
Community Name:	---
Development Name:	18 unit Apartment, samll commercial and parking structure
PROJECT LOCATION	
Latitude & Longitude (DMS): Latitude: 33d 58' 33.65" & Longitude: -117d 21' 01.01"	
Project Watershed and Sub-Watershed: Sta Ana River Watershed and Santa Ana River Reach 3	
APN(s): 211-183-023 and 024	
Map Book and Page No.: 686-A-5	
PROJECT CHARACTERISTICS	
Proposed or Potential Land Use(s)	Commercial/ Residential
Proposed or Potential SIC Code(s)	N/A
Area of Impervious Project Footprint (SF)	22,014
Total Area of proposed Impervious Surfaces within the Project Limits (SF)/or Replacement	22,014
Does the project consist of offsite road improvements?	☒ Y ☐ N
Does the project propose to construct unpaved roads?	☐ Y ☒ N
Is the project part of a larger common plan of development (phased project)?	☐ Y ☒ N
EXISTING SITE CHARACTERISTICS	
Total area of existing Impervious Surfaces within the project limits (SF)	9,286 SF
Is the project located within any MSHCP Criteria Cell?	☐ Y ☒ N
If so, identify the Cell number:	N/A
Are there any natural hydrologic features on the project site?	☐ Y ☒ N
Is a Geotechnical Report attached?	☐ Y ☒ N
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D)	B
What is the Water Quality Design Storm Depth for the project?	0.6

A.1 Maps and Site Plans

Appendix 1, includes a map of the local vicinity and existing site. In addition, WQMP Site Plan, located in Appendix 1, includes the following:

- Drainage Management Areas
- Proposed Structural BMPs
- Drainage Path
- Drainage Infrastructure, Inlets, Overflows
- Source Control BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Standard Labeling

A.2 Receiving Waters

In order of upstream to downstream, the receiving waters that the project site is tributary to are as follows. A map of the receiving waters is included in Appendix 1.

Table A.1 Identification of Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Santa Ana River, Reach 3	Copper, Lead and Pathogens	AGR, GWR, REC1, REC2, WARM, WILD, RARE	15.26 mile

A.3 Additional Permits/Approvals required for the Project:

Table A.2 Other Applicable Permits

Agency	Permit Required	
State Department of Fish and Game, 1602 Streambed Alteration Agreement	☐ Y	☒ N
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Cert.	☐ Y	☒ N
US Army Corps of Engineers, CWA Section 404 Permit	☐ Y	☒ N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	☐ Y	☒ N
Statewide Construction General Permit Coverage	☐ Y	☒ N
Statewide Industrial General Permit Coverage	☐ Y	☒ N
Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	☐ Y	☒ N
Other *(please list in the space below as required)*	☐ Y	☒ N

Section B: Optimize Site Utilization (LID Principles)

Site Optimization

Does the project identify and preserve existing drainage patterns? If so, how? If not, why?

Natural drainage pattern is identified by the existing contour lines showing a sheet flow flowing to the north west into the Alley. Natural drainage was not preserve. The natural drainage is not perculate storm water to the ground before drain to Alley.

Does the project identify and protect existing vegetation? If so, how? If not, why?

There is no establish natural vegetation on the project site. This project will introduce and maintain drought tolerant plants and grass on all open pervious areas on the project site.

Does the project identify and preserve natural infiltration capacity? If so, how? If not, why?

Not applicable, no existing natural infiltration area on-site

Does the project identify and minimize impervious area? If so, how? If not, why?

Not applicable, Building almost cover entire lot. only small impervioused area at outside of building.

Does the project identify and disperse runoff to adjacent pervious areas? If so, how? If not, why?

Yes. most of the storm water will be stored and perculate to Dry well that is installed near the north west property corner.

Section C: Delineate Drainage Management Areas (DMAs)

Table C.1 DMA Classifications

DMA Name or ID	Surface Type(s)[1]	Area (Sq. Ft.)	DMA Type
A1	Landscape	17	Type A
A2	Landscape	70	Type A
A3	Landscape	57	Type A
A4	Landscape	75	Type A
A5	Landscape	21	Type A
A6	Landscape	303	Type A
A7	Landscape	162	Type A
A8	Landscape	1180	Type A
A9	Landscape	308	Type A
C1	Roof, driveway, sidewalk	23433	Type C

[1]*Reference Table 2-1 in the WQMP Guidance Document to populate this column*

Table C.2 Type 'A', Self-Treating Areas

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)
A1	17		
A2	70		
A3	57		
A4	75		
A5	21		
A6	303		
A7	162		
A8	1180		
A9	308		

Table C.3 Type 'B', Self-Retaining Areas

Self-Retaining Area				**Type 'C' DMAs that are draining to the Self-Retaining Area**		
DMA Name/ ID	Post-project surface type	Area (square feet) [A]	Storm Depth (inches) [B]	DMA Name / ID	[C] from Table C.4 = [C]	Required Retention Depth (inches) [D]
NA						

$$[D] = [B] + \frac{[B] \cdot [C]}{[A]}$$

Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas

DMA					Receiving Self-Retaining DMA		
DMA Name/ ID	Area (square feet)	Post-project surface type	Runoff factor	Product		Area (square feet)	Ratio
	[A]		[B]	[C] = [A] x [B]	DMA name /ID	[D]	[C]/[D]

Table C.5 Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID
C-1	Dry Well

Note: More than one drainage management area can drain to a single LID BMP, however, one drainage management area may not drain to more than one BMP.

Section D: Implement LID BMPs

D.1 Infiltration Applicability

Is there an approved downstream 'Highest and Best Use' for stormwater runoff (ref: Chapter 2.4.4 of the WQMP Guidance Document)? ☐ Y ☒ N

Geotechnical Report

A Geotechnical Report is required by the City of Riverside to confirm present and past site characteristics that may affect the use of Infiltration BMPs, see Appendix 3.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? ☐ Y ☒ N

Infiltration Feasibility

Table D.1 Infiltration Feasibility

Does the project site…	YES	NO
…have any DMAs with a seasonal high groundwater mark shallower than 10 feet?		
If Yes, list affected DMAs:	☐	☒
…have any DMAs located within 100 feet of a water supply well?		
If Yes, list affected DMAs:	☐	☒
…have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact?		
If Yes, list affected DMAs:	☐	☒
…have measured in-situ infiltration rates of less than 1.6 inches / hour?		
If Yes, list affected DMAs:	☐	☒
…have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		
If Yes, list affected DMAs:	☐	☒
…geotechnical report identify other site-specific factors that would preclude effective and safe infiltration?		
Describe here:	☐	☒

D.2 Harvest and Use Assessment

The following condition apply*:*

☐ Reclaimed water will be used for the non-potable water demands for the project.

☐ Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the Copermittee).

☒ The Design Capture Volume will be addressed using Infiltration Only BMPs. (Harvest and Use BMPs are still encouraged, but are not required as the Design Capture Volume will be infiltrated or evapotranspired.

Irrigation Use Feasibility

Step 1: *Total Area of Irrigated Landscape*: Insert Area (Acres)

Type of Landscaping (Conservation Design or Active Turf): List Landscaping Type

Step 2: *Total Area of Impervious Surfaces:* Insert Area (Acres)

Step 3: *The project EIATIA factor*: EIATIA Factor

Step 4: *Minimum required irrigated area*: Insert Area (Acres)

Step 5:

Minimum required irrigated area (Step 4)	**Available Irrigated Landscape (Step 1)**
Insert Area (Acres)	Insert Area (Acres)

Toilet Use Feasibility

Step 1: *Projected Number of Daily Toilet Users: Number of daily Toilet Users*

Project Type: Enter 'Residential', 'Commercial', 'Industrial' or 'Schools'

Step 2: *Total Area of Impervious Surfaces: Insert Area (Acres)*

Step 3: *The project TUTIA factor: TUTIA Factor*

Step 4: *Minimum number of toilet users: Required number of toilet users*

Step 5:

Minimum required Toilet Users (Step 4)	Projected number of toilet users (Step 1)
Insert Area (Acres)	Insert Area (Acres)

Other Non-Potable Use Feasibility

Step 1: *Average Daily Demand: Projected Average Daily Use (gpd)*

Step 2: *Total Area of Impervious Surfaces: Insert Area (Acres)*

Step 3: *The project factor: Enter Value*

Step 4: *Minimum required use: Minimum use required (gpd)*

Step 5:

Minimum required non-potable use (Step 4)	Projected average daily use (Step 1)
Minimum use required (gpd)	Projected Average Daily Use (gpd)

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

For the project, the following applies:

☐ LID Bioretention/Biotreatment BMPs will be used for some or all DMAs of the project as noted below in Section D.4.

☐ A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5.

☒ None of the above.

D.4 Feasibility Assessment Summaries

Table D.2 LID Prioritization Summary Matrix

DMA Name/ID	LID BMP Hierarchy				No LID (Alternative Compliance)
	1. Infiltration	2. Harvest and use	3. Bioretention	4. Biotreatment	
A1	☒	☐	☐	☐	☐
A2	☒	☐	☐	☐	☐
A3	☒	☐	☐	☐	☐
A4	☒	☐	☐	☐	☐
A5	☒	☐	☐	☐	☐
A6	☒	☐	☐	☐	☐
A7	☒	☐	☐	☐	☐
A8	☒	☐	☐	☐	☐
A9	☒	☐	☐	☐	☐
C1	☒	☐	☐	☐	☐

DMA are either self-treating, self-retaining or draining to self-retaining area.

D.5 LID BMP Sizing

Table D.3 DCV Calculations for LID BMPs

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Enter BMP Name / Identifier Here*		
	[A]		[B]	[C]	[A] x [C]			
A1-A9 and C1	2193	*landscape*	*0.1*	*0.11*	*241.23*	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
	23,433	*Driveway*	*1*	*0.89*	*20855.37*			
		Roof and Walkway						
	$A_T = \Sigma[A]$	***27,445***			Σ=[D] 21,096.6	[E]=0.60	[F]=1,054.83	[G]=1168.18

Design Capture Volume =

$$[F] = \frac{[D] \times [E]}{12}$$

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is obtained from LID BMP design procedure sheet, placed in Appendix 6

Section E: Alternative Compliance (LID Waiver Program)

LID BMPs are expected to be feasible on virtually all projects. Where LID BMPs have been demonstrated to be infeasible as documented in Section D, other Treatment Control BMPs must be used (subject to LID waiver approval by the Regional Board). For the project, the following applies:

■ LID Principles and LID BMPs have been incorporated into the site design to fully address all Drainage Management Areas. No alternative compliance measures are required for this project and thus this Section is not required to be completed.

- Or -

☐ The following Drainage Management Areas are unable to be addressed using LID BMPs. A site-specific analysis demonstrating technical infeasibility of LID BMPs has been approved by the Regional Board and included in Appendix 5. Additionally, no downstream regional and/or sub-regional LID BMPs exist or are available for use by the project. The following alternative compliance measures on the following pages are being implemented to ensure that any pollutant loads expected to be discharged by not incorporating LID BMPs, are fully mitigated.

Section F: Hydromodification

F.1 Hydrologic Conditions of Concern (HCOC) Analysis

HCOC EXEMPTION 1: The Priority Development Project disturbs less than one acre. The City of Riverside has the discretion to require a Project-Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

HCOC EXEMPTION 2: The volume and time of concentration[1] of storm water runoff for the post-development condition is not significantly different from the pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant) using one of the following methods to calculate:

- Riverside County Hydrology Manual
- Technical Release 55 (TR-55): Urban Hydrology for Small Watersheds (NRCS 1986), or derivatives thereof, such as the Santa Barbara Urban Hydrograph Method
- Other methods acceptable to the City of Riverside

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

Results in Table F.1 below and hydrologic analysis in Appendix 7.

Table F.1 Hydrologic Conditions of Concern Summary

	2 year – 1 hour		
	Pre-condition	**Post-condition**	**% Difference**
Time of Concentration	14 MIN	6.8 MIN	51.43 %
Flow (Cubic Feet Per Second)	0.6176	1.7364	181.15%

[1] Time of concentration is defined as the time after the beginning of the rainfall when all portions of the drainage basin are contributing to flow at the outlet.

HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (Prado Dam, Santa Ana River,) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Sensitivity Maps.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

F.2 HCOC Mitigation

As an alternative to the HCOC Exemption Criteria above, HCOC criteria is considered mitigated if the project meets one of the following conditions, as indicated:

☐ a. Additional LID BMPS are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.

☐ b. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.

☒ c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

☐ d. None of the above.

Section G: Source Control BMPs

The following table identifies the potential sources of runoff pollutants for this project and specifies how they are addressed through permanent controls and operational BMPs:

Table G.1 Permanent and Operational Source Control Measures

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
D1. Need for future indoor and structural pest control	Note building design features that discourage entry of pests.	Provide Integrated Pest Management information to owners, lessees, and operators.
D2. Landscape / Outdoor Pesticide Use	Preserve existing native trees, shrubs, and ground cover to the maximum extent possible. Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. Consider using pest-resistant plants, especially adjacent to hardscape. To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	Maintain landscaping using minimum or no pesticides. See applicable operational BPMs in "What you should know for…..Landscape and Gardening" at http://rcflood.org/stormwater Provide IPM information to new owners, lessees and operators.
O. Miscellaneous Drain or Wash Water or other Sources. Rooftop equipment Roofing, gutters, and trim.	Rooftop equipment with potential to produce pollutants shall be roofed and / or have secondary containment. Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff.	
P. Plazas, sidewalks, and parking lots.		Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer no to s storm drain.

Section H: Construction Plan Checklist

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)	Latitude / Longitude
Dry Well	Dry well near the property north west property corner.	C-1 of preliminary Grading Plan or W-1 of WQMP	Latitude: 33d 58' 34.26" & Longitude: -117d 21' 02.07"

Section I: Operation, Maintenance and Funding

As required by the City of Riverside, the following Operation, Maintenance and Funding details are provided as summarized:

1. A means to finance and implement facility maintenance in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred.
3. An outline of general maintenance requirements for the Stormwater BMPs selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility.
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized O&M or inspections but will require typical landscape maintenance as noted in Chapter 5, pages 85-86, in the WQMP Guidance.

See Appendix 9 for a detailed Stormwater BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the Stormwater BMPs built on site, and an agreement assigning responsibility for maintenance and providing for inspections and certification.

Maintenance Mechanism: WQMP Maintenance Agreement

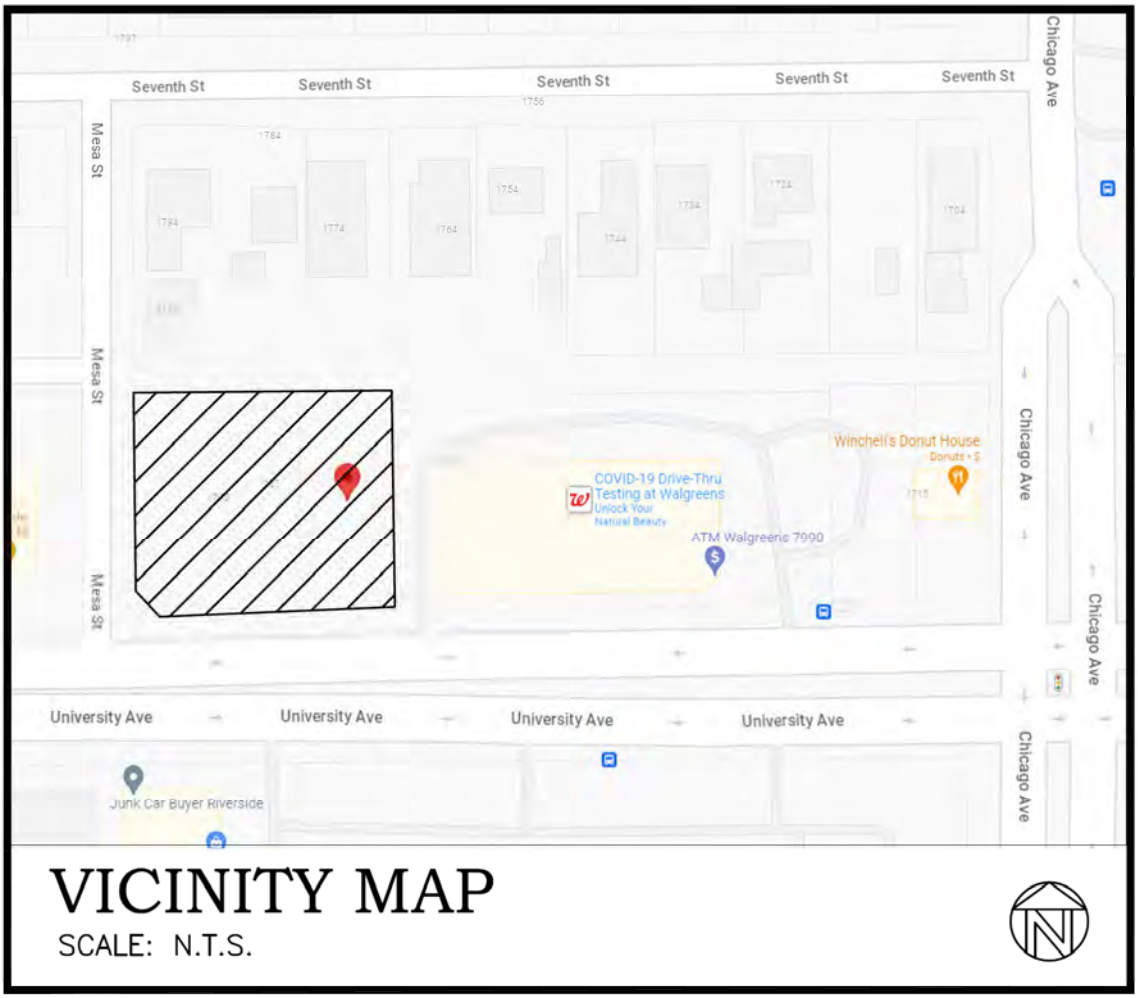
Will the proposed BMPs be maintained by a Home Owners' Association (HOA) or Property Owners Association (POA)?

☐ Y ☒ N

Operation and Maintenance Plan and Maintenance Mechanism is included in Appendix 9. Educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP are included in Appendix 10.

Appendix 1: Maps and Site Plans

Location Map, WQMP Site Plan and Receiving Waters Map

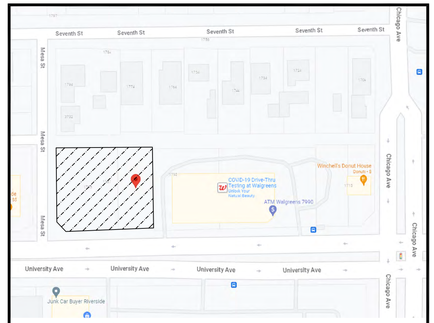


VICINITY MAP

SCALE: N.T.S.

WQMP PLAN





VICINITY MAP
SCALE: N.T.S.

IMPERVIOUS SURFACE
(ROOF, DRIVEWAY, WALK WAY)

LANDSCAPE
SELF-TREATING

CONSTRUCTION NOTES:

1. CONSTRUCT DRY WELL

N

0 10 20
SCALE 1" = 10'

CALLAND ENGINEERING, INC.
dba QUARTECH CONSULTANTS
576 E. LAMBERT ROAD, BREA, CA 92821
TEL: (714) 671-1050 FAX: (714) 671-1090
CITY BUSINESS TAX CERTIFICATE # BL00119285
EXP. DATE: 02/18/2015

RELEASED

REVISIONS

PROJECT LOCATION:
1775 UNIVERSITY AVENUE,
RIVERSIDE, CA 92507

REGISTERED PROFESSIONAL ENGINEER
JACK C. S. LEE
40870
Exp. 3-31-25
CIVIL
STATE OF CALIFORNIA

DRAWN:	X.Y.
CHECKED:	
DATE:	09/14/2023
JOB NO.:	23-027-003
SCALE:	1" = 10'
FILE NAME:	

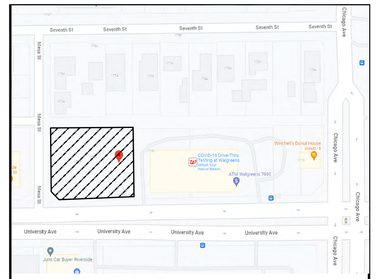
W-1

SHEET 1 OF 1 SHT.

Appendix 2: Construction Plans

Grading and Drainage Plans

PRELIMINARY GRADING PLAN



VICINITY MAP
SCALE: N.T.S.

EARTHWORK QUANTITIES:

CUT:	30.00 CY
FILL:	330.00 CY
IMPORT:	300.00 CY

SPECIAL NOTES:
THE QUANTITIES SHOWN HEREON ARE FOR PERMIT AND BONDING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY QUANTITIES PRIOR TO START OF GRADING

LEGAL DESCRIPTION:

REAL PROPERTY IN THE CITY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS: LOT 47 AND THE EAST OF 5 FEET OF LOT 46 OF ALTA MESA TRACT, IN THE CITY OF RIVERSIDE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 7, PAGE 30 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE COUNTY OF RIVERSIDE BY DEED RECORDED MAY 13, 1997 AS INSTRUMENT NUMBER 166520 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA
APN: 211-183-023 AND 024

BENCHMARK:

CITY BENCHMARK NO. I7-V2
P.K. NAIL AND CITY ENGINEER TAG IN THE TOP OF THE NORTHEAST CORNER OF A CATCH BASIN ALONG THE NORTHERLY CURB OF UNIVERSITY AVENUE AT THE NORTHEAST CORNER OF CHICAGO AVENUE AND UNIVERSITY AVENUE.
ELEVATION: 961.183' DATUM: 1988

BASIS OF BEARINGS:

THE CENTERLINE OF CHICAGO AVENUE BEING NORTH 0°12'24" EAST PER PM BOOK 74, PAGES 3 AND 4, WAS HELD AS THE BASIS OF BEARINGS FOR THIS MAP.

CONSTRUCTION NOTES:

1. CONSTRUCT BUILDING PER ARCHITECTURAL PLAN
2. PROPOSED CATCH BASIN
3. PROPOSED AREA DRAIN
4. PROPOSED PARKWAY DRAIN
5. PROPOSED DRY WELL
6. PROPOSED DRIVEWAY APPROACH
7. PROPOSED WATER SERVICE
8. PROPOSED BACKFLOW PREVENTER

N
0 10 20
SCALE 1" = 10'

CITY OF RIVERSIDE
PLANNING DIVISION
APPROVED BY:
SIGNATURE DATE
PW

REGISTERED PROFESSIONAL ENGINEER
JACK C. S. LEE
40870
Exp. 3-31-25
CIVIL
STATE OF CALIFORNIA

REVISIONS			
DATE	BY	DESCRIPTION	APP'D

CALLAND ENGINEERING
& ASSOCIATES, INC.
574 E. LAMBERT ROAD, BREA, CA 92821
TEL: (714) 671-1050 FAX: (714) 671-1090

OWNER:
UCR 1775 DEVELOPMENT LLC
C/O MR. ZIBO GONG
250 WHISPERING PINES SUMMIT,
ARCADIA, CA 91006
TEL: 626-377-1916
E-MAIL: ZIBSGONG@GMAIL.COM

DRAWN: X.Y.
CHECKED:
DATE: 08-30-2023
JOB NO.: 23-027-003
SCALE: 1"=10'
FILE NAME:

CITY OF RIVERSIDE

1775 UNIVERSITY AVENUE,
RIVERSIDE, CA 92507

PG-1
SHEET 1 OF 1 SHT.

Appendix 3: Soils Information

Geotechnical Study and Other Infiltration Testing Data

Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment or Other Information on Past Site Use

N/A

Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis

N/A

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

Dry Well Calculation:

Given:
Design infiltration rate 0.5 in/hr
Mitigated Volume: 1055 CF
Required Drawdown Time: 96 Hours
Groundwater depth for Design: 45 ft

Proposed:
Drywell Rock shaft Diameter: 6 FT
Drywell Chamber Depth: 19 FT
Rock Porosity: 40%
Depth to Infiltration: 15 FT
Drywell bottom Depth: 35 FT

Convert Design rate from in/hr to ft/sec
0.5x 1/12 x 1/3600=0.0000115 f/s
A 6 feet diameter dry well provides 18.85 SF of infiltration area per foot of depth, plus 28.27SF at the bottom.

For a 25 foot deep drywell, infiltration occurs between 15 feet and 25 feet below grade. This provides 10 feet of infiltration depth in addition to the bottom area. Infiltration are per drywell is calculated below.
10 ft x 18.85 + 28.27 SF = 216.77 SF

Combine design rate with infiltration area to get flow (disposal) rate drywell
0.0000115 x 216.77 = 0.00249 CF/s

Volume of disposal for drywell based on various time frames are included below.

96 hrs: 0.00249 x 96x 3600 =861.5 cubic feet of retained water disposed of.

Chamber diameter = 4ft Drywell rock shaft diameter = 6 ft
Volume provided in drywell with chamber depth of 19 feet
19x 12.57 + 6 x 28.27x40% = 306.68 CF

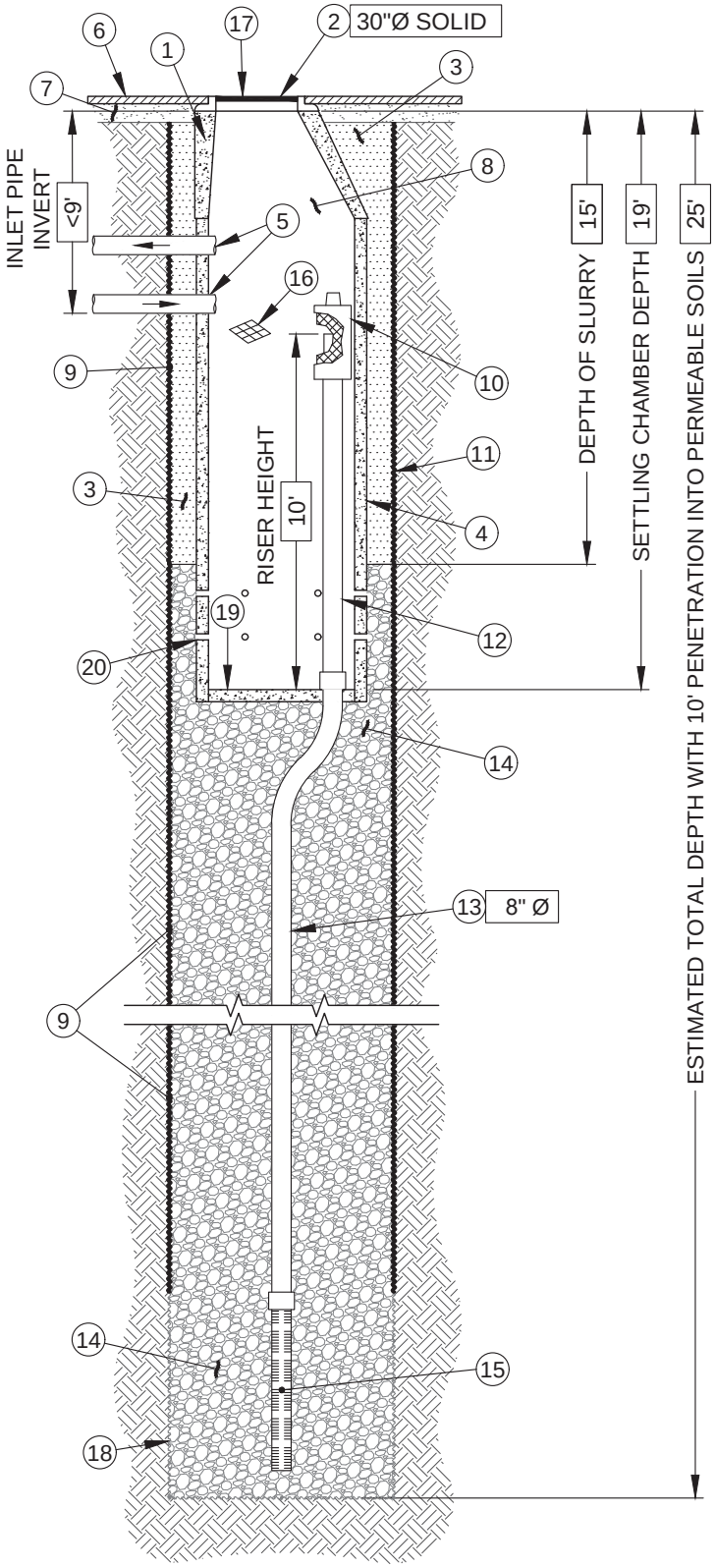
The drywell system is composed of 1 drywell
Total volume provided = 306.68 CF
Total 96 hour infiltration Volume = 861.5 CF
306.68 CF +861.5 CF = 1168.18 CF > 1055 CF

The MaxWell® IV

DRAINAGE SYSTEM DETAILS AND SPECIFICATIONS

1775 University Ave.

Riverside, CA



ITEM NUMBERS

1. **MANHOLE CONE** - MODIFIED FLAT BOTTOM.
2. **BOLTED RING & COVER** - DIAMETER & TYPE AS SHOWN. CLEAN CAST IRON PRESSURIZED COVER WITH GASKET (NEENAH R-6462-HH). BOLTED. RIM ELEVATION±0.02' OF PLANS.
3. **STABILIZED BACKFILL** - TWO-SACK SLURRY MIX.
4. **PRE-CAST LINER* -** 4000 PSI CONCRETE 48" ID. X 54" OD. **CENTER IN HOLE** AND ALIGN SECTIONS **TO MAXIMIZE BEARING SURFACE.**
5. **INLET PIPE/OUTLET PIPE (BY OTHERS).** SEE SEPARATE PLAN FOR INVERT ELEVATIONS.
6. **GRADED BASIN OR PAVING** (BY OTHERS).
7. **COMPACTED BASE MATERIAL**, IF REQUIRED (BY OTHERS).
8. **FREEBOARD DEPTH VARIES** WITH INLET PIPE ELEVATION. INCREASE SETTLING CHAMBER DEPTH AS NEEDED TO MAINTAIN ALL INLET PIPE ELEVATIONS ABOVE RISER PIPE.
9. **NON-WOVEN GEOTEXTILE SLEEVE** - MIRAFI 140 NL. MIN. 6 FT Ø. HELD APPROX. 10 FEET OFF THE BOTTOM OF EXCAVATION.
10. **PUREFLO® DEBRIS SHIELD** - ROLLED 16 GA. STEEL X 24" LENGTH WITH VENTED ANTI-SIPHON AND INTERNAL 0.265" MAX. SWO FLATTENED EXPANDED STEEL SCREEN X 12" LENGTH. **FUSION BONDED EPOXY COATED**.
11. **MIN. 6' Ø DRILLED SHAFT.**
12. **RISER PIPE** - SCH. 40 PVC MATED TO DRAINAGE PIPE AT BASE SEAL.
13. **DRAINAGE PIPE** - ADS HIGHWAY GRADE OR SCH. 40 PVC WITH TRI-A COUPLER. SUSPEND PIPE DURING BACKFILL OPERATIONS. DIAMETER AS NOTED.
14. **ROCK** - WASHED, SIZED BETWEEN 3/8" AND 1-1/2".
15. **FLOFAST® DRAINAGE SCREEN** - SCH. 40 PVC 0.120" SLOTTED WELL SCREEN WITH 32 SLOTS PER ROW/FT. OVERALL LENGTH VARIES, UP TO 120" WITH TRI-B COUPLER.
16. **ABSORBENT** - HYDROPHOBIC PETROCHEMICAL SPONGE. MIN. 128 OZ. CAPACITY. TYPICAL, 2 PER CHAMBER.
17. **FABRIC SEAL** - U.V. RESISTANT GEOTEXTILE - **TO BE REMOVED BY CUSTOMER** AT PROJECT COMPLETION. GRATED ONLY.
18. **MIN. 6' Ø DRILLED SHAFT.**
19. **BASE SEAL** - CONCRETE SLURRY.
20. **6 PERFORATIONS MINIMUM PER FOOT, 2 ROWS MINIMUM.**

***USE W5 WWF AT 5" ON CENTER.**

AZ Lic. ROC070465 A, ROC047067 B-4, ADWR 363
CA Lic. 886759, C-42, C-57, HAZ.
Also licensed in the following states: MT, NM, NV, OR, TX, UT, and WA.

U.S. Patent No. 4,923,330 - ™ Trademark 1974, 1990, 2004

DETAIL :	REVISED BY:	
DRAWN ON:	REVISED DATE:	SCALE: N.T.S

Manufactured and Installed by

TORRENT RESOURCES
An evolution of McGuckin Drilling
www.torrentresources.com
CALIFORNIA 909-829-0740
ARIZONA 602-268-0785

Appendix 7: Hydromodification

Supporting Detail Relating to Hydrologic Conditions of Concern

Per F.2 HCOC Mitigation page 22.

As An Alternative to the HCOC Exemption Criteria, HCOC criteria is considered mitigated if the project meets the following condition, as indicated:

☒ c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

Please see calculation below.

Post Development Analysis
Q = CIA

Soil Type: B	(See C-1.16, Soil Group Map)
I = 0.5 (2 years, 1-hour)	(See Figure D-4.3)
Slope = 0.55	(See Figure D-4.6)
Using Intensity Duration Curve	
I = 2.5 inches (50 year – 5 min.)	(See Figure D-4.7)
C = 0.42	(See Figure D-5.3)
A = 0.5882	

Q_{50} = 0.42 x 2.5 x 0.5882 = 0.6176 cfs

Pre-Development Analysis
Q = CIA

Soil Type: B	(See C-1.16, Soil Group Map)
I = 0.5 (2 years, 1-hour)	(See Figure D-4.3)
Slope = 0.55	(See Figure D-4.6)
Using Intensity Duration Curve	
I = 3.6 inches (50 year – 5 min.)	(See Figure D-4.7)
C = 0.82	(See Figure D-5.3)
A = 0.5882	

Q_{50} = 0.82 x 3.6 x 0.5882 = 1.7364 cfs

Post Development > 110% Pre - Development

Appendix 8: Source Control

Pollutant Sources/Source Control Checklist

Appendix 9: O&M

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms

BMP I.D. No.	Description of BMP including dimensions, details, make & model, etc.	Maintenance Responsibility	Funding Source For O & M	Maintenance Schedule
SD-10	Site Design and Landscape Planning – Landscape planning should consider the land suitability. Project plan designs should conserve natural areas to the extent possible, maximize natural water storage and infiltration opportunities, and protect the slopes and channels.	Owner	Owner	Ongoing
SD-11	Roof Runoff Controls – site shall be designed to direct roof runoff to Landscape Area	Owner	Owner	Ongoing
SD-12	Efficient Irrigation – design should include application methods of irrigation water that minimize runoff of excess irrigation water into the stormwater conveyance system.	Owner	Owner	Ongoing
SD-13	Storm Drain Signage – Show signage at the top of parkway drain. "NO DUMPING - DRAINS TO OCEAN"	Owner	Owner	Ongoing
SD-20	Pervious Pavement – The maintenance requirements of a pervious surface should be reviewed at the time of design and should be clearly specified. Maintenance is required to prevent clogging of the pervious surface. The factors to be considered when defining maintenance requirements must include: -Type of use - Ownership - Level of trafficking - The local environment and any contributing catchments	Owner	Owner	Ongoing
SD-32	Trash Storage Areas - Trash container areas shall install permanent roof and shall be walled to prevent off-site transportation of trash. All stormwater runoff from the building and pavement shall be diverted away from the trash container areas.	Owner	Owner	Ongoing

Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information