



32051 Coast Highway Project

Draft Initial Study – Mitigated Negative Declaration

prepared by

City of Laguna Beach

505 Forest Avenue

Laguna Beach, California 92651

Contact: Christian Dominguez, Senior Planner

prepared with the assistance of

Rincon Consultants, Inc.

250 East 1st Street, Suite 1400

Los Angeles, California 90012

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RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers

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Initial Study

1. Project Title

32051 Coast Highway Project

2. Lead Agency Name and Address

City of Laguna Beach
505 Forest Avenue
Laguna Beach, California 92651

3. Contact Person

Christian Dominguez, Senior Planner
City of Laguna Beach
505 Forest Avenue
Laguna Beach, California 92651
(949) 497-0745
cdominguez@lagunabeachcity.net

4. Project Location

The project site is located at 32051 Coast Highway in Laguna Beach, California. The project site is an approximately 0.5-acre (21,747 square feet [sf]) property identified as Assessor Parcel Number (APN) 056-160-25. Figure 1 depicts the project site in relationship to the region and Figure 2 shows the project site in its neighborhood context.

5. General Plan Designation and Zoning

The project site is within the Village Low Density (VLD) General Plan land use designation, which provides for single-family residential development at urban densities in areas that are predominantly developed and support existing detached single-family residences. The site is zoned Residential Low Density (R-1), which permits residential single-family dwellings. The R-1 site development standards are established in Laguna Beach Municipal Code (LBMC) Section 25.10.008, Property Development Standards.

Figure 1 Regional Location



★ Project Location

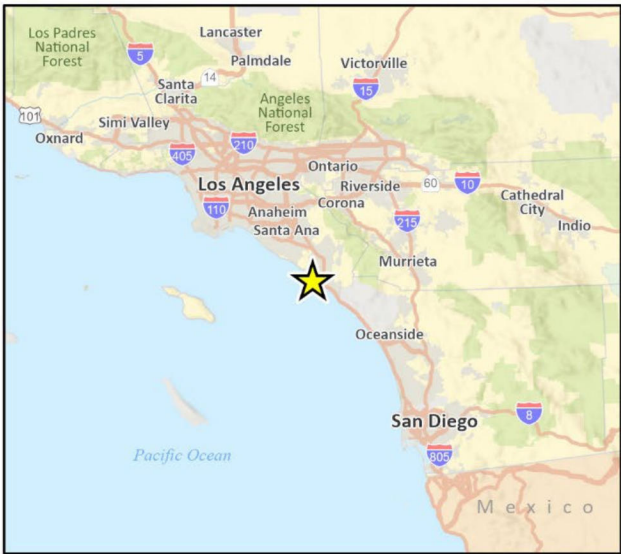


Figure 2 Project Location



6. Regional Setting

The City of Laguna Beach is a coastal city in southern Orange County. It is located approximately 20 miles southeast of the City of Santa Ana, and 10 miles southeast of John Wayne International Airport. Laguna Beach is surrounded by Crystal Cove State Park and Laguna Coast Wilderness Park within the unincorporated County of Orange to the north, Aliso and Wood Canyons Wilderness Park within unincorporated County of Orange, and the Cities of Laguna Woods, Aliso Viejo, and Laguna Niguel to the east, the City of Dana Point to the south, and the Pacific Ocean to the west. Regional access to the project site is available from Coast Highway, Interstate 405 (I-405), Interstate 5 (I-5) and California State Route 73 (SR-73) via Crown Valley Parkway. Local vehicular access to the project site is available by Coast Highway. The project site is also accessible via Orange County Transportation Authority (OCTA) bus route 1 and the Laguna Beach Trolley Short Coastal and Long Coastal routes (summer service only), with the nearest bus stop located directly east of the project site on Coast Highway.

7. Project Site and Surrounding Land Uses

The project site consists of an existing 1,318-sf residence originally built in 1948 with a deck and brick driveway/parking area. The project site is in an urbanized area, primarily characterized by single-family residential houses along Coast Highway. The project site is bound by single-family residences to the north and the south, Coast Highway (beyond which are single-family residences) to the east, and 1000 Steps Beach and the Pacific Ocean to the west.

8. Description of Project

The 32051 Coast Highway Project (“project” or “proposed project”) involves the demolition of the existing 1,318-sf single-family residence and the construction of a 6,774-sf, three-story single-family residence. The project would also include a 590-sf garage, a 1,213-sf elevated deck terrace with a pool and jacuzzi, a water feature, and reflecting pond. Additionally, the project would provide 4,456 sf of landscaped open space, including 1,517 sf of irrigated area. The proposed project would feature a modern architectural style with expansive windows, mixed materials such as wood, stone, stucco, and burnished metal. Exterior lighting would include low-voltage indirect slot lighting recessed into the building walls, as well as low-voltage indirect strip lighting, free standing directional and path lighting, and wall-mounted pool lighting to provide outdoor landscaping and pool lighting. The proposed residence would be designed to exceed the Title 24 standards by 15 percent and would include sustainability features such as energy-efficient lighting and appliances, a reclaimed water irrigation system, rain barrels for irrigation use, water efficient appliances and fixtures, a green roof on a portion of the site, rooftop solar panels, and a permeable pavement driveway. Figure 3, Figure 4, and Figure 5 below, illustrate the proposed site plan, building sections and landscape plan, respectively. Table 1 provides a summary of the proposed project.

Figure 3 Proposed Site Plan

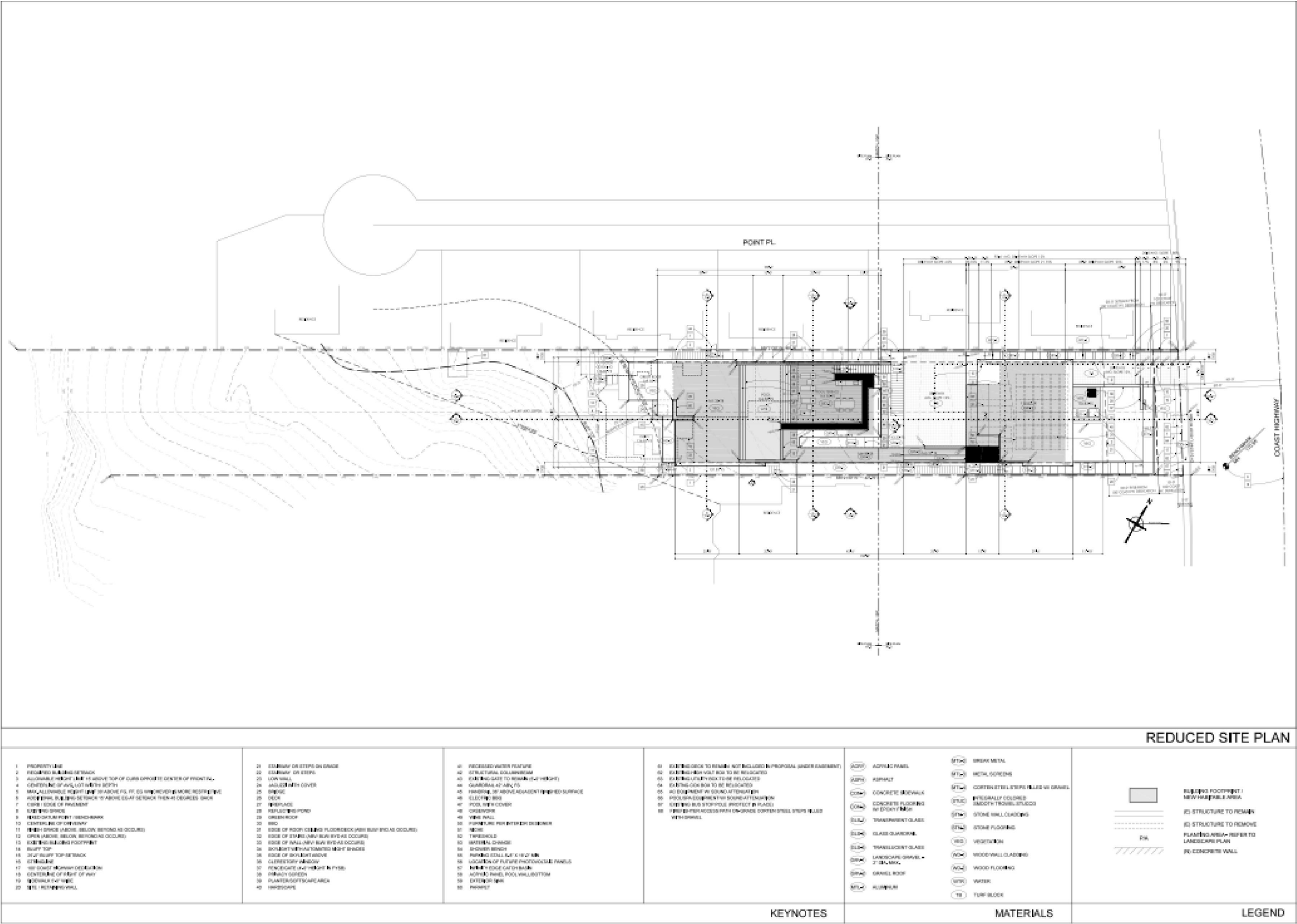


Figure 4 Building Section

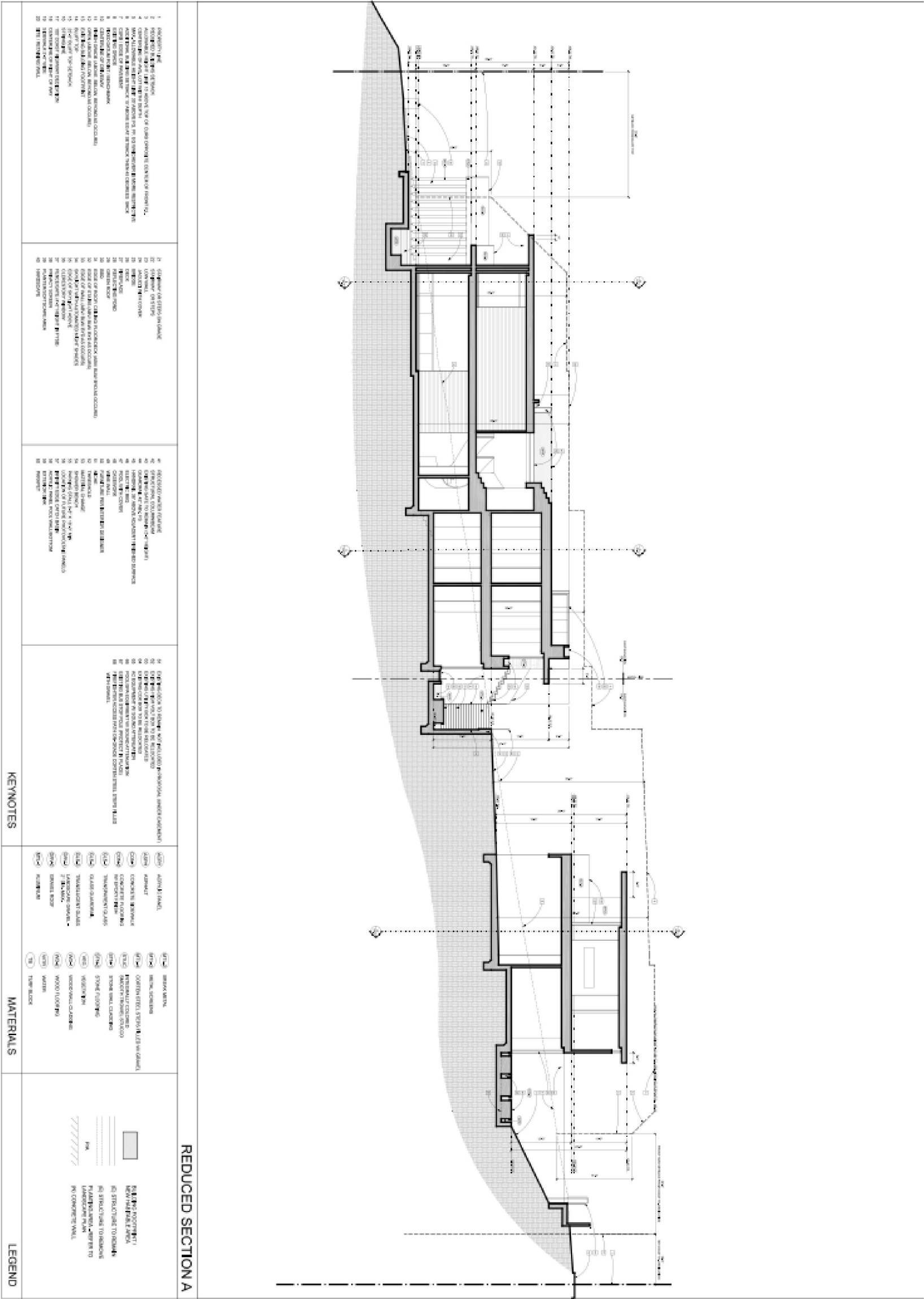
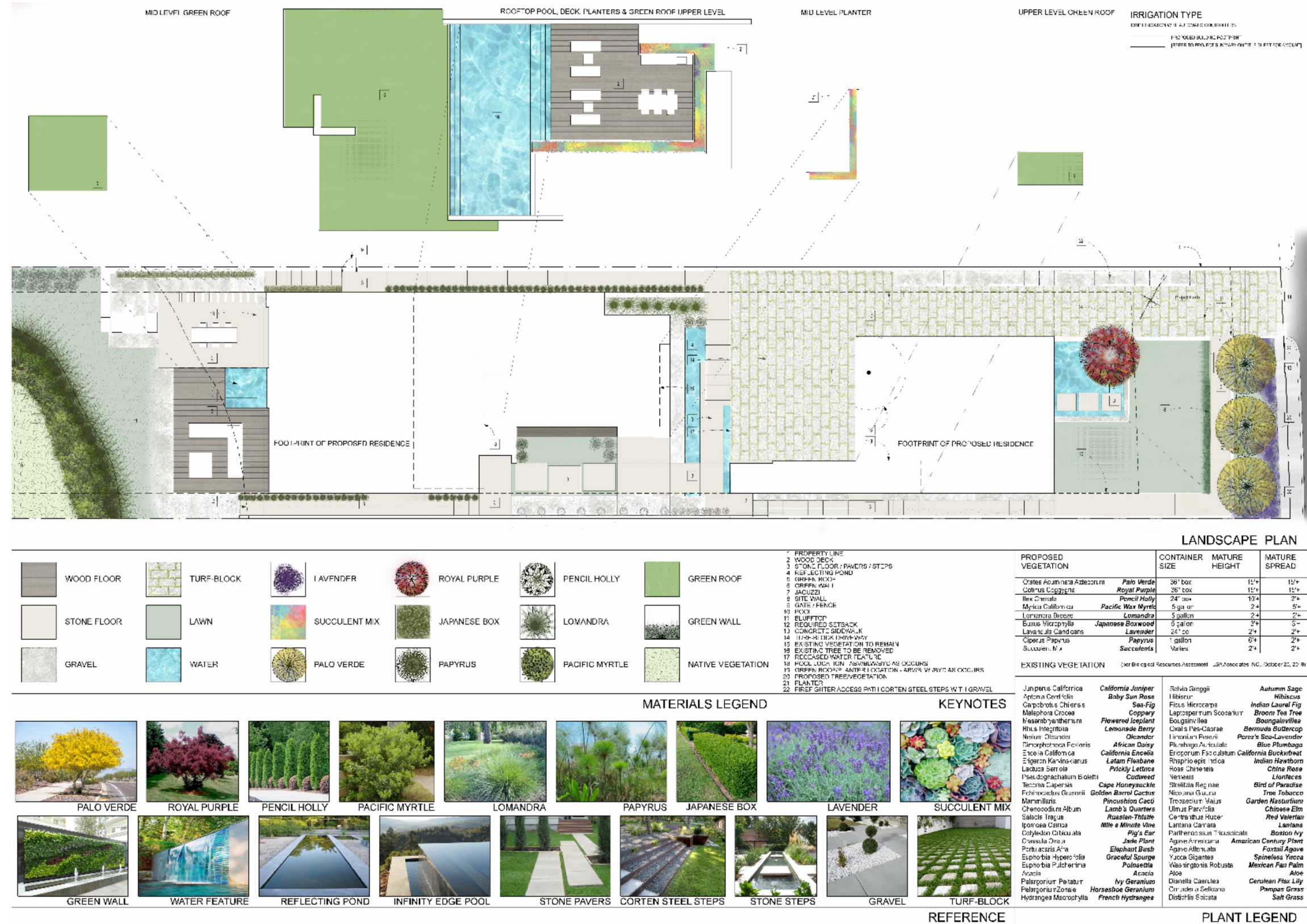


Figure 5 Landscape Plan



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Table 1 Project Summary

Living Area		Proposed (sf)
Lower Level		2,693
Mid-Level		3,212
Upper Level		870
Total		9,594
Other Structures		Proposed (sf)
Garage		590
Elevated Deck Terrace		1,213
Mechanical		139
Total		1942
Impervious Surface	Proposed (sf)	Proposed (% of lot area)
Structure	4,237	33%
Hardscape	910	7%
Total	5,287	40%
Zoning Standards	Required/Permitted	Proposed
Lot Area	6,000 sf Min	21,747 sf (Gross) 12,7328 sf (Net)
Lot Width (Average)	70'-0" Min	50'-0"
Lot Depth (Average)	80'-0" Min	445'-3"
Max Building Height from Grade	30'-0"	30'-0"
Front Yard Setback	20'	45'-0"
Rear Yard Setback	25'-0"	224'-1"
Side Yard Setbacks	10% of avg. lot width (5'-0"), min 4'-0" one side	5'-0"
Lot Coverage (Max)	4,456 sf (35%)	4,104 sf (32%)
Landscaped Open Space (Min)	4,456 sf (35%)	7,565 sf (59%)
Irrigated Area	—	1,517 sf
Parking spaces	3	3
Pool/Spa/ Water Features	Dimensions (L x W x D)	Volume (gallons)
Pool	38'-0" x 14'-0" x 3'6"	13,928
Jacuzzi	8'-2" x 8'-0" x 3'-6"	998
Water Feature	32'-0" x 5'-6" x 1'6"	790
Reflecting Pond	15'-0" x 13'-6" x 1'-6"	2,272
Total		17,988

sf = square feet; Min = minimum; Max = maximum; ' = foot; " = inch

Project Construction

Construction of the project is anticipated to occur over an approximately two-year period that would commence in 2023. Construction would take place Monday through Friday between the hours of 8:00 a.m. and 5:00 p.m. Construction would include demolition, site preparation, grading, building construction, asphalt paving and architectural coating. The maximum depth of excavation would be approximately 20 feet below ground surface. Approximately 2,401-cubic yards (cy) of soil will be removed and exported offsite during grading while 10 cy of soil will be imported during construction. Soil would be disposed of at one of the 16 construction and debris diversion facilities located in Orange County, such as the Waste Management Sunset Environmental Transfer Station located approximately 20 miles (driving distance) from the project site. Construction equipment staging and worker parking would occur on the project site.

9. Required Approvals

Project entitlements include a Coastal Development Permit. The project would also require Design Review approval by the City of Laguna Beach Design Review Board.

10. Other Public Agencies Whose Approval is Required

No other agency approvals are required.

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

As part of the process of identifying cultural resources issues in or near the project site, the City sent letters inviting tribes to consult with the City on October 20, 2022. The City requested a response within 30 days of receipt as specified by Assembly Bill 52 (AB 52). No responses were received to the letter mailings. Accordingly, the requirements of AB 52 have been met for the project.

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is “Potentially Significant” or “Potentially Significant Unless Mitigation Incorporated” as indicated by the checklist on the following pages.

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

Determination

Based on this initial evaluation:

- ☐ I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

- ☐ I find that although the project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Chris Dominguez

Signature

Christian Dominguez

Printed Name

6/7/23

Date

Senior Planner

Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in PRC Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

For purposes of determining significance under CEQA, scenic resources are the visible natural and cultural features of the landscape that contribute to the public's enjoyment of the environment. A scenic vista is defined as a public viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. Public views are those that are experienced from a publicly accessible vantage point, such as a roadway or public park. Scenic vistas can be officially designated by public agencies. The California Department of Transportation (Caltrans) manages the California State Scenic Highway Program, which designates state scenic highways. Scenic highways are highways located in areas of natural beauty. A scenic highway becomes officially designated when the local governing body applies to and is approved by Caltrans for scenic highway designation and adopts a Corridor Protection Program that preserves the scenic quality of the land that is visible from the highway right of way (Caltrans 2022a).

Aesthetic Setting

Scenic Resources

According to the City's Landscape and Scenic Highways Element, aesthetic resources in the city predominantly consist of the San Joaquin Hills that surround the city, the Pacific Ocean to the west, and the Aliso and Laguna Creeks. Public views of these resources are primarily available from Coast Highway, Laguna Canyon Road, other local roads, and public areas such as parks, beaches, and trails (Laguna Beach 2018a). The Laguna Beach Landscape and Scenic Highways Resources Document (LSHRD), which was adopted along with the Landscape and Scenic Highways General Plan Element, provides guidelines for the preservation and enhancement of the city's landscape and scenic streets (Laguna Beach 2018b).

Scenic Highways

The California Scenic Highway System indicates that no existing or proposed state scenic highways are located in the vicinity of the project site (Caltrans 2022b). However, the stretch of Coast Highway that runs through Laguna Beach is eligible for designation as a state scenic highway (Laguna Beach 2018a). According to the City's Landscape and Scenic Highways Element, the City intends to eventually implement a Corridor Protection Plan for Coast Highway (Laguna Beach 2018a). The LSHRD classifies the Coast Highway into zones and provides landscaping and streetscape improvement recommendations for each zone (Laguna Beach 2018b). The project site is within LSHRD Zone L, which covers the area between Fifth Avenue and Three Arch Bay (Laguna Beach 2018b).

Light and Glare

The project site consists of a single-family residence, which includes outdoor and safety lighting as necessary. In addition, the project site is in a built-out, urban environment with adjacent residential uses with sources light and glare. Primary sources of light are associated with vehicles traveling along Coast Highway, street and parking area lighting, and existing residential buildings, including building-mounted lighting. Glare is generally a result of reflections off of pavement, vehicle windows and chrome, and building materials that include reflective glass and other shiny surfaces. Potential impacts from light and glare are directly related to the level of urbanization in the vicinity of the project site and the design of the proposed single-family home.

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

The project site is located adjacent to Coast Highway in an area of Laguna Beach primarily developed with single-family residential and scattered multi-family residential uses. Views from the project site include one- to three-story residences, Coast Highway, and the ocean to the west. As discussed above, scenic views in the project vicinity are available from Coast Highway and primarily consist of Aliso Peak and the surrounding San Joaquin Hills. Views of the coastline from Coast Highway in the project vicinity are limited to intermittent glimpses between structures and along east-west alleys and roadways due to intervening single-family residences and landscaping along the western length of Coast Highway (Laguna Beach 2018b).

The project would result in the construction of a 6,774-sf, three-story (30-foot) single-family residence which would replace an existing one-story single-family residence on a 0.5-acre site. According to LBMC Section 25.10.008, Property Development Standards, the maximum allowable building height on the project site is 30-feet. The proposed single-family home is in line with existing

residential development in the vicinity and would not exceed the City's building height standards. The project would not substantially block views from Coast Highway of Aliso Peak and the San Joaquin Hills to the north, east, and south due to the location of the site to the west of Coast Highway. While development of the project could partially obstruct views of the Pacific Ocean from Coast Highway and other public roadways, views of these scenic vistas would not be significantly impacted due to the built-out nature of the project site and surrounding area and existing limited availability of such views. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

A significant impact would occur if scenic resources would be damaged or removed by a project within a designated scenic highway. The California Scenic Highway System indicates that no existing or proposed State scenic highways are located in the vicinity of the project site (Caltrans 2022b). The nearest designated state scenic highway is State Route 74, located approximately 6.7 miles southeast of the project site in Orange County. However, Coast Highway is eligible for listing as a state scenic highway (Laguna Beach 2018a).

There are no designated historic buildings located on the project site, as further discussed in Section 5, *Cultural Resources*, and the site does not contain trees, rock outcroppings, or landscape features that contribute to the scenic quality of the Coast Highway corridor. As shown in Figure 5, the proposed project would enhance the property's Coast Highway frontage with three new 36-inch box trees, a mix of succulents, and turf block paving for the site driveway, aligning with the recommendations provided in the LSHRD. Therefore, the project would not substantially damage scenic resources along Coast Highway and impacts would be less than significant.

LESS THAN SIGNIFICANT 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?*

The proposed project is in an urban area of the city that is primarily developed with single-family residences ranging from one to three stories in height, as shown in Figure 2. The project site is currently developed with a 1,318-sf single-story residence, which would be demolished as part of the project. The project involves the construction of a three-level residence with a total of 6,774 sf of livable space and a 590-sf garage and 1,213-sf elevated deck terrace with a pool and jacuzzi. 4,456 sf landscaped open space would also be developed on the site.

The proposed project would be consistent with the VLD land use designation and would comply with the building height, setback, lot coverage, and landscaping requirements of the R-1 zone, as outlined in LBMC Section 25.10.008. While development of the project would modify the appearance of the site relative to existing conditions, it would not be anticipated to degrade the quality of the site. Rather, the proposed project would improve the site's surroundings by upgrading the existing landscaping and architecture and enhancing the visual quality of the site. The project would incorporate design and landscaping recommendations of the LSHRD for the South Laguna Village neighborhood and Zone L of Coast Highway, such as the planting of shade trees and

succulents with a mixture of container sizes, varying heights, and textures in the Coast Highway setback. Likewise, the project would incorporate recommendations contained in the City of Laguna Beach Design Guidelines—A Guide to Residential Development (2010), including breaking up the building massing into sections and smaller modules across the site, incorporating outdoor living space into the architectural composition, incorporating a variety of materials, textures, and colors to articulate the building form, and stepping the building with the site slope. Therefore, the proposed project would not substantially degrade the existing visual character or quality of public views or conflict with applicable zoning and other regulations governing scenic quality. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- 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 project site is located in an urbanized area with existing sources of light and glare, including existing residential homes surrounding the project site and street lighting and vehicle headlamps associated with Coast Highway. Construction of the project would introduce short-term use of construction vehicles and equipment that could potentially create new sources of light and glare. However, pursuant to LBMC Section 7.25.080, Construction Activity Noise Regulations, construction activities are prohibited between the hours of 7:00 p.m. and 7:30 a.m. on weekdays, and no construction activities are permitted on weekends and federal holidays. Since construction would be required to adhere to the timing restrictions laid out in the LBMC, no construction would occur at night when light would potentially be required. These limits would limit lighting use and glare production and associated impacts to nighttime views during construction. In addition, lighting or glare generated during construction would be temporary in nature and would cease upon project buildout.

The proposed residence would include exterior lighting, such as lighting recessed into building walls, low voltage indirect strip lighting, free standing directional and path lighting, and wall-mounted pool lighting to provide outdoor safety and architectural lighting. Exterior lighting would be low voltage, shielded, and directed downward to limit the potential for light spillage, glare, and ambient glow. In addition, lighting would comply with the requirements outlined in LBMC Section 7.70, Good Neighbor Outdoor Lighting, which requires full shielding for outdoor lights and proper aiming of lights to reduce light trespass.

In addition, the project design does not propose new highly reflective materials that could cause significant glare, such as stainless-steel panels, white rock roofs, or high-gloss ceramic roof tiles. Expansive glass windows, which could result in glare, would be primarily positioned on the west-facing façade, reducing the potential for glare impacts to neighbors to the north and south of the site and to Coast Highway to the east of the site. Privacy landscaping along the site perimeter would further reduce the potential for glare or project lighting to trespass into adjacent land uses. Furthermore, the design of the project, including its finish, colors, and materials, would be reviewed for approval through the City's design review process. This regulatory procedure provides the City with an additional layer of review for aesthetics including light and glare, and an opportunity to incorporate additional conditions to improve the project's building materials and lighting plans. Thus, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)); timberland (as defined by PRC Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Agricultural and Forestry Resources Setting

There are no existing agricultural or forestry operations on the project site or in its vicinity. Additionally, there are no Williamson Act contracted lands. Lastly, the project is not located near a designated forestland or timber production zone.

- Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*
- 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 PRC Section 12220(g)), timberland (as defined by PRC 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?*

The project site is not located on or near land mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance according to the California Department of Conservation's (DOC) Farmland Mapping and Monitoring Program (DOC 2018). In addition, the project site is not on land enrolled under the Williamson Act or zoned for agricultural use (Laguna Beach 2022a). The project site does not include forest land and is not zoned for forest land and timberland (Laguna Beach 2022a). Therefore, due to the absence of agricultural land, forest land, and timberland at the project site, the project would not involve changes to the existing environment that could result in conversion of Farmland to a non-agricultural use or the conversion of forest land to non-forest use. No impact to agriculture and forestry resources would occur.

NO IMPACT

3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Overview of Air Pollution

The federal and State Clean Air Acts (CAA) mandate the control and reduction of certain air pollutants. Under these laws, the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) for “criteria pollutants” and other pollutants. Some pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere, including carbon monoxide, volatile organic compounds (VOC)/reactive organic gases (ROG),¹ nitrogen oxides (NO_x), particulate matter with diameters of ten microns or less (PM₁₀) and 2.5 microns or less (PM_{2.5}), sulfur dioxide, and lead. Other pollutants are created indirectly through chemical reactions in the atmosphere, such as ozone, which is created by atmospheric chemical and photochemical reactions primarily between ROG and NO_x. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles. Secondary pollutants include oxidants, ozone, and sulfate and nitrate particulates (smog).

Air pollutant emissions are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories:

- Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat.

¹ CARB defines VOC and ROG similarly as, “any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate,” with the exception that VOC are compounds that participate in atmospheric photochemical reactions. For the purposes of this analysis, ROG and VOC are considered comparable in terms of mass emissions, and the term VOC is used in this IS-MND.

- Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and can also be divided into two major subcategories:

- On-road sources that may be legally operated on roadways and highways.
- Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

Air Quality Standards and Attainment

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, and all of Orange County. SCAB is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). As the local air quality management agency, SCAQMD must monitor air pollutant levels to ensure that the NAAQS and CAAQS are met, if they are not met, to develop strategies to meet the standards.

Depending on whether the standards are met or exceeded, the SCAB is classified as being in “attainment” or “nonattainment.” In areas designated as nonattainment for one or more air pollutants, a cumulative air quality impact exists for those air pollutants. The human health associated with these criteria pollutants, presented in Table 2, is already occurring in those areas as part of the environmental baseline condition. Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The SCAB is in nonattainment for ozone and PM_{2.5} federal standards. Also, the SCAB is in nonattainment for the state standard for PM₁₀ and designated unclassifiable or in attainment for all other federal and state standards (CARB 2020). The nonattainment statuses result from several factors. These factors include the combination of emissions from a large urban area, the regional meteorological conditions adverse to the dispersion of air pollution emissions, and the mountainous terrain surrounding the SCAB that traps pollutants (SCAQMD 2022).

Table 2 Health Effects Associated with Criteria Pollutants

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: (a) pulmonary function decrements and localized lung edema in humans and animals and (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.
Carbon monoxide (CO)	Reduces oxygen delivery leading to: (1) aggravation of chest pain (angina pectoris) and other aspects of coronary heart disease; (2) decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (3) impairment of central nervous system functions; and (4) possible increased risk to fetuses.
Nitrogen dioxide (NO ₂)	(1) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (2) risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (3) contribution to atmospheric discoloration.
Sulfur dioxide	(1) Bronchoconstriction accompanied by symptoms that may include wheezing, shortness of breath, and chest tightness during exercise or physical activity in persons with asthma.
Suspended particulate matter	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma). ¹
Suspended particulate matter	(1) Excess deaths from short- and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes, including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children, such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease, including asthma.
Lead	(1) Short-term overexposures: lead poisoning can cause (a) anemia, (b) weakness, (c) kidney damage, and (d) brain damage; (2) long-term exposures: long-term exposure to lead increases risk for (a) high blood pressure, (b) heart disease, (c) kidney failure, and (d) reduced fertility.

Source: USEPA 2022a, 2022b, 2022c, 2022d, 2022e, and 2022f

Air Quality Management

Since the SCAB currently exceeds ozone and PM_{2.5} NAAQS standard, the SCAQMD is required to implement strategies to reduce pollutant levels to achieve attainment of the NAAQS. To meet the NAAQS and CAAQS, the SCAQMD has adopted a series of AQMPs that serve as a regional blueprint to develop and implement an emission reduction strategy that will bring the area into attainment with the standards in a timely manner. The most significant air quality challenge in the Air Basin is to reduce NO_x emissions to meet the 2037 ozone standard deadline for the non-Coachella Valley portion of the South Coast Air Basin, as NO_x plays a critical role in the creation of ozone. The 2022 AQMP includes strategies to ensure the SCAQMD does its part to further the district's ability to meet the 2015 federal ozone standards (SCAQMD 2022). The 2022 AQMP builds on the measures already in place from the previous AQMPs and includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technology, best management practices, co-benefits from existing programs, incentives, and other CAA measures to meet the 8-hour ozone standard.

The SCAQMD's strategy to meet the NAAQS and CAAQS distributes the responsibility for emission reductions across federal, State, and local levels and industries. The majority of these emissions are from heavy-duty trucks, ships, and other State and federally regulated mobile source emissions that the majority of which are beyond SCAQMD's control. The SCAQMD has limited control over truck emissions with rules such as Rule 1196. In addition to federal action, the 2022 AQMP relies on substantial future development of advanced technologies to meet the standards, including the transition to zero- and low-emission technologies. The AQMP also incorporates the transportation strategy and transportation control measures from SCAG's 2020-2045 RTP/SCS Plan (Connect SoCal) (SCAG 2020). SCAG is required by law to ensure that transportation activities "conform" to, and are supportive of, the goals of regional and State air quality plans to attain the NAAQS. Connect SoCal includes transportation programs, measures, and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained in the AQMP.

Air Emission Thresholds

The SCAQMD approved the *CEQA Air Quality Handbook* in 1993. Since then, the SCAQMD has provided supplemental guidance on their website to address changes to the methodology and nature of CEQA since the publication of the Handbook. Some of these changes include recommended thresholds for emissions associated with both construction and operation of the project are used to evaluate a project's potential regional and localized air quality impacts (SCAQMD 2019).

Regional Thresholds

Table 3 presents the significance thresholds for regional construction and operational-related criteria air pollutant and precursor emissions being used for the purposes of this analysis.

Table 3 Air Quality Thresholds of Significance

Pollutant	Construction (pounds per day)	Operation (pounds per day)
NO _x	100	55
VOC	75	55
PM ₁₀	150	150
PM _{2.5}	55	55
SO _x	150	150
CO	550	550

NO_x = Nitrogen Oxides; VOC = Volatile Organic Compounds; PM₁₀ = 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; CO = Carbon Monoxide
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, CO, PM₁₀, 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 generated in 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 2009).

The SCAQMD provides LST lookup tables for project sites that measure one, two, or five acres. If a site is greater than five acres, SCAQMD recommends a dispersion analysis be performed. The project site is approximately 0.5 acres, therefore; the LST analysis uses one-acre LSTs. LSTs are provided for receptors at a distance of 82 feet (25 meters) 164 feet (50 meters), 328 feet (100 meters), 656 (200 meters), 1,640 feet (500 meters) from the project disturbance boundary to the sensitive receptors. Construction would occur immediately adjacent to single-family residences to the north and south 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 (SCAQMD 2008a). Therefore, the analysis below uses the LST values for 82 feet. The project site is located in SRA – 20 (Central Orange County Coastal) on a one-acre site with a receptor 82 feet away, as shown in Table 4.

Table 4 SCAQMD LSTs for Construction Emissions

Pollutant	Allowable Emissions from a One-acre Site in SRA-20 for a Receptor 82 Feet Away
Gradual conversion of NO _x to NO ₂	51 ¹
CO	647
PM ₁₀	4
PM _{2.5}	2 ²

SRA: source receptor area; NO_x: nitrogen oxides; NO₂: nitrogen dioxide; CO: carbon monoxide; PM₁₀: coarse particulate matter; PM_{2.5}: fine particulate matter

Allowable Emissions for a 1-acre Site in SRA-20 for a Receptor 82 Feet Away

¹The screening criteria for NO_x were developed based on the 1-hour NO₂ CAAQS of 0.18 ppm. Subsequently to publication of the SCAQMD's guidance the USEPA has promulgated a 1-hour NO₂ NAAQS of 0.100 ppm. This is based on a 98th percentile value, which is more stringent than the CAAQS. Because SCAQMD's LSTs have not been updated to address this new standard, to determine if project emissions would result in an exceedance of the 1-hour NO₂ NAAQS, an approximated LST was estimated to evaluate the federal 1-hour NO₂ standard. The revised LST threshold is calculated by scaling the NO₂ LST for by the ratio of 1-hour NO₂ standards (federal/state) (i.e., 92 lb/day * (0.10/0.18) = 51 lb/day).

²The screening criteria for PM_{2.5} were developed based on an Annual CAAQS of 15 mg/m³. Subsequently to publication of the SCAQMD's guidance the annual standard was reduced to 12 mg/m³. Because SCAQMD's LSTs have not been updated to address this new standard, to determine if project emissions would result in an exceedance of the annual PM_{2.5} CAAQS, an approximated LST was estimated. The revised LST threshold is calculated by scaling the NO₂ LST for by the ratio of 1-hour NO₂ standards (federal/state) (i.e., 3 lb/day * (12/15) = 2.4 lb/day).

Source: SCAQMD 2009

Toxic Air Contaminants

SCAQMD has developed significance thresholds for the emissions of toxic air contaminants (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 an incremental excess cancer risk of 10 in 1 million (1×10^{-6}) or a cancer burden of 0.5 excess cancer cases in areas exceeding a one-in-one-million risk. In addition, 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).

Methodology

Air pollutant emissions generated by project construction and operation were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod uses project-specific information, including the project's land uses, square footage for different uses (e.g., residential and parking), and location, to model a project's construction and operational emissions. The analysis reflects the construction and operation of the project as described under *Description of Project*, above.

Construction emissions modeled include emissions generated by construction equipment used on-site and vehicle trips associated with construction, such as worker and vendor trips. According to the project applicant, construction would begin in 2023 and finish in 2025. The applicant provided the construction schedule and equipment used for the proposed project. CalEEMod assumptions for worker and vendor trips were used in the analysis. Approximately 2,400 cy of soil would be exported off-site. The project would demolish the existing 1,318 sf residential buildings during the construction demolition phase. It is assumed that construction equipment used would be diesel-powered and the project would comply with applicable regulatory standards, such as SCAQMD Rule 403 for dust control measures and Rule 1113 for architectural coating VOC limits.

Operational emissions modeled include mobile source, energy, and area source emissions. Mobile source emissions are generated by vehicle trips to and from the project site. The trip generation rates for the single-family unit were based on average trip rates from the Institute of Transportation Engineers (ITE) 10th edition of the Trip Generation Manual (California Air Pollution Control Officers Association 2021). The swimming pool is part of the housing development; therefore, it would not increase vehicle trips. Emissions attributed to energy use include natural gas consumption by appliances as well as for space and water heating. Area source emissions are generated by landscape maintenance equipment, consumer products, and architectural coatings. The proposed single-family residence would include a natural gas fireplace.

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

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, incorporates local city general plans and the Southern California Association of Governments (SCAG) 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) socioeconomic forecast projections of regional population, housing, and employment growth (SCAQMD 2022; SCAG 2020).

The project involves the development of a single-family residential unit, three-car garage, pool, and landscaping on the project site. The 2020 RTP/SCS estimates that the City of Laguna Beach population would increase by 100 residents and that there would be an increase of 100 households between 2016 and 2045 (SCAG 2020). The proposed project would replace the existing single-family residence on the project site with a new single-family residence. Therefore, the project would not result in additional population or housing units in Laguna Beach. Given the aforementioned, the proposed project would be consistent with the underlying assumptions of the emissions forecasts contained in the 2022 AQMP. In addition, as shown in Table 5 and Table 6 below, the project would not generate criteria pollutant emissions that would exceed SCAQMD thresholds established in the AQMP. Impacts would be less than significant.

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- 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?*

The SCAB has been designated as a federal nonattainment area for ozone and PM_{2.5} and a state nonattainment area for ozone, PM₁₀, 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 (PM₁₀ 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 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.

Table 5 Project Construction Emissions

Year	Maximum Daily Emissions (lbs/day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
2023	5	43	41	<1	5	3
2024	1	7	9	<1	<1	<1
2025	3	10	14	<1	<1	<1
SCAQMD Regional Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

lbs/day = pounds per day; VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; PM₁₀ = 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. Maximum on-site emissions are the highest emissions that would occur on the project site from on-site sources, such as heavy construction equipment and architectural coatings, and excludes off-site emissions from sources such as construction worker vehicle trips and haul truck trips

Source: Table 2.1 "Overall Construction-mitigated" emissions. Highest of summer and winter emissions results are shown for criteria pollutants. See CalEEMod worksheets in Appendix A

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

Emission Source	Maximum Daily Emissions (lbs/day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area	<1	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	<1	<1	<1	<1	<1	<1
Project Emissions	<1	<1	<1	<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; VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; PM₁₀ = 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.

Source: Table 2.2 "Overall Operation-Mitigated" emissions. Highest of Summer and Winter emissions results are shown for all emissions. The mitigated emissions account for project sustainability features and/or compliance with specific regulatory standards. See CalEEMod worksheets in Appendix A

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

According to SCAQMD, sensitive receptors to air pollution are typically located in any residence (e.g., private homes, condominiums, apartments, and living quarters), schools (including preschools and daycare centers), health facilities (e.g., hospitals, retirement and nursing homes, long-term care hospitals, hospices). Sensitive receptors in the project vicinity include single-family residences located immediately north and south of the project site. The project would include the siting of new sensitive receptors. Localized air quality impacts to sensitive receptors typically result from criteria air pollutants, and TACs, which are discussed in the following subsections.

Localized Significance Thresholds

The LST methodology was developed to be used as a tool to analyze localized impacts associated with project-specific construction and operational activities. If the calculated emissions for the proposed construction or operational activities are below the LST emission levels found on the LST mass rate look-up tables (Appendix C of LST Methodology), then the proposed project would not result in significant air quality issues at sensitive receptors. The closest sensitive receptors to the project site are residences located immediately to the north and south. Table 7 summarizes the project's maximum localized daily construction emissions from the proposed project. As shown therein, localized construction emissions would exceed SCAQMD LST thresholds for PM₁₀ and PM_{2.5}. Therefore, project construction would result in a potentially significant impact from localized criteria pollutant emissions.

Table 7 Project LST Construction Emissions

Year	Maximum Daily Emissions (lbs/day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Maximum Onsite Emissions	5	43	41	<1	5	3
SCAQMD LST	N/A	51	647	N/A	4	2
Threshold Exceeded?	N/A	No	No	N/A	Yes	Yes

lbs/day = pounds per day; VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; PM₁₀ = 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. Maximum on-site emissions are the highest emissions that would occur on the project site from on-site sources, such as heavy construction equipment and architectural coatings, and excludes off-site emissions from sources such as construction worker vehicle trips and haul truck trips

See Appendix A for calculations. Source: Table 3.2 – 3.6 “Overall Construction-mitigated” emissions. Highest of Summer and Winter emissions results are shown for all emissions.

Toxic Air Contaminants

TACs are defined by California law as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. The following subsections discuss the project’s potential to result in impacts related to TAC emissions during construction and operation.

Construction

Construction-related activities would result in temporary project-generated emissions of diesel particulate matter (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 and is therefore the focus of this analysis (CARB 2005).

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 24 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 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 California Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project. Thus, the duration of proposed construction activities (i.e., 24 months) is approximately seven percent of the total exposure period used for 30-year health risk calculations. Current models and methodologies for conducting health-risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities, resulting in difficulties in producing accurate estimates of health risk (Bay Area Air Quality Management District 2017).

The maximum PM₁₀ and PM_{2.5} emissions would occur during grading activities. These activities would last for approximately 44 days. PM emissions would decrease for the remaining construction

period because construction activities such as building construction and architectural coating would require less intensive construction equipment. While the maximum DPM emissions associated with demolition, site preparation, and grading activities would only occur for a portion of the overall construction period, these activities represent the worst-case condition for the total construction period. This would represent one percent of the total 30-year exposure period for health risk calculation. Given the aforementioned discussion, DPM generated by project construction would not create conditions where the probability is greater than one in one million of contracting cancer for the Maximally Exposed Individual or to generate ground-level concentrations of non-carcinogenic TACs that exceed a Hazard Index greater than one for the Maximally Exposed Individual. Therefore, project construction would not expose sensitive receptors to substantial TAC concentrations, and impacts would be less than significant.

Operation

CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) provides recommended buffer distances between sensitive land uses and potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities). The project would not be located within prominent TAC sources mentioned above. In addition, residential land uses are not considered land uses that generate substantial TAC emissions based on reviewing the air toxic sources listed in CARB's guidelines. Therefore, the anticipated TACs generated on-site during project operation (e.g., cleaning solvents, paints, landscape pesticides, etc.) 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 toxic air contaminants. Therefore, impacts would be less than significant.

Mitigation Measure

AQ-1 Construction Emissions Reduction

Prior to issuance of grading permits, the following measures shall be implemented:

- All mobile off-road equipment (wheeled or tracked) greater than 50 horsepower used during construction activities shall meet the USEPA Tier 4 Final standards. Tier 4 certification can be for the original equipment or equipment that is retrofitted to meet the Tier 4 Final standards. These requirements shall be incorporated into the contract agreement with the construction contractor. A copy of the equipment's certification or model year specifications shall be available upon request for all equipment on-site.
- Electricity shall be supplied to the site from the existing power grid to support the electric construction equipment. If connection to the grid is determined to be infeasible for portions of the project, a non-diesel fueled generator shall be used.
- The project shall comply with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than five minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction.

Significance After Mitigation

With its incorporation of Mitigation Measure AQ-1, the project would reduce PM₁₀ and PM_{2.5} emissions by approximately 32 and 49 percent, respectively, as compared to CalEEMod off-road tier

assumptions. As shown in Table 8, with incorporation of Mitigation Measure AQ-1, criteria pollutant emissions would be below LST thresholds. Therefore, construction activities would not expose sensitive receptors to substantial criteria pollutants and impacts would be less than significant with mitigation incorporated.

Table 8 Mitigated Project LST Construction Emissions

Year	Maximum Daily Emissions (lbs/day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Maximum Onsite Emissions	3	9	54	<1	3	1
SCAQMD LST	N/A	51	647	N/A	4	2
Threshold Exceeded?	N/A	No	No	N/A	No	No

lbs/day = pounds per day; VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; PM₁₀ = 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. Maximum on-site emissions are the highest emissions that would occur on the project site from on-site sources, such as heavy construction equipment and architectural coatings, and excludes off-site emissions from sources such as construction worker vehicle trips and haul truck trips

See Appendix A for calculations. Source: Table 3.2 – 3.6 “Overall Construction-mitigated” emissions. Highest of Summer and Winter emissions results are shown for all emissions.

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

During construction activities, heavy equipment and vehicles would emit odors associated with vehicle and engine exhaust and during idling. However, these odors would be intermittent and temporary and would cease upon completion. In addition, project construction would be required to comply with SCAQMD Rule 402, which specifies that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. Overall, project construction would not generate other emissions, such as those leading to odors, affecting a substantial number of people. Construction-related impacts would be less than significant.

With respect to operation, the SCAQMD’s *CEQA Air Quality Handbook* (1993) identifies land uses associated with odor complaints as agricultural uses, wastewater treatment plants, chemical and food processing plants, composting, refineries, landfills, dairies, and fiberglass molding. Residential uses are not identified on this list. In addition, solid waste generated by the proposed on-site uses would be properly stored in lidded dumpsters and/or trash cans and collected by a contracted waste hauler, ensuring that on-site waste would be managed and collected in a manner to prevent the proliferation of odors. Therefore, the proposed project would not generate other emissions such as those leading to odors affecting a substantial number of people, and no operational impact would occur.

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4 Biological Resources

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

The following analysis is based on a Biological Resources Assessment (BRA) memorandum prepared by LSA Associates Inc. (LSA) in January 2023 and a site visit completed by Rincon Consultants, Inc. (Rincon) in August 2022. The memorandum is available in Appendix B of this document.

Regulatory Setting

Regulatory authority over biological resources is shared by federal, state, and local authorities under a variety of statutes and guidelines. Primary authority for general biological resources lies with the land use control and planning authority of local jurisdictions. The California Department of Fish and Wildlife (CDFW) is a trustee agency for biological resources throughout the state under CEQA and has direct jurisdiction under the Fish and Game Code of California. Under the California and Federal Endangered Species Acts, the CDFW and the U.S. Fish and Wildlife Service (USFWS) also have direct regulatory authority over species formally listed as Threatened or Endangered. The U.S. Army Corps of Engineers (USACE) has regulatory authority over specific biological resources, namely wetlands and waters of the United States, under Section 404 of the Federal Clean Water Act.

Plants or animals may be considered “special status” due to declining populations, vulnerability to habitat change, or restricted distributions. Special status species are classified in a variety of ways, both formally (e.g., State or Federally Threatened and Endangered Species) and informally (“Special Animals”). Species may be formally listed and protected as Threatened or Endangered by the CDFW or USFWS or as California Fully Protected. Informal listings by agencies include California Species of Special Concern, a broad database category applied to species, roost sites, or nests, or as USFWS Candidate taxa. CDFW and local governmental agencies may also recognize special listings developed by focal groups (i.e., Audubon Society Blue List, California Native Plant Society [CNPS] Rare and Endangered Plants, U.S. Forest Service regional lists).

While common birds are not designated as special status species, destruction of their eggs, nests, and nestlings is prohibited by federal and state law. Section 3503.5 of the Fish and Game Code of California specifically protects birds of prey and their nests and eggs against take, possession, or destruction. Section 3503 of the Fish and Game Code also incorporates restrictions imposed by the federal Migratory Bird Treaty Act (MBTA) with respect to migratory birds (which consists of most native bird species).

Biological Resource Setting

The project site is developed with an existing single-family residence and associated landscaping and hardscaping and is approximately 20 to 160 feet above mean sea level in elevation. The project site is surrounded by residential land uses to the north, east and south and coastal bluffs and beaches along the Pacific Ocean to the west. The project site is not located in or adjacent to any area designated by the Open Space/Conservation Element of the City’s General Plan as potentially having high or very high value habitat.

Soils

As mapped by the US Department of Agriculture Natural Resources Conservation Service, the project site is underlain by Cieneba sandy loam and Modjeska gravelly loam soils, as well as beaches on the western end of the parcel.

Vegetation

The BRA identified vegetation on the project site based on the Manual of California Vegetation and site visits conducted by LSA in 2019 and Rincon in 2022. Descriptions of the vegetation and land cover types occurring within the project site are shown in Table 9 and Figure 6.

Table 9 Vegetation Community and Land Cover Types

Vegetation Community/Land Cover Type	Acreage	CDFW Ranking
Australian Wattle Ruderal Patches (<i>Acacia</i> spp. Shrubland Semi-Natural Alliance)	0.10	Not Ranked
California Brittle Bush Scrub (<i>Encelia californica</i> Shrubland Alliance)	0.01	G3/S3 ¹
Ornamental	0.21	Not Ranked
Developed	0.18	Not Ranked

¹ G3/S3: at moderate risk of extinction due to a restricted range, relatively few populations, recent and widespread declines, or other factors making it vulnerable.

Source: LSA 2023

High Value Habitats are defined by the Laguna Beach General Plan Open Space and Conservation Element as extensive areas dominated by indigenous plant communities that possess good species diversity. They are often linked to extensive open space areas and may be considered Very High Value when they include the habitats of endangered, rare, or locally unique native plant species (City of Laguna Beach 2005a). There are no High Value or Very High Value Habitats within the proposed disturbance limits of the project.

Wildlife

The maintained ornamental vegetation occurring on the project site is considered low quality habitat for most native wildlife species. The westernmost portion of the parcel contains coastal bluff scrub that provides marginally suitable foraging, breeding, and sheltering habitat for native wildlife species; however, this area is outside of the proposed project disturbance limits. A total of eleven wildlife species were observed on or near the project site during the field surveys: California towhee (*Melospiza crissalis*), American crow (*Corvus brachyrhynchos*), western gull (*Larus occidentalis*), red-shouldered hawk (*Buteo lineatus*), house finch (*Haemorhous mexicanus*), yellow rumped warbler (*Setophaga coronata*), Anna's hummingbird (*Calypte anna*), western fence lizard (*Sceloporus occidentalis*), tree spider (*Araneus gemma*), silver argiope (*Argiope argentata*), and European honeybee (*Apis mellifera*). These species are commonly encountered in and around developed areas within Orange County.

Figure 6 Project Site Vegetation



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BIO Figures
Fig X Vegetation Communities and Land Cover

- 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?*

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 Federal Endangered Species Act; those considered “Species of Concern” by the USFWS; those listed or candidates for listing as Rare, Threatened, or Endangered by the CDFW under the California Endangered Species Act; animals designated as “Fully Protected” by the California Fish and Game Code; animals listed as California Species of Special Concern by the CDFW; and CDFW Special Plants, specifically those with California Rare Plant Ranks (CRPR) of 1B, 2, 3, and 4 in the CNPS’s Inventory of Rare and Endangered Vascular Plants of California.

A list of special status plant and animal species with potential to occur at the project site was developed based on a review of the CNPS and CNDDDB databases for the six United States Geological Survey (USGS) quadrangles surrounding the project site. The CNPS and CNDDDB databases identified 51 special-status animal and 60 special-status plant species within the vicinity of the project site (refer to Appendix B for lists of species identified). The potential for each of these special status species to occur on the project site was evaluated according to the following criteria:

- **Not Expected.** Habitat on and adjacent to the project site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- **Low Potential.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the project site is unsuitable or of very poor quality. The species is not likely to be found on the project site.
- **Moderate Potential.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the project site is unsuitable. The species has a moderate probability of being found on the project site.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the project site is highly suitable. The species has a high probability of being found on the project site.
- **Present.** Species is observed or has been recorded (e.g., CNDDDB, other reports) on the project site recently (within the last five years).

No special-status animal or plant species were observed during the October 2019 and August 2022 site surveys. The USGS quadrangle search covers a large, variable geographic and topographic area containing numerous habitat types not found within or around the project site. The species identified in the database searches are not anticipated to occur on the project site due to their specialized habitat requirements, the historic and ongoing anthropogenic disturbances in the project site and vicinity, and the lack of suitable habitat on the project site. As such, the project site is not expected to support any candidate, sensitive, or special status species and none have a moderate or high potential to occur.

Although special-status plant and animal species have a low probability of occurring on the project site, the project site and immediate vicinity contain vegetation that provides suitable nesting habitat for a variety of native and migratory bird species, which are protected while nesting by the Migratory Bird Treaty Act and California Fish and Game Code. Project construction activities have

the potential to harm protected nesting birds either through direct contact with birds or their eggs, or through elevated noise levels in the surrounding area. Therefore, the proposed project has the potential to result in significant impacts.

Mitigation Measures

BIO-1 Nesting Bird Avoidance

Project-related activities shall occur outside of the bird breeding season (February 1 to August 31) to the extent practicable. If construction must occur within the bird breeding season, then no more than seven days prior to initiation of ground disturbance and/or vegetation removal, a nesting bird pre-construction survey shall be conducted by a qualified biologist within the disturbance footprint plus a 100-foot buffer, where feasible. If the proposed project is phased or construction activities stop for more than two weeks, a subsequent pre-construction nesting bird survey shall be completed prior to each phase of construction.

Pre-construction nesting bird 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 survey results, if applicable, shall be submitted to the City of Laguna Beach for review and approval prior to ground and/or vegetation disturbance activities.

If nests are found, their locations shall be flagged to facilitate avoidance. An appropriate avoidance buffer of 150 feet for passerines and up to 300 feet for raptors, and depending on the proposed work activity, shall be 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 that 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 that the breeding/nesting is completed, and all the young have fledged. If project activities must occur within the buffer, they shall be conducted at the discretion of the qualified biologist. If no nesting birds are observed during pre-construction surveys, no further actions would be necessary.

Significance After Mitigation

With incorporation of Mitigation Measure BIO-1, project construction activities would result in less than significant impacts to nesting birds.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- 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 project site is developed, and no riparian habitat or wetlands are mapped on the project site (USFWS 2023). The Pacific Ocean, a jurisdictional navigable water of the United States, is located approximately 600 feet west of the project site. Sensitive habitat identified on the project site is limited to a 0.1-acre patch of California brittle bush scrub in the western portion of the project site, approximately 100 feet away from the proposed disturbance area. Project construction activities have the potential to result in significant impacts to sensitive California brittle brush scrub and the

Pacific Ocean due to disturbance, erosion, and polluted stormwater runoff.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

Mitigation Measures

BIO-2 Construction Site Housekeeping

Project construction activities shall implement the following best practices:

- Prior to ground disturbance, the Project Contractor shall install adequate erosion and sedimentation barriers (e.g., silt fencing) at the project site boundaries to prevent any sediment-laden runoff or debris from the coastal bluffs and Pacific Ocean located to the west of the project site.
- The project disturbance limits shall be clearly marked with construction fencing (or other highly visible material), and vehicle/equipment maintenance and fueling areas shall be located at least 100 feet away from the western project site boundaries.
- To prevent inadvertent entrapment of animals during the construction phase of the project, all excavated, steep-walled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape.
- For the duration of construction activities, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least daily from the construction site.
- Use of rodenticides and herbicides in project sites shall be restricted. This is necessary to prevent primary or secondary poisoning of predators and the depletion of prey populations on which they depend. All uses of such compounds shall observe label and other restrictions mandated by USEPA, California Department of Food and Agriculture, and other State and federal legislation.

Significance After Mitigation

Construction site housekeeping measures would effectively minimize temporary construction effects to sensitive habitat and jurisdictional waters by limiting construction equipment and personnel from entering areas where wildlife may be impacted, limiting the potential for erosion, fuel, or chemical spills that could adversely impact water quality and adjacent aquatic habitats, reducing the likelihood of attracting or introducing predators of special-status species, and by preventing the primary or secondary poisoning of wildlife in the project vicinity. With implementation of Mitigation Measure BIO-2, impacts would be less than significant.

- 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?*

According to the BRA, the project site is not located within or near any wildlife movement corridors or wildlife nursery sites. Project implementation would not have a substantial impact on wildlife movement or nurseries as the project site is located in a developed urban area and surrounded by

urbanized uses in each direction, including roads and residential/commercial uses and does not function as a wildlife corridor or linkage, or as a native wildlife nursery site. The nearest potential wildlife movement corridor occurs in the undeveloped natural areas associated with the Sheep Hills and Aliso Creek approximately 8 miles to the north and 1.1 miles north, respectively, which would not be affected by project implementation. Therefore, the project would have no impact to wildlife movement or the use of wildlife nursery sites.

NO IMPACT

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

Local policies and ordinances protecting biological resources in Laguna Beach include the Local Coastal Program, General Plan Land Use and Open Space/Conservation Elements, and LBMC requirements for tree protection and removal. While the project site is located in the Coastal Zone, it is not located in or adjacent to any area designated as High Value Habitat or environmentally sensitive habitat areas. Likewise, the Open Space/Conservation Element of the City's General Plan does not identify any high or very high value habitat on the project site or its vicinity. The proposed development would be sited in the eastern portion of the project site to avoid impacts to sensitive coastal bluff habitat areas, as described under *Impact 4b*. The proposed project would also comply with all Coastal Development Permit requirements. Therefore, the proposed project would not result in impacts to important habitat areas identified in the Local Coastal Program and General Plan Land Use and Open Space/Conservation Elements or conflict with these policies.

Chapter 12.06, Tree Removal Permit Process, of the LBMC regulates the removal of trees on public and private property in the City. In addition, Chapter 12.08, Preservation of Heritage Trees, provides for the protection of original native tree stands and historically and scenically important trees. As discussed above under *Existing Biological Resource Setting*, the trees on the project site are ornamental and non-native. Therefore, trees on the project site are not protected under Chapter 12.08, Preservation of Heritage Trees, of the LBMC. Any removal of trees on the project site would be completed in accordance with LBMC Chapter 12.06, Tree Removal Permit Process. Therefore, the proposed project would not conflict with local policies or ordinances protecting biological resources and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project site is located in the plan area of the Orange County Central/Coastal Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP) to which the City of Laguna Beach is a signatory. However, the project site is not within a Reserve Area identified in the NCCP/HCP nor does it contain any target habitats and would not support any target species of the Plan. As a result, the project would not conflict with the Orange County NCCP/HCP and no impact would occur.

NO IMPACT

5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Cultural Resources Regulatory Setting

CEQA requires a lead agency to determine whether a project may have a significant effect on historical resources (PRC Section 21084.1). CEQA Guidelines Section 15064.5 states the term “historical resources” shall include the following:

1. A resource listed in or determined to be eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources (CRHR) (PRC Section 5024.1, Title 14 California Code of Regulations [CCR], Section 4850 et. seq.).
2. A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in an historical resource survey meeting the requirements of PRC Section 5024.1(g), shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, may be considered to be an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing in the CRHR (PRC Section 5024.1, Title 14 CCR, Section 4852) as follows:
 - Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage
 - Is associated with the lives of persons important in our past
 - 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

- Has yielded, or may be likely to yield, information important in prehistory or history (CEQA Guidelines Section 15064.5)

Properties listed on the National Register of Historic Places (NRHP) are automatically listed on the CRHR, along with State Landmarks and Points of Interest. The CRHR can also include properties designated under local ordinances or identified through local historical resource surveys.

Pursuant to PRC Section 21084.1, a project that may cause a substantial adverse change in the significance of a historical resource may have a significant impact on the environment. A “substantial adverse change” in the significance of a historical resource is defined as “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.” CEQA Guidelines Section 15064.5(b) states the significance of an historical resource is “materially impaired” when a project does any of the following:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in the CRHR,
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources or its identification in an historical resources survey, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant, and/or
- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA.

In addition, if it can be demonstrated that a project would 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]).

PRC Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information,
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type, and/or
3. Is directly associated with a scientifically recognized, important prehistoric or historic event or person.

The significance of cultural resources and impacts to those resources is determined by whether or not they can increase our collective knowledge of the past. The primary determining factors are site content and degree of preservation.

A Historic Resource Assessment was completed for the project by Historic Resources Group (HRG) in October 2022 to evaluate project impacts to historical resources (HRG 2022). In addition, Rincon completed an Archaeological Resources Assessment for the project in December 2022 to evaluate the potential for project impacts to archaeological resources (Rincon 2022). The assessment

included a cultural resources records search of the California Historical Resources Information System (CHRIS) at the South Central Coastal Information Center (SCCIC), historical maps and aerial imagery review, Native American consultation including a Sacred Lands File (SLF) search conducted by the Native American Heritage Commission (NAHC), a site visit, and archival research. The following analysis is based on the results of the Historic Resource Assessment and Cultural Resources Assessment, which are provided in full in Appendix C.

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

The project site is currently developed with a single-family residence constructed in 1948. The residence is a single-story, irregular rectangular building with a Minimal Traditional architectural style. Because the residence is over 45 years of age, it meets the age threshold for historical resources consideration and was accordingly recorded and evaluated for historical resources eligibility. As a result of the analysis conducted in the Historic Resource Assessment prepared for the project, the property was found to lack sufficient historical or architectural significance to qualify for inclusion on the NRHP, CRHR, or Laguna Beach Historic Register (HRG 2022). Therefore, the property is not considered a historical resource for the purposes of CEQA, and the demolition of the building located thereon would not constitute a significant impact to a historical resource pursuant to Section 15064.5(b) of the CEQA Guidelines.

NO IMPACT

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

A site visit was completed in September 2022. Ground visibility was approximately 15 percent, with 85 percent of the site developed with the existing residence, landscaping, and hardscaping. No evidence of archaeological remains or Native American cultural resources was found within the project site. The CHRIS records search results identified no previously recorded archaeological resources within or adjacent to the project site. Pedestrian surveys of two parcels adjacent to the project site completed in 1976 prior to their development found no evidence of archaeological resources. However, two previously recorded prehistoric period archaeological sites have been recorded within a 0.5-mile radius of the project sites. On August 8, 2022, Rincon requested a SLF search from the NAHC to identify the potential for cultural resources in the project vicinity that may be impacted by project development. On September 13, 2022, the NAHC returned the SLF request with “positive” results, indicating that tribal cultural resources may be present within the project site and its vicinity.

The negative results of the pedestrian survey, paired with the negative results of a pedestrian survey previously conducted in the neighboring parcels prior to development, indicates a lower likelihood for archaeological resources to be present within the project site. Nonetheless, given the positive SLF results, there is the potential to encounter archaeological resources during project-related development and ground-disturbing activities. These activities may include but are not limited to grading, excavation, or any other activity that disturbs the surface of the project site. Therefore, impacts would be potentially significant.

Mitigation Measure

CR-1 *Unanticipated Discovery of Archaeological Resources*

If cultural resources are encountered during ground-disturbing activities, work in the immediate area (100 feet of the discovery) must halt and an archaeologist meeting the Secretary of the Interior's *Professional Qualification Standards* for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. Should the discovery be Native American in origin, Native American consultation will be conducted and a Tribal monitor culturally affiliated with the area will be contracted to assist with the discovery. If the discovery proves to be significant under the NHPA and/or CEQA and cannot be avoided, additional work such as data recovery excavation and additional Native American consultation ahead of any data recovery efforts may be warranted to mitigate any significant impacts/adverse effects.

Significance After Mitigation

With implementation of Mitigation Measure CR-1, archaeological resources discovered during project construction activities would be evaluated and appropriately treated, reducing the potential for project impacts to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

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. 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, the proposed project would have a less than significant impact to human remains.

LESS THAN SIGNIFICANT IMPACT

6 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Geology and Soils Setting

The project site is located in seismically active Southern California. The nearest known active faults are the Elsinore fault and an extension of the Newport-Inglewood Fault, located offshore approximately 3.1 miles southwest of the project site (Borella Geology, Inc. [Borella] 2019). According to the Safety Element of the City's General Plan, the city is characterized by four geomorphic subareas; the project site lies within the Coastal Fringe geomorphic subarea (Laguna Beach 2021a). The Coastal Fringe is characterized by relatively level land comprised of young sands and clays (Laguna Beach 2021a). Soils on the eastern portion of the project site are mapped as Modjeska gravelly loam, 9 to 15 percent slopes, with Cienaba sandy loam, 30 to 75 percent slopes, eroded in the western portion of the site (U.S. Department of Agriculture 2023). The analysis presented in this section is informed by the Preliminary Geotechnical Report and Graphic Determination for Ocean Bluff Face Top and Coastal Bluff Top Memorandum (Borella 2019 and 2020), which are provided in Appendix E of this IS-MND.

- 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?*

The purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to mitigate the hazard of surface faulting by preventing the construction of buildings used for human occupancy over an area with known faults. Unlike damage from ground shaking, which can occur at great distances from the fault, impacts from fault rupture are limited to the immediate area of the fault zone where the fault breaks along the ground's surface. The project site does not overlap a fault line or zone, the nearest Alquist-Priolo earthquake fault zone, the Elsinore and Newport-Inglewood Fault Zone, is approximately 3.1 miles southwest of the project site (Borella 2019). Furthermore, ground breakage has not been observed along the faults of the Newport-Inglewood Zone in historic times (Southern California Earthquake Data Center 2022). Therefore, the project site is not subject to fault rupture and there would be no impact.

NO IMPACT

- 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?*

As described above, the project is located 3.1 miles northwest of the Newport-Inglewood fault zone which has the potential to create substantial ground shaking if a seismic event occurred along that fault. Similarly, a strong seismic event on any other fault system in Southern California has the potential to create considerable levels of ground shaking throughout the city. To reduce the potential for geologic and seismic impacts, the City regulates development through the requirements of the California Building Code (CBC). The purpose of the CBC is to establish minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress, and general stability by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all building and structures within its jurisdiction. The CBC provides standards for various aspects of construction, including but not limited to excavation, grading, earthwork, construction, preparation of the site prior to fill placement, specification of fill materials, fill compaction and field testing, retaining wall design and construction, foundation design and construction, and seismic requirements. It includes provisions to address issues such as (but not limited to) construction on expansive soils and soil strength loss.

Because the project would comply with the CBC, impacts related to seismically induced ground shaking would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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?

Liquefaction is a process whereby soil is temporarily transformed to fluid form during intense and prolonged ground shaking or because of a sudden shock or strain. Liquefaction typically occurs in areas where the groundwater is less than 30 feet from the surface and where the soils are composed of poorly consolidated fine to medium sand. According to the Geotechnical, old compacted competent terrace sediment and bedrock lie beneath the site, which are not subject to liquefaction (Borella 2019). Therefore, the project would not directly or indirectly cause substantial adverse effects involving liquefaction, and no impact would occur.

NO IMPACT

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

According to the DOC Earthquake Zones of Required Investigation map, the project site is located in an area subject to landslides caused by earthquakes (DOC 2022a). In addition, the Geotechnical Report notes that a surficial landslide has been previously mapped on the project site (Borella 2019). However, the Geotechnical Report concludes that the proposed project is feasible with the recommended foundation design as required by the CBC. All construction for the project would be required to occur a minimum of 40 feet back from the top of the slope, away from the top of the surficial slump area, and provide a horizontal setback distance equal to or greater than the height of the slope divided by three. With compliance with the requirements of the CBC, the project would not result in the substantial risk of loss, injury, or death involving landslides. A less than significant impact would occur.

LESS THAN SIGNIFICANT IMPACT

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

The proposed project involves the demolition of the existing 1,318-sf single-family residence and the construction a 6,774-sf, three-story single-family residence. Soil erosion caused by strong wind and/or earth-moving operations during construction would be minimized through compliance with SCAQMD Rule 403, which prohibits visible particulate matter from crossing property lines. Standard practices to control fugitive dust emissions include watering of active grading sites, covering soil stockpiles with plastic sheeting, and covering soils in haul trucks with secured tarps.

The potential for project construction activities involving soil disturbance, such as excavation, stockpiling, and grading to result in increased erosion and sediment transport by stormwater to surface waters would be minimized through compliance with LBMC Section 22.17.010, Construction Project Erosion and Sediment Control Maintenance Requirements. The LBMC requires Best Management Practices (BMPs) such as straw bales, fiber rolls, and/or silt fencing structures to assure the minimization of erosion resulting from construction and to avoid runoff into sensitive habitat areas, limit ground disturbance to the minimum necessary, and stabilize disturbed soil areas after construction is completed. With implementation of appropriate BMPs, the proposed project

would not result in substantial soil erosion or the loss of topsoil and a less than significant impact would occur.

LESS THAN SIGNIFICANT IMPACT

- 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?*

As discussed above under Checklist Items a.3 and a.4, the project site is not subject to liquefaction but is mapped in an area subject to landslides as the project site is located on a bluff (DOC 2022a). The project involves the construction of a single-family residence, which would be subject and built to the latest CBC and City building design standards. The Geotechnical Report concludes the proposed project is feasible from a geotechnical standpoint and the slope stability analyses indicate the project site is stable (Borella 2019). All construction for the project would occur a minimum of 40 feet back from the top of the slope, away from the top of the surficial slump area and provide a horizontal setback equal to or greater than the height of the slope divided by three, in accordance with the requirements of the CBC (Borella 2019). Compliance with these requirements and foundation design requirements of the CBC would minimize the potential for impacts related to lateral spreading, subsidence, landslides, and collapse and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Expansive soils are clay-based soils that tend to expand as they absorb water and shrink as water is drawn away. Based upon a review of published maps for the area and field observations conducted by Borella, the project site is underlain by non-marine and marine terrace sediment overlying bedrock assigned to the San Onofre Breccia formation. These soils are generally defined as non-expansive and suitable for foundation support (Borella 2019). Therefore, the project would not result in a substantial direct or indirect risk to life or property related to expansive soils.

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?*

Development of the proposed project does not include septic tanks or alternative wastewater disposal systems. The project would connect to the City's existing wastewater conveyance and treatment system and would not include the installation of new septic tanks or alternative wastewater disposal systems.

NO IMPACT

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

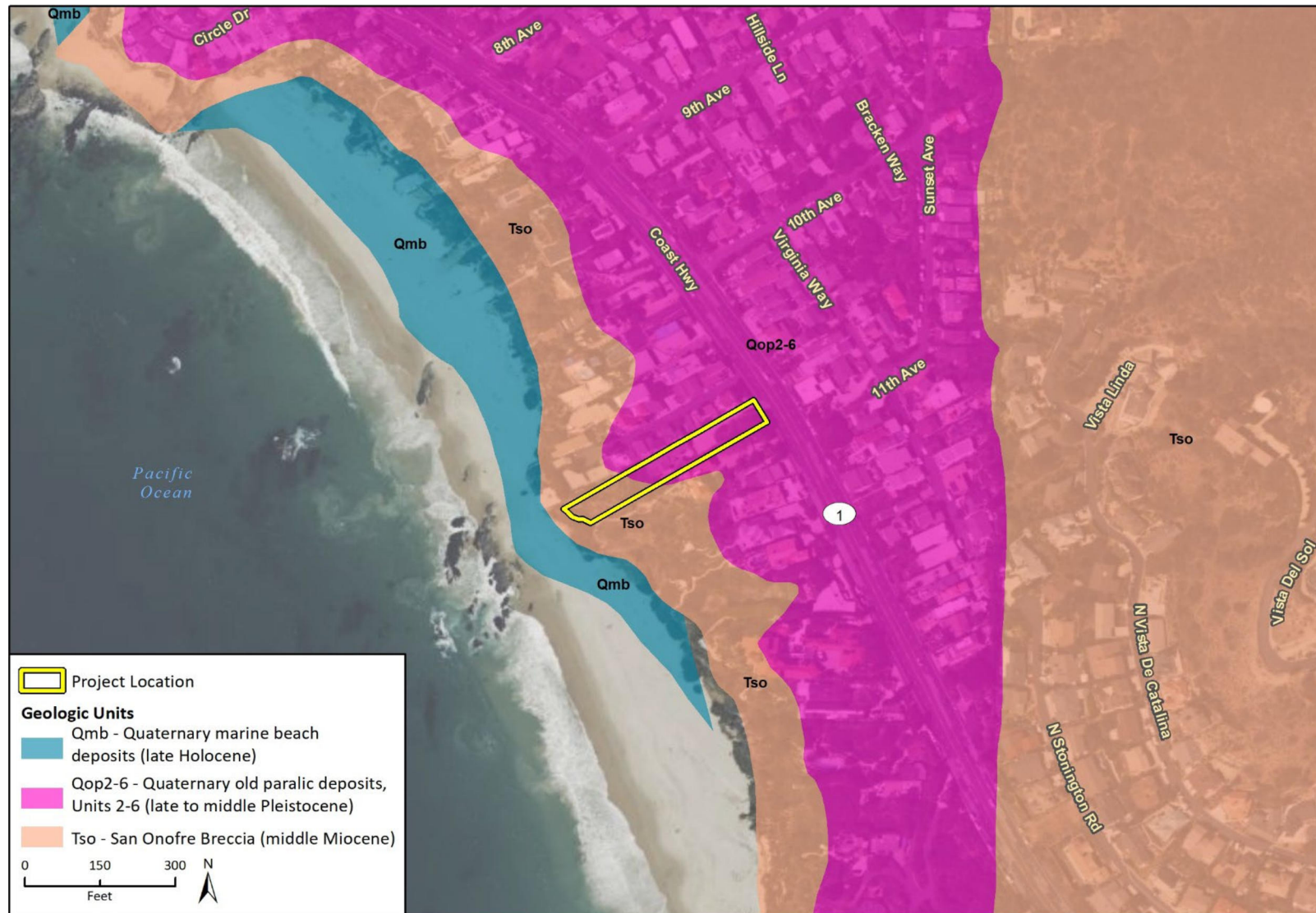
The paleontological sensitivities of the geologic units underlying the project site were evaluated to determine if activity conducted under the proposed project could result in significant impacts to paleontological resources. The analysis was based on the results of an online paleontological locality search and review of existing information in the scientific literature concerning known fossils within

geologic units mapped at the project site. Fossil collections records from the Paleobiology Database and University of California Museum of Paleontology (UCMP) online database were reviewed for known fossil localities in Orange County (Paleobiology Database 2022; UCMP 2022). In addition, a request for a list of known fossil localities from the project site and immediate vicinity (i.e., localities recorded on the United States Geological Survey *San Juan Capistrano*, 7.5-minute topographic quadrangle) was submitted to the Natural History Museum of Los Angeles County (NHMLAC) on August 12, 2022. Based on the NHMLAC records search and available information contained within existing scientific literature and the UCMP database, paleontological sensitivities were assigned to the geologic units underlying the project site. The potential for impacts to scientifically important paleontological resources is based on the potential for ground disturbance to directly impact paleontologically sensitive geologic units. The Society of Vertebrate Paleontology (SVP) has developed a system for assessing paleontological sensitivity and describes sedimentary rock units as having high, low, undetermined, or no potential for containing scientifically significant nonrenewable paleontological resources (SVP 2010). This system is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present.

The project site is situated within the Coastal Fringe subarea of the northern Peninsular Ranges geomorphic province, one of 11 major provinces in the state (California Geological Survey [CGS] 2002). These provinces are “naturally defined geologic regions that display a distinct landscape or landform” (CGS 2002). The Peninsular Ranges trend northwest-southeast and extend 900 miles from the Los Angeles Basin to the tip of Baja California in Mexico. The province varies from 30 to 100 miles wide and is bounded on the east by the Colorado Desert and on the west by the coastal plain and the Gulf of California (Norris and Webb 1990). The Coastal Fringe geomorphic subarea encompasses a broad coastal shelf traversed by Coast Highway, which consists of headlands, cliffs and associated sea arches, beaches, offshore islands, and rock prominences.

As shown in Figure 7, the project site is underlain by two mapped geologic units: Quaternary old paralic deposits and the San Onofre Breccia (Kennedy and Tan 2007). The Preliminary Geotechnical Report identifies two types of sediment at the surface in the project site (Borella 2019), non-marine terrace deposits and marine terrace deposits. ‘Paralic’ refers to near-shore environments where marine and continental influences vary over time, producing interfingering marine and non-marine deposits (Goudie 2004). Therefore, it is likely that the Preliminary Geotechnical Report merely split up two sediment types, due to its more local focus, that Kennedy and Tan (2007) grouped together as ‘Quaternary old paralic deposits.’ The Preliminary Geotechnical Report also concluded the San Onofre Breccia underlies the project site as evidenced by the exposure of this geologic unit in the cliffs beneath the project site. This analysis follows the naming convention of the Preliminary Geotechnical Report because it represents a more precise interpretation of the geology of the project site (Borella 2019).

Figure 7 Project Site Geologic Units



Imagery provided by Microsoft Bing and its licensors © 2022. Additional data provided by Kennedy and Tan, "Geologic Map of the Oceanside 30' x 60' Quadrangle, California," 2007.

Fig 3 Geologic Map of Project Site

Non-marine terrace deposits (equivalent in part to Quaternary old paralic deposits in Figure 7) are found at the surface throughout the entire project site (Borella 2019). Non-marine terrace deposits consist of brown to reddish brown silty sand with some larger clasts (derived from the San Onofre Breccia) and clay (Borella 2019). Marine terrace deposits (equivalent in part to Quaternary old paralic deposits in Figure 7) were observed underlying marine terrace deposits in the cliff face at the western end of the project site (Borella 2019). Marine terrace deposits consist of medium- to coarse-grained sand comprised primarily of quartz and feldspar that are between 5 and 15 feet thick in the project site (Borella 2019). The non-marine and marine terrace deposits on the project site are Pleistocene in age and have high paleontological sensitivity. The San Onofre Breccia underlies the non-marine and marine terrace deposits in the project site, as evidenced by its presence in the bluffs in the western side of the project site (Borella 2019). The San Onofre Breccia consists of interbedded breccia, conglomerate, and sandstone (Kennedy and Tan 2007). Within the project site, the San Onofre Breccia consists of well-bedded to non-bedded breccia and coarse sandstone (Borella 2019). The San Onofre Breccia is middle Miocene in age and has low paleontological sensitivity.

A search of the paleontological locality records at the NHMLAC resulted in no previously recorded fossil localities in the project site. However, fossils have been discovered near to the project site within similar sediments that underlie the project site (i.e., Pleistocene-aged non-marine and marine terrace deposits). A locality bearing marine invertebrates is known from an unknown depth in Pleistocene terrace deposits in the community of Monarch Beach approximately 1.7 miles southeast of the project site. Elephant (i.e., mammoth or mastodon), marine fish, and invertebrate, fossils were also collected from Pleistocene terrace deposits at the surface from Salt Corridor Regional Park between 1.3 and 3.3 miles east of the project site (Bell 2022). Non-marine terrace deposits and marine terrace deposits within the project site are considered to have high paleontological sensitivity given the history fossil discoveries from these types of sediments in Orange County, including within 5 miles of the project site (Bell 2022; Jefferson 2010; Paleobiology Database 2022; Powell et al. 2004; UCMP 2022; Wright 1972).

The project site is in an urban area and has been previously developed. However, excavations associated with the proposed project would reach depths of up to 20 feet below ground surface and would likely extend below previously disturbed sediments. Given the high paleontological sensitivity of marine and non-marine terrace deposits on the project site, construction activities may result in the destruction, damage, or loss of undiscovered paleontological resources. Therefore, impacts would be potentially significant.

Mitigation Measure

GEO-1 Paleontological Resources Monitoring and Mitigation Program

Qualified Professional Paleontologist. Prior to excavation, the project applicant shall retain a Qualified Professional Paleontologist, as defined by the SVP (2010). The Qualified Professional Paleontologist shall direct all mitigation measures related to paleontological resources.

Paleontological Worker Environmental Awareness Program. Prior to the start of construction, the Qualified Professional Paleontologist or their designee shall conduct a paleontological Worker Environmental Awareness Program (WEAP) training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff.

Paleontological Monitoring. Full-time paleontological monitoring shall be conducted during all ground disturbing construction activities. Paleontological monitoring shall be conducted by a paleontological monitor with experience with collection and salvage of paleontological resources and who meets the minimum standards of the SVP (2010) for a Paleontological Resources Monitor. The duration and timing of the monitoring will be determined by the Qualified Professional Paleontologist based on the observation of the geologic setting from initial ground disturbance, and subject to the review and approval by the City of Laguna Beach. If the Qualified Professional Paleontologist determines that full-time monitoring is no longer warranted, based on the specific geologic conditions once the full depth of excavations has been reached, they may recommend that monitoring be reduced to periodic spot-checking or ceased entirely. Monitoring shall be reinstated if any new ground disturbances are required, and reduction or suspension shall be reconsidered by the Qualified Professional Paleontologist at that time. In the event of a fossil discovery by the paleontological monitor or construction personnel, all work in the immediate vicinity of the find shall cease. A Qualified Professional Paleontologist shall evaluate the find before restarting construction activity in the area. If it is determined that the fossil(s) is (are) scientifically significant, the Qualified Professional Paleontologist shall complete the following conditions to mitigate impacts to significant fossil resources:

- **Fossil Salvage.** If fossils are discovered, the paleontological monitor shall have the authority to halt or temporarily divert construction equipment within 50 feet of the find until the paleontological monitor and/or Qualified Professional Paleontologist evaluate the discovery and determine if the fossil may be considered significant. Typically, fossils can be safely salvaged quickly by a single paleontological monitor and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. Bulk matrix sampling may be necessary to recover small invertebrates or microvertebrates from within paleontologically sensitive deposits
- **Fossil Preparation and Curation.** Once salvaged, significant fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the Qualified Professional Paleontologist.

Final Paleontological Mitigation Report. Upon completion of ground disturbing activity (and curation of fossils if necessary) the Qualified Professional Paleontologist shall prepare a final report describing the results of the paleontological monitoring efforts associated with the project. The report shall include a summary of the field and laboratory methods, an overview of the project geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. The report shall be submitted to the City of Laguna Beach. If the monitoring efforts produced fossils, then a copy of the report shall also be submitted to the designated museum repository.

Significance after Mitigation

Implementation of Mitigation Measure GEO-1 during project construction would reduce potential impacts related to paleontological resources to a less than significant level by providing for the recovery, identification, and curation of previously unrecovered fossils. Impacts would be less than significant with mitigation.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

7 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Climate Change and 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 of time. Climate change is the result of numerous, cumulative sources of Greenhouse Gases (GHG) emissions contributing to the "greenhouse effect," a natural occurrence which takes place in Earth's atmosphere and helps regulate the temperature of the planet. The majority of radiation from the sun hits Earth's surface and warms it. The surface, in turn, radiates heat back towards the atmosphere in the form of infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions.

GHG emissions occur both naturally and from human activities, such as fossil fuel burning, decomposition of landfill wastes, raising livestock, deforestation, and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO₂), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. 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 (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO₂e), which is the amount of a specific 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 CO₂ on a molecule per molecule basis (Intergovernmental Panel on Climate Change 2021).²

The United Nations IPCC expressed that the rise and continued growth of atmospheric CO₂ concentrations is unequivocally due to human activities in the IPCC's Sixth Assessment Report

² 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, as the analysis is based on consistency with the 2017 Climate Change Scoping Plan, this analysis utilizes a GWP of 25 for methane.

(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 gigatons of anthropogenic CO₂ 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). Emissions resulting from human activities are thereby contributing to an average increase in Earth's temperature. Potential climate change impacts in California may include loss of snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (California Natural Resource Agency 2019).

Significance Thresholds

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

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

The vast 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 significant cumulative effects, even if individual changes resulting from a project are limited. As a result, 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 CO₂e 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 CO₂e 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 Laguna Beach Climate Protection Action Plan (CPAP) aimed to reduce manmade GHG emissions seven percent below 1990 levels by 2012. The CPAP has not adopted GHG emission targets post-2020, therefore, the CPAP is not an applicable GHG reduction plan. Therefore, for a project-specific threshold, the City of Laguna Beach has selected SCAQMD's 3,000 MT CO₂e per year threshold for nonindustrial projects as the applicable project-specific threshold, in accordance with Tier 3. The SCAQMD's 3,000 MT CO₂e per year threshold is frequently used by jurisdictions across Southern California to determine GHG emissions impacts from nonindustrial projects.

Methodology

Calculations of CO₂, CH₄, and N₂O emissions are provided to identify the magnitude of potential project effects. The analysis focuses on CO₂, CH₄, and N₂O because these make up 98 percent of all GHG emissions by volume and are the GHG emissions the project would emit in the largest quantities (IPCC 2014). Emissions of all GHGs are converted into their equivalent GWP in terms of CO₂ (i.e., CO₂e). Minimal amounts of other GHGs (such as chlorofluorocarbons [CFCs]) would be emitted; however, these other GHG emissions would not substantially add to the total GHG emissions. GHG emissions associated with project construction and operation were estimated using CalEEMod, version 2020.4.0, with the assumptions described under Section 3, *Air Quality*, in addition to the following:

- The project's CalEEMod model uses CalEEMod default assumptions for energy, solid waste, area, and mobile sources for the single-family residential unit.
 - In accordance with Section 150.1(b)14 of the 2019 Building Energy Efficiency Standards, all new residential uses under three stories must install photovoltaic (PV) solar panels that generate an amount of electricity equal to expected electricity usage. Therefore, it was assumed that 100 percent of electricity usage for the proposed low-rise residential uses would be supplied by PV solar panels (see Appendix A).
 - The proposed residence would be designed to exceed the Title 24 standards by 15 percent.
 - The pool, spa, and water features would use 17,988 gallons of water per year.
 - In accordance with SCAQMD's recommendation, GHG emissions from construction of the proposed project were amortized over a 30-year period and added to annual operational emissions to determine the project's total annual GHG emissions (SCAQMD 2008b).
- a. *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*

Construction and operation of the project would generate GHG emissions. This analysis considers the combined impact of GHG emissions from both construction and operation.

Construction Emissions

Construction facilitated by the project would generate temporary GHG emissions primarily from the operation of construction equipment on-site, as well as from vehicles transporting construction workers to and from the project site and heavy trucks to transport building, concrete, and asphalt materials. As shown in Table 10, construction associated with the project would generate 471 MT of CO₂e. Amortized over a 30-year period pursuant to SCAQMD guidance, construction associated with the project would generate 16 MT of CO₂e per year (SCAQMD 2008b).

Table 10 Construction GHG Emissions

Year	Emissions (MT of CO ₂ e)
2023	296
2024	164
2025	13
Total	473
Amortized over 30 years	16

MT = metric tons; CO₂e = carbon dioxide equivalents

Source: Table 2.1 "Overall Construction-Mitigated" emissions. Annual emissions results are shown for all emissions. The mitigated emissions account for project sustainability features and/or compliance with specific regulatory standards. No mitigation measures are required for this project. See CalEEMod worksheets in Appendix A.

Operational and Total Project Emissions

Operation of the project would generate GHG emissions associated with area sources (e.g., landscape maintenance), energy and water usage, vehicle trips, and wastewater and solid waste generation. Annual operational emissions resulting from the project, combined with the amortized construction emissions, are summarized in Table 11.

Table 11 Combined Annual Emissions

Emission Source	Annual Emissions (MT CO ₂ e)
Construction¹	16
Operational	
Area	<1
Energy	1
Mobile	10
Solid Waste	2
Water, Wastewater	<1
Total	31
SCAQMD Numeric Threshold	3,000
Threshold Exceeded?	No

MT CO₂e = metric tons of carbon dioxide equivalent

¹ Amortized construction related GHG emissions over 30 years

Source: Table 2.2 "Overall Operation-Mitigated" emissions. Annual emissions results are shown for all emissions. The mitigated emissions account for project sustainability features and/or compliance with specific regulatory standards. No mitigation measures are required for this project. See CalEEMod worksheets in Appendix A.

As shown in Table 11, the proposed project would result in GHG emissions of approximately 31 MT of CO₂e per year, which would not exceed the SCAQMD threshold of 3,000 MT of CO₂e per year. This is a conservative estimate, as it does not account for the operational area, energy, water, and solid waste emissions from the existing residence on the project site, which would cease upon completion of the proposed project. Therefore, the proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Several plans and policies have been adopted to reduce GHG emissions in the Southern California region, including the state's 2017 Scoping Plan, SCAG's 2020-2045 RTP/SCS, and local policies contained in the City's General Plan and CPAP. The proposed project's consistency with these plans is discussed in the following subsections. As discussed herein, the project would not conflict with plans and policies aimed at reducing GHG emissions.

2017 Scoping Plan

The principal State plan and policy are AB 32, the California Global Warming Solutions Act of 2006, and the follow-up, SB 32. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020, and the goal of SB 32 is to reduce GHG emissions to 40 percent below 1990 levels by 2030. As mentioned above, the project would be below SCAQMD's interim threshold that considers the long term GHG emissions pursuant executive order S-3-05 that would capture 90 percent of new development emissions. Pursuant to the SB 32 goal, the 2017 Scoping Plan was created to outline goals and measures for the state to achieve the reductions. The 2017 Scoping Plan's goals include reducing fossil fuel use and energy demand and maximizing recycling and diversion from landfills. The project would be consistent with these goals through project design such as, complying with the latest Title 24 Green Building Code and Building Efficiency Energy Standards. The project would exceed the Title 24 requirements by fifteen percent. In addition, the project would install PV solar panels, energy efficient appliances and lighting, reclaimed water for outdoor use, rain barrels for water retention, and water efficient appliances, fixtures, and irrigation. The project would be served by Southern California Edison, which is required to increase its renewable energy procurement per SB 100 targets. Therefore, the project would be consistent with the 2017 Scoping Plan.

SCAG 2020-2045 RTP/SCS

The SCAG's 2020-2045 RTP/SCS is forecast to help California reach its GHG reduction goals by reducing GHG emissions from passenger cars by 8 percent below 2005 levels by 2020 and 19 percent by 2035 in accordance with the most recent CARB targets adopted in March 2018. The 2020-2045 RTP/SCS includes ten goals with corresponding implementation strategies for focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The project's consistency with the applicable strategies and goals of the 2020-2045 RTP/SCS is discussed in Table 12. As shown therein, the proposed project would be consistent with the GHG emission reduction strategies contained in the 2020-2045 RTP/SCS.

Table 12 Project Consistency with Applicable SCAG 2020-2045 RTP/SCS Strategies

Reduction Strategy	Project Consistency
<p>Leverage Technology Innovations.</p> <ul style="list-style-type: none"> Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space Identify ways to incorporate “micro-power grids” in communities, for example solar energy, hydrogen fuel cell power storage and power generation 	<p>Consistent. The project would include rooftop solar panels to incorporate micro-power grids in the community and the project garage would support EV charging.</p>
<p>Support Implementation of Sustainability Policies.</p> <ul style="list-style-type: none"> Pursue funding opportunities to support local sustainable development implementation projects that reduce GHG emissions Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies Continue to support long range planning efforts by local jurisdictions 	<p>Consistent. As discussed below and in Table 13, the project would be consistent with the sustainability policies contained in the City’s General Plan and CPAP. The project would also comply with the latest Title 24 and CALGreen requirements. Therefore, the project would support implementation of applicable sustainability policies.</p>
<p>Promote a Green Region.</p> <ul style="list-style-type: none"> Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration Promote more resource efficient development focused on conservation, recycling and reclamation Preserve, enhance and restore regional wildlife connectivity Reduce consumption of resource areas, including agricultural land Identify ways to improve access to public park space 	<p>Consistent. The project is an infill development that would involve construction of a residence on an existing residential site and would therefore not interfere with regional wildlife connectivity or convert agricultural land (see Section 2, <i>Agriculture and Forestry Resources</i>, and Section 4, <i>Biological Resources</i>). The project would comply with applicable conservation policies such as the City’s General Plan, CPAP, Title 24, and CALGreen and would include solar panels for renewable energy generation.</p>

Source: SCAG 2020

Laguna Beach Climate Protection Action Plan

The City of Laguna Beach adopted the CPAP in 2009 (Laguna Beach 2009). The goal of the plan was to reduce GHG emissions seven percent below 1990 levels by 2012. The CPAP is geared toward City government action, such as City outreach to local businesses and residents to encourage sustainable practices, the adoption of local guidelines and policies to reduce energy and water use, and the adoption of practices to reduce GHG emissions in government operations. Therefore, the CPAP is limited in its application to the proposed project.

The project would be consistent with the goals of the CPAP, such as Sustainable Construction and Water Use Efficiency and Sustainable Sourcing. The project would include green building features such as energy-efficient appliances and lighting, reclaimed water for outdoor use, water-efficient appliances, rain barrels for water retention, irrigation, and fixtures. In addition, the project would be required to implement a PV solar system equal to the amount of electricity usage from the single-family residential unit. The project’s green building features and compliance with CALGreen would also align with the CPAP.

Consistency with Laguna Beach General Plan

Relevant GHG policies and action items discussed in the Laguna Beach General Plan Land Use and Open Space Conservation Element are addressed in Table 13. A majority of the action items are activities to be undertaken by the local government; therefore, there are limited GHG reduction action items that apply to the project. As shown in the table, the project would be consistent with the applicable strategies and policies in the Laguna Beach General Plan.

Table 13 Laguna Beach General Plan Consistency Analysis

General Plan GHG Policies and Action Items	Project Consistency
Land Use Element	
<p>Goal 1: Create a community that is sustainable, resilient, and regenerative.</p> <ul style="list-style-type: none"> Policy 1.1: Reduce greenhouse gas (GHG) emissions 80% below 1990 levels by 2050. Consistent. The project would include sustainability features such as EnergyStar appliances, LED fixtures, energy efficiency HVAC system, solar panels, and low-flow fixtures that would reduce resource consumption and GHG emissions. Policy 1.2: Support design strategies and construction standards that maximize use of alternative energy sources and passive solar architecture in buildings. Policy 1.3: Support planning and design solutions that reduce water consumption and implement water conservation practices. 	<p>Consistent. The proposed single family residential unit would install a PV system equal to the electricity usage of the proposed residential building, consistent with Title 24 requirements. In addition, the project would incorporate energy and water efficient appliances, fixtures, and irrigation systems. The project would also reclaim water for outdoor uses. The proposed project would replace an aging residential building with a residence that incorporates energy and water efficiency features, and associated GHG emissions reduction benefits, and therefore would be consistent with Goal 1 and Policies 1.1, 1.2, and 1.3.</p>
Open Space Conservation Element	
<p>Policy 4F: Water Conservation. Ensure that development encourage water conservation, efficient irrigation practices and the use of native or drought tolerant non-invasive plants appropriate to the local habitat to minimize the need for fertilizer, pesticides, herbicides and excessive irrigation. Prohibit the use of invasive plants, and require native plants appropriate to the local habitat where the property is in or adjacent to Environmentally Sensitive Areas.</p>	<p>Consistent. The project would incorporate water efficient appliances, fixtures, and irrigation systems consistent with green building features. In addition, the project would reclaim water for outdoor uses.</p>

Source: Laguna Beach 2005a and 2012

As discussed above, construction and operation of the proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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8 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Hazards and Hazardous Materials Setting

Federal, state, and local government laws define hazardous materials as substances that are toxic, flammable/ignitable, reactive, or corrosive. Extremely hazardous materials are substances that show high acute or chronic toxicity, carcinogenicity, bioaccumulative properties, persistence in the environment, or that are water reactive.

The area evaluated for hazards and hazardous materials impacts includes the project site and nearby properties with the potential to affect or be affected by the project. The project site is located approximately 3.5 miles from the nearest schools and 18.5 miles from the John Wayne Airport.

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

Project construction would involve the temporary use of potentially hazardous materials such as vehicle fuels and fluids that could be released should an accidental leak or spill occur. However, standard construction Best Management Practices (BMPs) for the use and handling of such materials would avoid or reduce the potential for such conditions to occur. Any use of potentially hazardous materials during construction of the project would comply with all local, state, and federal regulations regarding the handling of potentially hazardous materials, including Title 49 of the Code of Federal Regulations and Title 22, Division 4.5 of the California Code of Regulations. Risk of spills would cease after construction is completed. Therefore, project construction would not create a significant hazard to the public or the environment through the transport, use, or disposal of hazardous materials.

Operation of the proposed project would involve the use of common household hazardous materials such as cleaning and degreasing solvents, fertilizers, and pesticides. In addition, chemicals, such as chlorine, for the maintenance of the pool, jacuzzi, water feature, and reflecting pond would also potentially be stored on site in minor quantities. These and other materials used in the regular maintenance of the building and landscaping would also be utilized in the secondary activities associated with the single-family development. Use of these materials would be subject to compliance with existing regulations, standards, and guidelines established by the federal, State, and local agencies related to storage, use, and disposal of hazardous materials. The transport, use, and storage of hazardous materials during construction of the project would be subject to all applicable State and federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and the California Code of Regulations, Title 22. Other than small quantities of common household hazardous materials used in the maintenance of the residence, operation of the proposed project would not involve the use or storage of substantial quantities of hazardous materials, nor would the project generate large quantities of hazardous waste. Therefore, operation of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- 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?*

As described above, construction of the project would involve the use of potentially hazardous materials such as vehicle fuels and fluids that could be released should an accidental leak or spill occur. However, as further discussed in Section 10, *Hydrology and Water Quality*, the proposed project would include standard construction BMPs for the use and handling of such materials to avoid or reduce the potential for such conditions to occur, as required by the LBMC. Typical construction BMPs include secondary containment and special storage for hazardous materials used onsite, the use of drip pans under vehicles and equipment, and provisioning of spill kits and cleanup plans in the event of an accidental spill. The transport, use, and storage of hazardous materials during the construction of the project would be conducted in accordance with all applicable state and federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, California Hazardous Material Management Act, and CCR Title 22. The project site contains an approximately 1,300-sf building constructed in 1948 that would be demolished.

Based on the age of the structure, there is the possibility for asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) to occur within the building. With respect to ACMs, SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities) requires the owner or operator of any demolition or renovation activity to complete a survey for the presence of asbestos prior to any demolition or renovation activity. The survey must include the inspection, identification, and quantification of all friable, and Class I and Class II non-friable ACMs. In instances where friable ACMs are identified and could be disturbed by demolition or renovation activities, Rule 1403 also includes specific notification, removal, and disposal procedures for the ACMs. The individual conducting all work must be certified by the California Occupational Safety and Health Administration. Compliance with Rule 1403 requirements would reduce the potential for construction impacts related to ACMs to a less than significant level.

Similarly, there are numerous regulations related to the handling of LBP in federal and state regulations (e.g., Title 40 of the CFR, Title 22 of the CCR, Toxic Substances Control Act, and Hazardous Materials Transportation Act). The project would be required to comply with all existing regulations, including the pre-construction inspection of any potential LBP or PCB-containing materials and proper handling and disposal of any deteriorated LBP or PCB-containing materials. Therefore, with compliance with existing regulations potential impacts related to the release of LBP or PCBs from demolition as part of project construction would be less than significant.

Operation of the single-family residential dwelling would not involve the use or storage of large quantities of hazardous materials. As is typical of residential uses, minor quantities of household hazardous materials such as cleaning fluids, pool chemicals, and pesticides could be stored on the site, but these materials would not pose a significant risk to the public or environment. Therefore, project operation is not anticipated to create a significant hazard to the public or environment through the accidental release of hazardous materials.

LESS THAN SIGNIFICANT IMPACT

- 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 project site is not located within a quarter mile of any schools. The closest school is the Dana Montessori School located approximately 3.5 miles southeast of the project site. Therefore, the proposed project would not emit hazardous emissions or handle hazardous materials within 0.25-mile of schools and there would be no impact.

NO IMPACT

- 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?*

Government Code Section 65962.5 requires the State to develop and maintain a Cortese List of sites subject to corrective action. The California Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List. The analysis for this section included a review of the following resources to provide hazardous material release information:

- State Water Resources Control Board (SWRCB) GeoTracker database (SWRCB 2022a)
- DTSC EnviroStor database (DTSC 2022)
- USEPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)/Superfund Enterprise Management System (SEMS)/Envirofacts database search (USEPA 2022g)
- DTSC Hazardous Waste and Substances Site List (Cortese List; DTSC 2022)

The project site is not listed in or located near any listed sites in the DTSC Cortese List (DTSC 2022). In addition, searches of the EnviroStor and GeoTracker databases did not identify any cleanup sites within 0.25 mile of project site (DTSC 2022; SWRCB 2022a). The project site is in a residential neighborhood with no known history of contamination or hazardous materials use. Therefore, the project is not located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and would not create a significant hazard to the public or the environment. No impact would occur.

NO IMPACT

- 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?*

The airport or airstrip nearest to the project site is the John Wayne Airport, located approximately 18.5 miles northwest of the project site. The project is not within the airport land use plan for the John Wayne Airport (Orange County Airport Land Use Commission [ALUC] 2008). Therefore, the project would not introduce associated hazards or excessive noise to future employees on the project site due to airport noise. No impact would occur.

NO IMPACT

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

The proposed project would replace the existing residential structure on the project site with a new residence and would not involve the development of structures or new land uses that could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Additionally, as discussed further in Section 17, *Transportation*, operation of the project would not result in a significant increase in daily trips to the site and the project site is served by existing roadways with sufficient capacity to provide access to and from the project site, including during emergencies. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

As further discussed in Section 20, *Wildfire*, the project site and surrounding areas are classified as being in a very high fire hazard severity zone (California Department of Forestry and Fire Protection [CALFIRE] 2022). Therefore, there is risk of damage at the project site due to wildfires. The project site is not within a Fuel Maintenance Zone, and risks would be minimized through conformance with LBMC Chapter 15.01, *California Fire Code*, and Ordinance 1664 which establish provisions for fire safety related to construction, maintenance, and design of buildings and the establishment of defensible space surrounding the structures (City of Laguna Beach 2023a). Additionally, the project would replace an existing residential structure with a new residence built to current fire code standards. Therefore, though there is risk of wildfire at the project site, the project would not directly or indirectly increase the potential for wildland fires to occur. With conformance with the applicable building and fire codes, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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9 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 onsite or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Hydrology and Water Quality Setting

The nearest receiving water body is the Pacific Ocean located immediately west of the project site. Water supply in the area is provided by South Coast Water District (SCWD), which sources the majority of its potable water from imported water purchased from Municipal Water District of Orange County (MWDOC) and recycled water, with only a small portion coming from the San Juan Groundwater Basin (SCWD 2021 and 2022a).

- a. *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Implementation of the project would require disturbing the site, including excavation, grading, and other construction activities. As stormwater flows over a construction site, it can pick up sediment, debris, and chemicals, and transport them to receiving water bodies. The nearest receiving water body is the Pacific Ocean located immediately west of the project site. Potential pollutants associated with project construction include sediments, cement and concrete products, wastes from paints, stains, sealants, glues, and other solvents, asbestos fibers, fuels, oils, lubricants, degreasers, and trash.

Due to the small size disturbance (less than one acre), the project would not be subject to the requirements of the *Construction General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2009-0009-DWQ, NPDES No. CAS000002, as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ (Construction General Permit). However, the project would be required to comply with the LBMC Title 16, Water Quality Control, and LBMC Title 22, Excavating, Grading, and Filling.

Specifically, Chapter 16.01 of the LBMC requires implementation of best management practices (BMPs) during construction in order to prevent or reduce pollutants from entering the storm water drainage system. Additionally, LBMC Title 22 requires issuance of a grading permit prior to construction activities. During construction of the project, Chapter 22.17 of the LBMC would require the project permittee to implement and maintain grading, erosion, and sediment control measures to adequately control runoff. In addition, the permittee would be required to monitor and evaluate the performance of such grading, erosion, and sediment control measures after each rainstorm event, and must revise and repair sediment control systems as needed. Upon completion of construction and pursuant to Chapter 22.20 of the LBMC, the project owner would be fully responsible for the ongoing maintenance of all cut and fill slopes or other areas of work within the limits of the approved grading and landscape plans on the project site. Pursuant to Chapter 16.01 of the LBMC, the community development department would review the project plans and impose any BMPs, terms, conditions, and requirements of the project prior to approval of the site plans and issuance of a grading permit. Similarly, pursuant to Chapter 22.10, the project's final erosion and sediment control plan must be approved by the City prior to the issuance of a grading permit.

The proposed project would implement the following BMPs during project construction:

- Sediment from areas disturbed by construction shall be retained on site using structural drainage controls.
- Stockpiles of soil shall be properly contained to minimize sediment transport from the site to streets, drainage facilities or adjacent properties via runoff, vehicle tracking, or wind.
- Construction-related materials, wastes, spills, or residues shall be retained on site to minimize transport from the site to streets, drainage facilities, or adjoining property by wind or runoff.

- Runoff from equipment and vehicle washing shall be contained at construction site unless treated to remove sediment and other pollutants.
- All construction contractor and subcontractor personnel are to be made aware of the required BMPs and good housekeeping measures for the project site and any associated construction staging areas.
- At the end of each day of construction activity, all construction debris and waste materials shall be collected and properly disposed of in trash or recycle bins.
- The construction site shall be maintained in such a condition that an anticipated storm does not carry wastes or pollutants offsite. Discharges of material other than stormwater are allowed only when necessary for performance and completion of construction practices and where they do not cause or contribute to violation of any water quality standards; cause or threaten to cause pollution, contamination, or nuisance; or contain a hazardous substance in a quantity reportable under federal regulations 40 CFR parts 117 and 302.
- During construction, disposal of materials and potential pollutants should occur in a specified and controlled temporary area on-site physically separated from potential storm-water runoff, with ultimate disposal in accordance with local, state, and federal requirements.
- Dewatering of contaminated groundwater or discharging contaminated soils via surface erosion is prohibited. True dewatering of non-contaminated groundwater requires a NPDES permit from the respective state regional water quality control board.

Compliance with the requirements of the LBMC, including review and approval of project plans and implementation of construction BMPs, would minimize the potential for impacts to local storm water drainage facilities during project construction.

Upon completion of construction activities, the drainage from the project site would generally follow existing patterns. The drainage would be collected and conveyed to bioretention planter boxes with underdrain units for treatment prior to discharge. The planter boxes would remove sediment and pollutants through volume reduction before the runoff is discharged. Drain inlets would be provided on site landscape areas to collect excess runoff and would allow runoff from large storm events to bypass directly to the discharge point. The project site would be stabilized and treated runoff from the project area would discharge to the existing 18" storm drain line. Therefore, the project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Water supply in the area is provided by South Coast Water District (SCWD), which sources most of its water from imported water purchased from Municipal Water District of Orange County (MWDOC) and recycled water, with only a small portion coming from the San Juan Groundwater Basin (SCWD 2021 and 2022a). According to the 2020 Urban Water Management Plan (UWMP), SCWD expects to be able to provide reliable water supplies for an average year, single dry year, and multiple dry years through 2045 (SCWD 2021). As discussed further in Section 19, *Utilities and Service Systems*, SCWD would have sufficient water supply to provide for the proposed project's water use. Furthermore, only a small portion of the potable water consumed by the project would

be sourced from the groundwater basin, as SCWD primarily relies on imported and recycled water for its supplies (SCWD 2021). Therefore, the project would not substantially deplete local groundwater supplies and impacts to groundwater would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- 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 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 onsite 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 closest watershed to the project site is Aliso Creek, located approximately 6,630 feet north of the project site. Construction and operation of the project would not result in the alteration of the course of Aliso Creek or any other bodies of water. However, the project may alter the existing drainage patterns on the project site by introducing new grades and structures that could alter flow direction and concentration from the present configuration. The project would comply with LBMC Title 22, Excavating, Grading and Filling, and would implement standard construction BMPs to avoid or minimize temporary adverse effects such as erosion and siltation and provide design standards for site drainage including the preservation of natural hydrological features. Furthermore, compliance with the LBMC would require the project to implement erosion controls, monitor and evaluate erosion control performance after a rainstorm event, and revise or repair sediment control systems as needed.

In addition, the project would comply with LBMC Chapter 16.01, Water Quality Control, which requires project plan and BMP review prior to the issuance of construction permits to ensure that the project, once constructed, would not adversely impact water quality. Though the project would alter existing land uses on the project site, it would not substantially increase impervious surfaces on the site and would include a site-specific drainage plan to guide surface water runoff to the existing municipal drainage system and minimize impacts. Prior to the issuance of grading and construction permits, the City would review and approve the project's final erosion and sediment control plan and project plans for compliance with the erosion and hydrological requirements of the LBMC, and would impose any additional BMPs, terms, conditions, and requirements as needed to ensure impacts related to drainage, erosion, and runoff would be minimized. Compliance with these requirements would reduce potential impacts associated with hydrological impacts to less than significant levels.

LESS THAN SIGNIFICANT IMPACT

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

According to the Federal Emergency Management Agency (FEMA), the project site is classified as an Area of Minimal Flood Hazard (FEMA 2019). The dams nearest to the project site are the Sulphur Creek dam located approximately 4.1 miles to the northeast and the Palisades Reservoir dam located approximately 5.5 miles to the southeast (California Division of Safety of Dams [DSOD] 2022). The Sulphur Creek dam is designated as a high downstream inundation hazard and the Palisades Reservoir dam is designated as an extremely high downstream inundation hazard (DSOD 2022). However, the project site is not located within the downstream inundation zone mapped for the either of these dams (DSOD 2022). Therefore, the project site is not at risk of flooding due to dam failure. The project site is located adjacent to the Pacific Ocean; however, the project site is not located in a tsunami inundation zone (DOC 2022b). Additionally, the project site is not located near a body of water that would be subject to seiche. Therefore, the project would not result risk release of pollutants due to project inundation.

NO IMPACT

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

As described under Checklist Items *a.* and *b.*, above, the project would not violate any water quality standards. In addition, the project site does not overly a “medium priority” or “high priority” groundwater basin (SWRCB 2022b). Thus, no Groundwater Sustainability Plan is applicable to the proposed project. Therefore, the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

NO IMPACT

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10 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Energy Setting

Electricity and Natural Gas

As a state, California is one of the lowest per capita energy users in the United States, ranked 48th in the nation, due to its energy efficiency programs and mild climate (United States Energy Information Administration [USEIA] 2022). Electricity and natural gas are primarily consumed by the built environment for lighting, appliances, heating and cooling systems, fireplaces, and other uses such as industrial processes in addition to being consumed by alternative fuel vehicles. Most of California's electricity is generated in state with approximately 30 percent imported from the Northwest and Southwest in 2021; however, the state relies on out-of-state natural gas imports for nearly 90 percent of its supply (California Energy Commission [CEC] 2022a and 2022b). In addition, approximately 33 percent of California's electricity supply in 2021 came from renewable energy sources, such as wind, solar photovoltaic, geothermal, and biomass (CEC 2022a). In 2018, Senate Bill 100 accelerated the state's Renewable Portfolio Standards Program, codified in the Public Utilities Act, by requiring electricity providers to increase procurement from eligible renewable energy and zero-carbon resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045. Electricity and natural gas service would be provided to the project by San Diego Gas and Electric (SDG&E) and Southern California Gas Company (SoCalGas), respectively. Table 14 and Table 15 show the electricity and natural gas consumption by sector and total for SDG&E and SoCalGas.

Table 14 Electricity Consumption in the SDG&E Service Area in 2021

Agriculture and Water Pump	Commercial Building	Commercial Other	Industry	Mining and Construction	Residential	Streetlight	Total Usage
380	7,150	7,390	1,697	415	6,136	76	17,560

Notes: Usage expressed in gigawatt hours (GWh)

Source: CEC 2023a

Table 15 Natural Gas Consumption in SoCalGas Service Area in 2021

Agriculture and Water Pump	Commercial Building	Commercial Other	Industry	Mining and Construction	Residential	Total Usage
84	844	94	1,650	169	2,261	5,101

Notes: All usage expressed in Millions of Therms

Source: CEC 2023b

Petroleum

Petroleum fuels are primarily consumed by on-road and off-road equipment in addition to some industrial processes, with California being one of the top petroleum-producing states in the nation (USEIA 2022). Gasoline, which is used by light-duty cars, pickup trucks, and sport utility vehicles, is the most used transportation fuel in California with 13.8 billion gallons sold in 2021 (CEC 2022c). Diesel, which is used primarily by heavy duty-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and heavy-duty construction and military vehicles, is the second most used fuel in California with 1.7 million gallons sold in 2020 (CEC 2022d). Table 16 summarizes the petroleum fuel consumption for Orange County, in which the project site would be located, as compared to statewide consumption.

Table 16 2019 Annual Gasoline and Diesel Consumption

Fuel Type	Orange County (million gallons)	California (million gallons)	Proportion of Statewide Consumption ¹
Gasoline	1,029	11,173	9%
Diesel	53	1,626	3%

¹ For reference, the population of Orange County (3,162,245 persons) is approximately 8.0 percent of the population of California (39,185,605 persons) (California Department of Finance 2022).

Source: CEC 2022d

Energy consumption is directly related to environmental quality in that the consumption of nonrenewable energy resources releases criteria air pollutant and GHG emissions into the atmosphere. The environmental impacts of air pollutant and GHG emissions associated with the project's energy consumption are discussed in detail in Section 3, *Air Quality*, and Section 8, *Greenhouse Gas Emissions*, respectively.

- 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?*

During project construction, energy would be consumed in the form of petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, and vehicles used to deliver materials to the site and export soil and demolition material from the site. As shown in Table 17, project construction would require approximately 2,105 gallons of gasoline and approximately 49,755 gallons of diesel fuel. These construction energy estimates are conservative because they assume that the construction equipment used in each phase of construction is operating continuously every day of construction.

Table 17 Estimated Fuel Consumption during Construction

Source	Fuel Consumption (gallons)	
	Gasoline	Diesel
Construction Equipment & Hauling Trips	-	49,755
Construction Worker Vehicle Trips	2,105	-
See Appendix D for energy calculation sheets		

Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of California Code of Regulations Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes and would minimize unnecessary fuel consumption. Construction equipment would be subject to the USEPA Construction Equipment Fuel Efficiency Standard, which would also minimize inefficient, wasteful, or unnecessary fuel consumption. Furthermore, per applicable regulatory requirements such as California's Green Building Standards Code (CALGreen; California Code of Regulations, Title 24, Part 11), the project would comply with construction waste management practices to divert a minimum of 65 percent of construction and demolition debris. These practices would result in efficient use of energy necessary to construct the project. In the interest of cost-efficiency, construction contractors also would not utilize fuel in a manner that is wasteful or unnecessary. Therefore, the project would not involve the inefficient, wasteful, and unnecessary use of energy during construction, and the construction-phase impact related to energy consumption would be less than significant.

Operational Energy Demand

Operation of the project would use natural gas and electricity for heating and cooling systems, lighting, and appliances. The proposed project would replace an existing, occupied residence on the site; therefore, operation of the project would not result in a substantial change in gasoline or diesel consumption due to vehicle trips. Operation of the project would consume approximately 21,141 kilo British thermal units natural gas per year (Appendix A). Electricity use associated with operation of the project would be supplied by rooftop solar panels, as required by Title 24.

The proposed residence would be designed to exceed the Title 24 standards by 15 percent and would include sustainability features such as energy-efficient lighting and appliances, a reclaimed water irrigation system, rain barrels for irrigation use, water efficient appliances and fixtures, a green roof on a portion of the site, rooftop solar panels, and a permeable pavement driveway. The existing single-family residence on the project site was built in the 1940s and does not include the energy efficiency or renewable energy features included in the proposed project. Therefore, operation of the project would likely result in equivalent or reduced energy consumption compared to existing uses on the site.

Furthermore, the project would continue to reduce its use of nonrenewable energy resources as the electricity generated by renewable resources provided by SDG&E continues to increase to comply with State requirements through Senate Bill (SB) 100, which 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. Therefore, the proposed project would not lead to wasteful, inefficient, or unnecessary consumption of energy resources. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The City of Laguna Beach adopted the CPAP in 2009 (Laguna Beach 2009). The goal of the plan was to reduce GHG emissions seven percent below 1990 levels by 2012. The plan provides recommendations for achieving the GHG emissions reduction, including increasing energy efficiency, increasing the use of public transit and active transportation, and providing public outreach and education. The CPAP is geared towards City government action, such as City outreach to local businesses and residents to encourage sustainable practices, the adoption of local guidance and policies to reduce energy and water use, and the adoption of practices to reduce GHG emissions in government operations. Therefore, the CPAP is limited in its application to the proposed project.

Nonetheless, the project includes sustainability features consistent with the intent of the CPAP to reduce energy use and GHG emissions with Laguna Beach. The project would comply with CALGreen and Title 24 standards, which include a number of measures, such as energy efficient lighting fixtures, fans and HVAC systems, to increase energy efficiency that align with the CPAP goals and recommendations. As discussed above, the project would exceed the Title 24 requirements and would implement a number of sustainability features including solar panels that would power the proposed residence. The use of solar panels would align with SB 100, which mandates 100 percent clean electricity for California by 2045. Because the project would be powered by the onsite solar panels and, if needed, the existing electricity grid, the project would be powered by renewable energy mandated by SB 100 and would not conflict with this statewide plan. Therefore, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

NO IMPACT

11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Land Use and Planning Setting

The project site is within the Village Low Density (VLD) General Plan land use designation, which provides for single-family residential development at urban densities in areas that are predominantly developed and support existing detached single-family residences. The site is zoned Residential Low Density Zone (R1), which permits single-family dwelling, child care, guest housing, home occupations, public parks, mobile homes, residential care facilities, or second residential units. The project site is developed with an existing single-family residence.

a. *Would the project physically divide an established community?*

The project would occur on an infill site, surrounded by an established community. The project does not propose any new roads or infrastructure that have the potential to divide any communities. No impact would occur.

NO IMPACT

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 proposed project would involve demolishing an existing 1,318-sf single-family residence and constructing a new, 6,774-sf single-family residence. The proposed project would maintain the low density permitted under the existing General Plan Land Use and zoning designations, and would comply with the lot coverage, density, setback, and height requirements of the R-1 zone, as outlined in LBMC Section 25.10.008, Property Development Standards. In addition, as illustrated in Table 18, the proposed project would not conflict with applicable General Plan policies and action items adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, impacts would be less than significant.

Table 18 Project Consistency with the General Plan

General Plan Goals, Policies, and Action Items	Project Consistency
Land Use Element	
Goal 1. Create a community that is sustainable, resilient, and regenerative.	Consistent. The proposed residence would be designed to exceed the Title 24 standards by 15 percent and would include sustainability features such as energy-efficient lighting and appliances, a reclaimed water irrigation system, rain barrels for irrigation use, water efficient appliances and fixtures, a green roof on a portion of the site, rooftop solar panels, and a permeable pavement driveway.
Policy 1.1. Reduce greenhouse gas (GHG) emissions 80% below 1990 levels by 2050.	Consistent. The project would include sustainability features such as EnergyStar appliances, durable building materials, LED fixtures, solar panels, and low-flow fixtures that would reduce resource consumption and GHG emissions.
Policy 1.2. Support design strategies and construction standards that maximize use of alternative energy sources and passive solar architecture in buildings.	Consistent. The proposed would include rooftop solar panels and dual pane, Low E glass windows and glass doors pursuant Title 24 Energy requirements to provide passive temperature and lighting regulation.
Action 1.2.1. Modify building codes and design guidelines to permit, encourage, and/or require integration of passive solar design, green roofs, active solar, and other renewable energy sources and/or provide incentives for development projects that meet or exceed silver LEED certification or better (or equivalent standards, if developed by the State).	Consistent. The proposed project would include rooftop solar panels to provide renewable energy resources on the site and a portion of the roofing would be a green roof.
Action 1.2.4. Establish incentives to encourage installation of renewable energy systems by homeowners and businesses including, but not limited to, the installation of energy-rated appliances, programmable thermostats, solar-electric and solar-thermal systems, cool roofs and roofing materials, and sustainable landscaping.	Consistent. The project would include EnergyStar appliances, solar panels, and sustainable landscaping and irrigation.
Action 1.2.7. Ensure that all development projects and major remodels implement sustainable landscaping strategies such as use of low or ultra-low water use plants and non-invasive plants.	Consistent. Project landscaping would include drought-tolerant plants and would be irrigated with a low-flow system that would be controlled by an automatic timer with a seasonal adjustment capacity. Rain barrels would provide for irrigation when feasible. In addition, landscaping and irrigation plans would be prepared in accordance with the California Model Water Efficient Landscape Ordinance.
Policy 1.3. Support planning and design solutions that reduce water consumption and implement water conservation practices.	Consistent. Project landscaping would include drought-tolerant plants and would be irrigated through a low-flow system that includes rain capture and reuse. In addition, low-flow fixtures and water-efficient appliances would be installed to conserve water.
Goal 2. Preserve, enhance and respect the unique character and identity of Laguna's residential neighborhoods.	Consistent. The proposed residence would be consistent with the building massing and height of other residential buildings in the South Laguna neighborhood. The site plan would incorporate rustic elements that align with the surrounding South Laguna Village neighborhood, such as the use of wood and stone materials, and the landscaping would align with the recommendations of the LSHRD for projects in Zone K of Coast Highway, such as the planting of enhanced landscaping along the edge of the property adjacent to Coast Highway.

General Plan Goals, Policies, and Action Items	Project Consistency
Action 2.3.1. Continue to evaluate construction-related impacts upon residential neighborhoods through the Design Review process and mitigate such impacts using methods such as, but not necessarily limited to, the adoption of staging plans and noise and dust mitigation.	Consistent. As described in Section 17, <i>Transportation</i> , construction staging would not occur on the surrounding streets and would not impact nearby properties. In addition, as discussed in Section 3, <i>Air Quality</i> , the project would comply with the requirements of SCAQMD Rule 403 and would reduce construction dust through standard BMPs such as daily site watering, covering of inactive stockpiles, and reducing vehicle speeds in unpaved areas. Furthermore, construction related dust (PM) emissions would not exceed the SCAQMD thresholds. Construction would take place during the hours permitted in the LBMC and would not result in significant noise impacts, as described in Section 13, <i>Noise</i> .
Policy 3.4. Ensure that development standards and design review guidelines result in commercial development that is compatible in scale and design with the surrounding and immediate area, including commercial and residential structures and neighborhoods.	Consistent. The proposed project would comply with the development standards, such as density and height, applicable to the project site.
Policy 3.9. Maintain the landscape guidelines set forth in the City's Landscape and Scenic Highways Resource Document (LSHRD).	Consistent. The proposed project would incorporate the landscaping recommendations of the LSHRD for projects in Zone K, such as the planting of enhanced landscaping along Coast Highway.
Action 5.1.2. Develop policies to mitigate short-term construction impacts.	Consistent. The City has adopted the FTA thresholds for determining if noise levels from construction would result in a substantial temporary increase in noise levels at local sensitive receivers. Construction of the proposed project would be subject to the City's noise ordinance and as described in Section 13, <i>Noise</i> , project construction noise would not exceed the City's thresholds for noise impacts with implementation of mitigation. Furthermore, as described in Section 3, <i>Air Quality</i> , project construction would not result in criteria pollutant emissions that would exceed the applicable thresholds or result in significant impacts to sensitive receivers including adjacent residences. Additionally, project construction activities would comply with the City's erosion and sediment control requirements, as discussed in Section 10, <i>Hydrology and Water Quality</i> , to ensure that construction does not result in erosion, siltation, and other impacts to stormwater runoff and water quality. Project construction would also comply with Mitigation Measure BIO-2 to ensure that construction activities do not impact nesting or migratory birds.
Policy 5.2. Ensure that all new development, including subdivisions and the creation of new building sites and remodels that involve building additions, is adequately evaluated to ascertain potential negative impacts on natural resources and adjacent development, emphasizing impact avoidance over impact mitigation. Required mitigation should be located on-site rather than off-site. Any off-site mitigation should be located within the City's boundaries and in close proximity to the project.	Consistent. The proposed project would comply with CEQA and City guidelines in order to mitigate possible on and off-site impacts. As described in Section 1, <i>Aesthetics</i> , through Section 21, <i>Mandatory Findings</i> , of this Initial Study, the proposed project would not have significant impacts to natural resources or adjacent sensitive receptors with the implementation of site-specific mitigation measures, as needed. No off-site mitigation measures have been proposed.

General Plan Goals, Policies, and Action Items	Project Consistency
Goal 7. Protect, preserve, and enhance the community's natural resources.	Consistent. As described in Section 4, <i>Biological Resources</i> , and Section 10, <i>Hydrology and Water Quality</i> , the proposed project would not involve any development or other impacts to natural resources in the city. The project site is developed, and the proposed project would not reduce the availability of or harm natural areas within the city.
Policy 7.7. Protect marine resources by implementing methods to minimize runoff from building sites and streets to the City's storm drain system (e.g., on-site water retention).	Consistent. The project site is currently developed, and the proposed project would not substantially alter the runoff or drainage qualities of the project site. As described in Section 10, <i>Hydrology and Water Quality</i> , the proposed project would implement stormwater BMPs during project construction and project operation to ensure that stormwater is adequately retained on the site and treated prior to entering the City's storm drain system.
Goal 10. Ensure that proposals for new development, subdivisions, and major remodels are sufficiently evaluated to protect public health and safety and natural resources.	Consistent. The proposed project has been reviewed pursuant to CEQA and the City's local requirements. As discussed throughout this Initial Study/Mitigated Negative Declaration, the proposed project would not have significant impacts to public health and safety or natural resources provided that the mitigation measures are adhered to.
Policy 10.8. Avoid creation of building sites that will result in significant adverse impacts on the community.	Consistent. The proposed project would involve the development of a residence at an existing residential infill site, and no new building sites would be created. As discussed herein, the proposed project would not result in significant environmental impacts.
Noise Element	
Policy 1.4. Ensure the effective enforcement of City, State and Federal noise levels by all appropriate City Departments	Consistent. As illustrated in Section 13, <i>Noise</i> , the proposed project has been assessed for potential noise impacts related to construction and operation. The results of the noise analysis for the proposed project indicate that project construction and operation would not have a significant noise impact to nearby residential properties with implementation of mitigation.
Policy 2.1. Establish acceptable limits of noise for various land uses throughout the community. Zoning changes should be consistent with the compatibility of the projected noise environment.	Consistent. The Noise Element of the City's General Plan establishes regulations of acceptable noise levels for different land uses. The proposed project does not involve zoning changes. Nonetheless, as described in Section 13, <i>Noise</i> , construction and operation of the proposed project would not result in noise levels at the nearest noise-sensitive receptors that exceed the acceptable noise limits.
Policy 2.2. Ensure acceptable noise levels near schools, hospitals, residences, and other noise sensitive areas.	Consistent. The Noise Element of the City's General Plan establishes regulations of acceptable noise levels for different land uses. As described in Section 13, <i>Noise</i> , construction and operation of the proposed project would not result in noise levels at the nearest noise-sensitive receptors that exceed the acceptable noise limits.
Policy 2.3. Encourage acoustical mitigation design in new construction.	Consistent. As illustrated in Section 13, <i>Noise</i> , the proposed project would not result in significant impacts to future residents on the site or adjacent land uses.

General Plan Goals, Policies, and Action Items	Project Consistency
<p>Action 4.3. During the environmental review of all projects requiring extensive construction, determine the proximity of the site to the established residential areas. If the project will involve pile driving, nighttime truck hauling, blasting, 24-hour pumping (important in coastal excavations), or any other very high noise equipment, the environmental review shall include a construction noise alternative analysis. From this analysis specific mitigation measures shall be developed to mitigate potential noise impacts. This may include but not be limited to:</p> <ul style="list-style-type: none"> ▪ requirements to use quieter, potentially costlier construction techniques. ▪ notification of adjacent residents (homeowner and renters) of time, duration, and location of construction. ▪ relocation of residents to hotels during noisy construction period. ▪ developer reimbursement to City for 24-hour on-site inspection to verify compliance with required mitigation. limit hours of operation of equipment 15 dB above noise ordinance limits to the hours of 10am to 4pm. <p>Application of the foregoing measures should be determined on a project-by-project basis depending on the type of noise generation proposed and the source proximity to established residential areas. It should also be recognized sufficient data may not be available to determine the extent of construction noise mitigation required until preparation of construction drawings. In this case, the construction noise mitigation analysis must be submitted for review as part of building permit, plan check procedures.</p>	<p>Consistent. As described in Section 13, <i>Noise</i>, a construction noise analysis was completed to determine potential noise impacts to nearby residences. Construction would not involve nighttime truck hauling, blasting, 24-hour pumping, or other very high noise equipment. As discussed in Section 13, <i>Noise</i>, project construction would not result in significant noise impacts to nearby residences with implementation of mitigation.</p>
Source: Laguna Beach 2005b and 2022b	

LESS THAN SIGNIFICANT IMPACT

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12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Mineral Resources Setting

The project site is located in a residential area with no mineral resource extraction activities in the vicinity. The project site is mapped with a MRZ-3 designation, indicating that the area has undetermined mineral resource significance (DOC 1981).

- 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?*

The project site and surrounding properties are located in an urbanized area. The California Surface Mining and Reclamation Act of 1975 (SMARA) was enacted to promote conservation and protection of significant mineral deposits. According to the California Department of Conservation Mineral Land Classification Maps, the project site is located in an area with a MRZ-3 designation, indicating that the area has undetermined mineral resource significance (DOC 1981). There are no known mineral resources on the project site or in the vicinity of the site. The site is a residential property, and the surrounding residential land uses are not compatible with mineral extraction. Therefore, the project would have no impact on the availability or recovery of mineral resources.

NO IMPACT

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13 Noise

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

Noise Setting

Noise

The unit of measurement used to describe a noise level is the decibel (dB). However, the human ear is not equally sensitive to all frequencies within the sound spectrum. Therefore, a method called “A weighting” is used to adjust actual sound pressure levels so that they are consistent with the human hearing response, which is most sensitive to frequencies around 4,000 Hertz (Hz) and less sensitive to frequencies around and below 100 Hz, thus filtering out noise frequencies that are not audible to the human ear. A weighting approximates the frequency response of the average young ear when listening to most ordinary everyday sounds. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the “A-weighted” levels of those sounds. Therefore, the A-weighted noise scale is used for measurements and standards involving the human perception of noise. In this analysis, all noise levels are A-weighted, and “dBA” is understood to identify the A-weighted decibel.

Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. A doubling of the energy of a noise source, such as a doubling of traffic volume, would increase the noise level by 3 dB; similarly, dividing the energy in half would result in a decrease of 3 dB (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 an increase or decrease of up to 3 dBA in noise levels (i.e., twice or half the sound energy); that an increase or decrease of 5 dBA is readily perceptible; and that an increase or decrease of 10 dBA sounds twice or half as loud (Crocker 2007).

DESCRIPTORS

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. In addition, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors has been developed. The noise descriptors used for this analysis are the one-hour equivalent noise level (L_{eq}) and the community noise equivalent level (CNEL).

- The L_{eq} is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period. Typically, L_{eq} is equivalent to a one-hour period, even when measured for shorter durations as the noise level of a 10- to 30-minute period would be the same as the hour if the noise source is relatively steady. L_{max} is the highest Root Mean Squared (RMS) sound pressure level within the sampling period, and L_{min} is the lowest RMS sound pressure level within the measuring period (Crocker 2007).
- The CNEL is a 24-hour equivalent sound level with an additional 5 dBA penalty to noise occurring during evening hours, between 7:00 p.m. and 10:00 p.m., and an additional 10 dBA penalty to noise occurring during the night, between 10:00 p.m. and 7:00 a.m., to account for the added sensitivity of humans to noise during these hours (Caltrans 2013). Quiet suburban areas typically have a CNEL in the range of 40 to 50 dBA, while areas near arterial streets are in the 50 to 70+ CNEL range.

SOUND PROPAGATION AND SHIELDING

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in the noise 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.

Sound levels are described as either a “sound power level” or a “sound pressure level,” which are two distinct characteristics of sound. Both share the same unit of measurement, the dB. However, sound power (expressed as L_{pw}) is the energy converted into sound by the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers, such as an eardrum or microphone, which is the sound pressure level. Sound measurement instruments only measure sound pressure, and noise level limits are typically expressed as sound pressure levels.

Noise levels from a point source (e.g., construction, industrial machinery, air conditioning units) typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance. Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (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 receiver (Federal Highway Administration [FHWA] 2011). Structures can substantially reduce exposure to

noise as well. The FHWA's guidance indicates that modern building construction generally provides an exterior-to-interior noise level reduction of 10 dBA with open windows and an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows (FHWA 2011).

Groundborne Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent buildings or structures and vibration energy may propagate through the buildings or structures. Vibration may be felt, may manifest as an audible low-frequency rumbling noise (referred to as groundborne noise), and may cause windows, items on shelves, and pictures on walls to rattle. 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 at vibration-sensitive land uses and may cause structural damage.

Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. 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 vibration frequency of an object describes how rapidly it oscillates.

DESCRIPTORS

Vibration amplitudes are usually expressed in peak particle velocity (PPV) or RMS vibration velocity. The PPV is normally described in inches per second (in/sec) and 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 activity because it is related to the stresses that are experienced by buildings (Caltrans 2020).

RESPONSE TO VIBRATION

The Federal Transit Administration (FTA) has developed limits for the assessment of vibrations from construction sources (FTA 2018). The FTA vibration limits are reflective of standard practice for analyzing vibration impacts on structures, as presented in Table 19.

Table 19 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

PROPAGATION

Vibration energy spreads out as it travels through the ground, causing the vibration level to diminish with distance away from the source. High-frequency vibrations diminish much more rapidly than low frequencies, so low frequencies tend to dominate the spectrum at large distances from the

source. Variability in the soil strata can also cause diffractions or channeling effects that affect the propagation of vibration over long distances (Caltrans 2020). When a building is exposed to vibration, a ground-to-foundation coupling loss (the loss that occurs when energy is transferred from one medium to another) will usually reduce the overall vibration level. However, under rare circumstances, the ground-to-foundation coupling may amplify the vibration level due to structural resonances of the floors and walls.

Sensitive Receivers

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Generally, a sensitive receiver is identified as a location where human populations (especially children, senior citizens, and sick persons) are present, and where there is a reasonable expectation of continuous human exposure to noise. According to the Noise Element of the Laguna Beach General Plan (2005), noise-sensitive land uses include residences, schools, hospitals, retirement homes, and daycare centers.

Vibration-sensitive receivers, which are similar to noise-sensitive receivers, include residences and institutional uses, such as schools, churches, and hospitals. However, vibration-sensitive receivers also include buildings where vibrations may interfere with vibration-sensitive equipment that is affected by vibration levels that may be well below those associated with human annoyance (e.g., recording studios or medical facilities with sensitive equipment).

The nearest sensitive receivers to the site are single-family residences immediately to the north and south of the project site. There is also a single-family residence across Coast Highway approximately 85 feet from the project site boundary.

Project Area Noise Setting

The primary offsite noise sources in the project area are motor vehicles (e.g., automobiles, buses, and trucks) along Coast Highway. Ambient noise levels would be expected to be highest during the daytime and rush hour unless congestion slows speeds substantially.

To characterize ambient noise levels at and near the project site, three 15-minute noise level measurements were conducted on August 30, 2022. Short-term measurement 1 (ST-1) was taken in front of the project site at 32051 Coast Highway. ST-2 was taken northeast of the project site in front of a single-family residence at 32035 Point Place. ST-3 was taken in front of the residence at 32017 Coast Highway. Noise measurement locations are shown in Figure 8. Table 20 summarizes the results of the short-term noise measurements.

Figure 8 Noise Measurement Locations



Table 20 Short-term Ambient Noise Measurements

Measurement	Sample Period	Location	dBA L _{eq}	dBA L _{max}	Notes
ST-1	8:37 a.m. – 8:53a.m.	The front driveway of the project site, along Coast Highway.	71.2	84.5	Primary noise source: vehicular traffic on Coast Highway. Secondary noise sources: intermittent distant construction noise.
ST-2	8:59 a.m. – 9:14 a.m.	In front of existing residences 32037-32035 Point Pl., approximately 40 feet from project site.	47.2	57.4	Primary noise source: vehicular traffic on Coast Highway. Secondary noise sources: beach (waves), birds, light construction, and pedestrians
ST-3	9:25 – 9:40 a.m.	Next to the residence at 32017 Coast Highway and approximately 85 feet from the project site.	72.5	83.2	Primary noise source: vehicular traffic on Coast Highway

dBA = A-weighted decibel; L_{eq} = average noise level equivalent; L_{max} = highest Root Mean Squared sound pressure level
Source: See Appendix F for noise measurement data

Regulatory Setting

State of California

California Code of Regulations (CCR) Title 24 Section 1207.4 requires that within residences the interior noise levels attributable to exterior noise sources not exceed a CNEL of 45 dBA in any habitable room with windows closed. CALGreen, Standard 5.507.4, requires that all non-residential buildings with property lines within sound levels regularly exceeding 65 dBA L_{eq} verify the interior noise levels within occupied nonresidential space do not exceed 50 dBA L_{eq}.

City of Laguna Beach Noise Element

The goals, policies, and implementation actions contained in the Noise Element of the Laguna Beach General Plan (2005) focus on establishing regulations and applying criteria for acceptable noise levels for different land uses in order to minimize the negative impacts of noise, especially at sensitive receiver locations. In support of these goals and policies, the Noise Element contains a land use and noise compatibility matrix (shown in Table 21) that determines the normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable noise levels for various land uses to guide planning decisions.

Table 21 Land Use and Noise Compatibility Matrix (CNEL)

Land Use	Normally Acceptable ¹	Conditionally Acceptable ²	Normally Unacceptable ³	Clearly Unacceptable ⁴
Single-Family, Duplex, Mobile Homes	50 – 60	60 – 70	70 – 75	75+
Multi-Family	50 – 65	65 – 70	70 – 75	75+
Motel, Hotel	50 – 65	65 – 70	70 – 80	80+
School, Library, Church, Hospital, Nursing Home	50 – 70	–	70 – 80	80+
Auditorium, Concert Hall, Amphitheater	–	50 – 70	–	70+
Sports Arena, Outdoor Spectator Sports	–	50 – 75	–	75+
Playground, Neighborhood Park	50 – 70	70 – 75	–	75+
Golf Course, Riding Stable, Water Recreation, Cemetery	50 – 75	–	75 – 80	80+
Office Building, Business Commercial, Professional	50 – 70	70 – 75	75+	–
Agriculture, Industrial, Manufacturing, Utilities	50 – 75	75 – 80	80+	–

CNEL: Community Noise Equivalent Level

¹ 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.

² 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 would normally suffice.

³ 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.

⁴ Clearly Unacceptable: New construction or development should generally not be undertaken.

Note: Noise levels are provided in CNEL.

Source: Laguna Beach 2005b

City of Laguna Beach Municipal Code

Chapter 7.25, Noise, of the LBMC establishes a series of regulations and standards to prevent excessive noise that may jeopardize the health, welfare or safety of the citizens or degrade their quality of life. Specifically, LBMC Section 7.25.040(A), Exterior Noise Standards, establishes exterior noise standards categorized by five noise zones in the City. As shown in Table 22, the noise standards for these zones differ between daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) hours.

Table 22 Exterior Noise Level Standards

Noise Zone	Land Use	Noise Level (Leq, dBA ¹)	
		Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
I	Residential	60 dBA	50 dBA
II	Commercial	65 dBA	65 dBA
III	Mixed-Use - Residential	65 dBA	55 dBA
IV	Downtown Specific Plan	70 dBA	70 dBA
V	Manufacturing, Industrial	70 dBA	60 dBA

Leq: average noise level equivalent; dBA: A-weighted decibel

¹ dBA is defined as a decibel adjusted to be consistent with human response.

Source: LBMC Section 7.25.040

According to Section 7.25.040(B), it is unlawful for any person at any location within the City to create noise which causes the noise level when measured on any other property to: 1) exceed the noise standard for the applicable zone for any 15-minute period, or 2) a maximum instantaneous (single instance) noise level equal to the noise standard plus 20 dBA for any period of time.

LBMC Section 7.25.050(E) exempts noise sources associated with construction, repair, remodeling, demolition or grading of any real property from compliance with the noise level limits contained in the LBMC. This section indicates that such noise-generating activities are subject to the provisions of LBMC Section 7.25.080, Construction Activity Noise Regulations. Furthermore, LBMC Section 7.25.080, Construction Activity Noise Regulations, prohibits the operation of any tool or equipment used for construction activities or any other related building activity between the hours of 6:00 p.m. and 7:30 a.m. on weekdays, whereas such construction activities are prohibited entirely on weekends and federal holidays.

LBMC Section 7.25.130, Heating, venting, pool/spa and air conditioning—Special Provisions, includes specific noise standards for regulating heating, venting and air conditions (HVAC), and pool/spa equipment in or adjacent to residential areas. According to Section 7.25.130(a), permits for HVAC, and pool/spa equipment in or adjacent to residential areas are issued only after the installation contractor signs an acknowledgment that the installation will meet the noise limits established in LBMC Section 7.25.040.

Significance Thresholds

Construction Noise

The City does not have quantified noise level criteria for assessing construction impacts. Therefore, in accordance with CEQA Guidelines Section 15064.7(c), the City has chosen to use thresholds of significance recommended by another public agency (the FTA) because these thresholds are supported by substantial evidence as outlined in the FTA's 2018 *Transit Noise and Vibration Impact Assessment* document. In that document, the FTA has developed guidance for determining whether construction of a project would result in a substantial temporary increase in ambient noise levels. The FTA provides guidance for construction noise thresholds that indicates a significant impact would occur if construction noise levels at the nearest residences exceed an eight-hour Leq of 80 dBA noise limit during the day (7:00 a.m. to 10:00 p.m.).

Operational Noise

Operational noise from the project would be significant if it would exceed exterior noise standards listed in LBMC Section 7.25.040(A) and as shown in Table 22.

Vibration

The City has not adopted quantified standards for vibration impacts during construction. Therefore, in accordance with CEQA Guidelines Section 15064.7(c), the City has chosen to use thresholds of significance recommended by FTA as outlined in the Transit Noise and Vibration Impact Assessment (2018). The criteria recommended by the FTA are used to evaluate potential architectural building damage. Based on the FTA criteria shown in Table 19, construction vibration impacts would be significant if vibration levels exceed 0.2 in/sec PPV.

Land Use Compatibility

The most predominant source of noise on and around the project site is vehicular traffic on Coast Highway. According to the City's noise compatibility matrix shown in Table 21, ambient noise levels up to 60 CNEL are normally acceptable for single-family uses while ambient noise levels up to 70 CNEL are conditionally acceptable for single-family uses. According to the community noise contour maps included in the Noise Element of the Laguna Beach General Plan (2005), land uses along Coast Highway are exposed to noise levels in the range of 60 and 70 dBA CNEL. Based on the City's noise compatibility matrix, the project would be exposed to noise levels within the "conditionally acceptable" range, which means that new construction or development should be undertaken only after needed noise insulation features are included in the design (Laguna Beach 2005b).

In addition, noise measurements at ST-1 indicate that during the morning commute hour the L_{eq} noise level in front of the project site is 71 dBA L_{eq} . This indicates that the 24-hour CNEL may exceed 70 dBA CNEL, which would be considered "normally unacceptable", and a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. 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, 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., Coast Highway) 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).

- 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 proposed project involves the demolition of the existing 1,318-sf single-family residence and the construction a 6,774-sf, three-story single-family residence. In addition, the construction of a 590-sf garage, 1,213-sf elevated deck terrace with a pool and jacuzzi, a water feature, and reflecting pond is proposed. Nearby sensitive receptors (residences) may be subject to increased noise levels from both temporary construction and long-term operations. The nearest sensitive receiver includes

single-family residences immediately to the north and south. The following discussion addresses construction and operational noise associated with the project.

Construction Noise

Construction activity would result in temporary increases in ambient noise in the project area on an intermittent basis and, as such, would expose surrounding noise-sensitive receivers to increased noise. The nearest sensitive receivers to the site are single-family residences immediately to the north and south of the project site. In addition, single-family residences across Coast Highway approximately 85 feet from the project site boundary.

Construction noise was estimated using the FHWA Roadway Construction Noise Model (RCNM) (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 receivers near the project site. RCNM provides reference noise levels for standard construction equipment, with an attenuation of 6 dBA per doubling of distance for equipment.

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 will have higher continuous noise levels than others, and some may have discontinuous high-impact noise levels. The maximum hourly Leq of each phase is determined by combining the Leq contributions from each piece of equipment used in that phase (FTA 2018). Project construction phases would include demolition, site preparation, grading, building construction, architectural coating, and paving of the project site. It is assumed that diesel engines would power all construction equipment. For assessment purposes, the loudest phases have been used for this assessment (i.e., demolition, grading, and building construction), and have been modeled under the conservative assumption that a dozer, an auger drill rig, and a backhoe would be operating simultaneously.

Construction equipment would be continuously moving across the site, coming near and then moving further away from individual receivers. Due to the dynamic nature of construction, maximum hourly noise levels are calculated from the center of onsite construction activity to the nearest receivers. Therefore, construction noise was modeled at 25 feet from the adjacent single-family residence to the north and south, 80 feet to the second row of single-family residences on Point Place to the north, and 270 feet east from single-family residences across Coast Highway. Construction noise levels and distances to the nearest receivers are shown in Table 23. RCNM calculations are included in Appendix F.

Table 23 Construction Noise Levels at Receivers

Construction Equipment	Approximate dBA Leq		
	Residences to the North at 25 Feet	Second Row of Residences to the North at 80 Feet	Residences to the East at 270 Feet
Dozer, Drill Rig, Backhoe	87	77	67

Leq: average noise level equivalent; dBA: A-weighted decibel
 See Appendix F for RCNM results.

As shown in Table 23, noise levels during construction are estimated to reach 87 dBA Leq (8-hour) at the nearest noise-sensitive receivers, consisting of the single-family buildings north and south of the project site. Therefore, construction noise levels could exceed the FTA's daytime noise criterion of

80 dBA L_{eq} (8-hour) at the nearest residences during construction of the project. Noise impacts from daytime construction would be potentially significant.

Pursuant to LBMC Section 7.25.080, construction activities are prohibited between the hours of 6:00 p.m. and 7:30 a.m. on weekdays and prohibited on weekends and federal holidays. Construction activities would not occur during nighttime hours (as described under *Project Description*).

Onsite Operational Noise

Operation of the project would generate onsite noise from new HVAC and pool and spa equipment. Based on combined data from Trane, Carrier, and Rheem HVAC manufacturing companies, noise from HVAC equipment would typically generate a noise level in the range of 70 dBA L_{eq} at a reference distance of 3 feet from the source. The nearest noise-sensitive receivers from the proposed HVAC units and pool and spa equipment are the single-family residence south of the project site, approximately 10 feet from the HVAC units and pool/spa equipment. Noise from the equipment would attenuate at a rate of approximately 6 dBA per doubling of distance from the source; therefore, the grounded HVAC units would generate an estimated noise level of 59.5 dBA L_{eq} at 10 feet. However, the HVAC units and pool/spa equipment would be placed inside the proposed 139-sf mechanical room, which would provide at least a 25 dBA sound attenuation. Therefore, the proposed HVAC units would have a noise level of 34.5 dBA or less at 10 feet from the nearest sensitive receiver. Based on the City's exterior noise standards for a residential zone (see Table 22) noise levels from onsite HVAC equipment would not exceed the respective daytime or nighttime noise level standards of 60 dBA L_{eq} and 50 dBA L_{eq} for any 15-minute period as regulated by LBMC Section 7.25.040(B). In addition, the pool and spa equipment would be located in the mechanical room, which would similarly attenuate noise from the pool and spa equipment. Therefore, onsite operational noise impacts associated with the proposed project would be considered less than significant.

Offsite Traffic Noise

As discussed under Section 17, *Transportation*, operation of the proposed residence would not be anticipated to generate new vehicle trips on the surrounding circulation system as it would replace an existing residential use on the project site. The proposed project would not result in a net change in vehicle trips on area roadways and would not create a perceptible change in traffic noise. Noise level increases associated with offsite traffic generated by the project would be less than significant.

Mitigation Measures

NOI-1 Construction Noise Reduction Measures

The project applicant shall reduce construction noise levels to nearby residences to not exceed the FTA's residential construction noise threshold of 80 dBA L_{eq} (8-hour). This shall be accomplished through the following measures:

- Prior to the initiation of construction activities at the project site, the Applicant shall install temporary noise barriers/blankets along the northern and southern construction site boundaries near residential receivers during construction. The temporary barriers/blankets shall have a minimum height of 24 feet to block the line of sight between the construction source and the adjacent multi-story residential receivers. Barriers shall be constructed with a solid material that has a density of at least 1.5 pounds per sf with no gaps from the ground to the top of the barrier.

- Two weeks prior to the commencement of construction at the project site, notification that discloses anticipated construction schedule and timing shall be provided to residents on Point Place and along Coast Highway within 300 feet of the project.
- A sign shall be posted at the construction site entrance, or other conspicuous location, that includes a 24-hour telephone number for project information, and a procedure where a field engineer/construction manager will respond to and investigate noise complaints and take corrective action, if necessary, in a timely manner. The sign shall have a minimum dimension of 48 inches wide by 24 inches high with a one-inch minimum font height and shall also include contact information for Community Development Department staff. The sign shall be placed five feet above ground level.
- If a construction noise complaint(s) is registered, the contractor shall retain a City-approved noise consultant to conduct noise measurements at the properties that registered the complaint. The noise measurements shall be conducted for a minimum of eight hours. The consultant shall prepare a letter report for code enforcement summarizing the measurements, calculation data used in determining impacts, and potential measures to reduce noise levels to the maximum extent feasible.

With implementation of noise barriers/blankets and other measures as described in Mitigation Measure NOI-1, construction noise levels would be reduced by at least 15 dBA. Therefore, Mitigation Measure NOI-1 would reduce construction noise levels to approximately 72 dBA $L_{eq}(8\text{-hour})$ at the adjacent residences, which would not exceed the 80 dBA $L_{eq}(8\text{-hour})$ threshold. Impacts would be less than significant with mitigation incorporated.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

Operation of the proposed project would not include operational sources of significant vibration, such as heavy equipment operations. Rather, construction activities have the greatest potential to generate groundborne vibration affecting nearby receivers. Certain types of construction equipment can generate high levels of groundborne vibration. Construction of the proposed project would potentially utilize loaded trucks, drill rigs, and/or bulldozers during most grading phases and during the demolition phase. Construction of the project would use drilling for foundations as opposed to pile driving.

Vibration levels are analyzed at structures, not property lines, as architectural damage could occur within a structure, not at the property line. Therefore, vibration impacts were modeled based on the distance from the location of vibration-intensive construction activities (i.e., the vibration-generating construction equipment) to the edge of nearby off-site structures. Groundborne vibration analysis differs from the construction noise analysis in that modeled distances for vibration impacts are those distances between the project site to nearest off-site structures (regardless of sensitivity) whereas modeled distances for construction noise impacts are those distances between the center of on-site construction activity and the property line of the nearest off-site sensitive receivers. The closest distance from project construction to an off-site structure would be approximately seven feet, which would occur from the edge of the proposed single-family residence to the structure at 32061 Coast Highway. Table 24 shows estimated groundborne vibration levels from project equipment. Vibration calculations are included in Appendix I.

Table 24 Vibration Levels at Receivers

Equipment	Single-Family Residences 7 Feet
Large Bulldozer	0.36
Loaded Truck	0.31
Caisson Drill	0.36
Threshold for Building Damage	0.20
Threshold Exceeded?	Yes

As shown in Table 24, construction activities would generate peak vibration levels of approximately 0.36 in/sec PPV at the nearest single-family residence. Therefore, construction activity could exceed the applicable threshold of 0.2 in/sec PPV for architectural building damage at adjacent residences surrounding the project site. Mitigation Measure NOI-2 would be required to reduce this impact.

Mitigation Measures

NOI-2 Vibration Reduction Measures

The project applicant shall monitor vibration levels to nearby residences to not exceed the FTA vibration threshold of 0.20 in/sec PPV for architectural damage. This shall be accomplished through the following measures:

- A construction vibration monitoring plan shall be developed to document conditions at the neighboring structures prior to, during, and after vibration-generating demolition and grading activities. The plan shall be approved by the Director of Planning, Building and Code Enforcement, or the Director's designee, prior to ground disturbance and building demolition activities. All plan tasks shall be undertaken under the direction of a qualified professional (e.g., acoustical consultant or licensed Professional Structural Engineer) and be in accordance with industry accepted standard methods. The vibration monitoring plan, including a vibration velocity limit (as determined based on a detailed review of the building), method (including locations and instrumentation) for monitoring vibrations during construction, and method for alerting responsible persons who have the authority to halt construction should limits be exceeded or damaged observed. The vibration limits shall be reduced if movement or cracking is detected. The construction vibration monitoring plan shall be implemented to include the following tasks:
- Identification of sensitivity to groundbourne vibration of the neighboring residential structures. A vibration survey would need to be performed by a qualified professional (e.g., acoustical consultant or licensed Professional Structural Engineer).
- Performance of a photo survey, elevation survey, and crack monitoring survey for the structures. Surveys shall be performed prior to and after completion of all vibration-generating activity. The surveys shall include internal and external crack monitoring in the structure, settlement, and distress and shall document the condition of the foundation, walls and other structural elements in the interior and exterior of the structures.
- Development of a vibration monitoring and construction contingency plan to identify where monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to

document before and after demolition and construction activities. Construction contingencies would be identified for when vibration levels approach the limits.

- If vibration levels approach limits, suspend construction and implement contingencies to either lower vibration levels or secure the affected structure.
- Conduct a post-survey on the structure where either monitoring has indicated high levels or there have been complaints of damage.
- Summarize the results of all vibration monitoring and submit results in a report after completion of each construction phase with the potential to generate high vibration levels (e.g., demolition and grading). The report shall include a description of measurement methods, equipment used, calibration certificates, and graphics as required to clearly identify vibration-monitoring locations. An explanation of all events that exceeded vibration limits shall be included together with proper documentation supporting any such claims. The report shall be submitted to the Director of Planning, Building and Code Enforcement or the Director's designee two weeks after completion of each phase identified in the project schedule.
- Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted in one or more locations at the construction site.

With implementation of vibration monitoring as described in Mitigation Measure NOI-2, vibration levels would be monitored to prevent potential architectural damage at adjacent residences. Therefore, vibration impacts would be less than significant with mitigation.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- 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 discussed in Section 9, *Hazards and Hazardous Materials*, the nearest aircraft facility to the project site is the John Wayne Airport, located approximately 14 miles northwest of the project site. According to the Orange County ALUC Land Use Plan for the John Wayne Airport, the site is not located within the airport's noise contours (Orange County ALUC 2008). Although the project site would potentially be subject to occasional aircraft overflight noise, such occurrences would be intermittent and temporary. In addition, there are no private airstrips in the vicinity of the project site. Therefore, the project would not expose people working in the project area to excessive noise levels associated with airports or airstrips and the project would not exacerbate existing noise conditions related to airports or airstrips. No impact would occur.

NO IMPACT

14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Population and Housing Setting

According to the California Department of Finance (DOF), the City of Laguna Beach has an estimated population of 22,706, an average household size of 2.10 persons, and 13,025 existing housing units (DOF 2022). SCAG estimates a population increase of 100 residents and 100 new households within the city between 2016 and 2045 (SCAG 2020).

- 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 proposed project includes the demolition of the existing 1,318-sf single-family home and the construction of a 6,774-sf three-story single-family residence. As the project would replace an existing residence, no change in the population of Laguna Beach would be anticipated. Furthermore, single-family residential uses are consistent with the existing general plan designation and zoning of the project site, as well as its current use. Therefore, the project would not result in a substantial direct or indirect increase in population or induce unplanned population growth. There would be no impact.

NO IMPACT

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

The project would replace an existing single-family residence with a new, modernized residence. The project would not displace substantial numbers of residents or housing or necessitate construction of replacement housing elsewhere. There would be no impact.

NO IMPACT

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15 Public Services

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2 Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3 Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4 Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5 Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Public Services Setting

The City of Laguna Beach provides fire and police protection services through the Laguna Beach Fire Department (LBFD) and Laguna Beach Police Department (LBPD). In addition, the City operates the Laguna Beach Unified School District (LBUSD), which provides schooling for grades kindergarten through twelfth. Recreational amenities in the City of Laguna Beach are managed by the Community Services Department and include several community parks and public beaches.

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

Fire protection is provided by the LBFD. The nearest fire station to the project site is LBFD Station No. 4 located at 31646 Second Avenue, approximately one mile north of the project site. As discussed in Section 14, *Population and Housing*, the project would replace an existing single-family residence with a new single-family residence and would not result in a substantial increase in population in the city. The project site is well served by existing fire services, and the proposed project would not cause substantially delayed response times or degraded service ratios for LBFD. Therefore, the project would not create the need for new or expanded fire protection facilities and there would be no impact.

NO IMPACT

- a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?*

Police protection services in Laguna Beach are provided by the LBPd. LBPd consists of approximately 127 employees. Of that, 98 are full time employees, 54 sworn and 44 professional staff members. This also includes approximately 10 police explorers, 15 citizens on Patrol Volunteers, 40 Animal Shelter Volunteers and over 300 Community Response Team Volunteers (LBPd 2018). The project site is served by the LBPd Station located at 505 Forest Avenue, approximately 4.7 miles north of the project site. As discussed in Section 14, *Population and Housing*, the project would not result in increased population or employment in the city, and therefore would not cause substantially delayed response times, degraded service ratios, or necessitate construction of new facilities. Therefore, the project would have no impact to police services.

NO IMPACT

- a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?*

The project site is served by LBUd, which operates several facilities serving grade levels pre-K through high school. The project is not anticipated to result in additional students to the school district as it involves continued single-family residential use of the project site. As such, the project would not result in the need for new or physically altered school facilities and there would be no impact.

NO IMPACT

- a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?*

Recreational amenities in the City of Laguna Beach are managed by the Community Services Department. The city currently has 29 oceanfront parks and viewing areas totaling approximately 24.7 acres. Community recreational needs are further supplemented by 13 neighborhood parks, totaling 11.3 acres, and 25 acres of outdoor recreational facilities provided by the Laguna Beach Unified School District. Combined with public beaches, total public recreational acreage in Laguna Beach is approximately 143 acres (Laguna Beach 2022b). The city does meet the desired standard of three acres of parkland per 1,000 residents as stated in the 1975 Quimby Act. However, residents and workers in the city can also easily access recreational amenities in the areas adjacent to Laguna Beach, such as the Laguna Coast Wilderness Park, which is an approximately 7,000-acre open space area within unincorporated Orange County (Laguna Beach 2005b; Orange County 2023a). The project would not contribute to population growth that would result in adverse physical impacts to

parks or require the provision of new or expanded parks. Therefore, the project would have no impact to parks.

NO IMPACT

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered 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 project would contribute incrementally toward use of City public services and facilities such as storm drain usage (discussed in Section 10, *Hydrology and Water Quality*, and Section 19, *Utilities and Service Systems*), solid waste disposal (discussed in Section 19, *Utilities and Service Systems*), and water usage and wastewater disposal (discussed in more detail in Section 19, *Utilities and Service Systems*). The project is not anticipated to cause substantial population growth within the city, there are no other public services or public facilities, such as libraries or hospitals, for which significant impacts are anticipated. Therefore, the proposed project would have no impacts to other public facilities.

NO IMPACT

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16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Recreational Setting

Recreational amenities in the City of Laguna Beach include 29 oceanfront parks and viewing areas totaling 24.7 acres and 13 neighborhood parks totaling 11.3 acres (Laguna Beach 2022b).

Recreational amenities in the City of Laguna Beach are managed by the Community Services Department. The city is also in the vicinity of numerous Orange County recreational amenities, such as the Laguna Coast Wilderness Park (Laguna Beach 2005a).

- 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?*
- 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?*

As discussed above under Section 15, *Public Services*, recreational amenities in the City of Laguna Beach include 24.7 acres of oceanfront parks and 13 neighborhood parks totaling 11.3 acres (Laguna Beach 2022b). Though the city does not meet the desired standard of three acres of parkland per 1,000 residents as stated in the 1975 Quimby Act, residents and workers in the city can easily access recreational amenities in the areas adjacent to Laguna Beach, such as the Laguna Coast Wilderness Park, which is an approximately 10,000-acre open space area within unincorporated Orange County (Laguna Beach 2005a).

As discussed above in Sections 14, *Population and Housing*, and 15, *Public Services*, the project would not increase the number of residents or employees in the area. Because residents can easily access open space and recreational opportunities within the region and because the project does not increase the number of residents, the project would not create unanticipated demand on City parks or cause substantial deterioration of existing parks such that new park facilities would be needed. Therefore, the project would have no impact to recreational facilities and parks.

NO IMPACT

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17 Transportation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Transportation Setting

The project site is located in South Laguna Beach at 32051 Coast Highway, Laguna Beach, California. The site is regionally and locally accessible by Coast Highway. Site access would be provided by a driveway off of Coast Highway.

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

The proposed project includes the demolition of an existing single-family residence and construction of a new single-family residence with updates to landscaping throughout the parcel. The construction phase of the project is anticipated to occur over an approximately two-year period. Project construction would be limited to the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday. Construction staging and activities would occur within the parcel boundary and would not require lane closures on Coast Highway or affect any transit stop, bicycle, or pedestrian facilities in the vicinity of the project site. Construction-related vehicles would travel to and access the project site via Coast Highway. It is expected that construction of the project could result in a slight increase in traffic to and from the project site, as construction workers arrive and leave the site at the beginning and end of the day, in addition to minor interruption of traffic on adjacent streets, when heavy equipment necessary for project construction is brought to and removed from the site. Construction activities would be temporary in nature and would not substantially affect the circulation system.

Operation of the project would not be anticipated to significantly impact the circulation system, as the project would involve continued single-family use of the project site. Operation of the project would not generate new vehicle trips on the surrounding circulation system, nor would it affect

existing or planned public transit, bicycle, or pedestrian facilities in the project vicinity. The proposed project would not conflict with adopted policies, plans, or programs regarding the circulation system, including public transit, bicycle, or pedestrian facilities, or otherwise, decrease the performance or safety of such facilities. A less than significant impact would occur.

LESS THAN SIGNIFICANT IMPACT

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

CEQA Guidelines Section 15064.3(b) identifies appropriate criteria for evaluating transportation impacts. It states that land use projects with VMT exceeding an applicable threshold of significance may indicate a significant impact, and that projects that decrease VMT compared to existing conditions should be presumed to have a less than significant transportation impact.

The project would not generate additional trips compared to existing trips associated with the single-family residence currently located on the project site. According to the Governor's Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018), land use projects such as the project "that generate or attract fewer than 110 trips per day generally may be assumed to cause a less than significant transportation impact." As the project would generate fewer than 110 trips per day, the project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3 (b). Thus, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- 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 proposed project would not alter or affect the existing street and intersection networks in its vicinity. The project would be accessible by a single driveway for ingress and egress from Coast Highway, consistent with the current driveway serving the site. Project design would be subject to review by the LBFD to ensure site access safety and consistency with design standards. Therefore, the project would not substantially increase hazards due to a geometric design feature. Additionally, the project site is surrounded by existing residential development to the north, south, and east. The proposed single-family residence would be consistent with these uses. As such, the proposed project would not introduce incompatible uses and there would be no impact.

NO IMPACT

- d. Would the project result in inadequate emergency access?*

The project site would be accessible by a driveway off Coast Highway, which would be designed in accordance with the requirements of the LBFD and Building Safety Division. LBFD and Building Safety Division Review would confirm that required safety features, including adequate emergency access, are implemented. Consequently, there would be no impact.

NO IMPACT

18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a PRC 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 PRC Section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tribal Cultural Resources Setting

On July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted, which expanded CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "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). AB 52 further states that the 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) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or
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 for California tribes regarding those resources. The consultation process 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.” 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.

- a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC 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 PRC Section 5020.1(k)?*
- b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC 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 PRC Section 5024.1?*

On October 20, 2022, the City mailed via certified mail AB 52 consultation letters for the proposed project, including project information, a map, and contact information, to 11 Native American tribal contacts. The tribal governments provided with an AB 52 consultation letter (via certified mail) include the following list of recipients:

- Soboba Band of Luiseño Indians
- Juaneño Band of Mission Indians
- Gabrieleno/Tongva San Gabriel Band of Mission Indians
- Gabrielino Tongva Indians of California Tribal Council³
- Gabrieleno Band of Mission Indians – Kizh Nation
- Juaneno Band of Mission Indians Acjachemen Nation – Belardes
- Juaneno Band of Mission Indians Acjachemen Nation 84A
- Gabrielino-Tongva Tribe

Under AB 52, Native American tribes typically have 30 days to respond and request further project information and request formal consultation. No responses were received to the mailings. Accordingly, the requirements of AB 52 have been met for the project.

- a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC 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 PRC Section 5020.1(k)?*
- b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC 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 PRC Section 5024.1?*

³ AB 52 letters were sent to two contacts at the Gabrielino Tongva Indians of California Tribal Council.

No tribal cultural resources have been identified on or near the project site. However, the project site is generally sensitive for archaeological resources that may later be identified as tribal cultural resources. As such, there is a potential to encounter unanticipated tribal cultural resources during ground disturbance. In the event of an unanticipated discovery, impacts to unknown tribal cultural resources would be potentially significant. Mitigation measure TCR-1 would ensure that any unanticipated impacts to unknown tribal cultural resources would be mitigated to less than significant levels. With implementation of Mitigation Measure TCR-1, impacts would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

Mitigation Measures

TCR-1 Unanticipated Discovery of Tribal Cultural Resources

In the event that a cultural resource of Native American origin is found during project-related ground disturbance, excavation and other construction activity within a 100-foot radius shall immediately cease. If the City of Laguna Beach, in consultation with local Native Americans, determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with Native American groups. The mitigation plan may include but would not be limited to avoidance, capping in place, excavation and removal of the resource, interpretive displays, sensitive area signage, or other mutually agreed upon means.

Significance after Mitigation

Implementation of Mitigation Measure CR-1 and TCR-1 would require the proper treatment of any tribal cultural resources discovered during project construction activities and would reduce potential impacts to tribal cultural resources to a less than significant level.

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19 Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Utilities Setting

The City of Laguna Beach Public Works Department and Water Quality Department oversee the Laguna Beach community's infrastructure, natural resources, water, and wastewater systems. The project site is located in a developed area of the City of Laguna Beach with existing infrastructure for water, wastewater, stormwater drainage, electricity, natural gas, and telecommunications services. Potable water is supplied by SCWD, wastewater conveyance and treatment are provided by SCWD and South Orange County Wastewater Authority (SOCWA), the City maintains the stormwater drainage system within local roadways, SDG&E provides electricity service, SoCalGas provides natural gas, and Waste Management provides solid waste services for the project site.

Water

SCWD provides potable water, recycled water, and wastewater conveyance services to communities in South Laguna, Dana Point, and portions of San Clemente and San Juan Capistrano, with a service area of approximately eight square miles (SCWD 2022a). SCWD relies on two sources of water for drinking water needs: imported water from MWDOD and groundwater from the San Juan Groundwater Basin. SCWD also provides recycled water to an increasing number of customers to replace the use of potable water for landscape irrigation, with approximately 15 percent of total demand in the service area met by recycled water (SCWD 2022b). In fiscal year 2019-2020, 73 percent of SCWD's water supply was from imported water, 13.5 percent was from groundwater, and 13.5 was from recycled water. By 2045, SCWD anticipates the water supply will consist of 66 percent imported water, 15 groundwater, and 19 percent recycled water (SCWD 2021).

Wastewater

SCWD manages, operates, and maintains the wastewater collection system serving the project site, which includes monitoring, inspecting, cleaning, and repairing the gravity sewer lines, force mains, and lift stations. The wastewater collection system section provides service to approximately 37,000 customers in its service area. There are approximately 140 miles of sewer mains, including the two-mile Beach Interceptor Sewer Tunnel, and 13 neighborhood lift stations. SCWD's collected sewage is conveyed to one of two wastewater treatment facilities owned and operated by SOCWA. The Coastal Treatment Plant (CTP) in Aliso Canyon has a capacity of 6.7 million gallons per day and treats wastewater collected from the northern part of the SCWD service area, including the project area, (SCWD 2019).

Electric Power, Natural Gas, Telecommunications

The project site is served by SDG&E for electricity and SoCalGas for natural gas. SDG&E provides electricity services to 3.7 million customers within a 4,100 square mile service area in San Diego and southern Orange County (SDG&E 2023). In 2021, SDG&E supplied 17,560 gigawatt hours of electricity (CEC 2023a). Of the electricity provided, 33.6 percent was from renewable resources such as solar and wind and the remainder was from non-renewable sources such as natural gas, large hydroelectric, and nuclear (SDG&E 2022).

SoCalGas provides natural gas resources to the city and most of southern and central California, including 21.8 million customers over a 24,000-square mile service area (SoCalGas 2023). SoCalGas receives gas supplies from several sedimentary basins, including supply basins located in New Mexico (San Juan Basin), western Texas (Permian Basin), the Rocky Mountains, and western Canada, as well as local California supplies (California Gas and Electric Utilities 2022). In 2021, SoCalGas supplied 5,101 million therms of natural gas (CEC 2023b). SoCalGas projects total gas demand to decline at an annual rate of 1.5 percent from 2022 to 2035 due to energy efficiency, fuel substitution, and renewable energy goals and standards (California Gas and Electric Utilities 2022).

Telecommunications are provided by companies such as Cox Communications, AT&T, and Spectrum. An existing Cox Communications service box is located immediately adjacent to the project site within the Coast Highway right-of-way.

Solid Waste

The City's Public Works Department supplies residents, businesses, and institutions with waste carts for recyclables and green waste through their contract with the private waste hauler, Waste Management. Waste generated from the project site would be taken to Sunset Environmental Transfer Station, where recyclables are separated from the solid waste. Materials leaving transfer stations could be transported to three active landfills within Orange County: Olinda Alpha Landfill, Frank R. Bowerman Landfill, and Prima Deshecha Landfill (Orange County 2023b). These landfills are permitted to receive between 4,000 and 11,500 tons of waste per day and have remaining capacities between 34,200,000 and 205,000,000 cubic yards (California Department of Resources Recycling and Recovery [CalRecycle] 2023a, 2023b, 2023c).

- 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?*

The project site is located in a developed area of the City of Laguna Beach with existing infrastructure. The project site is developed with a single-family residence and has existing connections to water and wastewater mains, electrical and natural gas lines, stormwater drainage lines, and a telecommunications box located in the Coast Highway right-of-way. The proposed project would replace the existing single-family residence with a new single-family residence and would not substantially increase demand on these utilities. Minor alternations to the existing utilities connections within the project site may be required as part of project construction; however, the proposed project would not require the resizing or relocation of existing utilities mains serving the site, nor would the project require new utility facilities to accommodate the proposed development. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- 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?*

As shown in Table 25, SCWD projects that water supplies would be sufficient to meet all demands through the year 2045 during normal, single dry year, and multiple dry year hydrologic conditions. SCWD supplies are projected to meet demands through 2045 even in future dry years if customers reduce their demand as they have done in recent droughts (SCWD 2021).

Table 25 Projected Water Supply and Demand (AF)

Year-Type	2025	2030	2035	2040	2045
Normal Year					
Supply Totals	6,580	6,892	7,033	7,066	7,070
Demand Totals	6,580	6,892	7,033	7,066	7,070
Difference	0	0	0	0	0
Single Dry Year					
Supply Totals	7,172	7,512	7,666	7,702	7,706
Demand Totals	7,172	7,512	7,666	7,702	7,706
Difference	0	0	0	0	0
Second Year of Multi-Year Drought					
Supply Totals	6,938	7,308	7,574	7,687	7,704
Demand Totals	6,938	7,308	7,574	7,687	7,704
Difference	0	0	0	0	0
Third Year of Multi-Year Drought					
Supply Totals	7,016	7,376	7,604	7,687	7,704
Demand Totals	7,016	7,376	7,604	7,687	7,704
Difference	0	0	0	0	0

Source: SCWD 2021

The project would demand 0.12 million gallons (0.33 AF) of water per year according to CalEEMod estimates (see Appendix A). The project would represent 0.03 to 0.07 percent of the 401-1,090 AF surplus of water supply during normal, single and multiple dry year conditions for year 2045. This estimate is conservative as it does not account for water demand associated with the existing residence on the project site, which would cease upon construction of the proposed project. Therefore, sufficient water is available to serve the project during normal, single and multiple dry year conditions, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- 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?*

Wastewater generated in Laguna Beach is delivered to the CTP, which has a permitted capacity of 6.70 million gallons (MGD) of wastewater per day. Currently, SOCWA treats 2.9 MGD and has a remaining capacity of 3.8 MGD (SOCWA 2023). The project would use an estimated 0.12 million gallons of water per year according to CalEEMod estimates (see Appendix B). Conservatively assuming that 100 percent of this water use would be treated as wastewater, 0.12 million gallons per year (0.0002 MGD) would represent less than 0.01 percent of the remaining daily capacity of 3.8 MGD at the CTP. This estimate is conservative in that it does not account for wastewater produced by the existing residence on the project site, which would cease upon construction of the proposed project. Therefore, the proposed project would not substantially increase demand for wastewater

treatment or require the construction of new treatment facilities. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Solid waste would be generated during demolition, grading, and construction activities. Given the size of the existing residence on the project site (1,318-sf) and the minor quantities of soil export anticipated (2,401 cy), project construction would not generate waste in excess of the capacity of local infrastructure. SB 1374 requires jurisdictions to divert 50 percent to 75 percent of all construction and demolition waste from landfills. In addition, CALGreen establishes a requirement to divert 65 percent of non-hazardous construction waste. In compliance with these regulations, the project would recycle and/or salvage a minimum of 65 percent of non-hazardous demolition and construction debris. Therefore, project construction would not result in significant impacts to the local solid waste infrastructure and comply with the applicable solid waste management and reduction statutes and regulations. Impacts would be less than significant.

Operation of the proposed project would generate typical quantities and types of household waste. According to CalEEMod (see Appendix A), the project would generate roughly 1.23 tons of solid waste per year (0.003 tons per day). This estimate is conservative in that it does not consider waste currently generated by the existing residence on the project site. Landfills serving Laguna Beach have sufficient remaining capacity to serve the proposed residence, and the project operation would not result in significant impacts to solid waste infrastructure. The proposed project would include source-sorted receptacles for disposing of solid waste, recyclables, and organic waste, and would be served by Waste Management. Consistent with the requirements of Assembly Bill (AB) 341, AB 939, and Senate Bill (SB) 1383, which establish goals for solid waste and organic waste diversion, waste materials collected would be transported to Sunset Environmental Transfer Station, where recyclables and organic waste are separated from the solid waste. The remaining materials would be transferred to three active landfills within Orange County. Therefore, the project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. The project would also comply with federal, state, and local management and reduction statutes and regulations related to solid waste. There would be no impact.

NO IMPACT

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20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
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?	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>

Wildfire Setting

The project site is located in an urban area of the City of Laguna Beach and is not within or adjacent to a state responsibility area. According to CALFIRE, the project site is located within a very high fire hazard severity zone (CALFIRE 2022). The project site is not within the Laguna Beach Fuel Maintenance Zone (City of Laguna Beach 2023a).

- 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?*

The project site is located in an urban area of the City of Laguna Beach and is within a local responsibility area in a VHFHSZ (CALFIRE 2022). The Public Safety Element of the Laguna Beach General Plan outlines the safety goals and policies of the City, while the City's Local Hazard Mitigation Plan focuses on optimizing the mitigation phase of preventing hazards (Laguna Beach 2018c and 2021b). The City has also adopted the Wildfire Mitigation and Wildfire Safety Report and

Wildfire Egress Study that provide a plan for vegetation management, emergency alert systems, and highlight the need for effective evacuation plans to move people away from impacted areas as expeditiously as possible (Laguna Beach 2019a and 2021b). According to the Public Safety Element, many of the major roadways within Laguna Beach are susceptible to natural hazards and could become blocked in the event of an emergency; therefore, evacuation routes will depend on the area affected and the type of hazard. The project site is within the Sunset Evacuation Zone, which utilizes Coast Highway as the primary evacuation route. The project site has direct access to Coast Highway for evacuation. For properties within the Sunset Evacuation Zone without direct access to Coast Highway, there are various evacuation access routes to Coast Highway, the closest of which to the project site is Point Place (Laguna Beach 2019).

While the project site is located in a VHFSZ, the project would not involve the development of structures that could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Construction staging and activities would occur within the parcel boundary and would not require lane closures on Coast Highway or Point Place, the nearest identified emergency evacuation routes. Therefore, project construction would not substantially impair an adopted emergency response plan or emergency evacuation plan. The project would replace an existing single-family residence with a new single-family residence and project operation would not result in substantially more traffic in the Sunset Evacuation Zone compared to existing conditions. The new residence would continue to have emergency evacuation access to Coast Highway via the existing driveway. Additionally, the project does not propose any changes to nearby roads or infrastructure that have the potential to interfere with or obstruct an adopted emergency response plan or impede fire or police access to the site and Sunset Evacuation Zone. Therefore, project impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- 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?*
- 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?*

The project site is located in an urban area of the city and is not adjacent to a wildland-urban interface. There are no streams or rivers located on or nearby the project site, and the project site is not at high risk of downslope or downstream flooding due to wildfire. Although the project site contains a coastal bluff and there is the potential for landslides, as described in Section 6, *Geology and Soils*, the proposed project would be designed in accordance with CBC requirements, including setbacks from the bluff area to ensure structural safety in the event of a landslide. Furthermore, the project does not propose uses that could exacerbate wildfire risks. Risks to project occupants would be mitigated through conformance with LBMC Chapter 15.01, which adopts the current California Fire Code and establishes provisions for fire safety related to construction, maintenance, and design of buildings. In addition, the project would comply with Laguna Beach Ordinance No. 1664, which establishes defensible space requirements for structures within the VHFHSZ. Consistent with the City's Defensible Space Guidelines, the project would maintain defensible space of 100 feet, or to the property line if less than 100 feet, from each side and from the front and rear of the structure,

with an ember-resistant zone being within five feet of the proposed residence. Landscaping within the defensible space would be selected and maintained so that a wildfire burning under average weather conditions would be unlikely to ignite the structure (City of Laguna Beach 2021c). Therefore, with compliance with the applicable State and local requirements, the project would not exacerbate wildfire risks and thereby expose residents to pollutant concentrations or the uncontrolled spread of wildfire or to risks due to runoff, post-fire slope instability, or drainage changes. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- 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?*

Although the project site is within a VHFHSZ, the project would be served by existing roads and utilities and would not require the installation or maintenance of new infrastructure that may exacerbate fire risk. Therefore, no temporary or ongoing impacts to the environment related to infrastructure that could exacerbate wildfire risk would occur.

NO IMPACT

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21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 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 discussed in Section 4, *Biological Resources*, the project site is developed with an existing single-family home and does not contain suitable habitat for special status fish and wildlife species. Therefore, the project would not substantially reduce the habitat of fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. In addition, regional wildlife movement is restricted given the built-out nature of the project area surroundings, and no native resident or migratory fish or wildlife species, established native resident

or migratory wildlife corridors, or native wildlife nursery sites exist on the project site. Implementation of Mitigation Measures BIO-1 and BIO-2 would ensure that sensitive habitat areas and any protected nesting birds on the site would be protected from disturbance due to construction and would reduce potential impacts to biological resources to a less than significant level.

Furthermore, as discussed in Section 5, *Cultural Resources*, the proposed project would not result in significant impacts to historical buildings or resources and as described therein and in Section 7, *Geology and Soils*, and Section 18, *Tribal Cultural Resources*, the project would have a less than significant impact related to the unanticipated discovery of archaeological resources, paleontological resources, and tribal cultural resources with implementation of Mitigation Measures CR-1, GEO-1, and TCR-1, respectively, which would require monitoring procedures related to the discovery of any unanticipated cultural resources, paleontological resources, and tribal cultural resources during construction activity. Therefore, the proposed project would not substantially degrade the quality of the environment, 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, 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. Impacts would be less than significant with incorporation of the aforementioned mitigation measures.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- 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)?*

As concluded in Sections 1 through 20, the project would have no impact, a less than significant impact, or a less than significant impact with mitigation incorporated with respect to all environmental issues considered in this document. Cumulative impacts of several resource areas have been addressed in the individual resource sections, including air quality, GHG emissions and noise. As discussed in Section 3, *Air Quality*, and Section 7, *Greenhouse Gas Emissions*, construction and operational air pollutant and GHG emissions from the project would not exceed SCAQMD thresholds. Because air quality and GHG emissions analyses are cumulative in nature, the project would not have a cumulatively considerable contribution to any cumulative air quality or GHG emissions impacts posed by other projects in the vicinity.

Section 13, *Noise*, concludes that operation of the project, including operational traffic would not result in a perceptible increase in ambient noise or vibration levels. However temporary construction activities could result in an exceedance of noise and vibration standards; this would be mitigated to a less than significant level with implementation of Mitigation Measures NOI-1 and NOI-2. The closest pending project is located at 32231 Stonington Road, approximately 1,000 feet to the southeast of the project site. All other pending projects are approximately 2,000 feet or further from the project site (Laguna Beach 2023b). Noise, by definition, is a localized phenomenon and is progressively reduced as the distance from the source increases; specifically, noise levels decrease by 6 dB for every doubling of distance. Construction noise from nearby construction-sites typically correspond closely to the noise levels generated by the single loudest noise source and do not combine to create significantly louder noise levels. Therefore, if construction of the proposed project was to occur at the same time as construction at 32231 Stonington Road, it would not be

anticipated to create a cumulatively considerable noise impact due to the distance between these sites.

As discussed in Section 17, *Transportation*, construction of the project would be limited to the project site and would not significantly impede traffic flow or pedestrian, bicycle, and public transit facilities on Coast Highway. Additionally, there would be no net change in trips associated with the proposed project and the project is expected to generate less 110 trips per day. Therefore, the project would not have a cumulatively considerable contribution to traffic impacts in the area.

Other resource areas, such as agricultural and mineral resources, were determined to have no impact in comparison to existing conditions. As such, the project would not contribute to cumulative impacts related to these issues. Other issues (e.g., geology, hazards, and hazardous materials) are by their nature project and site specific and impacts at one location do not add to impacts at other locations or create additive impacts. As such, the project's contribution to cumulative impacts would be less than significant with the aforementioned mitigation measures.

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- 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, noise and vibration, public services, and wildfire impacts. As detailed in the preceding sections, the project would not result, either directly or indirectly, in substantial adverse effects related to air quality, GHG emissions, operational noise and vibration, public services, and wildfire. In addition, with implementation of Mitigation Measures HAZ-1, NOI-1, and NOI-2, the proposed project would not result in substantial adverse effects related to hazards and construction noise and vibration. Compliance with applicable rules and regulations during project construction and operation and implementation of the aforementioned mitigation measures would reduce potential impacts on human beings to a less than significant level.

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List of Preparers

Rincon Consultants, Inc. prepared this IS-MND under contract to the City of Laguna Beach. Persons involved in data gathering analysis, project management, and quality control are listed below.

RINCON CONSULTANTS, INC.

Danielle Griffith, Director, Environmental Planning Services
Emily Marino, Project Manager
Marco Mendoza, Assistant Project Manager
Shannon Carmack, Principal, Cultural Resources
Jennifer DiCenzo, Director, Paleontology
Marty Meisler, Senior Supervising Biologist
Bill Vosti, Senior Environmental Scientist
Cameron Felt, Cultural Resources Project Manager
JulieAnn Murphy, Senior Architectural Historian
Aaron Rojas Jr., Environmental Planner
Katherine Fikan, Environmental Planner
Austin Anderson, Environmental Planner
Andrew McGrath, Paleontologist
Sarah Toback, Biologist
Nicole Vannest, GIS Analyst