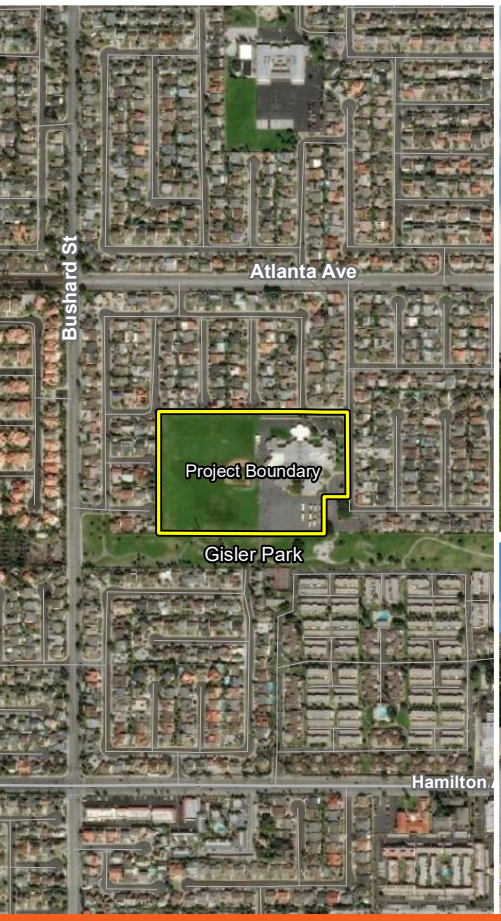
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Gisler Residential Project



July 22, 2021

Prepared for:
City of Huntington Beach
2000 Main Street
Huntington Beach, California 92648

PSOMAS

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APPENDICES

Appendix

1.0 INTRODUCTION

1.1 PURPOSE OF THE INITIAL STUDY

The purpose of this Initial Study (IS) is to (1) describe the proposed Gisler Residential Project (hereinafter referred to as the "Project"), which would be constructed in the City of Huntington Beach and (2) provide an evaluation of potential environmental impacts associated with the Project's construction and operation. The Project involves development of an 85-unit single-family detached residential development on an approximately 13.64-acre site. This IS has been prepared pursuant to the California Environmental Quality Act (CEQA), as amended (Section 21000 et. seq. of the *Public Resources Code*) and in accordance with the State CEQA Guidelines (Section 15000 et. seq. of the *California Code of Regulations*).

Pursuant to Section 15367 of the State CEQA Guidelines, the City of Huntington Beach (hereinafter referred to as the "City") is the lead agency for the Project. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect on the environment. The City of Huntington Beach, as the lead agency, has the authority for Project approval and certification of the accompanying environmental documentation.

1.2 CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

In accordance with CEQA and the State CEQA Guidelines, an IS has been prepared for the proposed Project and its associated discretionary approvals. The IS indicates that the potentially significant impacts of the Project can be reduced to less than significant levels with implementation of mitigation measures, and therefore, the Project requires preparation of an Initial Study/Mitigated Negative Declaration (IS/MND).

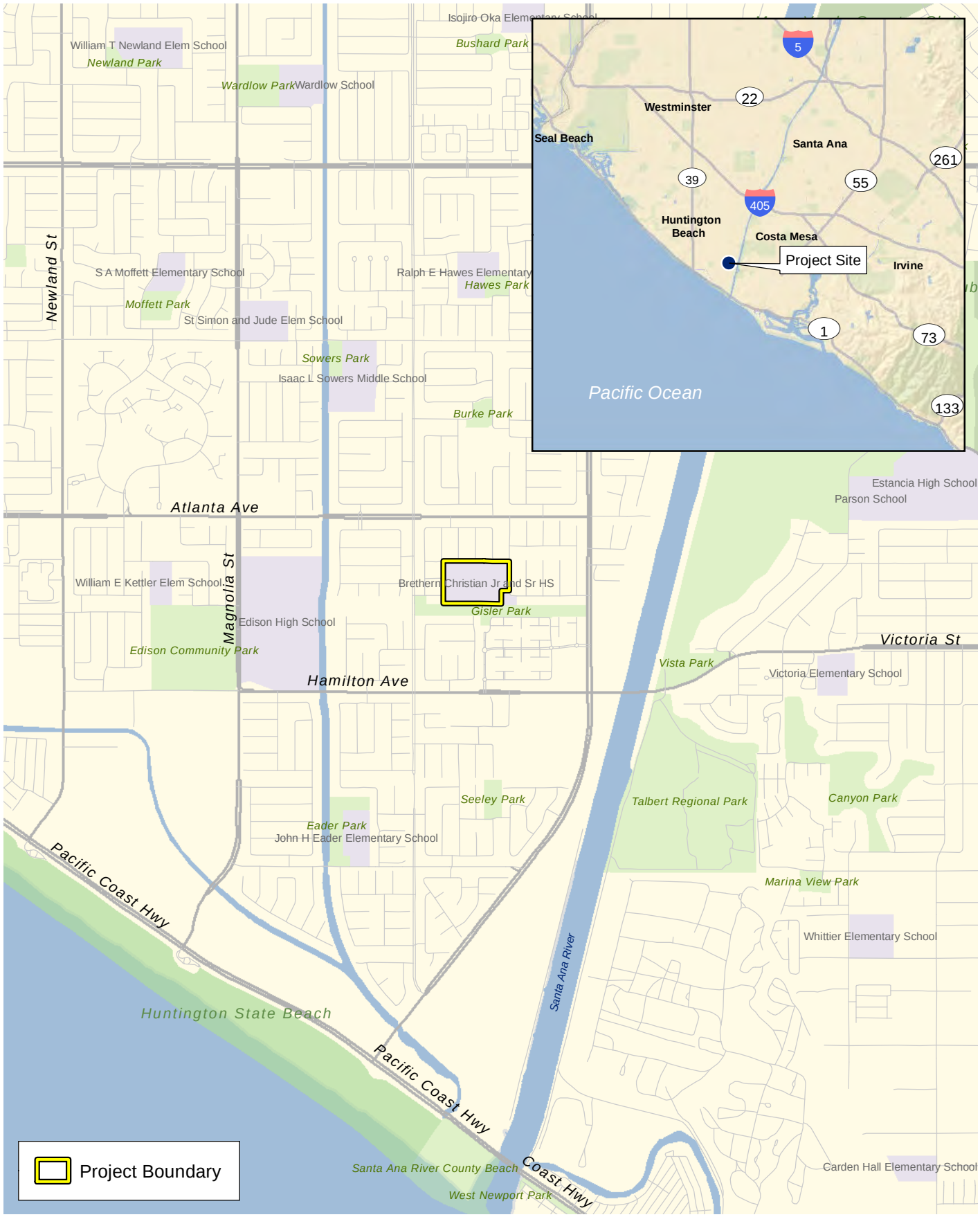
This IS/MND serves as the environmental document that presents the analysis of Project impacts on each of the environmental issue areas in the CEQA Environmental Checklist provided in Section 8.0. This document will serve to inform City decision makers, representatives of affected trustee and responsible agencies, and other interested parties of the potential environmental effects that may occur with approval and implementation of the proposed Project.

1.3 PROJECT SUMMARY

1.3.1 LOCATION

The approximate 13.64-acre Project site is in the southeastern portion of the City of Huntington Beach, in Orange County, California. The site is located at 21141 Strathmoor Lane and is generally surrounded by single-family residential to the north, east and west, with Gisler Park to the south. A City parking lot is also located to the east.

The site is approximately 3.6 miles south of Interstate 405 (I-405); 1.4 miles north of State Route 1 (SR-1); and 2.5 miles west of SR-55. See Exhibit 1-1, Regional Location and Local Vicinity.



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Regional Location and Local Vicinity

Exhibit 1-1

Gisler Residential Project

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1.3.2 PROJECT PROPONENT

Derek Spalding
Brookfield Residential
3200 Park Center Drive, Suite 1000
Costa Mesa, CA 92629
(714) 200-2448

1.3.3 EXISTING GENERAL PLAN AND ZONING

Land Use Designation: PS (RL) (Public/Semipublic with underlying Residential Low Density)

Zoning Classification: PS (Public/Semipublic)

1.3.4 EXISTING SETTING

Project Site

The Project site is currently developed with a school campus, which is not in use and slated for demolition. The existing use is comprised of an approximately 73,000 sf building and associated surfacing parking lot on the eastern half of the site and sports fields on the western half of the site. The school campus formerly served as both a public school (i.e., Ernest H. Gisler Middle School) and a private school (i.e., Greater Long Beach Schools, Inc. [operating as Brethren Christian Junior and Senior High School).

In light of the proposed demolition and vacant status of the existing building, it is boarded up for security and to prevent outside access. Additionally, a security fence has been installed by the Applicant to avoid trespassing.

Access to the Project site is currently provided by one entry point off Bluefield Drive and two additional entries off Strathmoor Lane. Ornamental trees are scattered around the building and along the western boundary of the site. A turf area abuts Strathmoor Lane on the east, to the north of the drop-off zone area.

Project Site Background

The Project site has been owned by the Huntington Beach City School District (HBCSD) since 1968 when the District acquired the land for the Ernest H. Gisler Middle School, with the school opening in 1973. Thirteen years later, in 1986, the Board of Trustees decided to close the school due to declined district enrollment. In 2001, based on a long-term lease with Greater Long Beach Schools Inc., the Brethren Christian Junior and Senior High School began operations until 2019 when the school relocated from the Gisler site. At that time, the HBCSD determined that the property was no longer needed as a school and declared it as surplus property with the intent to sell. Since then, Brookfield Residential has entered into a purchase and sale agreement with the HBCSD.

Prior to its closure, the Brethren Christina School had a total enrollment of 200 students and 25 staff. However, it should be noted that the Conditional Use Permit (CUP) No. 98-27 permitted

up to 500 students and 45 employees, and the Entitlement Plan Amendment (EPA) No. 99-16 permitted up to 720 students and 75 employees.

Surrounding Land Uses

The Project site is located within a residential neighborhood and surrounded by single-family detached residential uses immediately to the north and west; to the east across Strathmoor Lane; and to the south across Gisler Park. General Plan and Zoning designations for properties on three sides of the Project site is Residential Low Density. To the south, Gisler Park has a General Plan designation of Public and zoning of Residential Low Density. The City parking lot located to the east has a General Plan designation of Open Space – Park and zoning of Open Space – Park and Recreation.

Beyond residential uses, Edison High School is located less than a mile to the west and Santa Ana River is located less than a mile to the east. Huntington State Beach is located approximately 1.5 miles to the south. See Exhibit 1-2, Aerial Photograph.

1.3.5 PROPOSED DEVELOPMENT

The proposed Gisler Residential Project would involve construction of an 85-unit single-family detached residential development on an approximately 13.64-acre site with a density of 6.23 dwelling units per gross acre (du/ac). The existing vacant building and associated site improvements would be demolished to accommodate the proposed Project.

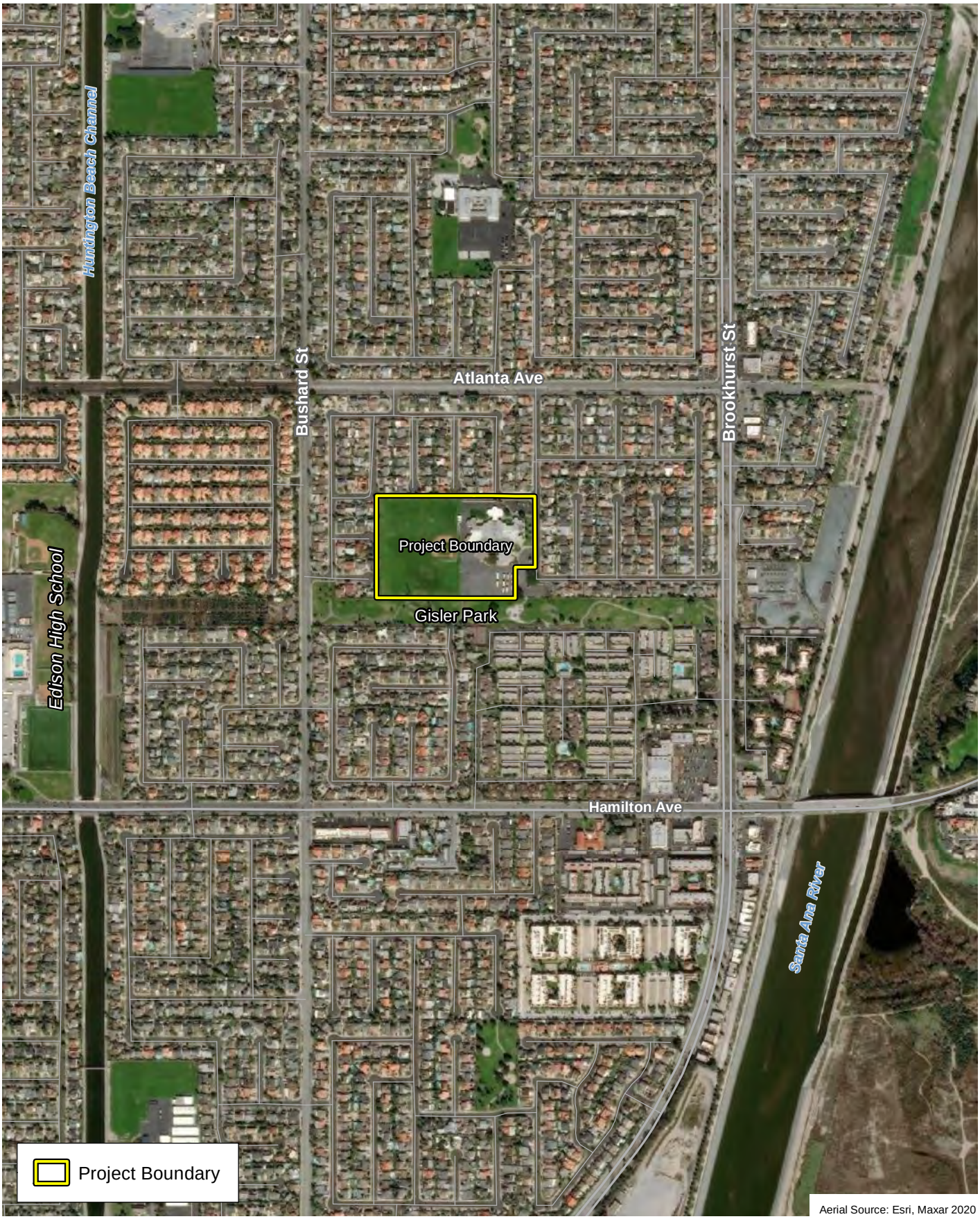
As a Planned Unit Development (PUD), the homes are proposed on approximately minimum 4,661 sf lots, with a minimum lot width of 50 feet (ft). The proposed development would include three plan types, with three elevation styles for each plan. The plans range from approximately 2,800 sf to 3,300 sf in size, with up to five bedrooms and three bathrooms, and two- or three-car garages. Rear yards range from minimum depths of 22± ft internally to more than 40 ft along the western and southern property lines. The proposed residences would all be solar-equipped and energy efficient and in compliance with the strict Building Efficiency Standards – Title 24 mandated in the 2019 code update. Additional information regarding the proposed Project's energy efficiency is provided in Section 3.0 of this IS/MND.

The proposed development would be accessed only from Strathmoor Lane, and a 24-foot wide emergency access is also proposed from Bluefield Drive to the north of the site. The layout of the internal streets is similar to the adjacent residential developments. Landscaping is proposed throughout the community, and improvements are proposed to the existing active open space immediately to the south at the Gisler Park.

Additional details on the Project are provided in Section 3.0 of this IS/MND.

1.4 SUMMARY OF FINDINGS

Based on the environmental checklist form prepared for the Project and supporting environmental analysis (Section 8.0), the proposed Project would have no impact or less than significant impacts in the following environmental areas: Aesthetics, Agriculture and Forestry Resources, Air Quality, Energy, Greenhouse Gas (GHG) Emissions, Hazards and Hazardous



Aerial Source: Esri, Maxar 2020

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Aerial and Surrounding Uses

Exhibit 1-2

Gisler Residential Project

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Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, Utilities and Service Systems, and Wildfire. The Project has the potential to have significant impacts on the following topics unless the recommended mitigation measures described herein are incorporated into the Project: Biological Resources, Cultural Resources, Geology and Soils, Noise, Transportation, and Tribal Cultural Resources.

According to the State CEQA Guidelines, it is appropriate to prepare an IS/MND for the proposed Project because, after incorporation of the recommended mitigation measures, potentially significant environmental impacts would be reduced to a level considered less than significant.

1.5 PROJECT APPROVAL

This IS/MND has been submitted to potentially affected agencies and individuals. The Notice of Intent (NOI) to adopt the IS/MND, as well as the environmental documentation are also available on the City of Huntington Beach website (https://www.huntingtonbeachca.gov/government/departments/planning/major/) for review. Additionally, the NOI was published in the Huntington Beach Wave.

A 20-day public review period, in accordance with Section 15073 of the State CEQA Guidelines, has been established for the IS/MND beginning on July 22, 2021 and ending on August 10, 2021. During review of the IS/MND, affected public agencies and the interested public should focus on the document's adequacy in identifying and analyzing the potential environmental impacts and the ways in which the potentially significant effects of the Project can be avoided or mitigated. Comments on the IS/MND and the analysis contained herein must be received by 5:00 PM on August 10, 2021, and should be addressed to:

City of Huntington Beach
Community Development Department
Attention: Ricky Ramos
Senior Planner
2000 Main Street
Huntington Beach, CA 92648
RRamos@surfcity-hb.org

Following receipt and evaluation of comments from agencies, organizations, and/or individuals, the City will determine whether any substantial new environmental issues have been raised. If so, further documentation such as an Environmental Impact Report (EIR) or an expanded IS/MND may be required. If not, the Project and the environmental documentation are tentatively scheduled to be submitted to the Huntington Beach Planning Commission and City Council for consideration.

1.6 ORGANIZATION OF THE INITIAL STUDY

The IS/MND is organized into sections, as described below.

- **Section 1.0: Introduction.** This section provides an introduction, Project summary, and overview of the conclusions in the IS/MND.
- **Section 2.0: Project Location and Environmental Setting.** This section provides a brief description of the Project location, relevant background information, and a description of the existing conditions of the Project site and vicinity.

- **Section 3.0: Project Description.** This section provides a description of the proposed Project components, a statement of purpose and need, and necessary discretionary approvals.
- **Section 4.0: Project Information.** This section includes a summary of the Project, location, entitlements required, lead agency and contact, Project proponent and contact, and existing designations and surrounding uses.
- **Section 5.0: Environmental Factors Potentially Affected.** This section provides a table of environmental topics and identifies topics with potentially significant impacts.
- **Section 6.0: Determination.** This section identifies the type of CEQA document required for the Project.
- **Section 7.0: Evaluation of Environmental Impacts.** This section provides an explanation of impact determination in the following section.
- **Section 8.0: Environmental Analysis.** The completed City of Huntington Beach Environmental Checklist Form provides an overview of the potential impacts that may or may not result from Project implementation. The Environmental Checklist Form also includes "mandatory findings of significance", as required by CEQA.
- **Section 9.0: References.** This section identifies the references used to prepare the IS/MND.

2.0 PROJECT LOCATION AND ENVIRONMENTAL SETTING

2.1 PROJECT LOCATION

The approximate 13.64-acre Project site is in the southeastern portion of the City of Huntington Beach, in Orange County, California. The site is located at 21141 Strathmoor Lane and is generally surrounded by single-family residential to the north, east and west, with Gisler Park to the south. A city parking lot is also located to the east.

The site is approximately 3.6 miles south of Interstate 405 (I-405); 1.4 miles north of State Route 1 (SR-1); and 2.5 miles west of SR-55. See Exhibit 1-1 in Section 1.0 depicts the regional location and local vicinity of the Project site.

2.2 EXISTING SITE AND AREA CHARACTERISTICS

2.2.1 SITE ACCESS

Access to the Project site is currently provided by one entry point off Bluefield Drive and two additional entries off Strathmoor Lane. Major roadways providing both local and regional access to the area include Atlanta Avenue to the north beyond existing residential; Brookhurst Street to the east beyond existing residential; Hamilton Avenue to the south beyond Gisler Park and existing residential; and Bushard Street to the west beyond a portion of Gisler Park and existing residential. Regional access is provided by I-405, SR-1, and SR-55.

2.2.2 EXISTING DEVELOPMENT CONDITIONS

The Project site is currently developed with a school campus, which is not in use and slated for demolition. The existing use is comprised of an approximately 73,000 sf building and associated surfacing parking lot on the eastern half of the site and sports fields on the western half of the site. The school campus formerly served as both a public school (i.e., Ernest H. Gisler Middle School) and a private school (i.e., Greater Long Beach Schools, Inc. [operating as Brethren Christian Junior and Senior High School).

In light of the proposed demolition and vacant status of the existing building, it is boarded up for security and to prevent outside access. Additionally, a security fence has been installed to avoid trespassing. Ornamental trees are scattered around the building and along the western boundary of the site. A turf area abuts Strathmoor Lane on the east, to the north of the drop-off zone area. Exhibit 1-2, in Section 1.0, depicts an aerial view of the site.

Development Background

The Project site has been owned by the Huntington Beach City School District (HBCSD) since 1968 when the District acquired the land for the Ernest H. Gisler Middle School, with the school opening in 1973. Thirteen years later, in 1986, the Board of Trustees decided to close the school due to declined district enrollment. In 2001, based on a long-term lease with Greater Long Beach Schools Inc., the Brethren Christian Junior and Senior High School began operations until 2019 when the school relocated from the Gisler site. At that time, the HBCSD determined that the

property was no longer needed as a school and declared it as surplus property with the intent to sell. Since then, Brookfield Residential has entered into a purchase and sale agreement with the HBCSD.

2.2.3 EXISTING PHYSICAL CONDITIONS

Geology and Soils Conditions

The proposed Project site is generally located within the Peninsular Ranges Geomorphic Province of California, at the southern boundary of the Los Angeles Sedimentary Basin. The Los Angeles Basin is a sedimentary deposit that is bounded near the Project site by the coastal mesa of Newport Beach. The channelized portion of the Santa Ana River passes about a third of a mile to the southeast of the site. The primary geologic unit underlying the site is Quaternary young alluvial deposits, which are defined as Holocene to late Pleistocene deposits consisting of silt, sand, and gravels in general. There are likely thin layers of artificial fill associated with past uses of the site as a school.

The Project site soils primarily consist of layers of fine-grained clay, sandy clay, and sandy silt, with varying amounts of silty sand transitioning to primarily silty sand to sand with varying amount of sandy silty and silty clay to the maximum depth of approximately 50 ft below ground. Groundwater ranges from approximately 10 to 14 ft below existing ground surface. Historic high groundwater is estimated at 3 ft below existing grade.

Drainage and Hydrology Conditions

The existing drainage pattern of the Project site is easterly and drains toward Strathmoor Lane at the eastern boundary of the site. As there are no existing storm drain facilities on the Project site or in the adjacent roadway, the site drainage either sheet-flows or curb-cores in an easterly direction to Strathmoor Lane, continues southerly in Strathmoor Lane and is conveyed southerly and easterly in Effingham Drive before collecting into the City's storm drainage system. Ultimately, the drainage discharges into Reach 1 of the Santa Ana River.

2.2.4 SURROUNDING LAND USES AND DEVELOPMENT

The Project site is located within a residential neighborhood and surrounded by single-family detached residential uses immediately to the north and west; to the east across Strathmoor Lane; and to the south across Gisler Park. General Plan and Zoning designations for properties on three sides of the Project site is Residential Low Density. To the south, Gisler Park has a General Plan designation of Public and zoning of Residential Low Density. The city parking lot located to the east has a General Plan designation of Open Space – Park and zoning of Open Space – Park and Recreation.

Beyond residential uses, Edison High School is located less than a mile to the west, and Santa Ana River is located less than a mile to the east. Huntington State Beach is located approximately 1.5 miles to the south. See Exhibit 1-2, Aerial Photograph, in Section 1.0.

2.3 PLANNING CONTEXT

2.3.1 GENERAL PLAN DESIGNATION

The Project site currently has a General Plan land use designation of PS (RL) (Public/Semipublic with underlying Residential Low Density). The Public/Semipublic designation provides for a number of land uses, including public and private schools, hospitals, churches, cultural facilities, institutional, and similar semi-public community service uses. General Plan designations for properties on three sides of the Project site is Residential Low Density. To the south, Gisler Park has a General Plan designation of Public. The City parking lot located to the east has a General Plan designation of Open Space – Park.

2.3.2 ZONING DESIGNATION

As identified in the City's Zoning Map, the site is zoned as PS (Public/Semipublic). Adjacent Zoning designations on three sides is Residential Low Density. To the south, Gisler Park has a Zoning designation of Residential Low Density. The City parking lot located to the east has a Zoning designation of Open Space – Park and Recreation.

3.0 PROJECT DESCRIPTION

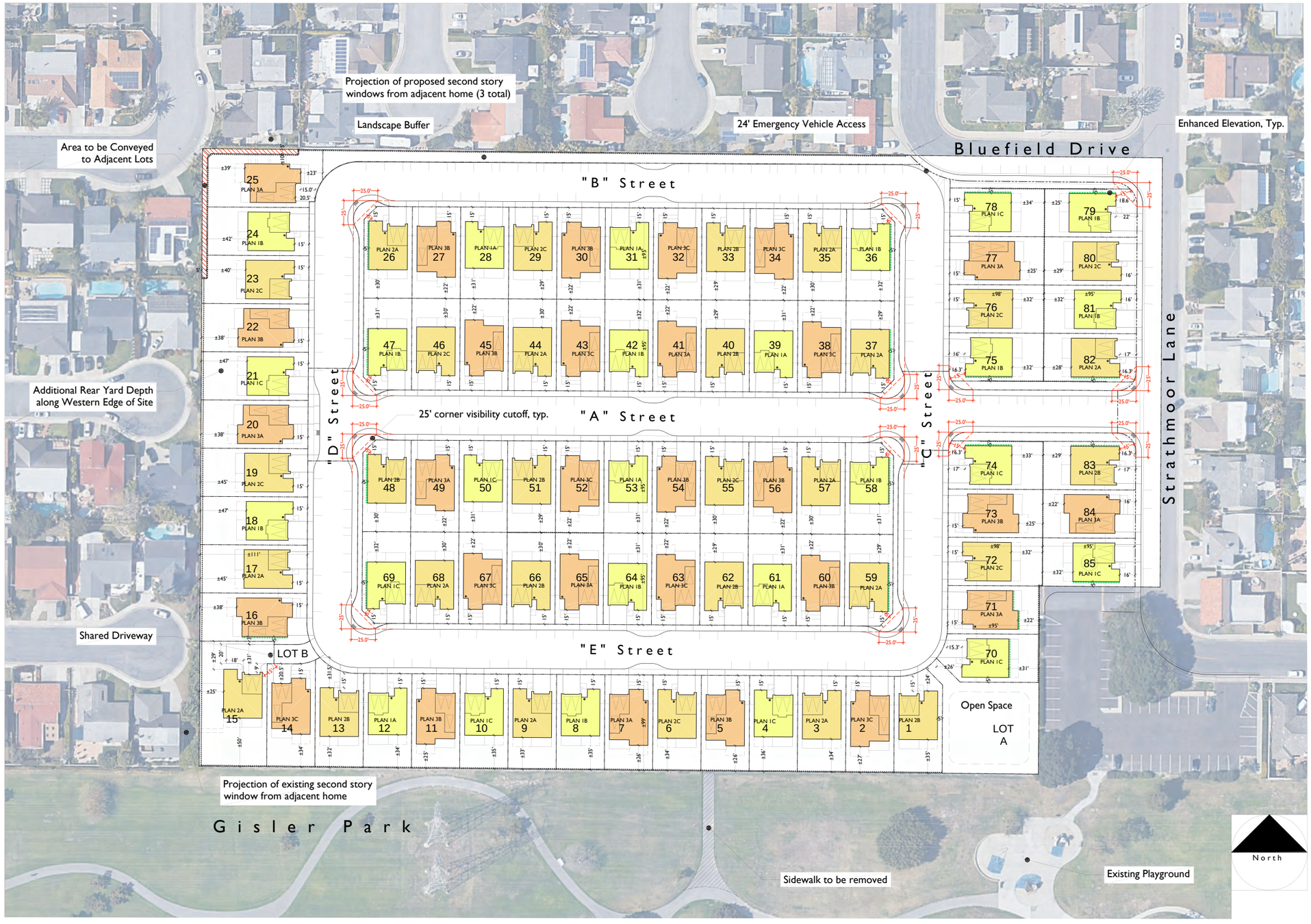
3.1 RESIDENTIAL LAND USE

The proposed Gisler Residential Project involves construction of an 85-unit single-family detached residential development on an approximately 13.64-acre site with a density of 6.23 dwelling units per gross acre (du/ac). Please refer to Exhibit 3-1, Gisler Residential Project Site Plan. The proposed density is compatible with the existing residential uses around the site. The existing vacant building on the site would be demolished to accommodate the proposed Project.

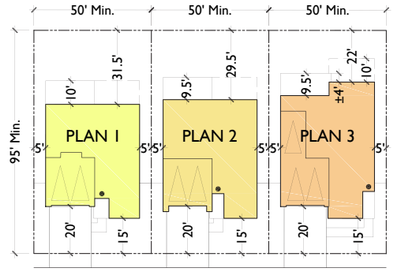
As a Planned Unit Development (PUD), the homes are proposed on minimum approximately 4,661 sf lots, with a minimum lot width of 50 ft. The average lot size is_approximately_4,950 sf. The proposed development would include three plan types, with three elevation styles for each plan. The plans range from approximately minimum 2,800 sf to 3,300 sf in size, with up to five bedrooms and three bathrooms, and two- or three-car garages. Rear yards range from minimum depths of 22±ft internally to over 40 ft along the community's western and southern property lines. Exhibits 3-2, 3-3, and 3-4 depict Plan 1, Plan 2, and Plan 3 Front Elevations, respectively. The proposed residences would all be solar-equipped and energy efficient and in compliance with the strict Building Efficiency Standards – Title 24 mandated in the 2019 code update.

Active open space area is provided immediately to the south at the Gisler Park, and the Applicant would contribute the City's park in-lieu fee. A hierarchy of landscaping, including trees, shrubs, and turf would be provided to soften edge conditions that would include thematic masonry yard walls. Additional landscape screening is proposed for the City's Gisler Park parking lot and along the entire southern edge shared with Gisler Park. Additional discussion of landscaping and improvements is provided in the following sections.

The proposed Project would meet all applicable City development standards except for the request for reduced lot size and width. Table 3-1, below, includes the proposed development standards against the required standards.



Typical Minimum Lot Dimensions



Source: Bassenian Lagoni Architects 2021

Site Plan

Exhibit 3-1

Gisler Residential Project

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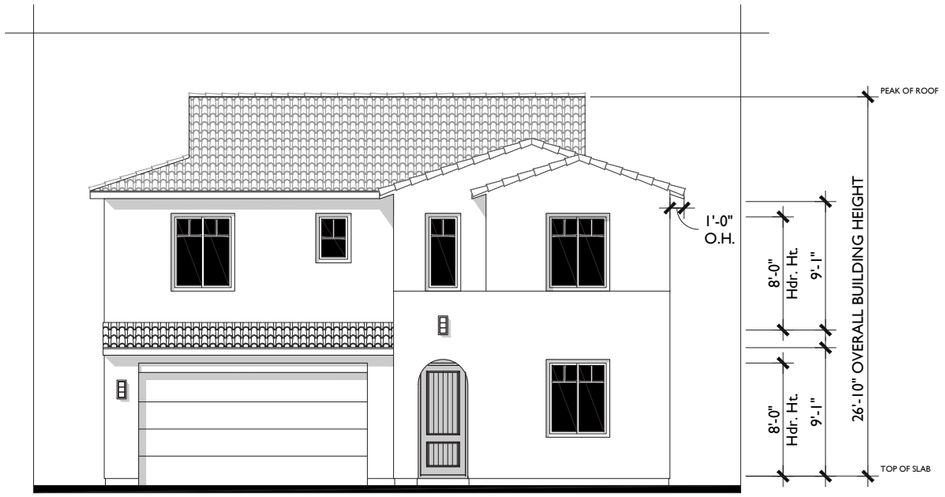

FRONT TRANSITIONAL SPANISH

FRONT COASTAL COTTAGE

FRONT ADOBE RANCH

Source: Bassenian Lagoni Architects 2021

Front Elevations – Plan 1

Gisler Residential Project

Exhibit 3-2

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FRONT TRANSITIONAL SPANISH

FRONT COASTAL COTTAGE

FRONT ADOBE RANCH

Source: Bassenian Lagoni Architects 2021

Front Elevations – Plan 2

Gisler Residential Project

Exhibit 3-3

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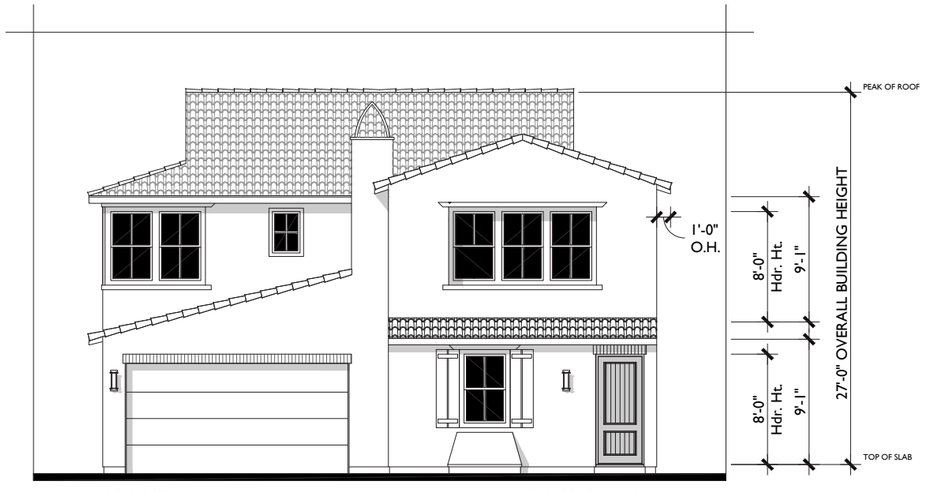
FRONT TRANSITIONAL SPANISH

FRONT COASTAL COTTAGE



FRONT ADOBE RANCH

Source: Bassenian Lagoni Architects 2021

Front Elevations – Plan 3

Exhibit 3-4

Gisler Residential Project

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TABLE 3-1
DEVELOPMENT STANDARDS

Development Standards	Required	Proposed
Minimum Lot Size	6,000 sf	4,660 sf (subject to PUD approval)
Minimum Lot Width	60 ft	50 ft (subject to PUD approval)
Front Setback	15 ft	15 ft
Side	5 ft	5 ft typ.
Street Side	10 ft	10 ft typ.
Rear	10 ft	22± ft min.
Building Height	35 ft	Maximum approximately 30 ft
Maximum Lot Coverage	50%	49.4%
sf: square feet; ft: feet; PUD: Planned Unit Development; typ: typical; min: minimum; in: inches; max: maximum *Source: Brookfield Properties, 2021.*		

3.1.1 ENERGY EFFICIENCY

As indicated above, the proposed residential units would be in compliance with the strict Building Efficiency Standards – Title 24 mandated in the 2019 code update. According to the California Energy Commission (CEC), single-family units built in compliance with the 2019 standards use about 7 percent less energy due to energy efficiency measures versus those built under the 2016 standards. Additionally, with solar electricity generation factored in, residential units built under the 2019 standards would use about 53 percent less energy than those under the 2016 standards. The proposed residential development would include the following components:

- **Solar Photovoltaic Systems**. The systems would be sized based on estimated demand to power the units' electrical loads, including plug-in appliances.
- **Building Envelope**. Strengthened insulation would be used in attics, walls, and window to improve comfort and energy savings and avoid dependence on mechanical systems for temperature regulation.
- **Healthy Indoor Air Quality**. Highly efficient filters that trap hazardous particulates from outdoor air as well as high efficiency ventilation systems would be utilized.
- **Ultra-Low NOx Furnaces**. Furnaces installed would be South Coast Air Quality Management District (SCAQMD)-certified and meet the required emissions level of 14ng/J NO_X for single-family units. Per the SCAQMD, Ultra-Low NOx furnaces reduce smog-forming NOx emissions from residential space heating.

3.2 PROJECT ACCESS/PARKING

The Gisler Residential Project would be accessed only from Strathmoor Lane, and a 24-foot wide emergency access is also provided from Bluefield Drive to the north of the site. The mid-block entry from Strathmoor Lane is in accordance with City requirements. A total of seven units would

front on Strathmoor Lane, and the remaining 78 units would be accessed through private streets, which would connect to Strathmoor Lane at the main access point.

The layout of the proposed internal streets is similar to the adjacent single-family residential units and the streets meet City Standard, with widths of 40 ft curb to curb, for a total 52 ft wide public right-of-way. The private streets within the development would include sidewalks. As shown on Exhibit 3-1, above, two of the proposed streets, Street "C" and Street "D", would be oriented north-south and connect to three streets, Street "A", Street "B", and Street "E", which would be oriented east-west providing access to the lots within the middle portion of the Project site. All streets, shown on Exhibit 3-1, shall comply with the fire lane requirements stated in Huntington Beach Fire Department's (HBFD's) City Specification #401. Refer to Exhibits 3-5a and 3-5b, Tentative Tract Map and Cross Sections, respectively.

The proposed street widths, as discussed above, accommodate double-loaded on-street parking throughout the entire neighborhood, with the exception of the short section at the entry. The proposed Project would comply with the City's parking requirements.

3.3 ARCHITECTURAL DESIGN

The proposed single-family units are 2 stories with a maximum height of approximately 30 ft. While the height is the same across the three plans (i.e., Plan 1, Plan 2, and Plan 3), other characteristics may differ across plans and architectural styles. Each plan has three architectural styles, including, Transitional Spanish, Coastal Cottage, and Adobe Ranch as well as three color schemes. The elevations and color schemes would be interspersed to provide variety and interest to the buildings and streetscape.

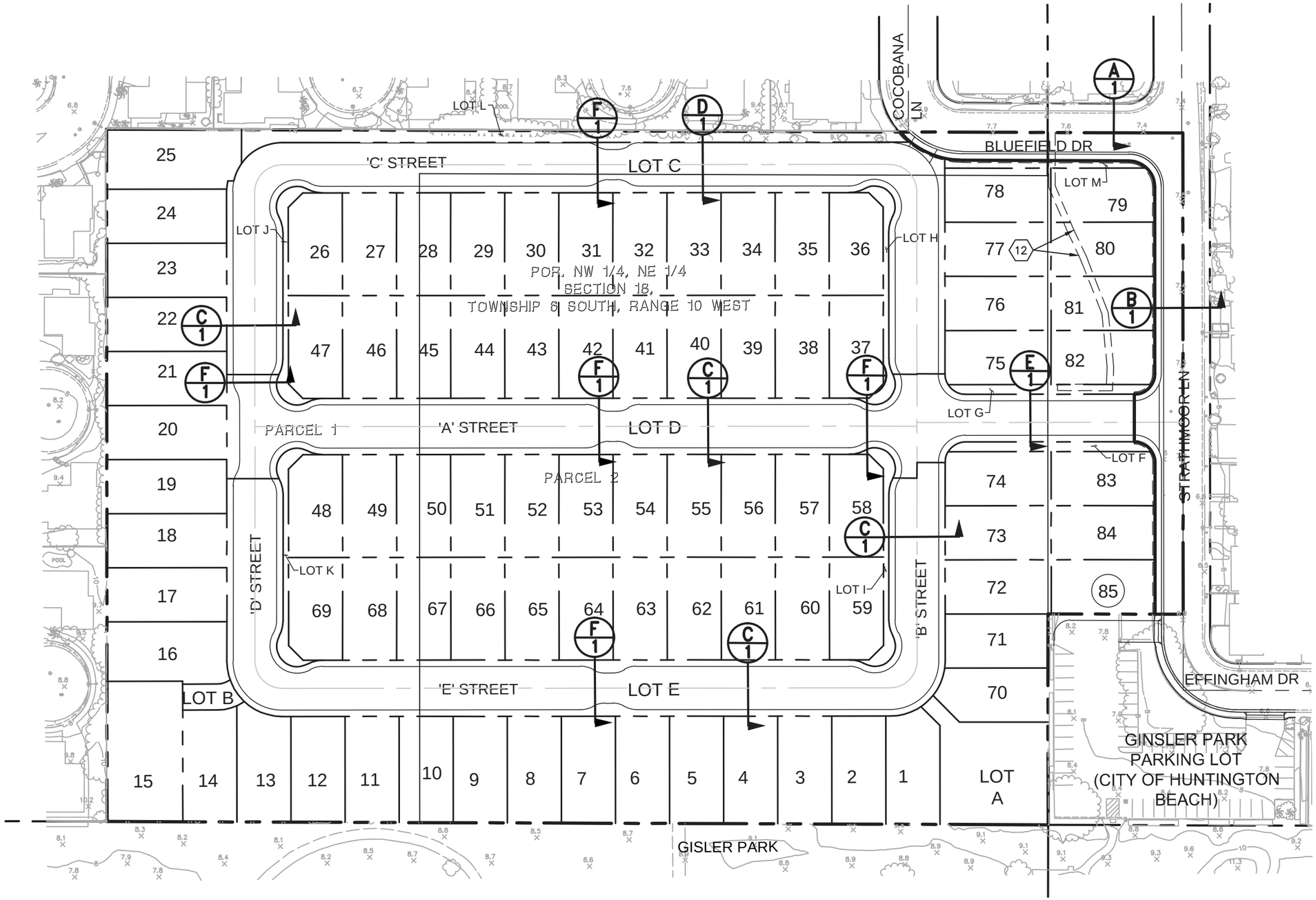
Each architectural style would feature variations in buildings and roof planes and combinations of roof forms, pitch, and overhangs. Window shapes and details, including header, sill, and trim elements may also be unique to each style. In the Transitional Spanish, roof forms incorporate primarily gables with a 3:12 pitch and 12-inch overhangs. This style would include arched soffits at entries; square griddle windows; ceramic tile accents at selected locations; panel type shutters; windows and doors with sill and header trims; pipe details at gable end accents; angled stucco corbels at eaves; concrete "S" tile roof; and decorative iron railings.

In the Coastal Cottage, roof forms incorporate hips and gables with a 4:12 pitch and 18-inch overhangs. This style would include plant type shutters; vertical style window grids in upper half of windows; shingles siding accents at select locations; window and door trims on all four edges; horizontal siding at gable end accents; flat concrete tile roof; and horizontal railings.

In the Adobe Ranch, roof forms incorporate primarily hips with a 4:12 pitch and 18-inch overhangs. This style would include panel type shutters; non-gridded windows; stone wainscot accents at select locations; window and door trims on all four edges; flat concrete tile roof; and horizontal railings.

The architectural styles of Plan 1 through Plan 3 are depicted on Exhibits 3-2, 3-3, and 3-4, in Section 3.1, above.

It should be noted that the final architectural plans may change, but any development on the property would be in conformance with the development standards as outlined in Table 3-1.



Source: Fuscoe Engineering 2021

Tentative Tract Map

Exhibit 3-5a

Gisler Residential Area

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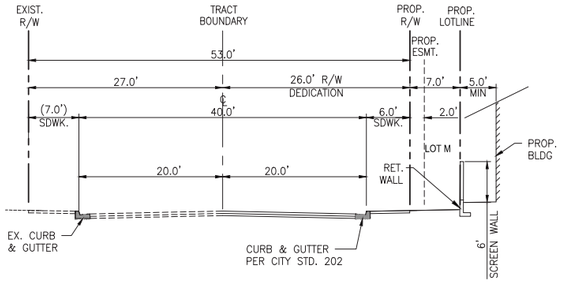

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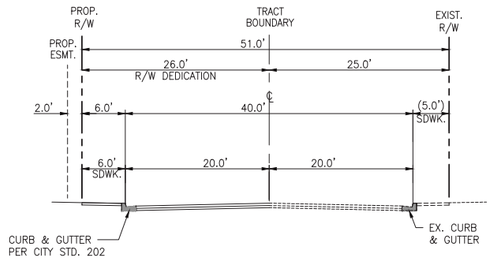
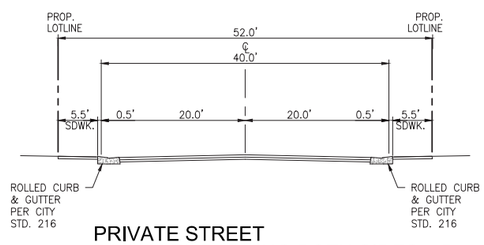
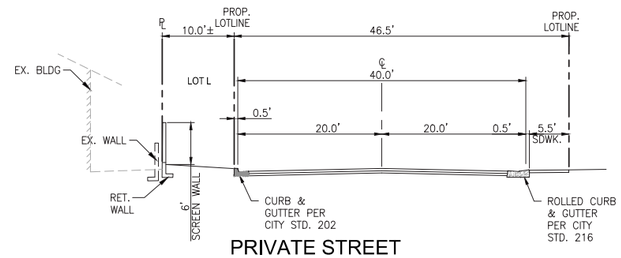
PARALLEL PARKING BOTH SIDES (A/1)
N.T.S



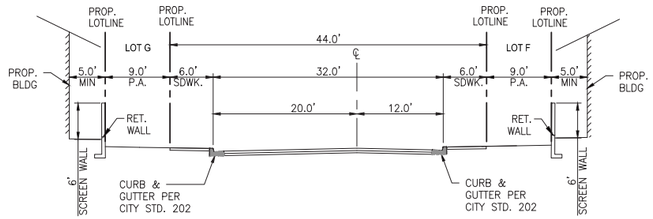
EXIST. STRATHMOOR LN
PARALLEL PARKING BOTH SIDES (B/1)
N.T.S



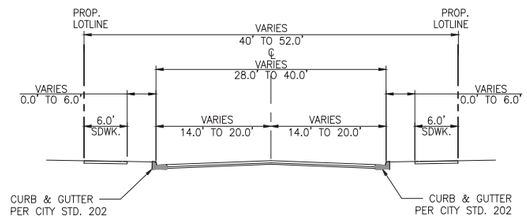
PRIVATE STREET
PARALLEL PARKING BOTH SIDES (C/1)
N.T.S



PRIVATE STREET
PARALLEL PARKING BOTH SIDES (D/1)
N.T.S



PRIVATE STREET
PARALLEL PARKING ONE SIDE (E/1)
N.T.S



PRIVATE STREET
TRANSITION FROM 40' TO 28' (F/1)
N.T.S

Source: Fuscoe Engineering 2021

Tentative Tract Cross Sections

Exhibit 3-5b

Gisler Residential Area

PSOMAS

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3.4 CONCEPTUAL LANDSCAPE PLAN

The proposed conceptual landscape plan would include a hierarchy of plant materials including trees, vines, shrubs, and turf throughout the Project site, and in open space areas. A layered landscape concept along the northern portion of the Project site would provide a buffer between the Project site and the existing adjacent residential development and the public right-of-way (ROW). The landscape in this area would be maintained by the homeowners association (HOA). Landscape screening is also proposed for the City's Gisler Park parking lot and along the entire southern edge shared with Gisler Park.

Common area HOA lots are located along the Project's Bluefield Drive frontage; the northern edge of "B" Street; the ends and corners of each internal residential blocks; both sides of Street "A" at the entry; at the mid-block traffic chokers; and the open space Lot "A". Additionally, the Project entry would be highlighted with substantial landscaping and entry monumentation. A variety of trees of different sizes and colors are proposed throughout the development, including: Star Pine (*Araucaria spp.*), Palo Verde (*Cercidium x 'Desert Museum'*), Mediterranean Fan Palm (*Chamaerops humilis*), Carrotwood Tree (*Cupaniopsis anacardioides*), Dragon Tree (*Dracaena drago*), and more.

The Applicant would install 36-inch box trees in each front yard and leave the balance of the front and rear yards for future homeowners' personalized landscaping. Project landscaping would comply with all landscape irrigation efficiency code requirements in effect at the time of development.

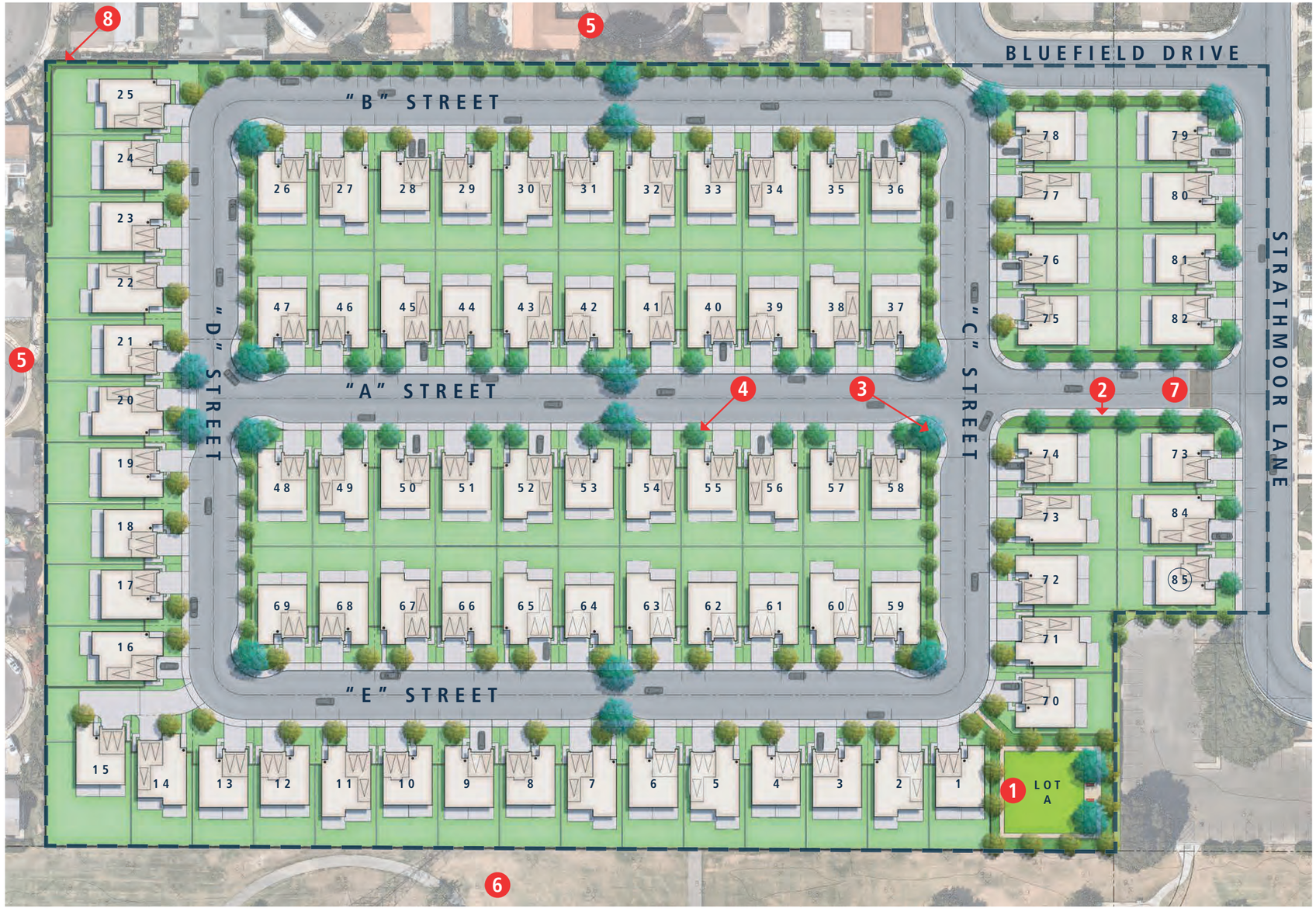
There is also a 0.23-acre passive open space area provided in the southeast corner of the site above the underground water quality detention basin. This area would be planted with turf and vertical trees at its perimeters. A concrete walk would surround the open turf on four sides and connect to the sidewalk. Additionally, benches and canopy trees would be provided along the eastern edge of the open turf.

Exhibits 3-6a and 3-6b depict the conceptual landscape plan and the plant palette. Exhibits 3-7a and 3-7b depict landscape sections and the passive open space area.

3.4.1 GISLER PARK IMPROVEMENTS

Gisler Park, a public park, is located immediately adjacent and to the south of the Project site. The Project proposes improvements to the existing park, which is located on Southern California Edison (SCE) property. The City has a license agreement with SCE to operate and maintain the park. The proposed improvements include the replacement of the existing concrete pathway that runs throughout the linear park and the replacement of existing tot lot play area. These proposed improvements are considered to be a public benefit to the existing community in return and as a requirement for the approval of a Planned Units Development (PUD) to allow the proposed reduced lot size and width. The proposed improvements would:

- Replace the existing walkway system with a 10-foot wide natural gray concrete walk. The wider walkway would better accommodate bi-directional pedestrian traffic flow. As part of the walkway replacement, the walkway's alignment will be adjusted to improve pedestrian circulation and service vehicle access to the park.



LEGEND

1. Open Space
2. Curb Adjacent Sidewalk
3. Corner Accent Planting
4. 36" box Homeowner Front Yard Tree [1 per home]
5. Existing Residential
6. Existing Park
7. Vehicular Concrete Pavers
8. Landscape at Corner

Source: C2 Collaborative 2021

Conceptual Landscape Plan

Exhibit 3-6a

Gisler Residential Area

N W E S

PSOMAS

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PLANT PALETTE

Interior Residential Streets Trees

Arbutus spp. (Strawberry Tree)
Araucaria spp. (Star Pine)
Bauhinia spp. (NCN)
Cercidium x 'Desert Museum' (Palo Verde)
Chamaerops humilis (Mediterranean Fan Palm)
Chitalpa tashkentensis (Pink Dawn)
Cupaniopsis anacardioides (Carrotwood Tree)
Dracaena drago (Dragon Tree)
Feijoa sellowiana (Pineapple Guava)
Ficus microcarpa nitida (Indian Laurel)
Jacaranda spp. (Jacaranda Tree)
Koelreuteria spp. (Flame Tree)
Lagerstroemia indica (Crape Myrtle)
Laurus nobilis (Sweet Bay)
Liriodendron tulipifera (Tulip Tree)
Magnolia spp. (Magnolia)
Olea spp. (Olive Tree)
Phoenix dactylifera (Date Palm)
Platanus racemosa (California Sycamore)
Podocarpus gracilior (Fern Pine)
Prosopis chilensis (Chilean Mesquite)
Prunus spp. (NCN)
Pyrus calleryana 'Bradford' (Bradford Pear)
Quercus spp. (Oak)
Rhus lancea (Laurel Sumac)
Tristania conferta (Brisbane Box)
Ulmus parvifolia (Evergreen Elm)

HOA Landscape

Private Homeowner Landscape

Shrubs, groundcovers, vines,

Agapanthus spp. (Lily of the Nile)
Agave spp. (Varies)
Aloe spp. (Varies)
Bougainvillea spp. (NCN)
Buxus japonica
Calliandra spp. (Pink Powder Puff)
Callistemon spp. (Bottlebrush)
Camellia spp. (Camellia)
Carissa macrocarpa spp. (NCN)
Carex
Chondropetalum spp. (Cape Rush)
Clytostoma callistegioides (Lavender Trumpet Vine)
Dianella spp. (Flax Lily)
Dianella spp. (NCN)
Dietes bicolor (Fortnight Lily)
Distictis buccinatoria (Blood Red Trumpet Vine)
Euphorbia spp. (NCN)
Ficus microcarpa (Indian Laurel Fig)
Festuca glauca
Hemerocallis spp. (Day Lily)
Juncus spp. (Rush)
Lantana spp. (NCN)
Ligustrum j. 'Texanum' (Texas Privet)
Liriope m. 'Gigantea' (Big Blue Lily Turf)
Lomandra longifolia (Dwarf Mat Rush)
Lonicera j. 'Halliana' (Hall's Honeysuckle)
Pittosporum t. variegata (Mock Orange)
Miscanthus spp. (Silvergrass)
Olea europea 'Montra' (Little Ollie)
Pandorea spp. (Bower Plant)
Parthenocissus tricuspidata (Boston Ivy)
Phlomis spp. (Jerusalem Sage)
Phormium spp. (Flax)
Pyracantha spp. (Firethorn)
Rhaphiolepis indica spp. (Indian Hawthorn)
Rosa spp. (Rose)
Rosmarinus spp. (Rosemary)
Salvia spp. (Salvia)
Senecio mandralisae
Strelitzia spp. (Bird of Paradise)
Teucrium spp. (Germander)
Trachelospermum jasminoides (Star Jasmine)
Westringia spp. (Coast Rosemary)
Wisteria spp. (NCN)

Source: C2 Collaborative 2021

Plant Palette — Exhibit 3-6b

Gisler Residential Area

PSOMAS

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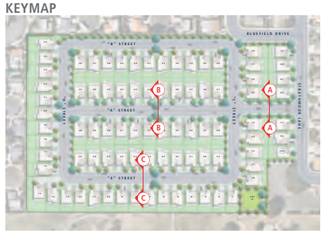
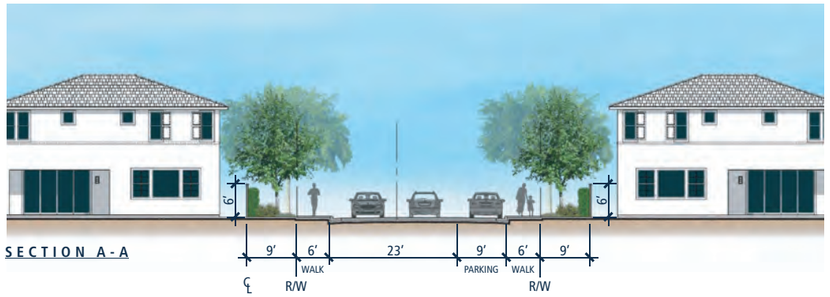
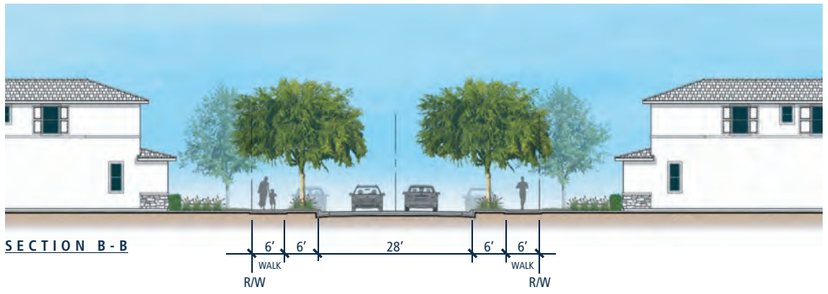
KEYMAP





SECTION A-A



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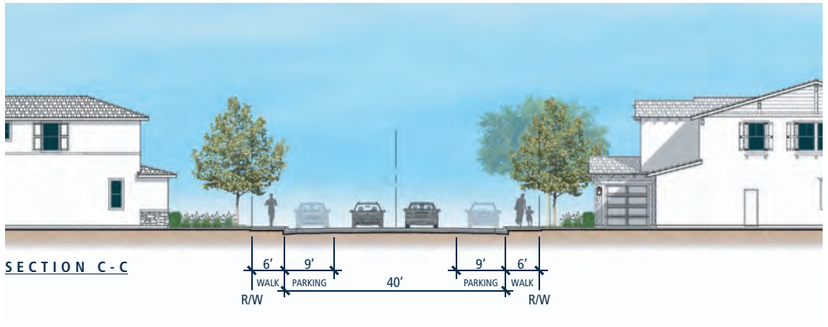
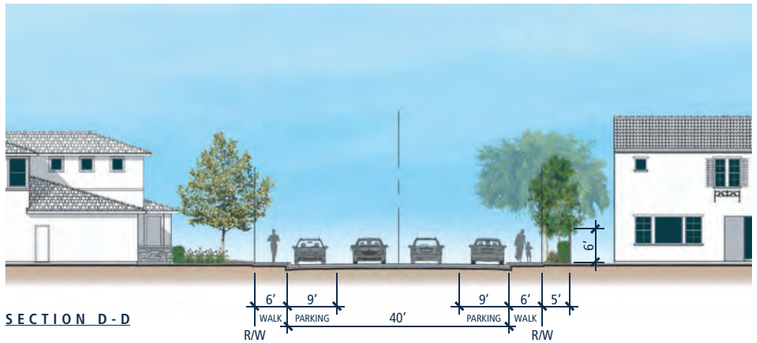
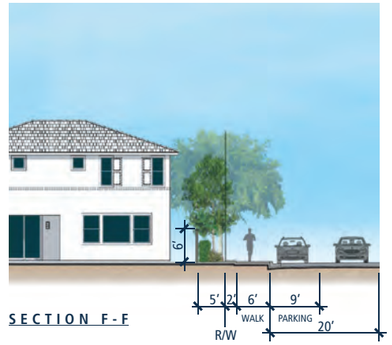


SECTION C-C

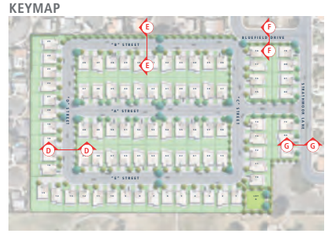


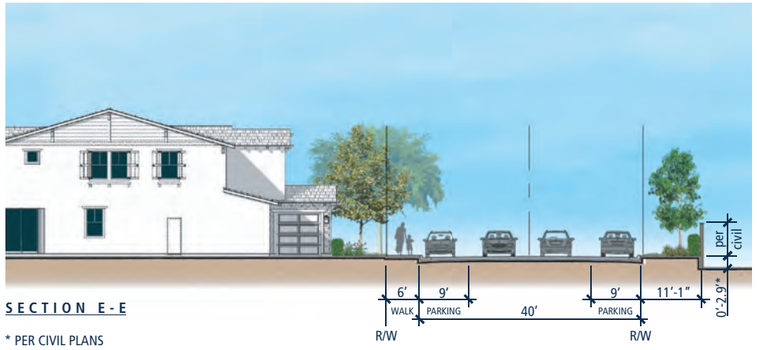
SECTION D-D



SECTION F-F

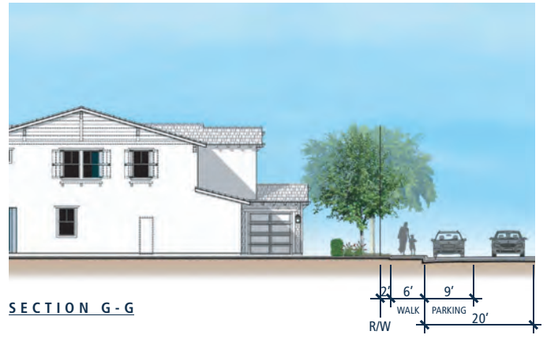
KEYMAP





SECTION E-E

* PER CIVIL PLANS



SECTION G-G

Source: C2 Collaborative 2021

Landscape Sections

Exhibit 3-7a

Gisler Residential Area

PSOMAS

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LOT A ENLARGEMENT

0 10' 20' 40'

LEGEND

1. Open Turf
2. Concrete Walk
3. Benches
4. Vertical Tree
5. Canopy Tree

KEYMAP

Source: C2 Collaborative 2021

Passive Open Space Park

Exhibit 3-7b

Gisler Residential Area

N W E S

PSOMAS

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- At the walkway entrances at Bushard Street and Panacea Drive, replace and relocate damaged bollards to behind the sidewalk. Other hardscape improvements include the removal and replacement of the existing pedestrian ramps at both entrances to bring them in compliance with Americans with Disabilities Act (ADA).
- Improve connectivity to the tot lots and main walkway from existing homes to the south by installing additional walkways.
- Replace three existing tot lot sand areas with a single, large tot lot play area and rubberized play surface. Tot Lot improvements would feature new play equipment for various age ranges and include new site furniture at the playground area.
- Replace the tree at Gisler Park public parking lot that was recently removed by the City due to wind damage at the park entrance.
- Remove and replace the existing walkway to the Project site with turf.
- Add new trash cans throughout the park to replace existing cans.

The proposed improvements would help reduce the maintenance cost of the existing condition of the Gisler Park. The above improvements are anticipated to not expand beyond the City's current license agreement with SCE or result in issues pertaining to clearance with the above ground high-volage transmission lines that run through the length of the park.

Exhibit 3-8 depicts the existing condition of Gisler Park and the proposed improvements.

3.5 CONSTRUCTION ACTIVITIES

Construction activities are anticipated to begin in early 2022 and occur in a single phase, through April 2025, for a total of 40 months. Construction activities would start with demolition and land development, including grading and infrastructure. The housing construction stage is a continuous process, comprised of smaller sub-phases that include construction of small numbers of units, which would start every two to four months, based on sales absorption.

Construction activity would generally occur between 7:30am to 5:00pm, Monday to Friday, and if required on Saturdays, in accordance with the Huntington Beach Municipal Code.

3.5.1 DEMOLITION

Implementation of the Project would include demolition of the existing building and onsite crushing of concrete and pavement, which would result in export of materials from the Project site. Demolition activities would commence in start after issuance of required permits and have a duration of less than four months. The street widths, shown on Exhibit 3-9b, shall comply with the fire lane requirements stated in the HBFD's City Specification #401. Street widths with parallel parking on either side of the street shall be a minimum 40 ft, and parallel parking on one side of the street shall be at least 32 ft.

A portion of the construction and demolition (C&D) debris (65 percent) would be recycled, reused, and/or salvaged in compliance with the California Green Building Standards Code (CALGreen Code), as adopted by the Huntington Beach Code. Materials that cannot be recycled, reused, or salvaged would be transported to one of the Orange County Waste & Recycling local

LEGEND

1. Remove walk and replace with sod.
2. Remove existing walkway system in park and replace with 10' wide natural gray concrete walk.
3. Replace play equipment and site furniture at playground. See Sheet L-2.
4. Add additional connections from park to neighborhood.
5. Move bollards to back side of sidewalk at entry to park.
6. Relocate walk to align with curb cut on Bushard.
7. Add trash cans as noted
8. Route pathway around tree.
9. Remove walk and replace with turf
10. ADA ramp

Source: C2 Collaborative 2021

Gisler Park Improvements

Gisler Residential Area

Exhibit 3-8

PSOMAS

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landfill (i.e., Frank R. Bowerman, Prima Deshecha, or Olinda Alpha). Any hazardous materials (e.g., asbestos-containing materials and lead-based paint) encountered during demolition would be handled and disposed of in accordance with South Coast Air Quality Management District (SCAQMD) rules and other pertinent regulations.

3.5.2 GRADING/CONSTRUCTION

The proposed grading of the site would retain the relatively flat topography. Grading activities are anticipated to occur over a period of 4 months starting in starting in early 2022 . Grading activities would include an estimated 12,000 cubic yards of cut and 62,000 cubic yards of fill and require approximately 50,000 cubic yards of import continuous process, as indicated above. It consists of smaller sub-phases, which would start every two to four months depending on sales absorption. Construction activities would utilize standard construction equipment, including earth-moving equipment, trucks, and forklifts. Construction activities and construction staging would mainly occur within the Project site boundaries. Implementation of traffic control measures during demolition and construction activities would minimize obstruction of vehicular traffic on public roadways in the vicinity of the Project site.

During the grading and construction, fire/emergency access to the site would be maintained in compliance with California Fire Code Chapter 33, Fire Safety during Construction and Demolition, as well as Huntington Beach Fire Code Section 17.56.480.

3.5.3 INFRASTRUCTURE IMPROVEMENTS

The proposed utility improvements would consist of private storm drain, private sewer system including a lift station, public domestic water system, and a private water quality facility. The majority of the proposed site drainage would be conveyed via surface flow and a series of catch basins and storm drain pipes to drain in the southeasterly direction to a detention vault. The detention vault would detain peak storm flows and store the water quality treatment volume.

The low flows would be pumped up from the detention vault to a Modular Wetland System for treatment. The treated and detained storm flows would exit the site to a proposed public storm drain connection in Effingham Drive through the City's Gisler Park parking lot and by street flow onto Strathmoor Lane.

3.6 DISCRETIONARY APPROVALS

This IS/MND is intended to serve as the primary CEQA environmental document for all actions associated with the proposed Project, including all other approvals beyond the City's authority needed to implement the Project. The following discretionary approvals are required for Project approval.

3.6.1 GENERAL PLAN AMENDMENT NO. 20-002

The Project site has an existing General Plan Land Use designation of PS (RL) (Public/Semipublic with underlying Residential Low Density). Approval of the Project would require adoption of a General Plan Amendment (GPA) to change the designation to Residential Low Density (RL), which would allow densities of up to 7.0 dwelling units per net acre (du/ac). The proposed

Project seeks a density of 6.23 du/gross ac. The permitted uses under the proposed designation include traditional detached single-family housing, zero-lot-line developments, mobile home parks, low-density senior housing, and accessory dwelling units or "granny flats".

3.6.2 ZONING MAP AMENDMENT NO. 20-002

The Project site is currently zoned as PS (Public/Semipublic). The Project would require a Zoning Map Amendment (ZMA) that would change the existing Zoning designation to Residential Low Density (RL).

3.6.3 TENTATIVE TRACT MAP NO. 19136

A Tentative Tract Map would be required to subdivide the 13.64-acre site into 85 single-family residential numbered lots and 13 lettered lots for private streets, open space, and landscaping.

3.6.4 CONDITIONAL USE PERMIT NO. 20-024

A Conditional Use Permit (CUP) would be required to develop the site as a PUD with reduced lot size (under 6,000 sf) and lot width (under 60 ft minimum) and for retaining walls over two feet tall.

3.6.5 DESIGN REVIEW NO. 20-007

A Design Review would be convened to review the design, colors, and materials of the proposed Project.

3.6.6 MITIGATED NEGATIVE DECLARATION NO. 20-002

In compliance with CEQA and the State CEQA Guidelines, the City of Huntington Beach has prepared an MND to analyze the potential environmental impacts of the proposed Project. The MND serves as a finding that the Project would not have a significant effect on the environment, with the incorporation of mitigation measures, as appropriate.

3.7 MINISTERIAL APPROVALS

In addition, the following ministerial permits would be sought from the City of Huntington Beach:

- Demolition Permit for existing buildings and site improvements
- Grading Permit
- Haul Route Permit
- Building Permits
- Encroachment Permit for driveway, sidewalk, and utility connections on adjacent streets
- Fire Construction Permits

The Project would require coverage under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit from the State Water Resources Control Board (SWRCB). The Project would also require a demolition permit from the SCAQMD.

3.8 COVENANTS, CONDITIONS, AND RESTRICTIONS

A Homeowners' Association (HOA) would be established with Covenants, Conditions, and Restriction (CC&Rs) to provide for the ownership maintenance of various improvements within the Project site. The CC&Rs would be submitted to the City for review and approval prior to their recordation. The CC&Rs would be binding upon and run with the land and be included or incorporated by reference in every deed conveying interests in the Project area. Additionally, they would provide for maintenance, repair, and replacement of all HOA-owned improvements within the common areas including landscaping areas along all street frontages including enlarged landscape area at the Project entry, irrigation, common vehicular driveways and streets, emergency access drive and gate; parking, park/open space, sections of perimeter walls including the northern property line boundary from Lot 25 to Bluefield Drive and at Los A, drainage facilities, sewer facilities, and water quality Best Management Practices (BMPs).

The residential private front and backyards would be maintained by the homeowners. The City of Huntington Beach would maintain the water facilities.

ENVIRONMENTAL CHECKLIST FORM
CITY OF HUNTINGTON BEACH
COMMUNITY DEVELOPMENT DEPARTMENT
ENVIRONMENTAL ASSESSMENT NO. 20-002

4.0 PROJECT INFORMATION

PROJECT TITLE: Gisler Residential Project

Concurrent Entitlements: GENERAL PLAN AMENDMENT NO. 20-002 – To amend the General Plan designation of PS (RL) (Public/Semipublic with underlying Residential Low Density) to Residential Low Density (RL)

ZONING MAP AMENDMENT NO. 20-002 - To amend the Zoning designation from PS (Public/Semipublic) to Residential Low Density (RL)

TENTATIVE TRACT MAP NO. 19136 - To subdivide the 13.64-acre site into 85 single-family residential numbered lots and 13 lettered lots for private streets, open space, and landscaping

CONDITIONAL USE PERMIT NO. 20-024 - To develop the site as a Planned Unit Development (PUD) with reduced lot size (under 6,000 sf) and lot width (under 60-ft minimum), and for retaining walls over two feet tall

DESIGN REVIEW NO. 20-007 - To review the design, colors, and materials of the Project

LEAD AGENCY: City of Huntington Beach
2000 Main Street
Huntington Beach, CA 92648

Contact: Ricky Ramos, Senior Planner
Phone: (714) 536-5271

PROJECT LOCATION: The 13.64-acre Project site is in the southeastern portion of the City of Huntington Beach, in Orange County, California. The site is located at 21141 Strathmoor Lane, approximately 3.6 miles south of Interstate 405 (I-405), 1.4 miles north of the State Route 1 (SR-1), and 2.5 miles west of State Route 55 (SR-55).

PROJECT PROPONENT: Brookfield Properties
3200 PARK CENTER DRIVE, SUITE 1000
COSTA MESA, CA 92626

Contact: Derek Spalding
Phone: (714) 200-1636

Contact: Bart Hayashi
Phone: (714) 200-1677

GENERAL PLAN DESIGNATION: PS (RL) (Public/Semipublic with underlying Residential Low Density)

ZONING: PS (Public/Semipublic)

PROJECT DESCRIPTION :

A detailed Project Description is provided in Section 3.0, above.

SURROUNDING LAND USES AND SETTING: The Project site is currently developed with an approximately 73,000-square foot former public and private school structure. The structure is located on the eastern portion of the site. The site is generally surrounded by single-family residential to the north, east, and west, with Gisler Park to the south. A City parking lot is also located to the east.

OTHER PREVIOUS RELATED ENVIRONMENTAL DOCUMENTATION:

A Negative Declaration (ND) No. 08-018/Conditional Use Permit No. 08-052 (Brethren Christian School Gymnasium) was prepared for the existing school use in 2008.

No previous environmental documentation was prepared for the proposed Gisler Residential Project.

OTHER AGENCIES WHOSE APPROVAL IS REQUIRED (AND PERMITS NEEDED) (i.e. permits, financing approval, or participating agreement):

- **South Coast Air Quality Management Agency.** Issuance of permits, as necessary

HAVE CALIFORNIA NATIVE AMERICAN TRIBES TRADITIONALLY AND CULTURALLY AFFILIATED WITH THE PROJECT AREA REQUESTED CONSULTATION PURSUANT TO PUBLIC RESOURCES CODE SECTION 21080.3.1? IF SO, IS THERE A PLAN FOR CONSULTATION THAT INCLUDES, FOR EXAMPLE, THE DETERMINATION OF SIGNIFICANCE OF IMPACTS TO TRIBAL CULTURAL RESOURCES, PROCEDURES REGARDING CONFIDENTIALITY, ETC.?

The City of Huntington Beach initiated tribal consultation on March 29, 2021 by notifying the City's consultation list of the Gisler Residential Project, as required by AB 52 and SB 18. Since initiating the consultation, the City did not receive responses from the tribes in response to AB 52 and SB 18 consultation letters.

5.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

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

6.0 DETERMINATION

(To be completed by the Lead Agency)

On the basis of this initial evaluation:

I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.	_____
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. **A MITIGATED NEGATIVE DECLARATION** will be prepared.	X
I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.	_____
I find that the proposed project **MAY** have a "potentially significant impact" or a "potentially significant unless mitigated impact" on the environment, but at least one impact (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 proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, **nothing further is required.**	_____

Signature

7/20/2021

Date

Ricky Ramos

Printed Name

Senior Planner

Title

7.0 EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to the project. A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards.
2. All answers must take account of the whole action involved. Answers should address off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. "Potentially Significant Impact" is appropriate, if an effect is significant or potentially significant, or if the lead agency lacks information to make a finding of insignificance. If there are one or more "Potentially Significant Impact" entries when the determination is made, preparation of an Environmental Impact Report is warranted.
4. Potentially Significant Impact Unless Mitigated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). Earlier analyses are discussed in Section XIX at the end of the checklist.
6. References to information sources for potential impacts (e.g., general plans, zoning ordinances) have been incorporated into the checklist. A source list has been provided in Section XIX. Other sources used or individuals contacted have been cited in the respective discussions.
7. The following checklist has been formatted after Appendix G of Chapter 3, Title 14, California Code of Regulations, but has been augmented to reflect the City of Huntington Beach's requirements.

8.0 ENVIRONMENTAL ANALYSIS

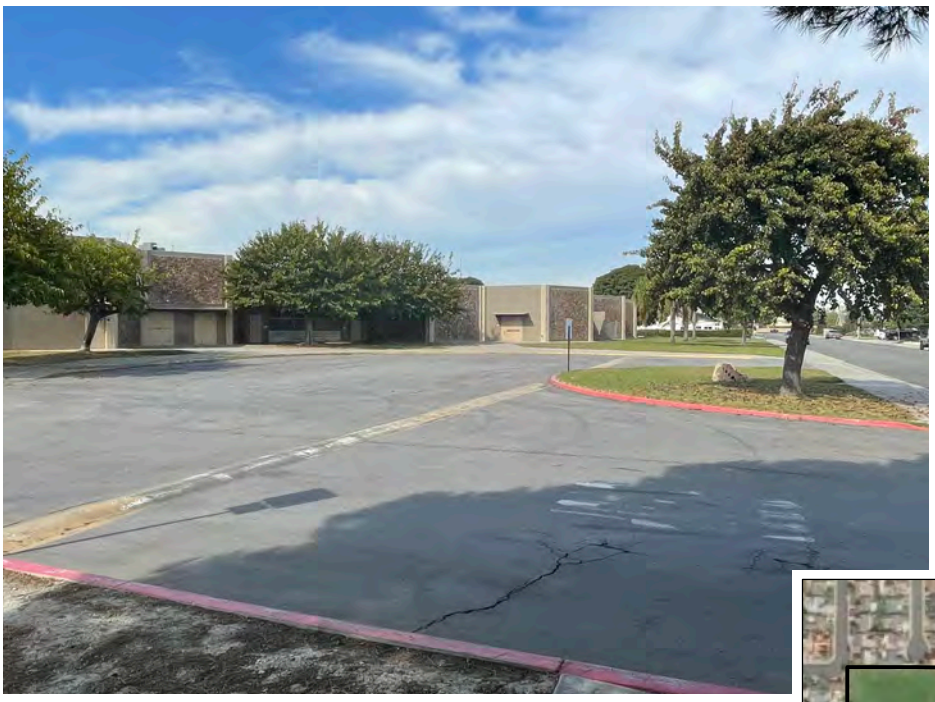
	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
8.1 AESTHETICS *Except as provided in Public Resources Code Section 21099, would the project:*				
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
c) In non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

Introduction

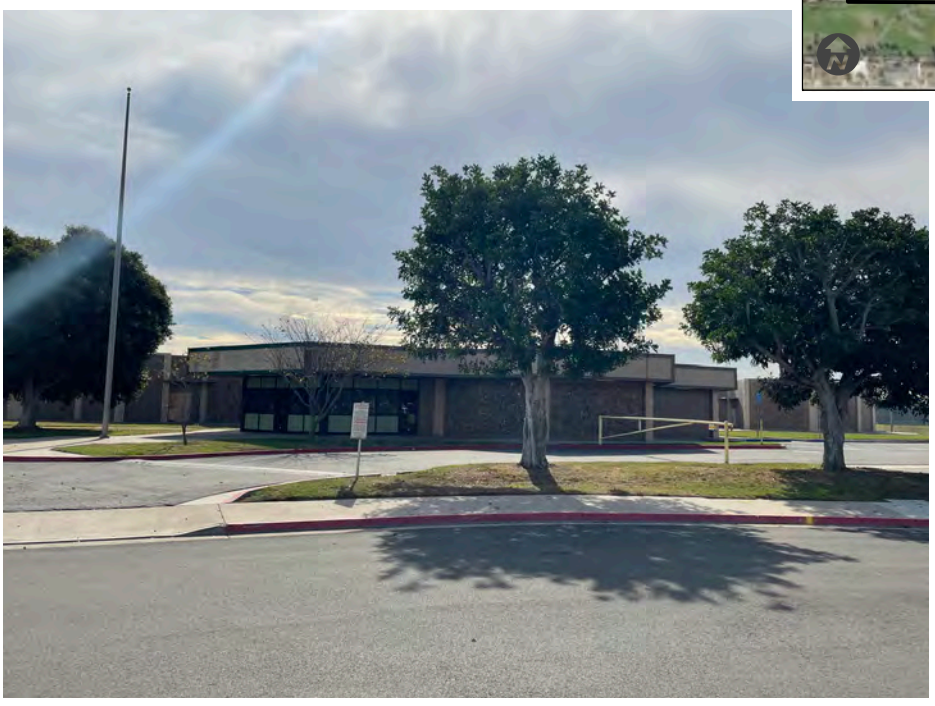
Existing Views and Visual Character

The Project site is currently developed with a school campus, which is not in use and slated for demolition. The existing use is comprised of an approximately 73,000-sf building and associated surfacing parking lot on the eastern half of the site and sports fields on the western half of the site. In light of the proposed demolition and vacant status of the existing building, it is boarded up for security and to prevent outside access. Additionally, a security fence has been installed to avoid trespassing. Access to the Project site is currently provided by one entry point off Bluefield Drive and two additional entries off Strathmoor Lane. Ornamental trees are scattered around the building and along the western boundary of the site. A turf area abuts Strathmoor Lane on the east, to the north of the drop-off zone area. Exhibits 8-1a through 8-1c, Site Photographs, include photographs that depict the existing visual character of the Project site.

- **View A,** looking northwest from the entry point off Strathmoor Lane, shows a view of the existing drop-off zone and school building. Ornamental trees are scattered around the building. The drop-off zone contains a yellow speed bump. A sidewalk and turf area abuts Strathmoor Lane on the right-hand side of the photograph.



View A



View B

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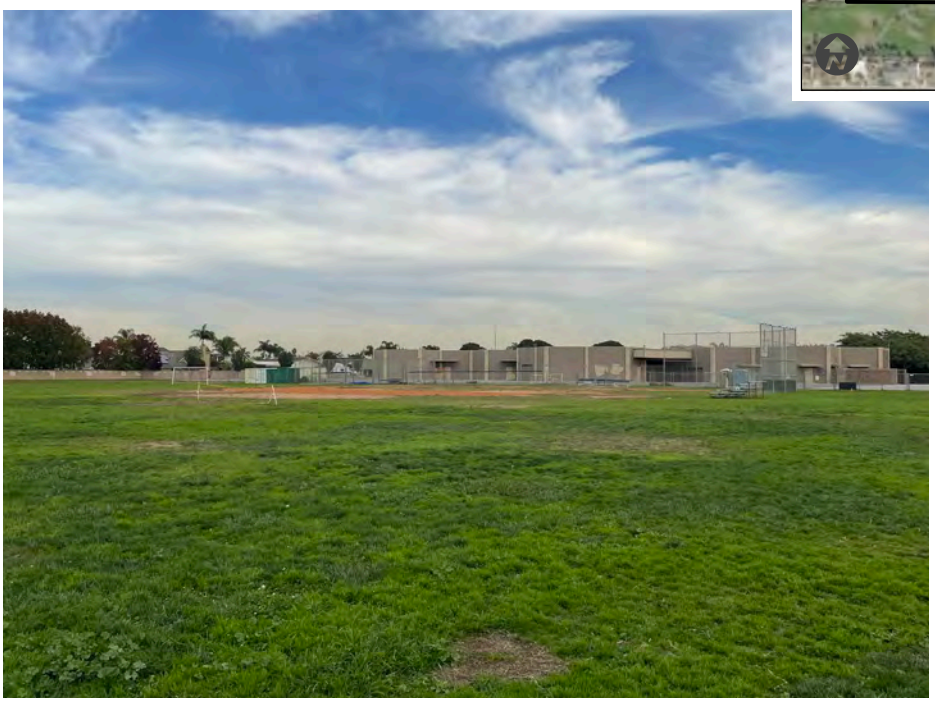
Site Photographs

Exhibit 8-1a

Gisler Residential Area

PSOMAS

View C



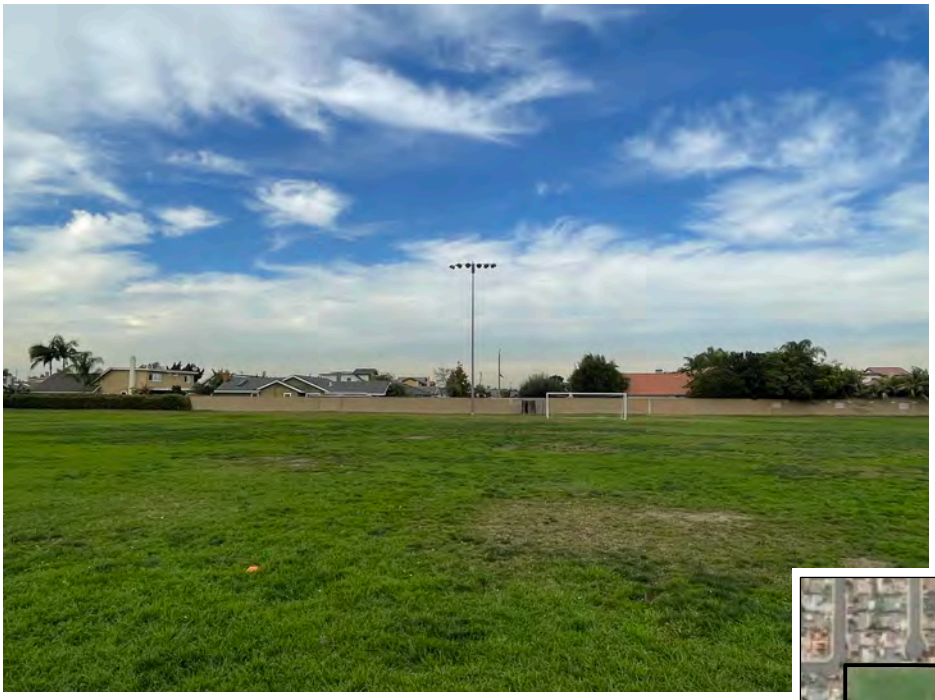
View D

Site Photographs

Exhibit 8-1b

Gisler Residential Area

PSOMAS



View E

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Site Photographs

Exhibit 8-1c

Gisler Residential Area

PSOMAS

(04/21/2021 MMD) R:\Projects\HUN\3HUN010400\Graphics\MND\ex_SP.pdf

- **View B**, looking southwest from the entry point off Bluefield Drive, shows a view of the existing school building and surface parking lot. A yellow gate provides entry into the parking area. A flagpole is shown in front of the school building. Additionally, turf areas and ornamental trees are scattered around the building.
- **View C**, looking north from the southern portion of the Project site, shows a view of the existing surface parking lot. As shown in the photograph, the parking lot contains pole-mounted lighting. The existing school building is shown in the background along with large ornamental trees surrounding the building.
- **View D**, looking northeast from the southwest portion of the Project site, shows the existing sports fields located on the western half of the Project site. The fields contain a chain link fence, two sets of bleachers, and a freestanding soccer goal. The site also appears to contain a few large storage containers. The existing school building is shown in the background of the photograph.
- **View E**, looking north from the existing sports fields, shows a large grass area with a freestanding soccer goal and pole-mounted lighting. A concrete block wall can be seen in the photograph partially covered with vegetation. Behind the block wall, existing single-family residences are visible from this location.

Impact Analysis

a) Have a substantial adverse effect on a scenic vista? (Source: 17, 39)

Less Than Significant Impact. The Project site is not visible from any Officially Designated State Scenic Highway. The closest Eligible State Scenic Highway to the site is Pacific Coast Highway (PCH), located approximately 1.5 miles southwest and west of the Project site. Views of the site from this Officially Designated Highway are completely obstructed by distance and intervening topography. The City of Huntington Beach has also designated PCH as a Major Urban Scenic Corridor that offers views of natural environments. Additionally, the Project site is located approximately 0.2 miles west of Brookhurst Street, another City designated Major Urban Scenic Corridor. Similarly, the site is not visible due to intervening development.

As stated previously, the Project site is currently developed with a school campus, which is not in use and slated for demolition. The existing use is comprised of an approximately 73,000-sf building and associated surfacing parking lot and sports fields. Ornamental trees are scattered around the building and along the western boundary of the site. Implementation of the Project would include construction of an 85-unit single-family detached residential development and would result in denser development than the existing use. The existing vacant building and associated site improvements would be demolished to accommodate the proposed Project. The proposed single-family homes would be constructed in conformance with development standards in Table 3-1. Overall, the proposed building heights would be taller than existing buildings. However, the proposed transformation would not be visible from the scenic corridors identified above. Due to the proposed Project's location in the southeastern portion of the City and the lack of scenic resources in the immediate area, the Project would not have a substantial adverse effect on a scenic resource. Therefore, impacts related to scenic vistas would be less than significant, and no mitigation is required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (Source: 17, 39)

Less Than Significant Impact. As stated previously, the Project site is not visible from any Officially Designated State Scenic Highway. The closest Eligible State Scenic Highway is Pacific Coast Highway (PCH), located approximately 1.5 miles west of the Project site. Views of the Project site from this Officially Designated Highway are completely obstructed by distance and intervening topography, and there is no direct line-of-sight to the Project area such that short-term construction activities and long-term operation would affect public views from PCH. There are no scenic resources, including trees, rock outcroppings, and historic buildings in the vicinity of the Project site. Therefore, implementation of the Project would not damage scenic resources within a State scenic highway. Impacts would be less than significant, and no mitigation is required.

c) In non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? (Source: 44)

Less Than Significant Impact. The aerial photograph (Exhibit 1-2) previously presented, shows the Project site's relationship to the surrounding land uses. The Project site is located within a residential neighborhood and surrounded by single-family detached residential uses immediately to the north, west, and east and to the south across Gisler Park. Beyond residential uses, Edison High School is located less than a mile to the west and Santa Ana River is located less than a mile to the east. Huntington State Beach is located approximately 1.5 miles to the south. Due to the developed nature and flat topography of the Project area, views of the Project site are limited to immediately adjacent vantage points, as further described below.

Visual Changes

Given the views to be analyzed are from public and not private vantage points, only views from the adjacent roadways experienced by transient users (i.e., passengers in vehicles) and users of Gisler Park to the south would be considered. It should be noted that while motorists on the surrounding public roadways (i.e., Bluefield Drive, Strathmoor Lane, and Effingham Drive) would have near-range views of the site, these would be passing and not permanent views of the Project site. Thus, given the length of exposure to the changed views, the potential impacts would be less than significant.

Implementation of the Project would change views of the site. During demolition and construction activities on the Project site, views of construction equipment; ongoing demolition and construction activities; short-term stockpiles of building materials and debris; and haul trucks delivering building materials and removing debris would be visible from surrounding area. These views would be typical of construction sites in an urban environment and temporary in nature. Project construction is anticipated to occur in a single phase, for a total of 40 months. Additionally, construction staging would occur within the Project's boundaries. Therefore, the impacts would be less than significant, and no mitigation is required.

Once construction is completed, the proposed Project would alter views of the Project site by replacing the existing school uses with a single-family detached residential development. The

Project would provide a variety of residential plans, colors, and elevations. The single-family homes would be 2 stories with a maximum height of approximately 30 feet.

The proposed Project would be accessed only from Strathmoor Lane, and a 24-foot wide emergency access is also proposed from Bluefield Drive to the north of the site. The layout of the internal streets is similar to the adjacent residential developments. Landscaping is proposed throughout the community. An active open space area is located immediately to the south at Gisler Park. A hierarchy of landscaping, including trees, shrubs, and turf would be provided to soften edge conditions that would include thematic masonry yard walls. Additional landscape screening is proposed for the City's Gisler Park parking lot and along the entire southern edge shared with Gisler Park. Given the quality of the design and architecture, the Project would be an improvement over the existing condition of the site.

While the proposed Project would alter the existing visual character of the Project site from a school use to a single-family residential development and would change views from the surrounding public vantage points (i.e., Bluefield Drive, Strathmoor Lane, Effingham Drive, and Gisler Park), this change would not be considered a degradation of the Project site due to Project components, as described above. The new development would replace older structures and increase visual interest and character of the site with quality design and landscaping. The introduction of 85 single-family residences and associated site improvements would also be compatible with the existing residential uses to the north and west, to the east across Effingham Drive, and to the south across Gisler Park.

While users of the Gisler Park would have views of the site, as indicated above, A hierarchy of landscaping, including trees, shrubs, and turf would be provided to soften edge conditions. Additional landscape screening is proposed for the City's Gisler Park parking lot and along the entire southern edge shared with Gisler Park. With these improvements in place, the views from Gisler Park would be softened. Additionally, given the quality of the residential units overall, the views would be of an improved and aesthetically pleasing development. Thus, in light of visual improvement over the existing condition and the quality of design, the Project would not substantially degrade the visual character or quality of the site for public viewers. Potential visual impacts would be less than significant, and no mitigation is required.

In the absence of scenic resources in the vicinity of the site, the Project would not conflict with applicable zoning and other regulations governing scenic quality and resources. Impacts would be less than significant, and no mitigation is required. Additionally, to ensure compliance with the City requirements and standards, the proposed development would be subject to review by the Design Review Board as part of the City's permit process (see RR AES-1).

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (Source: 44)

Less Than Significant Impact. The Project site is located in an area that is already subject to ambient lighting from surrounding uses, including streetlights along Bluefield Drive, Strathmoor Lane, and Effingham Drive; lighting from passing vehicles along these roadways; and lighting from residential uses surrounding the Project site. The existing light sources include both interior and exterior building lights.

With the demolition of the existing use and construction of the proposed Project, new light sources would be provided with the proposed dwelling units, along the internal streets, and in the common open space area. This would change lighting levels at the Project site but would be consistent with the ambient and night-time lighting at the residential uses surrounding the site.

The proposed project would include new exterior light sources typical of a residential development, including decorative exterior lights on the residential buildings, lighting along the internal streets and in parking areas, and pedestrian lighting along walkways. Proposed light sources would be similar to lighting under existing conditions and would be consistent with the lighting levels at the existing residential uses surrounding the Project site. All light fixtures would be shielded to direct light down and to minimize light spillover on surrounding properties. Therefore, impacts associated with new lighting from the proposed project would be less than significant, and no mitigation is required.

Glare is a common daytime phenomenon and is due mainly to the occurrence of a high number of days per year with direct sunlight and the presence of large reflective surfaces. Excessive glare not only restricts visibility but also increases the ambient heat reflectivity in a given area. Glare is caused by light reflections from pavement, vehicles, and building materials such as reflective glass and polished surfaces. Glare can create hazards to motorists and nuisances for pedestrians and other viewers. The proposed dwelling units would be constructed with primarily non-reflective materials, including stucco and concrete tiles. The use of glass would be confined to windows and is not such that would generate substantial glare affecting surrounding uses. Additionally, during nighttime, the proposed lighting would not be more intense than the surrounding uses, and no lighting that is considered of high intensity such as high wattage security lighting is proposed that would cause substantial nighttime glare. Therefore, potential glare impacts would be less than significant, and no mitigation is required.

Regulatory Requirements

RR AES-1 **Design Review Board.** As part of the entitlement and review by the Design Review Board, the Project Applicant shall submit proposed site development and building plans for the review and approval by the City. The City shall review these plans for compliance with pertinent requirements in the General Plan, Huntington Beach Zoning and Subdivision Ordinance and Design Guidelines.

Mitigation Measures

Project implementation would not result in significant impacts related to aesthetics; therefore, no mitigation measures are required.

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

Impact Analysis

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? (Sources: 12, 41)

No Impact. The Project site is developed with a school campus and located in an urbanized area. Based on a review of the City of Huntington Beach General Plan Update Draft Environmental Impact Report and the California Important Farmland Finder, there are no lands designated as Prime Farmland, Unique Farmland or Farmland of Statewide Importance on or near the Project site. Therefore, no impact would occur, and no mitigation is required.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? (Sources: 12, 39, 41, 44)

No Impact. The Project site has a Zoning designation of PS (Public-Semipublic). The site is not being used, nor anticipated to be used or zoned for agricultural purposes. The Project site is not subject to a Williamson Act and does not contain Prime Farmland, Unique Farmland or Farmland of Statewide Importance, as discussed under 5.2a, above. No impact would occur, and no mitigation is required.

c) Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production? (Sources: 14, 41, 44)

No Impact. There is no forest land on the Project site and in the surrounding area, and the site is not zoned for forest land or timberland. The proposed project would not conflict with existing zoning or cause rezoning of forest land, as defined pursuant to Public Resources Code Section 122220(g), timberland, as defined pursuant to Public Resources Code Section 4526, or timberland zoned timberland production, as defined pursuant to Government Code Section 51104(g). No impact would occur, and no mitigation is required.

d) Result in the loss of forest land or conversion of forest land to non-forest use? (Sources: 14, 41)

No Impact. As noted in section 5.2c., forest land does not occur on-site or in the surrounding area. Thus, development of the proposed Project would not result in conversion of forest land to non-forest land. Therefore, no impact would occur, and no mitigation is required.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? (Sources: 14, 39, 41)

No Impact. As has been previously noted in this section, the Project site is developed and located in an urbanized area of the City. The proposed Project does not involve converting farmland to non-agricultural use. Therefore, no impact would occur and no mitigation is required.

Regulatory Requirements

No regulatory requirements have been identified.

Mitigation Measures

Project implementation would not result in significant impacts related to agriculture and forestry resources; therefore, no mitigation measures are required.

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

Introduction

(Sources: 55, 62, 54, 2, 4, 56)

The South Coast Air Quality Management District (SCAQMD) has established quantitative thresholds for short-term (construction) emissions and long-term (operational) emissions for the following criteria pollutants: ozone, carbon monoxide, nitrogen oxides, sulfur dioxide, and particulate matter 10 and 2.5 microns. The characteristics and health effects of these criteria pollutants are described below:

- Ozone (O_3) is a nearly colorless gas that is formed by photochemical reaction (when nitrogen dioxide is broken down by sunlight). Ground-level O_3 exposure can cause a variety of health problems, including lung irritation, wheezing, coughing, pain when taking a deep breath, and breathing difficulties during exercise or outdoor activities; permanent lung damage; aggravated asthma; and increased susceptibility to respiratory illnesses.
- Carbon monoxide (CO) is a colorless and odorless toxic gas which, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can lead to headaches, aggravation of cardiovascular disease, and impairment of central nervous system functions.
- Nitrogen oxides (NOx) are yellowish-brown gases, which at high levels can cause breathing difficulties. NOx are formed when nitric oxide (a pollutant from internal combustion processes) combines with oxygen.

- Sulfur dioxide (SO_2) is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Health effects include acute respiratory symptoms and difficulty in breathing for children.
- Particulate Matter 10 (PM10) and Particulate Matter 2.5 (PM2.5) refer to particulate matter less than ten microns and two and one-half microns in diameter, respectively. Particulates of this size cause a greater health risk than larger-sized particles since fine particles can more easily cause irritation. Particulate matter includes both aerosols and solid particles. An example of particulate matter is fugitive dust. Short-term exposure to high PM2.5 levels is associated with premature mortality and increased hospital admissions and emergency room visits. Long-term exposure to high PM2.5 levels is associated with premature mortality and development of chronic respiratory disease. Short-term exposure to high PM10 levels is associated with hospital admissions for cardiopulmonary diseases, increased respiratory symptoms, and possible premature mortality.

The SCAQMD regulates air quality in the Los Angeles County and is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin (SoCAB). The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary. The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of Air Quality Management Plans (AQMPs).

The SCAQMD adopted the 2016 AQMP on March 3, 2017. The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including Southern California Association of Government's (SCAG's) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts.

The two principal criteria for conformance to an AQMP are:

1. Whether a project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emissions reductions in the AQMP.
2. Whether a project will exceed the assumptions in the AQMP based on the year of Project buildout.

To estimate if a project may adversely affect the air quality in the region, the SCAQMD has prepared the *Air Quality Analysis Guidance Handbook* (SCAQMD CEQA Handbook) to provide guidance to those who analyze the air quality impacts of projects. The SCAQMD CEQA Handbook provides significance thresholds for both construction and operation of projects within the SCAQMD's jurisdictional boundaries. The SCAQMD recommends that projects be evaluated in terms of the quantitative thresholds established to assess both the regional and localized impacts of project-related air pollutant emissions. The SCAQMD CEQA Handbook states that any project in the SoCAB with daily emissions that exceed any of the identified significance thresholds may have an individually and cumulatively significant air quality impact. The City of Huntington Beach uses the current SCAQMD thresholds to determine whether a project would have a

significant impact. These SCAQMD thresholds are identified in Table 8-1, South Coast Air Quality Management District Air Quality Significance Thresholds.

TABLE 8-1
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AIR QUALITY SIGNIFICANCE THRESHOLDS

Mass Daily Thresholds (lbs./day)		
Pollutant	**Construction**	**Operation**
VOC	75	55
NOx	100	55
CO	550	550
PM10	150	150
PM2.5	55	55
SOx	150	150
Lead	3	3

lbs./day: pounds per day; VOC: volatile organic compound; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; SOx: sulfur oxides.

Source: SCAQMD 2019.

Existing Air Quality Conditions

The monitoring data presented in Table 4-2, Air Quality Measurements at the Costa Mesa and Anaheim Monitoring Stations, were obtained from CARB. Federal and State air quality standards are presented with the number of times those standards were exceeded. The Project site is in the area represented by measurements made at the Costa Mesa-Mesa Verde Drive Monitoring Station located on 2850 Mesa Verde Drive East, Costa Mesa. This is the closest monitoring station, approximately 2.3 miles northeast of the Project site. The pollutants measured at the Costa Mesa Monitoring Station include O_3 and NO_2. The next closest monitoring station to the Project site is the Anaheim-Pampas Lane (Anaheim) Monitoring Station, located on 1630 West Pampas Lane, Anaheim, approximately 13 miles north of the Project site. The pollutants measured at the Anaheim Station include PM2.5 and PM10. Table 8-2 shows the pollutant levels for O_3, PM10, NO_2, and PM2.5.

TABLE 8-2
AIR QUALITY MEASUREMENTS AT THE COSTA MESA AND ANAHEIM MONITORING STATIONS

Pollutant	California Standard	National Standard	Year	Max. Level [a]	State Standard Days Exceeded [b]	National Standard Days Exceeded [b, c]
O_3 (1 hour)	0.09 ppm	None	2017	0.088	0	0
			2018	–	–	–
			2019	–	–	–
O_3 (8 hour)	0.070 ppm	0.070 ppm	2017	0.080	5	4
			2018	–	–	–
			2019	–	–	–
PM10 (24 hour)	50 µg/m^3	150 µg/m^3	2017	95.7	5/32.8	0/0
			2018	94.6	2/12.0	0/0
			2019	127.1	4/24.4	0/0
NO_2 (1 Hour)	0.18 ppm	0.100 ppm	2017	0.045	0	0
			2018	–	–	–
			2019	–	–	–
PM2.5 (24 Hour)	None	35 µg/m^3	2017	56.2	N/A	7/-
			2018	68.0	N/A	7/7.2
			2019	37.1	N/A	4/4.2

O_3: ozone; ppm: parts per million; PM10: respirable particulate matter with a diameter of 10 microns or less; µg/m^3: micrograms per cubic meter; AAM: annual arithmetic mean; NO_2: nitrogen dioxide; CO: carbon monoxide; PM2.5: fine particulate matter with a diameter of 2.5 microns or less

"–" indicates that the data are not reported or there is insufficient data available to determine the value. N/A indicates that there is no applicable standard.

[a] California maximum levels were used.

[b] For annual averaging times, a "Yes" or "No" response is given if the annual average concentration exceeded the applicable standard.

[c] PM is measured once every 6 days. Where 2 values are shown for PM10 and PM2.5, the first is for the measured value, and the second is the estimated value if monitored every day.

Regulatory Background

The U.S. Environmental Protection Agency (USEPA) defines seven "criteria" air pollutants, as described above. These pollutants are called criteria pollutants because the USEPA has established National Ambient Air Quality Standards (NAAQS) for the concentrations of these pollutants (USEPA 2014). The California Air Resources Board (CARB) has also established standards for the criteria pollutants, known as California Ambient Air Quality Standards (CAAQS), and the State standards are generally more restrictive than the NAAQS. When a region has air quality that fails to meet the standards, the USEPA and the CARB designate the region as "nonattainment" and the regional air quality agency must develop plans to attain the standards.

Based on monitored air pollutant concentrations, the USEPA and the CARB designate an area's status in attaining the NAAQS and the CAAQS, respectively, for selected criteria pollutants. These attainment designations are shown in Table 8-3. As identified in Table 8-3, Orange County is a

nonattainment area for O_3, PM10, and PM2.5 for the State standards and a nonattainment area for O_3, and PM2.5 for the State standards.

TABLE 8-3
ATTAINMENT STATUS OF CRITERIA POLLUTANTS
IN THE SOUTH COAST AIR BASIN

Pollutant	State	Federal
O_3 (1 hour)	Nonattainment	No standards
O_3 (8 hour)	Nonattainment	Nonattainment
PM10	Nonattainment	Attainment/Maintenance
PM2.5	Nonattainment	Nonattainment
CO	Attainment	Unclassified/Attainment
NO_2	Attainment	Unclassified/Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment/Nonattainment*
All others	Attainment/Unclassified	No standards

O_3: ozone; PM2.5: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; CO: carbon monoxide; NO_2: nitrogen dioxide; SO_2: sulfur dioxide; SoCAB: South Coast Air Basin.

* Los Angeles County is classified nonattainment for lead; the remainder of the SoCAB is in attainment of the State and federal standards.

Source: CARB 2018

CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for coordinating and administering both the federal and State air pollution control programs in California. In this capacity, CARB conducts research, sets the CAAQS (as shown in Table 4-4), compiles emission inventories, develops suggested control measures, oversees local programs, and prepares the State Implementation Plan (SIP). For regions that do not attain the CAAQS, CARB requires the air districts to prepare plans for attaining the standards. These plans are then integrated into the SIP. CARB establishes emissions standards for (1) motor vehicles sold in California, (2) consumer products (e.g., hair spray, aerosol paints, barbecue lighter fluid), and (3) various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

Ozone (O_3) is a secondary pollutant and is created when nitrogen oxides (NOx) and volatile organic compounds (VOCs) react in the presence of sunlight. The predominant source of air emissions generated by Project development would be from vehicle emissions. Motor vehicles primarily emit CO, NOx, and VOCs. The NAAQS and CAAQS are designed to protect the health and welfare of the populace within a reasonable margin of safety. The NAAQS and CAAQS for O_3, CO, NO_2, SO_2, PM10, PM2.5, and lead are shown in Table 8-4.

TABLE 8-4
CALIFORNIA AND FEDERAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary [a]	Secondary [b]
O_3	1 Hour	0.09 ppm (180 µg/m³)	–	–
	8 Hour	0.070 ppm (137 µg/m³)	0.070 ppm (137 µg/m³)	Same as Primary
PM10	24 Hour	50 µg/m³	150 µg/m³	Same as Primary
	AAM	20 µg/m³	–	Same as Primary
PM2.5	24 Hour	–	35 µg/m³	Same as Primary
	AAM	12 µg/m³	12.0 µg/m³	15.0 µg/m³
CO	1 Hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	–
	8 Hour	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)	–	–
NO_2	AAM	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	Same as Primary
	1 Hour	0.18 ppm (339 µg/m³)	0.100 ppm (188 µg/m³)	–
SO_2	24 Hour	0.04 ppm (105 µg/m³)	–	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m³)
	1 Hour	0.25 ppm (655 µg/m³)	0.075 ppm (196 µg/m³)	–
Lead	30-day Avg.	1.5 µg/m³	–	–
	Calendar Quarter	–	1.5 µg/m³	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m³	
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	**No Federal Standards**	
Sulfates	24 Hour	25 µg/m³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m³)		

O_3: ozone; ppm: parts per million; µg/m³: micrograms per cubic meter; PM10: respirable particulate matter 10 microns or less in diameter; AAM: Annual Arithmetic Mean; –: No Standard; $_{PM2.5}$: fine particulate matter 2.5 microns or less in diameter; CO: carbon monoxide; mg/m³: milligrams per cubic meter; NO_2: nitrogen dioxide; SO_2: sulfur dioxide; km: kilometer.

[a] *National Primary Standards:* The levels of air quality necessary, within an adequate margin of safety, to protect the public health.
[b] *National Secondary Standards:* The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

Note: More detailed information in the data presented in this table can be found at the CARB website (www.arb.ca.gov).

Impact Analysis

a) Conflict with or obstruct implementation of the applicable air quality plan? (Sources: 39, 55, 60, 62)

Less Than Significant Impact. CEQA requires a discussion of any inconsistencies between a project and applicable General Plans (GPs) and regional plans (CEQA Guidelines Section 15125). The regional plan that applies to the Proposed Project includes the SCAQMD's AQMP, as discussed above.

The SCAQMD CEQA Handbook states that "New or amended GP Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP". Strict consistency with all aspects of the plan is usually not required. A project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency, as discussed above:

1. Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
2. Whether the project will exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

Both criteria are evaluated for the Project, as shown below.

With respect to the first criterion, based on the air quality modeling analysis conducted for the proposed Project [thresholds 5.3(b) and 5.3(c), below)], construction and operation of the Project would not exceed the SCAQMD's CEQA thresholds of significance and consequently would not result in an increase in the frequency or severity of existing air quality violations nor cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emissions reductions in the AQMP. Therefore, the Project is consistent with the first criterion.

With respect to the second criterion, the proposed Project was assessed as to whether it would exceed the assumptions in the AQMP. The SCAQMD's current air quality planning document is the 2016 Air Quality Management Plan (2016 AQMP). The 2016 AQMP is a regional and multi-agency effort among the SCAQMD, CARB, SCAG, and USEPA. The 2016 AQMP includes an analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures. The purpose of the 2016 AQMP is to set forth a comprehensive program that would promote reductions in criteria pollutants, greenhouse gases, and toxic risk and efficiencies in energy use, transportation, and goods movement. The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including SCAG's 2016-2040 RTP/SCS; updated emission inventory methods for various source categories; and SCAG's latest growth forecasts. The 2016 AQMP includes strategies and measures necessary to meet the NAAQS. The AQMP is based on projections of energy usage and vehicle trips from land uses within the SoCAB.

The Project site is designated by the General Plan as PS (RL) (Public-Semipublic with underlying Residential Low Density). The Project requires a General Plan amendment to RL (Residential

Low Density). Upon amendment, the Project would be consistent with the General Plan, its land use designation, and its relevant goals and objectives. Because the Project would require that its existing land use be re-designated, the Project would not be consistent with the assumptions in the 2016 AQMP. However, implementation of the Project results in emissions which are less than the significance thresholds adopted by the SCAQMD (as detailed in the following emissions analyses). As such, the proposed Project is not anticipated to exceed the AQMP assumptions for the Project site and is found to be consistent with the AQMP for the second criterion. Therefore, the Project would not result in an inconsistency with the SCAQMD's 2016 AQMP. Less than significant impacts would occur, and no mitigation is required.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? (Sources: 1, 54, 61)

Less Than Significant Impact. Orange County is a nonattainment area for O_3, PM10, and PM2.5, as shown in Table 8-3. The Project would generate PM10, PM2.5, NO_2, and O_3 precursors (NOx and VOC) during short-term construction and long-term operations.

Construction Impacts

Construction-Related Regional Impacts

A project may have a significant impact where project-related emissions would exceed federal, State, or regional standards or thresholds, or where project-related emissions would substantially contribute to an existing or projected air quality violation.

A project with daily emission rates below the SCAQMD's established air quality significance thresholds (shown in Table 8-1) would have a less than significant impact on regional air quality. Project emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 computer program. CalEEMod is designed to model construction and operational emissions for land development projects and allows for the input of project- and County-specific information. The CalEEMod inputs for construction emissions were based on the Project's construction assumptions and default assumptions derived from CalEEMod. Hauling for the Project would include export of 50 truckloads during demolition, export of 10 truckloads during site preparation, and 50,000 cy of import during grading and excavation activities. All construction activities shall be conducted in compliance with South Coast Air Quality Management District's (SCAQMD's) Rule 403, Fugitive Dust, for controlling fugitive dust and avoiding nuisance, per RR AQ-1.

Table 8-5, Estimated Maximum Daily Construction Emissions, presents the estimated maximum daily emissions during construction of the proposed Project and compares the estimated emissions with the SCAQMD's daily regional emission thresholds. As shown in Table 8-5, all Project-related construction emissions would be below the regional significance thresholds. As such, construction impacts would be less than significant.

TABLE 8-5
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS

Year	Emissions (lbs./day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
2022	9	74	66	<1	4	3
2023	5	29	35	<1	2	1
2024	5	27	35	<1	2	1
2025	5	24	35	<1	1	1
Maximum Emissions	**9**	**74**	**66**	**<1**	**4**	**3**
SCAQMD Thresholds (Table 8-1)	*75*	*100*	*550*	*150*	*150*	*55*
Exceeds SCAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

lbs./day: pounds per day; VOC: volatile organic compound; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District.

See Appendix A, Air Quality and Greenhouse Gas Emissions Modeling Data, for CalEEMod model outputs.

Cumulative Construction Impacts

Construction activities associated with the proposed Project would result in less than significant construction-related regional and localized air quality impacts, as quantified above in Table 4-5, Estimated Maximum Daily Construction Emissions, and Table 4-7, Localized Significance Threshold Construction Emissions (discussed under Threshold 5.3c), respectively. Short-term cumulative impacts related to air quality could occur if construction of the Project and other projects in the surrounding area were to occur simultaneously. In particular, with respect to local impacts, the consideration of cumulative construction particulate (PM10 and PM2.5) impacts is limited to cases when projects constructed simultaneously are within a few hundred yards of each other because of: (1) the combination of the short range (distance) of particulate dispersion (especially when compared to gaseous pollutants), and (2) the SCAQMD's required dust-control measures (RR AQ-1), which further limit particulate dispersion from the Project site.

SCAQMD's policy with respect to cumulative impacts associated with the above-referenced pollutants and their precursors is that impacts that would be directly less than significant on a project level would also be cumulatively less than significant. Because the Project's construction emissions are below the SCAQMD's regional and local significance thresholds, local construction emissions would not be cumulatively considerable, and the impact would be less than significant. No mitigation is required.

Operational Impacts

The following section provides an analysis of potential long-term air quality impacts to regional air quality with the long-term operation of the proposed Project. The potential operations-related air emissions have been analyzed below for the regional and local criteria pollutant emissions and cumulative impacts.

Operations-Related Regional Impacts

Operational emissions associated with the Project are comprised of area, energy, and mobile source emissions. The principal source of VOC emissions associated with the Project would result from consumer products associated with residential uses. Area and energy source emissions are based on CalEEMod assumptions for the specific land uses and size. Mobile source emissions are based on estimated Project-related trip generation forecasts, as contained in the Project Revised Traffic Analysis Report. The Project would generate 802 daily trips. The peak day operational emissions for VOC, NOx, CO, SOx, PM10, and PM2.5 daily emissions that would be created from the Project's long-term operation have been calculated and are summarized below in Table 8-6, Peak Daily Operational Emissions.

TABLE 8-6
PEAK DAILY OPERATIONAL EMISSIONS

Source	Emissions (lbs./day)*					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Area sources	6	<1	7	<1	<1	<1
Energy sources	<1	1	<1	<1	<1	<1
Mobile sources	1	3	18	<1	9	2
Total Operational Emissions*	**7**	**3**	**25**	**<1**	**9**	**2**
SCAQMD Significance Thresholds (Table 8-1)	*55*	*55*	*550*	*150*	*150*	*55*
Significant Impact?	**No**	**No**	**No**	**No**	**No**	**No**

lbs./day: pounds per day; VOC: volatile organic compound; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District.

* Some totals do not add due to rounding.

See Appendix A, Air Quality and Greenhouse Gas Emissions Modeling Data, for CalEEMod model outputs.

The data provided in Table 8-6 shows that none of the analyzed criteria pollutants would exceed the regional emissions operational thresholds. Therefore, a less than significant regional air quality impact would occur from operation of the Project. No mitigation is required.

Cumulative Operational Impacts

As shown in Table 8-6, Peak Daily Operational Emissions, and Table 8-8, Localized Significance Thresholds Operational Emissions (under Threshold 5.3c, below) operational emissions of VOC, NO_x, CO, SO_x, PM10, and PM2.5 would be below the SCAQMD CEQA significance thresholds. Consistent with the approach described above (under Cumulative Construction Impacts), SCAQMD's policy with respect to cumulative impacts associated with the above-referenced pollutants and their precursors is that impacts that would be directly less than significant on a project level would also be cumulatively less than significant. Therefore, because the Project's operational emissions are less than the respective SCAQMD daily operational thresholds, the Project's operations phase activities would not contribute to a cumulatively considerable increase of a pollutant for which the SoCAB is in nonattainment. Emissions of nonattainment pollutants or their precursors would not be cumulatively considerable and would be less than significant. No mitigation is required.

Cumulative Health Impacts

The SoCAB is designated as nonattainment for O_3, PM10, and PM2.5, which means that the background levels of those pollutants are, at times, higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (the elderly, children, and the sick). Therefore, when the concentrations of those pollutants exceed the standard, it is likely that some sensitive individuals in the population would experience health effects. These health effects are not identified for specific individual receptors nor does the analysis identify the magnitude of health effects. The regional analysis detailed above found that the Project would not exceed the SCAQMD regional significance thresholds for VOC and NO_x (ozone precursors), PM10, and PM2.5. As such, the Project would result in a less than significant cumulative health impact. No mitigation is required.

c) Expose sensitive receptors to substantial pollutant concentrations? (Sources: 47, 58, 60)

Less Than Significant Impact. A significant impact may occur when a project would generate pollutant concentrations to a degree that would significantly affect sensitive receptors, which include populations that are more susceptible to the effects of air pollution than the population at large. Exposure of sensitive receptors is addressed for emissions from construction and operation of the proposed Project. To address construction activities, the analysis below includes the following analyses: localized air quality impacts from construction and toxic air contaminants (TACs), specifically diesel particulate matter (DPM) from on-site construction. To address operational emissions exposure to sensitive receptors, the analysis below discusses local air quality impacts from on-site operations and CO hotspots. Operational, long-term TACs may be generated by some industrial land uses; commercial land uses (e.g., gas stations and dry cleaners); and diesel trucks on freeways. Residential uses do not generate substantial quantities of TACs and are therefore not addressed further in this analysis.

Construction

Localized Criteria Pollutants from On-Site Construction

In addition to the mass daily emissions thresholds established by the SCAQMD, short-term local impacts to nearby sensitive receptors from on-site emissions of NO_x, CO, PM10, and PM2.5 are examined based on SCAQMD localized significance threshold (LST) methodology. To assess local air quality impacts for development projects without complex dispersion modeling, the SCAQMD developed screening (lookup) tables to assist lead agencies in evaluating impacts.

The LST method is recommended to be limited to projects that are five acres or less. For the purposes of an LST analysis, the SCAQMD considers receptors where it is possible that an individual could remain for 1 hour for NO_2 and CO exposure and 24 hours for PM10 and PM2.5 exposure. The emissions limits in the lookup tables are based on the SCAQMD's Ambient Air Quality Standards. The closest receptors to the Project site are single family uses adjacent to the Project's northern, western, and eastern boundaries and park users south of the Project site. Individuals at these residences were evaluated for exposure for 1 hour and 24 hours. The emissions thresholds are for receptors within 25 meters (82 feet) of the Project site; the thresholds for receptors farther away would be higher, and the Project emissions would be a smaller fraction of the thresholds.

Table 8-7, Localized Significance Threshold Construction Emissions, shows the maximum daily on-site emissions for construction activities compared with the SCAQMD LSTs with receptors within 25 meters. The Project's maximum daily on-site emissions would occur during the grading phase in 2022. As shown in Table 8-7, the localized emissions from the Project would be below the thresholds, and no significant impacts would result to sensitive receptors. No mitigation is required.

TABLE 8-7
LOCALIZED SIGNIFICANCE THRESHOLD CONSTRUCTION EMISSIONS

	Emissions (lbs./day)			
Emissions and Thresholds	**NOx**	**CO**	**PM10**	**PM2.5**
Project maximum daily on-site emissions	47	30	3	2
SCAQMD Localized Significance Threshold [a]	**186**	**1,586**	**13**	**8**
Exceed threshold?	**No**	**No**	**No**	**No**

lbs./day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter.

[a] Data is for SCAQMD Source Receptor Area 18, North Coastal Orange County, 25-meter distance, 4.5 acres.

See Appendix A, Air Quality and Greenhouse Gas Emissions Modeling Data, for CalEEMod outputs.

Toxic Air Contaminant Emissions from On-Site Construction

Construction activities would result in short-term, project-generated emissions of DPM from the exhaust of off-road, heavy-duty diesel equipment used for site preparation (e.g., demolition, excavation, and grading); paving; building construction; and other miscellaneous activities. CARB identified DPM as a TAC in 1998. The dose to which 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 duration of exposure to the substance. Thus, the risks estimated for a maximally exposed individual (MEI) are higher if a fixed exposure occurs over a longer time period. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments—which determine the exposure of sensitive receptors to TAC emissions—should be based on a 40-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the Project.

There would be relatively few pieces of off-road, heavy-duty diesel equipment in operation, and the total construction period would be relatively short when compared to a 40-year exposure period. Combined with the highly dispersive properties of DPM over a large project site area and additional reductions in particulate emissions from newer construction equipment, as required by USEPA and CARB regulations, construction emissions of TACs would not expose sensitive receptors to substantial emissions of TACs. The impact would be less than significant, and no mitigation is required.

Operation

Localized Criteria Pollutants from On-site Operations

Project-related air emissions may have the potential to exceed the State and federal air quality standards in the vicinity of the Project even though these pollutant emissions may not be significant enough to create a regional impact to the SoCAB. Project-related air emissions from on-site sources such as architectural coatings, landscaping equipment, and on-site usage of natural gas appliances may have the potential to generate emissions that exceed the State and federal air quality standards in the vicinity of the Project even though these pollutant emissions may not be significant enough to create a regional impact to the SoCAB.

The local air quality emissions from on-site operations were analyzed using the SCAQMD's Mass Rate LST Look-up Tables and the LST Methodology. Table 8-8, Localized Significance Threshold Operational Emissions, shows the on-site operational emissions from area sources, energy usage, vehicles operating on-site, and the calculated emissions thresholds.

TABLE 8-8
LOCALIZED SIGNIFICANCE THRESHOLD OPERATIONAL EMISSIONS

On-Site Emission Source	Pollutant Emissions (pounds/day)			
	NOx	**CO**	**PM10**	**PM2.5**
Area Sources	<1	7	<1	<1
Energy Sources	1	<1	<1	<1
Mobile Sources [a]	<1	1	<1	<1
Project's total maximum daily on-site emissions	**1**	**8**	**1**	**<1**
SCAQMD Localized Significance Threshold [b]	**197**	**1,711**	**4**	**2**
Exceeds Threshold?	**No**	**No**	**No**	**No**

lbs./day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter.

[a] Onsite vehicle emissions based on 5% of the gross vehicular emissions, which is the estimated portion of vehicle emissions occurring within a quarter mile of the Project site.

[b] Data is for SCAQMD Source Receptor Area 18, North Coastal Orange County, with a source receptor distance of 25-meters, 13 acres.

See Appendix A, Air Quality and Greenhouse Gas Emissions Modeling Data, for CalEEMod outputs.

The data provided in Table 8-8 shows that the operations of the Project would not exceed the local NO_x, CO, PM10, and PM2.5 thresholds of significance. Therefore, operation of the Project would create a less than significant impact to sensitive receptors, and no mitigation is required.

Carbon Monoxide Hotspot

In an urban setting, vehicle exhaust is the primary source of CO. Consequently, the highest CO concentrations generally are found close to congested intersections. Under typical

meteorological conditions, CO concentrations tend to decrease as the distance from the emissions source (e.g., congested intersection) increases. Therefore, for purposes of providing a conservative worst-case impact analysis, CO concentrations typically are analyzed at congested intersection locations. If impacts are less than significant close to congested intersections, impacts also would be less than significant at more distant sensitive-receptor and other locations. Per the Traffic Study prepared for the proposed Project, implementation of the Project would result in 63 trips in the AM peak hour and 84 trips in the PM peak hour with a total of 802 trips per day. The 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide evaluated numerous intersections for the potential to result in CO hotspots and found that the 1-hour CO standard (20.0 ppm) would likely not be exceeded until the daily traffic at the intersection exceeded more than 400,000 vehicles per day. Because the roadways proximate to the Project site have substantially less traffic than 400,000 trips per day, CO concentrations at nearby roadway intersections are anticipated to be substantially less than the CO ambient air quality standards. Moreover, vehicle standards have become increasingly more stringent since 1992 and background CO concentrations are less than in 1992. As such, existing CO concentrations would be less than the ambient air quality concentration standards and the small contribution of Project-related traffic would likewise not result in CO concentrations that would exceed either the State or federal ambient air quality standards. The Project would result in less than significant impacts related to CO hotspots, and no mitigation is required.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? (Sources: 62)

Less Than Significant Impact. Project construction would use equipment and activities that could result in other emissions (such as those leading to odors). However, these odors would be typical during construction and not extraordinarily objectionable. Potential construction odors include on-site construction equipment's diesel exhaust emissions as well as roofing, painting, and paving operations. There may be situations where construction activity odors could be noticed. However, these odors would be temporary and would dissipate rapidly from the source with an increase in distance. These odors would not be of such magnitude to cause a public nuisance. Therefore, the impacts would be short-term; would not affect a substantial number of people; and would be less than significant.

According to the SCAQMD CEQA Handbook, land uses associated with odor complaints typically include agricultural uses, sewer treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Project does not include any uses identified by the SCAQMD as being associated with odors, and therefore, would not likely produce objectionable odors. In addition, the Project uses are regulated from nuisance odors or other objectionable emissions by SCAQMD Rule 402, Nuisance (RR AQ-2). Rule 402 prohibits discharge from any source of air contaminants or other material which would cause injury, detriment, nuisance, or annoyance to people or the public. Overall, there would be a less than significant impact, and no mitigation is required.

Regulatory Requirements

RR AQ-1 All construction activities shall be conducted in compliance with South Coast Air Quality Management District's Rule 403, Fugitive Dust, for controlling fugitive dust and avoiding nuisance. Contractor compliance with Rule 403 requirements shall be mandated in the contractor's specifications.

RR AQ-2 All construction activities shall be conducted in compliance with South Coast Air Quality Management District Rule 402, Nuisance, which states that a project shall not "discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property".

Mitigation Measures

Project implementation would not result in significant impacts related to air quality; therefore, no mitigation measures are required.

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

Introduction

A Tree Survey and Tree Assessment Report was prepared by Dane S. Shota & Associates (March 2021) to document baseline condition of the existing trees on the site and to comply with the City of Huntington Beach Memorandum CI-74 (City Memo CI-74). The findings of the Tree Report are summarized below, and the report is included as Appendix B to this IS/MND.

Impact Analysis

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S, Fish and Wildlife Service? (Sources: 40, 42, 65)

No Impact. The Project site is developed with a school campus and located within an urban area surrounded by residential uses to the north, east, west, and a park to the south. As a result of urbanization of the land, the entire Project site and immediate surrounding areas are developed and no longer support undeveloped land. Native plant species were removed from the site with the development of the property. The vegetation on the site consists of ornamental landscaping including mature trees, shrubs, and open turf, which provide minimal foraging habitat for common animal species that are typically found in urban areas, such as small mammals, birds, small reptiles, and insects. Thus, the site does not contain native vegetation nor does it provide natural habitats for sensitive plant and animal species. Additionally, the site is not located in an area identified for Special Status Species within the City. Review of the U.S. Fish and Wildlife Service's (USFWS') Critical Habitat for Threatened and Endangered Species shows there are no designated critical habitat areas on or near the site. The nearest critical habitats are located approximately 1.5 miles to the south in Huntington State Beach Park adjacent to the Santa Ana River and approximately 0.85 mile to the southeast, at Banning Ranch in the County of Orange property and the City of Newport Beach. Therefore, the site does not provide natural habitats for sensitive plant and animal species.

Additionally, no fish, amphibian, or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish or amphibians are identified on or within the vicinity of the Project site. Therefore, no fish are expected to occur and are presumed absent from the Project site.

Since there are no native or sensitive biological resources on the Project site, the proposed Project also would not impact any candidate, sensitive, or special status species, as identified in the local or regional plans, policies, or regulations by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS). There would be no impact on sensitive species, and no mitigation is required.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service? (Sources: 40, 42)

No Impact. The Project site is developed with a former school building, paved surface parking lots and walkways. There is no riparian habitat on the site. Stormwater either sheet flows or curb-cores in an easterly direction to Strathmoor Lane or through four curb cores/under sidewalk culverts. The drainage continues southerly in Strathmoor Lane, and is conveyed southerly and easterly in Effingham Drive, before being collected into the City's storm drain system. As previously discussed in Section 8.4a, no sensitive natural communities identified in local or regional plans are present on the site. Further, the site does not contain riparian habitat or sensitive communities identified by the CDFW or by the USFWS. There would be no impact to riparian habitats or sensitive natural vegetation communities, and no mitigation is required.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? (Sources: 40)

No Impact. Wetland areas are present in the City but the Project site is approximately 1.0 mile north of the nearest wetlands. Additionally, the site does not have any water bodies, drainage, riparian habitat, and does not support State or federally protected wetlands or other areas under the jurisdiction of the CDFW, the Regional Water Quality Control Board (RWQCB), or U.S. Army Corps of Engineers (USACE). There would be no impact to wetlands, including marsh, vernal pool, or coastal habitats, and no mitigation is required.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites? (Sources: 40, 42)

Potentially Significant Unless Mitigated. The Project site is within a developed urban area, surrounded by residential and park uses as discussed in Checklist Response threshold 5.4a. However, while the site is next to a public park, the site lacks connectivity to natural open space areas and is not within any regionally or locally recognized wildlife movement corridors. The Project site is isolated from regional wildlife corridors and linkages, and there are no riparian corridors, creeks, or useful patches of stepping stone habitat (natural areas) within or connecting the Project site to any identified wildlife corridors or linkages. Additionally, there are no native wildlife nursery sites on or near the site. Although an established corridor is absent in the area, the beach, flood control channels, and waterways provide movement opportunities for wildlife. Within the City proper, several linkages between habitat areas have the potential to serve as wildlife corridors. One important connection exists between the Huntington Beach Wetlands, which include Magnolia Marsh (1.0 miles from the site to the south and southwest), and the wetlands/riparian area in Bartlett Park (1.84 miles from the site to the northwest) via the Huntington Beach Channel (1.6 miles from the site to the west). As indicated in the City of Huntington Beach General Plan Update Program EIR, the Environmental Resource and Conservation Element of the General Plan includes policies that aim at protecting such opportunities for wildlife.

Therefore, implementation of the proposed Project would not disrupt or have any adverse effects on any migratory corridors or linkages in the surrounding area. The Project would not affect the movement of any native resident or migratory fish or wildlife species or the established native resident or migratory wildlife corridors, as the Project is part of none. Therefore, no impact would occur, and no mitigation would be required.

However, due to the presence of trees and vegetation on the Project site, there is the potential for birds protected by the Federal Migratory Bird Treaty Act (MBTA) and Sections 3503, 3503.5, and 3513 of the California Fish and Game Code to nest at the site. The MBTA protects common and special status migratory birds and their nests and eggs. Bird species protected under the provisions of the MBTA are identified by the List of Migratory Birds (50 Code of Federal Regulations [CFR] Section 10.13, as amended). Since the 1970s, the MBTA has been interpreted to prohibit the accidental or "incidental" take of migratory birds.

Multiple sections of California Fish and Game Code provide protection for nesting birds and raptors. Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs

of any bird. Section 3503.5 specifically addresses raptors (i.e., birds of prey in the orders Falconiformes and Strigiformes) and makes it unlawful to take, possess, or destroy these birds or their nest or eggs. Section 3513 prohibits the take or possession of migratory non-game birds or any part of such bird, as designated by the MBTA.

If demolition and site clearing activities occur during the nesting season, active bird nests on the site may be disturbed or destroyed by the proposed Project, resulting in a significant impact. Therefore, MM BIO-1 is recommended to avoid impacts to nesting birds and their fledglings. Additionally, upon completion of construction and landscaping activities on the site, newly planted trees and landscaping would provide nesting habitat for migratory birds. Therefore, impacts to migratory birds may occur during the construction phase but would be less than significant with implementation of MM BIO-1.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (Sources: 20, 38)

Less Than Significant Impact. The proposed Project would involve removal of the existing ornamental trees and replacing the existing landscaping with a variety of drought tolerant trees and vegetation. The Project would be required to comply with the City of Huntington Beach Memorandum CI-74 (City Memo CI-74) (RR BIO-1). The City of Huntington Beach Memorandum CI-74 (City Memo CI-74) requires replacement for removal of trees that are considered mature, at a minimum 2:1 ratio. Per City Memo CI-74, mature trees are considered to exceed 10 inches in diameter, measured at approximately 4 feet grade. As such, all trees that measured 10 inch or greater in trunk diameter at chest height (4 feet above ground level) were evaluated as part of the Tree Report.

A Tree Survey and Tree Assessment Report (Tree Report) was prepared for the property by Dane S. Shota & Associates in March 2021 (revised in May 2021) and is included in Appendix B of this IS/MND. The Tree Report evaluated a total of 15 trees; of which 5 trees are considered suitable for preservation and 10 are not suitable for preservation. Table 8-9 presents the tree inventory and findings. In light of planting replacement trees in compliance with City Memo CI-74, no significant impact pertaining to conflict with any local policies or ordinances would occur, and no mitigation is required.

TABLE 8-9
TREE INVENTORY AND ASSESSMENTS

Tree No.	Common Name	Botanical Name	Condition Rating	Structure Rating	Suitability for Preservation	Comments
1	Queen Palm	*Syagrus romanzoffiano*	Fair	Poor	No	Poor trunk taper and weed eater damage at the base
2	Queen Palm	*Syagrus romanzoffiano*	Poor	Poor	No	Poor trunk taper
3	Queen Palm	*Syagrus romanzoffiano*	Fair	Poor	No	Poor trunk taper
4	Evergreen Pear	*Pyrus kawakami*	Fair	Fair	Yes	No presence of Fire blight
5	Fruitless Mulberry	*Morus alba*	Fair	Fair	No	Roots on the surface of the soil
6	Fruitless Mulberry	*Morus alba*	Fair	Poor	No	Slightly leaning
7	Fruitless Mulberry	*Morus alba*	Fair	Fair	No	Roots on the surface of the soil
8	Fruitless Mulberry	*Morus alba*	Fair	Poor	No	Severe lean towards the building
9	Morton Bay Fig	*Ficus macrophylla*	Good	Good	No	About 15' from building and may cause damage to the foundation
10	Morton Bay Fig	*Ficus macrophylla*	Good	Good	Yes	
11	Eastern Red Bud	*Cercis canadensis*	Fair	Fair	Yes	There is some cross branching
12	Evergreen Pear	*Pyrus kawakami*	Fair	Fair	Yes	No presence of Fire blight
13	Tipu	*Tipuanu tipu*	Good	Good	Yes	In a planter with a small opening. In a grove of smaller Tipu trees
14	Carrotwood	*Cupaniopsis anacardioides*	Fair	Poor	No	Heart rot in trunk due to loss of major limb
15	Carrotwood	*Cupaniopsis anacardioides*	Fair	Poor	No	Heart rot present in trunk

Source: Dane S. Shota & Associates, March 2021.

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? (Source: 40, 42)

No Impact. The proposed Project site is in a highly urbanized region. As discussed in Checklist Response threshold 5a., the site has no native vegetation or habitat. Further, the site is not located in a designated conservation area, as depicted in the Huntington Beach General Plan, Figure ERC-1, Open Space Diagram. Therefore, the Project site is not within any established Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved type of habitat conservation plan. No impact would occur and no mitigation is required.

Regulatory Requirement

RR BIO-1 Per the City of Huntington Beach – Memorandum CI-74 – Tree Replacement for CEQA Compliance, dated October 1, 2005, projects built since 1973 have been required to comply with CEQA, HBZSO landscaping requirements, and approved landscaping plan, if applicable. On these projects, removal of mature trees as part of remodel or redevelopment requires replacement on a 1:1 basis (one 36-inch box trees for every tree removed). In general, large stature trees are defined has having a minimum 10-inch diameter trunk at approximately 4 feet height from the adjoining ground.

Mitigation Measures

MM BIO-1 Prior to the issuance of any grading permits, the Community Development Director or designee shall verify that the following requirements for nesting birds and preconstruction survey are completed by the Project Applicant:

- The start of site-preparation activities shall be scheduled outside of the bird nesting and breeding season (typically March 1 through August 15), if feasible. If site-preparation activities start during the nesting season, a qualified Biologist shall conduct a nesting bird survey in potential bird nesting areas within 200 feet of any proposed disturbance. The survey shall be conducted no more than three days prior to the start of any ground disturbance activities.
- If active nests of bird species protected by the Migratory Bird Treaty Act (MBTA) and/or the California Fish and Game Code (which, together, apply to all native nesting bird species) are present in the impact area or within 200 feet of the impact area, a temporary buffer fence shall be erected a minimum of 200 feet around the nest site. This temporary buffer may be greater or lesser depending on the bird species and type of disturbance, as determined by the Biologist.
- Clearing and/or construction within temporarily fenced areas shall be postponed or halted until juveniles have fledged from the nest and there is no evidence of a second nesting attempt. The Biologist shall serve as a construction monitor during those periods when disturbance activities occur near active nest areas to ensure that no inadvertent impacts on these nests would occur.

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

Introduction

This analysis used the results of a historic and archaeological record search conducted by Psomas on April 9, 2021 at the South Central Coastal Information Center (SCCIC), located on the campus of California State University, Fullerton. The SCCIC houses records of the California Historical Resources Information System (CHRIS) for Los Angeles, Orange, Ventura, and San Bernardino Counties. The records search included a 0.8-kilometer (0.5-mile) radius around the Project site.

Existing Setting

The site is located at 21141 Strathmoor Lane and is generally surrounded by single-family residential to the north, east, and west and Gisler Park to the south. The Project site is currently developed with a school campus, which is not in use and slated for demolition. Access to the Project site is currently provided by one entry point off Bluefield Drive and two additional entries off Strathmoor Lane. The existing use is comprised of an approximately 73,000-sf building and associated surface parking lot on the eastern half of the site and sports fields on the western half of the site. The school campus formerly served as both a public school (i.e., Ernest H. Gisler Middle School) and a private school (i.e., Greater Long Beach Schools, Inc. [operating as Brethren Christian Junior and Senior High School]).

Review of historical aerial photographs indicated that the Project site was undeveloped circa 1938 and/or agricultural land from 1947 to 1963. As early as 1977, the eastern portion of the site was developed with a school, while the western portion of the site appeared to be a football field.

On April 9, 2021, Psomas completed a record search for the Project site, which included a 0.8-kilometer (0.5-mile) radius around the site. The purpose of the literature search was to identify prehistoric or historic archaeological sites or historic buildings and structures, previously recorded within and around the Project site. The SCCIC record search identified 10 prior cultural resources studies within the 0.5-mile search, 3 of which were identified within the Project site (Table 8-10).

TABLE 8-10
CULTURAL RESOURCE STUDIES WITHIN 0.5-MILE OF THE PROJECT SITE

Report No.	Year	Author(s)	Affiliation	Type of Study	Title of Study	Within the Project Site
OR-00001	1973	Ahlering, Michael L.	Archaeological Research, Inc.	Archaeological, Other research	Report of a Scientific Resources Survey and Inventory: Conducted for the City of Huntington Beach, California	X
OR-00270	1975	Leonard, Nelson N. III and Mathew C. Hall	Archaeological Research Unit, UC Riverside	Archaeological, Field study	Description and Evaluation of Cultural Resources Within the US Army Corps of Engineers' Santa Ana River Project	
OR-00299	1978	Van Horn, David M.	Archaeological Associates, Ltd.	Management/planning	A Compilation of Archaeological, Historical and Paleontological Data for the City of Costa Mesa	
OR-00801	1985	Langenwalter, Paul E. and James Brock		Archaeological, Field study	Phase II Archaeological Studies Prado Basin and the Lower Santa Ana River	
OR-01016	1975	Leonard, Nelson N. III	University of California, Riverside	Archaeological, Field study	Environmental Impact Evaluation: Route Alternates Between the Michelson Treatment Plant and Plants on the Santa Ana River, Orange County, California	
OR-02033	1987	Mason, Roger D.	Scientific Resource Surveys, Inc.	Other research	Research Design for Evaluation of Coastal Archaeological Sites in Northern Orange County, California	X
OR-02256	1999	Demcak, Carol R.	Archaeological Resource Management Corp.	Archaeological, Field study	Cultural Resources Assessments for Orange County Sanitation Districts	
OR-02678	2002	Duke, Curt	LSA Associates, Inc.	Literature search	Cultural Resource Assessment Cingular Wireless Facility No. Sc 133-01 Orange County, California	
OR-03327	2005	Bonner, Wayne H. and Kathleen A. Crawford	Michael Brandman Associates	Archaeological, Evaluation, Field study	Direct Ape Historic Structural Assessment for Cingular Telecommunications Facility Candidate Lsanca3086d (Indianapolis & Magnolia) South of Atlanta Avenue, West of Brookhurst Street, Huntington Beach, Orange County, California	
OR-03447	2006	Bonner, Wayne H. and Kathleen A. Crawford	Michael Brandman Associates	Archaeological, Field study	Cultural Resource Records Search and Site Visit Results for Royal Street Communications, LLC Candidate La2740a (see Hamilton), Behind and East of the Hamilton Substation, Huntington Beach, Orange County, California	
OR-03618	2005	Bonner, Wayne H.	Michael Brandman Associates	Archaeological, Field study	Cultural Resources Records Search Results and Site Visit for Cingular Wireless Candidate Lsanca3086d (Indianapolis and Magnolia), South of Atlanta Avenue, West of Brookhurst Street, Huntington Beach, Orange County, California	
OR-03995	2011	Wlodarski, Robert	ATC Associates	Archaeological, Field study	Record Search and field reconnaissance for the proposed AT&T Wireless Telecommunications Site LA3086, located at 21261 Brookhurst Street, Huntington Beach, California	
OR-04313	2013	Unknown	City of Huntington Beach	Architectural/Historical	Historic and Cultural Resources Element - Huntington Beach	X

Source: SCCIC 2021.

One study, OR-00001, within the Project site included an archaeological/scientific resources survey and inventory conducted for the City of Huntington Beach. Another study, OR-02033, conducted research for evaluation of coastal archaeological sites. An additional study, OR-04313, was an architectural study/historical study conducted in 2013 for the City's *Historic and Cultural Resources Element.*

The records search also identified one previously recorded cultural resource within the 0.5-mile search radius of the Project site (Table 8-11).

TABLE 8-11
CULTURAL RESOURCE WITHIN 0.5-MILE OF THE PROJECT SITE

Primary No.	Trinomial No.	Resource Description	Year Recorded/ Updated	Recorded by Author/Affiliation	Proximity to Project site
P-30-001531	CA-ORA-001531	LSA-PBM730AN-S-1	1999	Duke, Curt, LSA Associates, Inc	0.2 mile
Source: SCCIC 2021.					

The recorded resource, P-30-001531, was identified as prehistoric and located approximately 0.2 miles from the Project site.

Impact Analysis

a) Cause a substantial adverse change in the significance of a historical resource pursuant to δ15064.5? (Sources: 69)

Less Than Significant Impact. As stated previously, the SCCIC record search identified 10 prior cultural resources studies within the 0.5-mile search, 3 of which were identified within the Project site. Additionally, the SCCIC identified one previously recorded cultural resource within the 0.5-mile search radius of the Project site. No historical resources were identified on the Project site. The recorded resource, P-30-001531, was identified as prehistoric and located approximately 0.2 mile from the site. However, due to the distance between the Project site and this resource, the proposed Project is not anticipated to have any direct or indirect impacts. Thus, the Project's impacts are considered less than significant, and no mitigation is required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to δ15064.5? (Sources: 69)

Potentially Significant Unless Mitigated. Based on the searches conducted, no archaeological resources were discovered on the Project site. However, there is a possibility that buried historical and/or archaeological materials would be uncovered during necessary subsurface excavations for the construction of the Project. To make sure no significant impacts would result, MM CUL-1 is proposed and calls for a qualified Archaeologist to monitor earth-moving activities during construction and sets procedures to follow in the event of the discovery of archaeological resources. Implementation of MM CUL-1 would reduce the potential for the destruction of any significant archaeological resources. Therefore, potential impacts pertaining to adverse change in the significant of an archaeological resource would be less than significant with implementation of mitigation.

c) Disturb any human remains, including those interred outside of formal cemeteries? (Sources: N/A)

Less Than Significant Impact. There is no indication that human remains are present within the Project site, and the SCCIC records search does not indicate evidence of human remains within the 0.5-mile search radius of the site. However, construction activities may unearth previously undiscovered human remains.

In compliance with State and federal regulations, if human remains are encountered during excavation activities, all work shall halt at the site and or any nearby areas reasonably suspected to overlie adjacent remains, and the County Coroner shall be notified (RR CUL-1). The Coroner shall determine whether the remains are of forensic interest within two working days of receiving notification. If the Coroner, with the aid of the qualified archaeologist, determines that the remains are prehistoric, the Coroner shall contact the NAHC within 24 hours of the determination. The NAHC shall be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by Section 5097.98 of the California Public Resources Code. Compliance with RR CUL-1 would ensure that impacts on human remains would be less than significant. No mitigation is required.

Regulatory Requirements

RR CUL-1 If human remains are encountered during any Project-related ground-disturbing activities, Section 7050.5 of the *California Health and Safety Code* states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition of the materials pursuant to Section 5097.98 of the *California Public Resources Code.* The provisions of Section 15064.5 of the California Environmental Quality Act Guidelines shall also be followed. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner shall notify the Native American Heritage Commission (NAHC). The NAHC will determine and notify a Most Likely Descendent (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The descendent must complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. These requirements shall be included as notes on the contractor specification and verified by the Community Development Department, prior to issuance of grading permits. This measure shall be implemented to the satisfaction of the City in consultation with the County Coroner.

Mitigation Measures

MM CUL-1 A qualified archaeologist (the "Project Archaeologist") that meets the Secretary of Interior Standards (SOI) shall be retained prior to the start of grading for Project-related construction. The Project Archaeologist shall monitor all ground-disturbing activities within the areas of native soil (i.e., below existing areas of artificial fill from previous construction). If archaeological or historical resources are encountered during implementation of any phase of the Project, the Project Archaeologist will be allowed to temporarily divert or redirect grading or excavation activities in the vicinity of the find in order to make an evaluation of the find.

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

Impact Analysis

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? (Sources: 3, 5, 7, 8, 39)

Construction

Less Than Significant Impact. Project construction would require the use of construction equipment for excavation, building, and paving activities. Construction also includes the vehicles of construction workers and vendors traveling to and from the Project site. Off-road construction equipment use was calculated from the equipment data (i.e., mix, hours per day, horsepower, load factor, days per phase) provided in the CalEEMod 2016.3.2 construction output files included in Appendix A of this IS/MND. The total horsepower hours for the Project was then multiplied by fuel usage estimates per hours of construction activities included in the OFFROAD Model. Fuel consumption from construction worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the CalEEMod construction output files. Total vehicle miles traveled (VMT) was then calculated for each type of construction-related trip and divided by the corresponding miles per gallon factor using CARB's EMissions FACtor 2017 (EMFAC 2017) model. EMFAC 2017 provides the total annual VMT and fuel consumed for each vehicle type. Construction vendor and delivery/haul trucks were assumed to be heavy-duty diesel trucks. Total fuel consumption for Project related construction activities are shown in Table 8-12.

TABLE 8-12
ENERGY USE DURING CONSTRUCTION

Source	Gasoline Fuel (gallons)	Diesel Fuel (gallons)
Off-road Construction Equipment	30,467	84,755
Worker commute trips	19,920	87
Vendor trips	2,602	40
On-road haul trips	22	18,873
Total	**53,011**	**103,756**
Total may not add due to rounding. See Appendix A for Energy data. Data based on CalEEMod 2016.3.2 (Appendix A), OFFROAD, and EMFAC2017 programs.		

Fuel energy consumed during construction would be temporary in nature and would not occur after completion of construction activities. It would also not represent a significant demand on energy resources. Furthermore, there are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the State. Therefore, the proposed construction activities would not result in inefficient, wasteful, or unnecessary fuel consumption.

Operation

Project operations would result in energy consumption related to electricity, natural gas, water, solid waste, and transportation. In addition, potential energy impacts of the Project are evaluated with emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. The regulations, plans, and policies adopted for the purpose of maximizing energy efficiency that are directly applicable to the Project include (1) California's Title 24 Building Energy Efficiency Standards for Residential Buildings, (2) the CALGreen Code, and (3) the City of Huntington Beach Energy Resources section of the General Plan. Development of the Project site would comply with the 2019 Building Energy Efficiency Standards, the 2019 CALGreen code, and the City of Huntington Beach goals of conserving energy in homes and businesses as well as expanding renewable energy generation sources.

The 2019 Title 24 Building Energy Efficiency Standards for residential buildings is currently in effect and includes requirements for installation of solar photovoltaic systems, including smart inverters with optional battery storage. Additionally, residential uses are required to have updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); ventilation requirements; and lighting requirements. Under the 2019 Standards, once factoring in rooftop solar electricity generation, single family units built with the 2019 standards would use about 53 percent less energy than those built under the 2016 Title 24 Building Energy Efficiency Standards. Single family homes per CALGreen requirements include reductions in indoor and outdoor water use, diversion of construction and demolition waste, and inclusion of electric raceway (conduit) capable of supporting future charging stations. These codes are enforced by the City, and adherence to standard requirements for construction and operations would ensure that the Project would comply with both regulations.

Transportation energy use would be associated with daily trips associated with the Project. Based on data obtained from CalEEMod (refer to Appendix A), the Project would generate 3.8 million annual VMT. The gasoline and diesel consumption rates were calculated using estimated miles per gallon factors based on data from EMFAC 2017 that provides average vehicle emissions rates for the SoCAB in California. It is estimated that Project-generated operational traffic would consume 128,739 gallons of gasoline fuel and 5,657 gallons of diesel fuel per year (see Table 8-13, Energy Use During Operations). Transportation fuels consumption would steadily decline with increases to the Corporate Average Fuel Efficiency Standards and phase-out of older, more fuel-consumptive vehicles with energy-efficient electric vehicles. Because the Project would incorporate the latest energy efficiency standards for residential buildings and there are no unusual characteristics of the Project that would cause greater energy consumption than a comparable project elsewhere in the State. Impacts would thus be less than significant, and no mitigation is required.

TABLE 8-13
ENERGY USE DURING OPERATIONS

Gasoline (Gallons/yr)	Diesel (Gallons/yr)	Natural Gas (kBtu/yr)	Electricity (kWh/yr)
128,739	5,657	2,193,420	681,576[1]

[1] Electricity consumption is required to be offset by onsite renewable energy generation per Title 24 Building Energy Efficiency Standards.

yr: year; kBtu: kilo-British thermal unit; kWh: kilowatt hour.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? (Sources: 6, 7, 8, 37)

No Impact. The State's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6 of the CCR) were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The current 2019 Title 24 Standards, effective January 1, 2020, are projected to result in a 53 percent improvement in energy efficiency for residential buildings over the 2016 standards (RR GHG-1). The 2019 California Green Building Standards Code (24 CCR, Part 11), also known as the CALGreen code, contains mandatory requirements and voluntary measures for new residential and nonresidential buildings (including buildings for retail, office, public schools and hospitals) throughout California (RR GHG-2). The development of the CALGreen Code is intended to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the following construction practices: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental quality. In short, the code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction.

The CALGreen Code contains requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for the verification that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.

The CALGreen Code provides standards for light and glare reduction, grading and paving, energy efficient appliances, renewable energy, graywater systems, water efficient plumbing fixtures, recycling and recycled materials, pollutant controls (including moisture control and indoor air quality), acoustical controls, storm water management, building design, insulation, flooring, and framing, among others. The Project would comply with the 2019 Building Energy Efficiency Standards and the 2019 CALGreen Code.

The State Energy Efficiency Standards and CALGreen are adopted by the City of Huntington Beach in Chapter 17, Buildings and Construction, of the Huntington Beach Municipal Code. Section 17.61 Small Residential Rooftop Solar Energy Systems also details the requirements for solar photovoltaic energy systems for single-family residential uses. The Project would achieve the City's goals of energy conservation and expansion of renewable energy generation as required under 2019 Title 24 Building Energy Efficiency Standards and 2019 CALGreen. The Building Energy Efficiency Standards and CALGreen are each updated on three-year cycles. Each triennial edition of the Building Energy Efficiency Standards improves on the energy efficiency of the previous edition. The CALGreen likewise improves in energy efficiency between each successive edition. Project development would comply with the latest State of California energy efficiency standards related to building energy use and the provision of electric vehicle charging stations. Compliance with City and State requirements would result in consistency with State and local plans related to energy conservation and energy efficiency. The 2019 Title 24 Building Energy Efficiency Standards and CALGreen requirements adopted by the Project would also be consistent with the City's goal of energy conservation and renewable energy generation. There would be no impact associated with conflicting or obstruction with local or State energy plans. No mitigation is required.

Regulatory Requirements

RR GHG-1 and RR GHG-2, presented in Section 5.8, Greenhouse Gas Emissions, would be applicable to the issue of energy.

Mitigation Measures

Project implementation would not result in significant impacts related to energy; therefore, no mitigation measures are required.

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

Introduction

A *Preliminary Geotechnical Evaluation and Design Recommendations for Proposed Residential Development, Strathmoor Lane, North of Gisler Park and West of Strathmoor Lane, City of Huntington Beach, California* (Geotechnical Evaluation) has been prepared by LGC Geotechnical, Inc. (LGC) (July 2020) for the proposed Project to evaluate the existing onsite geotechnical conditions and to provide preliminary geotechnical recommendations relative to the proposed

residential development. The findings of the Geotechnical Evaluation are summarized below, and the report is included as Appendix C to this IS/MND.

Impact Analysis

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Sources: 45)

Less Than Significant Impact. Ground rupture occurs when movement on a fault breaks through the surface. The State of California has established Earthquake Fault Zones for the purpose of mitigating the hazard of fault rupture by prohibiting the location of most human occupancy structures across the traces of active faults. According to the Geotechnical Evaluation, the Project site is not located within an Alquist-Priolo Earthquake Fault Zone and no faults were identified on the site during the evaluation. The possibility of damage due to ground rupture is considered low since no active faults are known to cross the site. Therefore, impacts would be less that significant, and no mitigation is required.

ii) Strong seismic ground shaking? (Sources: 45)

Potentially Significant Unless Mitigated. The City of Huntington Beach and the rest of California are located within a seismically active region. There are no known active or potentially active faults on the Project site. Some of the major active nearby faults that could produce these secondary effects include the Newport-Inglewood, Whittier, Elsinore, and San Andreas Faults, among others. It is anticipated that because the Project site is located within a seismically active region, the Project site would experience ground shaking during the life of the Project.

In order to reduce the effects of ground shaking, the Project should be designed in accordance with all applicable current codes and standards utilizing the appropriate seismic design parameters to reduce seismic risk as defined by California Geological Survey (CGS) Chapter 2 of Special Publication 117a and the 2019 California Building Code (CBC) (RR GEO-1). All buildings and other structures constructed as part of the proposed Project would be designed in accordance with applicable requirements of the CBC in effect at the time of grading plan submittal, and any applicable building and seismic codes in effect at the time the grading plans are submitted. The Geotechnical Evaluation includes 2019 CBC Seismic Design Parameters in its evaluation (MM GEO-1) and concludes that the proposed Project is feasible from a geotechnical standpoint, with incorporation of the Geotechnical Evaluation recommendations into the design and construction of the Project and compliance with applicable building and seismic codes. Therefore, there would be a less than significant impact from strong seismic groundshaking with incorporation of MM GEO-1.

iii) Seismic-related ground failure, including liquefaction? (Sources: 45)

Potentially Significant Unless Mitigated. Liquefaction is a seismic phenomenon in which loose, saturated, granular soils behave similarly to a fluid when subject to high-intensity ground shaking. Liquefaction occurs when three general conditions coexist: (1) shallow groundwater;

(2) low density non-cohesive (granular) soils; and (3) high-intensity ground motion. Studies indicate that saturated, loose near-surface cohesionless soils exhibit the highest liquefaction potential, while dry, dense, cohesionless soils and cohesive soils exhibit low to negligible liquefaction potential. In general, cohesive soils are not considered susceptible to liquefaction, depending on their plasticity and moisture content. Effects of liquefaction on level ground include settlement, sand boils, and bearing capacity failures below structures. Dynamic settlement of dry loose sands can occur as the sand particles tend to settle and densify as a result of a seismic event.

According to the Geotechnical Evaluation and based on review of the State of California Seismic Hazard Zone for liquefaction potential, the Project site is located within a liquefaction hazard zone. Subsurface field data indicates that the site contains generally thin sandy layers susceptible to liquefaction interfingered with fine-grained non-liquefiable soils and very dense sands. Groundwater was encountered at a depth ranging from approximately 10 to 14 feet below existing grade; however, historic high groundwater is estimated to be about 3 feet below existing grade. Results indicate total seismic settlement is less than 2 inches. Differential seismic settlement can be estimated as half of the total estimated settlement, 1-inch, over a horizontal span of about 40 feet for design of foundations.

Therefore, the potential for seismic-related ground failure, including liquefaction, represents a significant impact. However, implementation of MM GEO-1 requires that the specific recommendations of the Geotechnical Evaluation prepared for the Project, including Seismic Design Considerations, are fully incorporated in the design and construction of the Project. Therefore, implementation of MM GEO-1 would reduce impacts related to seismic-related ground failure, including liquefaction, to less than significant levels.

iv) Landslides? (Sources: 45)

No Impact. The Project site and surrounding area are located in a generally flat, urbanized portion of the City, with the ground elevations on the Project site at approximately 5.7 to 12.9 feet above mean sea level (msl). The California Department of Conservation (DOC) does not designate the site and the surrounding area as Earthquake-Induced Landslide Zones, which include areas where historical occurrence of landslide movement has occurred or where local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacement. Therefore, the Project would not result in a substantial adverse effect, including the risk of loss, injury, or death, due to landslides. No impact would occur, and no mitigation is required.

b) Result in substantial soil erosion or loss of topsoil? (Sources: 45)

Less Than Significant Impact. The Project site has a relatively flat topography and is currently developed with a school campus, which is not in use and slated for demolition. The existing use is comprised of an approximately 73,000 sf building and associated surfacing parking lot on the eastern half of the site and sports fields on the western half of the site. During demolition and construction activities, temporary soil erosion may occur due to soil disturbance and the removal of buildings and paved surfaces. In addition, soil erosion due to rainfall and wind may occur if unprotected soils are exposed during construction. According to the Geotechnical Evaluation, onsite soils primarily consist of layers of fine-grained clay, sandy clay and sandy silt, with varying amounts of silty sand to approximately 15 feet below ground surface (bgs) and

transitioning to primarily silty sand to sand with varying amount of sandy silty and silty clay to the maximum explored depth of approximately 50 feet bgs.

As the Project site has over one acre of land area, it would be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for construction activities or coverage under the NPDES Construction General Permit. The Construction General Permit requires preparation of a Stormwater Pollution Prevention Plan (SWPPP) and implementation of erosion control, sediment control, tracking, waste management, and construction site maintenance best management practices (BMPs) to reduce the potential for soil and wind erosion during construction activities (see RR HYD-1, in Section 8.10). Further, the proposed Project must comply with the City's grading ordinance, which requires preparation of an erosion control plan for City approval prior to issuance of a grading permit (see RR HWQ-4 in Section 8.10). With compliance with these regulations, construction-related soil erosion would be less than significant, and no mitigation is required.

As indicated in the Preliminary Hydrology Study (Appendix E1), the Project site is currently 40 percent impervious. Following construction of the proposed Project, the site would be 50 percent impervious. There would be minimal areas of exposed soils following completion of the proposed Project where erosion could occur. Site improvements and landscaping would also prevent long-term erosion (RR HYD-2). Therefore, operation-related soil erosion would be less than significant, and no mitigation is required.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? (Sources: 45)

Potentially Significant Unless Mitigated. As discussed above, the Project site is not located in a potential landslide area. Based on the Geotechnical Evaluation (Appendix C), groundwater was encountered at a depth ranging from approximately 10- to 14-feet below existing ground surface; however, the historic high groundwater is estimated to be about 3-feet below existing grade. Results of the liquefaction analysis indicate that total seismic settlement is less than 2 inches. Due to the site being relatively level and the lack of an adjacent "free face" to drive lateral spreading, the potential for lateral spreading is considered low.

According to the Geotechnical Evaluation, moderate increases in grades up to approximately 4 feet are proposed throughout the site. The proposed increase of grades on the site along with the anticipated structural loads is estimated to induce less than 1.5 inches of settlement within the on-site material. These soils are generally soft to stiff silts and clays loose to dense sands. Fine-grained soils are considered generally normally consolidated.

As indicated in the Geotechnical Evaluation, onsite soils have a medium expansion potential (Appendix C). Final expansion potential of site soils should be determined at the completion of grading. Results of expansion testing at finish grades would be utilized to confirm final foundation design. This, along with the remaining recommendations, as outlined in the Geotechnical Evaluation (MM GEO-1) and adherence to the City's grading code (RR GEO-1) would reduce the potential for expansion and collapse. The Geotechnical Evaluation concludes that the proposed Project is feasible from a geotechnical standpoint, provided the recommendations in the Geotechnical Evaluation are incorporated into the design and

construction of the proposed Project, in its entirety, as required by MM GEO-1. Therefore, potential impacts would be less than significant with mitigation.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? (Sources: 45)

Potentially Significant Unless Mitigated. Expansive soils are characterized by their ability to undergo significant volume changes (shrink or swell) due to variations in moisture content. Changes in soil moisture content can result from rainfall, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought, or other factors, and may cause unacceptable settlement or heave of structures, concrete slabs supported on-grade, or pavements supported over these materials. Depending on the extent and location below finished subgrade, these soils could have a detrimental effect on the proposed construction.

As indicated above, based on the field soil classification, as stated in the Geotechnical Evaluation, while the expansion index classified as medium expansion potential, with recommendations included in the Geotechnical Evaluation (MM GEO-1), impacts would be less than significant.

Additionally, Project construction would be required to comply with 2019 CBC (RR GEO-1). Also, the Geotechnical Evaluation concludes that the proposed Project is feasible from a geotechnical standpoint, provided the recommendations in the Geotechnical Evaluation are incorporated into the design and construction of the proposed Project, in its entirety, as required by MM GEO-1. Therefore, Project impacts related to expansive soils would be less than significant with compliance with RR GEO-1 and MM GEO-1.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater? (Sources: N/A)

No Impact. There is no evidence of septic tanks or systems at the Project site. The proposed Project would not involve the use of septic tanks or alternative wastewater disposal systems. No impacts would occur, and no mitigation is required.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature? (Sources: 45, 68)

Potentially Significant Unless Mitigated. The Project site is generally located within the Peninsular Ranges Geomorphic Province of California, more specifically at the southern boundary of the Los Angeles Sedimentary Basin. The Los Angeles Basin is a northwest-plunging synclinal sedimentary deposit that is bounded near the Project site by the broadly uplifted coastal mesa of Newport Beach. More recently, the Santa Ana River deposited widely dispersed soil deposits within the area of the Project site, prior to construction of the upstream Prado Dam and channelization. The channelized portion of the Santa Ana River passes about a third of a mile to the southeast of the site. Based on a review of available geologic maps, the primary geologic unit underlying the site is Quaternary young alluvial deposits. These materials are defined as Holocene to late Pleistocene deposits consisting of silt, sand, and gravels in general. There are likely thin layers of artificial fill associated with past uses of the Project site as a school.

This analysis is based on the results of a literature review and records check conducted through the Natural History Museum (LACM) of Los Angeles County and a review of geologic maps and aerials of the Project site. The paleontological records search was completed on May 19, 2021. The record search included a thorough search of the LACM paleontology collection records for the locality and specimen data for the Project site and surrounding area. The record search did not identify any fossil localities within the site. However, five localities were located nearby from the same sedimentary deposits that occurs in the Project site, either at the surface or at depth. The Project site is underlain by Holocene to late Pleistocene deposits, which could contain significant fossils. However, earthmoving activities for the proposed Project would be isolated within the first five feet of soil. The site history and geotechnical analysis indicates these earthmoving activities would take place in previously disturbed soils, which consist of re-deposited alluvial soil and artificial fill. Nevertheless, while paleontological resources are not anticipated to be discovered during excavations, if grading activities encounter unknown paleontological resources, implementation of MM GEO-2 would reduce this potential impact to a less than significant level. Therefore, this impact would be less than significant with mitigation.

Regulatory Requirements

In addition to MM GEO-1, RR HWQ-1 through RR HWQ-4 presented in Section 8.10, Hydrology and Water Quality, related to storm water and erosion management plans, would be applicable to the issue of geology and soils.

RR GEO-1 The Project shall be designed and constructed in compliance with the 2019 California Building Code (CBC) Design Parameters or the most current CBC adopted in the City's Municipal Code.

RR GEO-2 **Soil Quality.** The site's soil quality shall comply with the requirements stated in HBFD's City Specification's No. 429 and No. 431-92 for residential use.

Mitigation Measures

MM GEO-1 Prior to issuance of a grading permit, site preparation shall follow the recommendations in the *Preliminary Geotechnical Evaluation and Design Recommendations for Proposed Residential Development, Strathmoor Lane, North of Gisler Park and West of Strathmoor Lane, City of Huntington Beach, California* (dated July 28, 2020) and additional future site-specific, design-level geotechnical investigations of the Project. Based on the Geotechnical Evaluation, recommendations to be included in the Project specifications pertain to Site Earthwork, Preliminary Foundation Recommendations, Soil Bearing and Lateral Resistance, Lateral Earth Pressures for Retaining Walls, Soil Corrosivity, Control of Surface Water and Drainage Control, Subsurface Water Infiltration, Preliminary Asphalt Concrete Pavement Sections, Nonstructural Concrete Flatwork, Geotechnical Plan Review, and Geotechnical Observation and Testing During Construction.

MM GEO-2 In the event paleontological resources are encountered during construction, ground-disturbing activity shall cease. It is recommended that a Qualified Paleontologist that meets the Society for Vertebrate Paleontology (SVP) be retained by the Applicant to examine the materials encountered, assess the nature

and extent of the find, and recommend a course of action to further investigate and protect or recover and salvage those resources that have been encountered. Criteria for discard of specific fossil specimens shall be made explicit. If a Qualified Paleontologist determines that impacts to a sample containing significant paleontological resources cannot be avoided by Project planning, then recovery may be applied. Actions may include recovering a sample of the fossiliferous material prior to construction; monitoring work and halting construction if an important fossil needs to be recovered; and/or cleaning, identifying, and cataloging specimens for curation and research purposes. The cost associated with recovery, salvage, and treatment shall be borne by the Applicant. All recovered and salvaged resources shall be prepared to the point of identification and permanent preservation by the Qualified Paleontologist. Resources shall be identified and curated into an established accredited professional repository. The Qualified Paleontologist shall have a repository agreement in hand prior to initiating recovery of the resource.

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

Introduction

(Sources: 39, 41, 52, 57, 59)

Climate change refers to any significant change in measures of climate (e.g., average temperature, precipitation, or wind patterns) over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have recently been associated with global warming, which is an average increase in the temperature of the atmosphere near the Earth's surface; this is attributed to an accumulation of greenhouse gas (GHG) emissions in the atmosphere. GHGs trap heat in the atmosphere which, in turn, increases the Earth's surface temperature. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through fossil fuel combustion in conjunction with other human activities are associated with global warming.

GHGs, as defined under California's Assembly Bill (AB) 32, include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). General discussions on climate change often include water vapor, atmospheric ozone, and aerosols in the GHG category. Water vapor and atmospheric ozone are not gases that are formed directly in the construction or operation of development projects, nor can they be controlled in these projects. Aerosols are not gases. While these elements have a role in climate change, they are not considered by either regulatory bodies, such as CARB, or climate change groups, such as the California Climate Action Registry, as gases to be reported or analyzed for control. Therefore, no further discussion of water vapor, atmospheric ozone, or aerosols is provided.

Regulatory Background

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order (EO) S-3-05, which calls for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

The principal overall State plan and policy adopted for the purpose of reducing GHG emissions is Assembly Bill (AB) 32 (California Global Warming Solutions Act of 2006). AB 32 establishes

regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 recognizes that California is the source of substantial amounts of GHG emissions. The statute states the following:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

In order to avert these consequences, AB 32 establishes a State goal of reducing GHG emissions to 1990 levels by the year 2020, codifying the goal of EO S-3-05.

CARB approved a Climate Change Scoping Plan as required by AB 32 in 2008; this plan is required to be updated every five years. The Climate Change Scoping Plan proposes a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health". The Climate Change Scoping Plan has a range of GHG-reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation regulation to fund the program. On February 10, 2014, CARB released the Draft Proposed First Update to the Climate Change Scoping Plan. The board approved the final First Update to the Climate Change Scoping Plan on May 22, 2014. The first update describes California's progress towards AB 32 goals, stating that "California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32". The latest update occurred in January 2017 and incorporates the 40 percent reduction to 1990 emissions levels by 2030.

The Sustainable Communities and Climate Protection Act of 2008, Senate Bill (SB) 375, established a process to coordinate land use planning, regional transportation plans, and funding priorities in order to help California meet the GHG reduction goals established in AB 32. SB 375 required SCAG to incorporate a "sustainable communities strategy" (SCS) into its regional transportation plans (RTPs) that will achieve GHG emission reduction targets though several measures, including land use decisions. SCAG's SCS is included in the SCAG 2016–2040 RTP/SCS. The goals and policies of the RTP/SCS that reduce vehicle miles traveled (VMT) focus on transportation and land use planning that include building infill projects; locating residents closer to where they work and play; and designing communities so there is access to high quality transit service.

On April 29, 2015, Governor Brown signed EO B-30-15, which ordered an interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. Five key goals for reducing GHG emissions through 2030 include (1) increasing renewable electricity to 50 percent; (2) doubling the energy efficiency savings achieved in existing buildings and making heating fuels cleaner; (3) reducing petroleum use in cars and trucks by up to 50 percent; (4) reducing emissions of short-lived climate pollutants; and (5) managing farms,

rangelands, forests and wetlands to increasingly store carbon. EO B-30-15 also directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

On September 8, 2016, the Governor signed Senate Bill 32 (SB 32) to codify the GHG reduction goals of EO B-30-15, requiring the State to reduce GHG emissions by 40 percent below 1990 levels by 2030 (Health and Safety Code Section 38566). As stated above, this goal is expected to keep the State on track to meeting the goal set by EO S-3-05 of reducing GHG emissions by 80 percent below 1990 levels by 2050.

AB 197 was signed at the same time to ensure that the SB 32 goals are met by requiring CARB to provide annual reports of GHGs, criteria pollutants, and TACs by facility, City and sub-county level, and sector for stationary sources and at the County level for mobile sources. It also requires the CARB to prioritize specified emission reduction rules and regulations and to identify specified information for emission reduction measures (e.g., alternative compliance mechanism, market-based compliance mechanism, and potential monetary and nonmonetary incentive) when updating the Scoping Plan.

SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. SB 350 is the implementation of some of the goals of EO B-30-15. The objectives of SB 350 are as follows:

1. To increase from 33 percent to 50 percent, the procurement of our electricity from renewable sources
2. To double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation

The text of SB 350 sets a December 31, 2030, target for 50 percent of electricity to be generated from renewable sources. SB 350 also requires the State to double statewide energy efficiency savings in electricity and natural gas end uses by 2030. Additionally, SB 350 sets requirements for large utilities to develop and submit integrated resources plans (IRPs), which detail how utilities would meet their customers' resource needs, reduce GHG emissions, and integrate clean energy resources.

On September 10, 2018, Governor Brown signed SB 100, the 100 Percent Clean Energy Act of 2018. SB 100 requires renewable energy and zero-carbon resources to supply 100 percent of electric retail sales to end-use customers and 100 percent of electricity procured to serve state agencies by December 31, 2045. This policy requires the transition to zero-carbon electric systems that do not cause contributions to increase of GHG emissions elsewhere in the western electricity grid. SB 100 also creates new standards for the Renewable Portfolio Standard (RPS) goals established by SB 350 in 2015. Specifically, the bill increases required energy from renewable sources for both investor-owned utilities and publicly owned utilities from 50 percent to 60 percent by 2030.

Further, on September 10, 2018, Governor Brown also signed California EO B-55-18, which sets a new statewide goal of carbon neutrality as soon as possible, and no later than 2045 and achieve net negative emissions thereafter. EO B-55-18 was added to the existing Statewide targets of reducing GHG emissions, including the targets previously established by Governor Brown of reducing emissions to 40 percent below 1990 levels by 2030 (EO B-30-15 and SB 32), and by

Governor Schwarzenegger of reducing emissions to 80 percent below 1990 levels by 2040 (EO S-3-05).

The City of Huntington Beach addresses GHGs through the Environmental Resources and Conservation Element of the City's General Plan. This Element provides an inventory of GHG emissions attributable to the City as well as establishes the GHG emission targets within the City's Environmental Resources and Conservation Element as well as the Greenhouse Gas Reduction Program (GGRP). The GGRP provides GHG emissions inventories for year 2005, 2012, and future forecasts, as well as the abovementioned target levels of GHG emissions. Existing and future GHG reduction strategies are included to achieve these target GHG levels. The GGRP allows the City to achieve consistency with state-level actions through local implementation actions and programs. The GGRP discusses both existing and future GHG reduction strategies to achieve GHG emission targets.

The Draft Environmental Impact Report for the 2017 General Plan Update includes Appendix P Sea Level Rise Vulnerability Assessment. This document discusses sea-level rise science and projections related to climate change. Vulnerability assessments are conducted for shoreline areas and inland waterways. Shoreline areas are evaluated for shoreline erosion as well as coastal flooding and inundation.

SCAQMD Significance Criteria

On December 5, 2008, the SCAQMD Governing Board presented the staff proposal for a tiered threshold approach wherein Tier 1 determines if a project qualifies for an applicable CEQA exemption, Tier 2 determines consistency with GHG reduction plans, and Tier 3 proposes a numerical screening value as a threshold. At their September 28, 2010, meeting, the Working Group suggested a Tier 3 threshold of 3,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year for all land use types. Tier 4 determines if the project meets performance standards. Tier 4 has three options: Option 1—percent emission reduction target; Option 2—early implementation of applicable measures, and Option 3—sector-based standard. Tier 5 determines mitigation for CEQA offsets.

In the absence of adopted thresholds, the Tier 3 standard is used for this analysis. The development of project-level thresholds in accordance with CEQA is an ongoing effort at the State, Regional, and County levels, and significance thresholds may differ for future projects based on new or additional data and information that may be available at that time for consideration. Neither the SCAQMD, the City of Huntington Beach, nor Orange County has adopted a significance threshold for GHG emissions from non-industrial development projects. Consequently, pursuant to the discretion afforded by Sections 15064.4(a) and 15064.4(b) of the State CEQA Guidelines, the impact of the Project's GHG emissions are assessed based on the methodologies proposed by SCAQMD's GHG CEQA Significance Threshold Working Group, as described above. The City defers to assessment methods and significance thresholds developed by the SCAQMD. This impact analysis evaluates consistency with regulatory programs designed to reduce GHG emissions and that contribute to the achievement of AB 32's and SB 32's goals as the primary significance criterion. In addition, this impact analysis also evaluates the Project's estimated emissions compared to the Tier 3 threshold (as discussed above) for impacts related to GHG emissions proposed by staff of the SCAQMD, but not adopted by the SCAQMD Board.

Impact Analysis

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Sources: 57, 59)

Less Than Significant Impact. In developing methods for GHG impact analyses, there have been suggestions from local air pollution control districts of quantitative thresholds, often referred to as screening levels, which define an emissions level below which it may be presumed that climate change impacts would be less than significant.

Based on the proposed construction activities described above, the principal source of construction-related GHG emissions would be from internal combustion engines of construction equipment, on-road construction vehicles, and workers' commuting vehicles. GHG emissions from construction activities were obtained from the CalEEMod model, described above. The estimated construction GHG emissions for the proposed Project would be 3,323 $MTCO_2e$, over a period of 4 years, as shown in Table 8-14, Estimated Greenhouse Gas Emissions from Construction.

TABLE 8-14
ESTIMATED GREENHOUSE GAS EMISSIONS
FROM CONSTRUCTION

Year	Emissions ($MTCO_2e$)
2022	1,405
2023	787
2024	792
2025	339
Total	**3,323**

$MTCO_2e$: metric tons of carbon dioxide equivalent

Notes:
- Totals may not add due to rounding variances.
- Detailed calculations in Appendix A, Air Quality and Greenhouse Gas Emissions Modeling Data.

Operational GHG emissions would come primarily from vehicle trips; other sources include electricity and water consumption; natural gas for space and water heating; and gasoline-powered landscaping and maintenance equipment. Table 8-15, Estimated Annual Greenhouse Gas Emissions from Project Operation, shows the annual GHG emissions from proposed Project's operations.

TABLE 8-15
ESTIMATED ANNUAL GREENHOUSE GAS EMISSIONS FROM PROJECT OPERATION

Source	Emissions ($MTCO_2e$/yr)
Area	1
Energy	118
Mobile	1,128
Waste	50
Water	43
Total Operational Emissions	**1,341**

$MTCO_2e$/yr: metric tons of carbon dioxide equivalent per year

Notes:

- Totals may not add due to rounding variances.
- Detailed calculations in Appendix A, Air Quality and Greenhouse Gas Emissions Modeling Data.

Because impacts from construction activities occur over a relatively short period of time, they contribute a relatively small portion of the overall lifetime project GHG emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. The SCAQMD recommends that construction emissions be amortized over a 30-year project lifetime so that GHG reduction measures address construction GHG emissions as part of the operational GHG reduction strategies. Therefore, construction and operational emissions are combined by amortizing the construction and operations over an assumed 30-year project lifetime. This combination is shown in Table 8-16, Estimated Total Project Annual Greenhouse Gas Emissions, using the proposed Project's amortized construction and operational emissions.

TABLE 8-16
ESTIMATED TOTAL PROJECT ANNUAL GREENHOUSE GAS EMISSIONS

Source	Emissions ($MTCO_2e$/yr [a])
Construction (Amortized)	111[a]
Operations (Table 8-13)	1,341
Total [b]	**1,451**
SCAQMD-Recommended Threshold (Tier 3)	**3,000**
Exceeds Threshold?	**No**

$MTCO_2e$/yr: metric tons of carbon dioxide equivalent per year

[a] Total derived by dividing construction emissions (see Table 4-11) by 30.

[b] Total annual emissions are the sum of amortized construction emissions and operational emissions.

It is noted that there are no established applicable quantitative federal, State, regional, or local CEQA significance criteria for GHG emissions for non-industrial projects in the SoCAB. The SCAQMD has proposed, but not adopted, a threshold of 3,000 $MTCO_2e$ per year for non-industrial land use projects. As shown, the estimated GHG emissions from the Project would be less than

this suggested threshold. The impact would be less than significant, and no mitigation is required.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (Sources: 6, 7, 8)

Less Than Significant Impact. State policy and standards adopted for the purpose of reducing GHG emissions that are applicable to the proposed Project are EO S-3-05, AB 32, the California Global Warming Solutions Act of 2006, and SB 32. The quantitative goal of these regulations is to reduce GHG emissions to 1990 levels by 2020 to 80 percent below 1990 levels by 2050, and for SB 32, to 40 percent below 1990 levels by 2030. Statewide plans and regulations (such as GHG emissions standards for vehicles, the Low Carbon Fuel Standard, Cap-and-Trade, and renewable energy) are being implemented at the statewide level, and compliance at a project level is not addressed.

The regulations, plans, and polices adopted for the purpose of reducing GHG emissions that are directly applicable to the Project include the latest Title 24 Energy Efficiency Standards for Residential and Nonresidential Buildings (RR GHG-1) and the Title 24 California Green Building Standards Code (CALGreen) (RR GHG-2). The Project would be required to comply with the latest Title 24 Standard at the time of building permit issuance. The 2019 Title 24 Building Energy Efficiency Standards for residential buildings is currently in effect and includes requirements such as installation of solar photovoltaic systems, including smart inverters with optional battery storage. Additionally, residential uses are required to have updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); ventilation requirements; and lighting requirements. Under the 2019 Standards, once factoring in rooftop solar electricity generation, single family units built with the 2019 standards would use about 53 percent less energy than those built under the 2016 Title 24 standards. Single family homes per CALGreen requirements include reductions in indoor and outdoor water use, diversion of construction and demolition waste, inclusion of electric vehicle charging spaces or designated spaces capable of supporting future charging stations. These codes are enforced by the City, and adherence to standard requirements for construction and operations would ensure that the Project would comply with both regulations. The Project is an infill development project. The Project would provide housing consistent with its surrounding uses and would help address the severe housing shortage within Orange County. As such, the proposed Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. The impact would be less than significant, and no mitigation is required.

Regulatory Requirements

RR GHG-1 The Project shall be designed in accordance with the applicable Title 24 Energy Efficiency Standards for Residential and Nonresidential Buildings (*California Code of Regulations* [CCR], Title 24, Part 6). These standards are updated, nominally every three years, to incorporate improved energy efficiency technologies and methods. The Building Manager, or designee shall ensure compliance prior to the issuance of each building permit. The 2019 Title 24 Energy Efficiency standards for residential uses require that solar photovoltaic electricity be installed equal to the amount used annually.

RR GHG-2 Projects shall be designed in accordance with the applicable California Green Building Standards (CALGreen) Code (24 CCR 11). The Building Manager, or designee shall ensure compliance prior to the issuance of each building permit.

Mitigation Measures

Project implementation would not result in significant impacts related to GHG emissions; therefore, no mitigation measures are required.

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

Introduction

A Phase I Environmental Site Assessment (ESA) was prepared by Hillman Associates in 2020 and is summarized below; the report is included as Appendix D1 to this IS/MND. Additionally, a Hazardous Materials Inspection was prepared by Hillmann Consulting in 2020, and a Preliminary Subsurface Methane Gas and Soil Investigation was prepared by GeoKinetics Geotechnical & Environmental Engineers (GeoKinetics) in 2020. The results of these reports are summarized below. The Hazardous Materials Inspection and Preliminary Subsurface Methane Gas and Soil Investigation are included as appendices to this IS/MND (Appendices D2 and D3, respectively).

Impact Analysis

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (Sources: N/A)

Less Than Significant Impact. Demolition and construction activities for the proposed Project would involve the use of chemical substances such as solvents, paints, fuel for equipment, and other potentially hazardous materials. Hazards to the environment or the public would typically occur with the transport, use, storage, or disposal of hazardous materials. Demolition and construction activities would be relatively short term and the transport, use, and disposal of hazardous materials as part of these activities would be temporary. The contractor would be required to comply with existing regulations for the transport, use, storage, and disposal of hazardous materials to prevent public safety hazards. These regulations include the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act (RCRA), California Hazardous Waste Control Act (HWCA), and California Accidental Release Prevention Program (CalARPP), among others.

Once constructed, the proposed dwelling units would use hazardous materials (e.g., paint, pesticides, cleansers, and solvents) for maintenance activities but any use would be in limited household quantities. The dwelling units would not utilize, store, or generate hazardous materials or wastes in quantities that would pose a significant hazard to the public or the environment. Impacts would be less than significant, and no mitigation is required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? (Sources: 25, 28, 29)

Less Than Significant Impact. Review of historical aerial photographs indicate that the Project site was undeveloped circa 1938 and/or agricultural land from 1947 to 1963. As early as 1977, the eastern portion of the site was developed with a school, while the western portion of the site appeared to be a football field.

The Phase I ESA did not identify the presence of previous or current hazardous materials or wastes on the site. No underground or aboveground storage tanks were observed, and no stains, corrosion, drains, sumps, pits, or wells are present on the site.

The following notable environmental conditions were identified:

- Gisler Middle School/Brethren Christian High School located at 21141 Strathmore Lane (Project site) is listed on the Enforcement and Compliance History Online (ECHO), Hazardous Waste Tracking System (HWTS), Resource Conservation and Recovery Act (RCRA), Non Generators/No Longer Regulated (NonGen/NLR), Facility Index System (FINDS), California Integrated Water Quality System Project (CIWQS), and HAZNET databases. The ECHO listing indicates a registry ID of 110070586742, indicating that the facility is on the RCRA program with no reported violations. The HWTS listing indicates EPA ID of CAC003018819, with Property Owner and mailing address. The RCRA NonGen/NLR listing indicates that the site does not currently generate hazardous waste, with no violations noted. The first HAZNET listing indicates that the site disposed of asbestos containing materials once in 2001, while the second HAZNET listing stated that

the site disposed of laboratory waste chemicals once in 2005. The FINDS listing indicates that the facility is on the RCRA database. The ECHO listing shows a registry ID of 110070582559, with no violations noted. The CIWQS listing indicates that the site is on the California Integrated Water Quality System with a terminated status due to storm water construction, with no violations noted. Based on the details provided above, a REC is not anticipated in connection to the Project site.

- The site was first developed in 1972 as Gisler Middle School. At the time of the inspection in 2020, the building had been vacant since summer 2019.
- Based on a review of documents from the Geologic Energy Management Division (CalGEM), formerly the Division of Oil, Gas, and Geothermal Resources (DOGGR) online mapping system, it is determined that numerous plugged/inactive oil/gas wells were adjacent to the southern and western portions of the Project site with, Gisler lease name and Tad Travers as the historic operator. According to CalGEM's classification, the oil/gas wells on the adjacent properties have been plugged and abandoned since approximately 1972, and the adjacent properties have been redeveloped with residential structures. Due to the site redevelopment and plugged/abandoned wells, this is not considered to be a REC in connection to the Project site.
- Nuisance trash/debris such as broken glass, clothes, paper, and furniture was observed throughout the exterior and interior portions of the site.
- Five large shipping/storage containers located on the western side of the property were observed, and it was determined that the schools sporting equipment is stored and locked in containers.

According to the Phase I ESA, none of the above mentioned environmental conditions are considered a REC associated with the Project site. No evidence of RECs (either historical or controlled) was found on the site, and no additional assessment was recommended. The Project site is not listed as a facility that handled hazardous materials or generated hazardous wastes.

Adjacent to the site are residential land uses to the north, east, and west, and Gisler Park to the south. Historically, the adjacent properties appear undeveloped and/or as agricultural land and consist of residential structures. These uses do not store, use, or dispose of hazardous materials in quantities that may pose hazards to the public. Surrounding properties with environmental concern were not identified in the Phase I ESA.

Results of the Preliminary Methane Gas Investigation and Pesticide Soil Sampling at the Project site indicate that the site is located within the Newport West Oil Field, as mapped by the California Geological Energy Management Divisions (CalGEM). No historical oil wells were shown to exist at the Project site; however, a plugged historical oil well (Gisler, "Tad Travers" #2) is located approximately 115 feet west of the site. Low detections of the pesticide Dichloro-Diphenyl-Dichloroethylene DDE[1] were found in 7 of 30 soil samples that were analyzed. No methane gas was detected in any of the five shallow subsurface gas probes that were installed and monitored. The Investigation concluded that no mitigation is required.

[1] DDE is a decompositional by-product of Dichlorodiphenyltrichloroethane (DDT). This compound is also persistent in the environment with toxicity characteristics similar to those of DDT. As such, the combined concentrations of DDT and DDE are typically considered in assessment activities rather than the concentration of DDT alone.

A Hazardous Materials Inspection was conducted at the Project site, which included inspections and/or testing for the presence of asbestos-containing materials (ACM), lead containing paint, universal waste and other hazardous/regulated materials requiring handling or disposal practices outside of conventional solid waste. Because of the age of the existing uses, asbestos is likely to have been used for construction. As part of the demolition activities, ACM would be disturbed, and contact with these materials would pose hazards to the construction crew and other persons near the construction site. According to the Hazardous Materials Inspection prepared for Project site, there are ACM within buildings at the Project site. Additionally, lead-based paint (LBP) was determined to be present within buildings at the site. If LBP is encountered, it may also pose hazards to the construction crew and other persons near the construction site. Demolition, removal, and disposal of ACM and LBP are required to comply with existing regulatory requirements, including the Federal and State Occupational Safety and Health Regulations (OSHA and CalOSHA); SCAQMD Regulation X, Subpart M – National Emission Standards For Asbestos and Rule 1403 – Asbestos Emissions (see RR HAZ-2); and California Code of Regulations Title 8, Section 1532.1 – Lead and Section 1529 – Asbestos (see RR HAZ-1 and RR HAZ-3). Compliance with these regulations would be included on the contractor specifications and verified by the City's Community Development Director, or designee in conjunction with the issuance of the Demolition Permit. Compliance with RR HAZ-1 through RR HAZ-3 would ensure that no impacts pertaining to demolition would occur. Impacts would be less than significant, and no mitigation is required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within one-quarter mile of an existing or proposed school? (Sources: N/A)

Less Than Significant Impact. Existing schools within ¼-mile of the Project site include Huntington Christian School, located at 9700 Levee Drive and Edison High School, located at 21400 Magnolia Street. Additional schools within the Project area include Ralph E. Hawes Elementary School, located at 9682 Yellowstone Drive and Isaac L. Sowers Middle School, located at 9300 Indianapolis Avenue.

There is a potential to expose children at these nearby schools to hazardous substances through accidental releases during demolition and construction activities. However, during demolition, existing hazardous materials and wastes would be removed and disposed in accordance with pertinent regulations, as identified in RR HAZ-1 through RR HAZ-3, discussed below. During construction, a potential exists for the accidental release or spill of hazardous substances such as gasoline, oil, hydraulic fluid, diesel fuel, or other liquids associated with construction equipment operation and maintenance. However, use of these materials would be in limited quantities as typical during the operation and maintenance of construction equipment and would be conducted in compliance with applicable federal, State, and local regulations. Additionally, the contractor would be required to use standard construction controls and safety procedures, which would avoid and minimize the potential for accidental release or spill of such substances into the environment. With compliance with pertinent regulations (RR HAZ-1 through RR HAZ-3), the level of risk associated with the accidental release of hazardous substances during demolition and construction would be less than significant, and no mitigation is required.

Residential activities associated with occupancy of the proposed dwelling units would be similar to other residential uses surrounding the site and would not generate hazardous emissions or

handle hazardous or acutely hazardous materials, substances or waste in quantities that may impact students at schools within ¼-mile of the site. There would be a less than significant impact, and no mitigation is required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? (Sources: 25, 26)

No Impact. According to the Phase I ESA and review of the California Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site List – Site Cleanup (Cortese List), the Project site is not included on a list of hazardous material sites compiled pursuant to California Government Code Section 65962.5. Therefore, the Project does not have the potential to create a significant hazard to the public or the environment due to presence of an existing hazardous materials site identified on the Cortese List. No impact would occur, and no mitigation is required.

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

No Impact. The Project site is not located within an airport land use plan or within two miles of a public airport nor is it in the vicinity of a private airstrip. The closest airport to the site is John Wayne Airport, which is over six miles from the Project site. Thus, the Project would not result in a safety hazard or excessive noise for people residing on the site, as it relates to exposure to airport or aircraft hazards in areas within an airport land use plan or within two miles of a public airport. No impact would occur, and no mitigation is required.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (Sources: 11, 22)

Less Than Significant Impact. As discussed in Section 8.10, Hydrology and Water Quality, below, the City recognizes the threat of a tsunami and has developed emergency response plans in the event of a tsunami. The proposed Project site is located within a defined tsunami inundation area. In light of the potential threat, the City of Huntington Beach has created an evacuation map, *Tsunami Evacuation Routes*, which identifies vehicle evacuation routes. Major roadways providing both local and regional access to the Project site, including Brookhurst Street to the east of the site beyond existing residential and Bushard Street to the west beyond a portion of Gisler Park and existing residential, as well as several other major north-south streets, are identified on the evacuation maps as vehicle evacuation routes. However, the proposed development would be accessed only from Strathmoor Lane and a proposed emergency access from Bluefield Drive to the north of the site. Therefore, given the location of the site, the proposed Project would not interfere with adopted response plans or emergency evacuation routes, and impacts would be less than significant. No mitigation is required.

g) Expose people or structures, directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires? (Sources: 29)

No Impact. The Project site is located in a highly urbanized area of the City, and there are no large, undeveloped areas and/or steep slopes on or near the site that may pose wildfire hazards. The site and the surrounding areas are not located in designated Very High Fire Hazard Severity Zones (VHFHSZ), as identified by the California Department of Forestry and Fire Prevention (CalFire). Rather, the site is within a Non-VHFHSZ area. Implementation of the proposed Project would not expose people or structures directly or indirectly to a significant risk of loss or death associated with wildland fires. No impact would occur, and no mitigation is required.

Regulatory Requirements

RR HAZ-1 The demolition contractor shall comply with the requirements of Title 8 of the California Code of Regulations (Section 1532.1-Lead) regarding the removal of lead-based paint or other materials containing lead. The regulations set exposure limits, exposure monitoring, respiratory protection, and good working practices by workers exposed to lead. Lead-contaminated debris and other wastes shall be removed and monitored by contractors with appropriate certifications from the California Department of Health Services and disposed of in accordance with the applicable provisions of the California Health and Safety Code.

RR HAZ-2 The demolition contractor shall comply with the South Coast Air Quality Management District's (SCAQMD's) Rule 1403, which provides guidelines for the proper removal and disposal of asbestos-containing materials. In accordance with Rule 1403, prior to the demolition, renovation, rehabilitation or alteration of structures that may contain asbestos, an asbestos survey shall be performed by a Certified Asbestos Consultant (certified by the California Occupational Safety and Health Administration [CalOSHA]) to identify building materials that contain asbestos. Removal of the asbestos shall then include prior notification of the SCAQMD and compliance with removal procedures and time schedules; asbestos handling and clean-up procedures; and storage, disposal, and landfilling requirements under Rule 1403.

RR HAZ-3 The demolition contractor shall comply with the California Health and Safety Code (Section 39650 et seq.) and the California Code of Regulations (Title 8, Section 1529), which prohibit emissions of asbestos from asbestos related demolition or construction activities; require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that must be followed to minimize the potential for the release of asbestos fibers; and require notice to federal and local government agencies prior to beginning renovation or demolition that could disturb asbestos.

Mitigation Measures

Project implementation would not result in significant impacts related to hazards and hazardous materials; therefore, no mitigation measures are required.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
8.10 HYDROLOGY AND WATER QUALITY *Would the project:*				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surface, in a manner which would:			X	
i) result in substantial erosion or siltation on or off-site?			X	
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?			X	
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?			X	
iv) impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

Introduction

A Preliminary Hydrology Study (Hydrology Study) was prepared by Fusco Engineering in November 2021 and revised in January 2021 for the Project. Additionally, a Preliminary Water Quality Management Plan (PWQMP) was prepared by Fusco Engineering in January 2021. The Hydrology Study and PWQMP are summarized below, and the Hydrology Study the PWQMP are included in this IS/MND as Appendices E1 and E2, respectively.

Impact Analysis

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? (Sources: 25, 29, 37)

Less Than Significant Impact. Implementation of the Project would involve demolition of the existing school, surface parking lots, and associated site improvements, in addition to construction of the proposed residential dwelling units and site improvements. Therefore, the Project has the potential to result in short-term construction impacts to surface water quality from demolition, grading, and construction-related activities. Storm water runoff from the construction site would contain loose soils, organic matter, and sediments. Spills or leaks from heavy equipment and machinery, such as fuel, oil and grease, and heavy metals, could also enter the runoff. Building construction would involve the use of hazardous materials (e.g., paints, solvents, cleansers) that, if not properly handled, may enter the stormwater runoff.

The Clean Water Act (CWA) establishes a framework for regulating potential water quality impacts from construction activities, as well as new development and major redevelopment, through the National Pollutant Discharge Elimination System (NPDES) program. Construction activities that disturb one acre or more of land are required to obtain an NPDES permit or coverage under the NPDES Construction General Permit. This is accomplished by completing and filing Permit Registration Documents (PRD) (including a Notice of Intent, a Storm Water Pollution Prevention Plan [SWPPP], an annual fee, and a signed certification) with the State Water Resources Control Board (SWRCB) prior to start of construction activities. The Best Management Practices (BMPs) in the SWPPP are implemented during construction to reduce storm water pollutants to the maximum extent practicable. Coverage under the NPDES Construction General Permit and implementation of the Project's SWPPP (see RR HWQ-1); compliance with the Santa Ana RWQCB's dewatering regulations (see RR HWQ-2); construction and implementation of the BMPs in the approved Water Quality Management Plan (WQMP) (see RR HWQ-3); implementation of erosion control measures per the City's Grading and Excavation Code (see RR HWQ-4); and installation of connector pipe screen (CPS) units in all catch basins and other BMPs that are State-certified full capture systems (see RR HWQ-5) would reduce pollutants in the runoff and prevent violation of water quality standards, waste discharge requirements, and degradation of surface and groundwater water quality. Compliance with these requirements would ensure that short term, construction related impacts would be less than significant. Also, water quality standards or waste discharge requirements would not be violated and surface and ground water quality would not be substantially degraded. No mitigation is required.

Stormwater pollutants that would be generated by the Project in the long-term include sediment, trash and debris, oil and grease, bacterial indicators, nutrients, and pesticides that would come from landscaped areas, drive aisles, parking areas, and outdoor residential activities. In accordance with the NPDES program and Section 230.82, Performance Standards of All Uses, of the Huntington Beach Charter and Codes, a Preliminary WQMP (PWQMP) has been prepared for the Project. The PWQMP was prepared in accordance with the Orange County MS4 Permit, DAMP, Model WQMP, and TGD and the City's WQMP Preparation Guidance Manual and is intended to comply with the requirements of the local NPDES Stormwater Program (RR HWQ-3). The WQMP would include low impact development (LID), structural and non-structural BMPs and source control BMPs. Compliance with RR HWQ-1 and RR HWQ-2 would reduce the risk of water degradation from soil erosion and other pollutants related to short-term construction and

long-term operations activities, and potential violations of water quality standards would be minimized through required BMPs. Therefore, the Project would not violate water quality standards or waste discharge requirements. Impacts would be less than significant, and no mitigation is required.

Additionally, the use of hazardous materials (e.g., cleaning solvents, pesticides, fertilizers, paint, oil, and grease) would be in limited quantities and in accordance with existing regulations, as discussed in Section 8.9, Hazards and Hazardous Materials. This would not result in soil, surface water, or groundwater contamination.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? (Sources: 25, 45)

Less Than Significant Impact. The Coastal Plain of Orange County Groundwater Basin, which is managed by the Orange County Water District (OCWD), underlies the northwestern section of Orange County within the lower Santa Ana River watershed. OCWD recharge basins are located in and adjacent to the Santa Ana River, Carbon Creek, and Santiago Creek, in the cities of Anaheim and Orange. No recharge basins are located within the City of Huntington Beach or near the Project site. The proposed Project would minimally increase impervious surface on the site (10 percent—from 40 to 50 percent), and thus would not interfere with the groundwater recharge activities of the OCWD.

Excavation activities may extend into the underlying groundwater (depth of groundwater ranges from approximately 10 to 14 feet at the site, which has a historical high depth to groundwater at approximately 3 feet below ground surface [bgs] at the site), and dewatering may be required as part of Project construction. However, any dewatering activities, as required, would occur in compliance with the Santa Ana RWQCB's General Waste Discharge Requirements (WDR) under Order No. R8-2015-0004 (see RR HWQ-2).

Therefore, the proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. Impacts would be less than significant with compliance with regulatory requirement as identified above, and no mitigation is required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation on or off-site? (Sources: 37)

Less Than Significant Impact. As previously discussed, the Project site currently drains easterly toward Strathmoor Lane. In the absence of underground storm drain facilities, the drainage discharges into Strathmoor Lane either via sheet-flow or through four curb cores/under sidewalk culverts. The drainage continues southerly in Strathmoor Lane and easterly in Effingham Drive before collecting into the City's storm drain system and ultimately discharging into Reach 1 of the Santa Ana River.

Based on the MS4 permit and the 2011 Model WQMP, the proposed Project site is divided into Drainage Management Areas (DMAs) for purpose of defining drainage areas and sizing LID and other treatment control BMPs. DMAs have been delineated based on the proposed site grading patterns, drainage patterns, storm drain and catch basin locations. Locations of DMAs and associated LID and treatment BMPs are identified on Exhibit 8-2.

Under the proposed conditions, runoff from the site would continue to follow the existing pattern. The Project site would be drained via curb and gutter flows to catch basins along the private streets of the development. The collected flows from DMAs 1 and 3 would drain to the proposed 18-inch RCP storm drain that would convey runoff to the southeast corner of the property, where an underground detention facility would mitigate the impact from increased runoff from the proposed development by ensuring that flows from the Project site do not exceed the existing Q25, per the Conditions of Approval from the City of Huntington Beach. In addition, the Project's LID flows would be treated by a Modular Wetlands System (MWS) proprietary biotreatment BMP prior to discharge off the property at Strathmoor Lane. The proposed detention tank would connect to the MWS unit to treat LID flows. High flows would be diverted before entering the detention tank to ensure that the MWS unit is not overloaded. The flows from DMA 2 would drain east directly to Strathmoor Lane. The onsite LID BMPs have been upsized to account for DMA 2.

Regarding erosion, as discussed, the Project would be required to obtain a NPDES permit for construction activities or coverage under the NPDES Construction General Permit. The Construction General Permit requires preparation of a SWPPP and implementation of erosion control, sediment control, tracking, waste management, and construction site maintenance BMPs to reduce the potential for soil and wind erosion during construction activities (see RR HWQ-1). Further, the proposed Project would comply with the City's grading ordinance, which requires preparation of an erosion and sediment control plan for City approval prior to issuance of a grading permit (see RR HWQ-4).

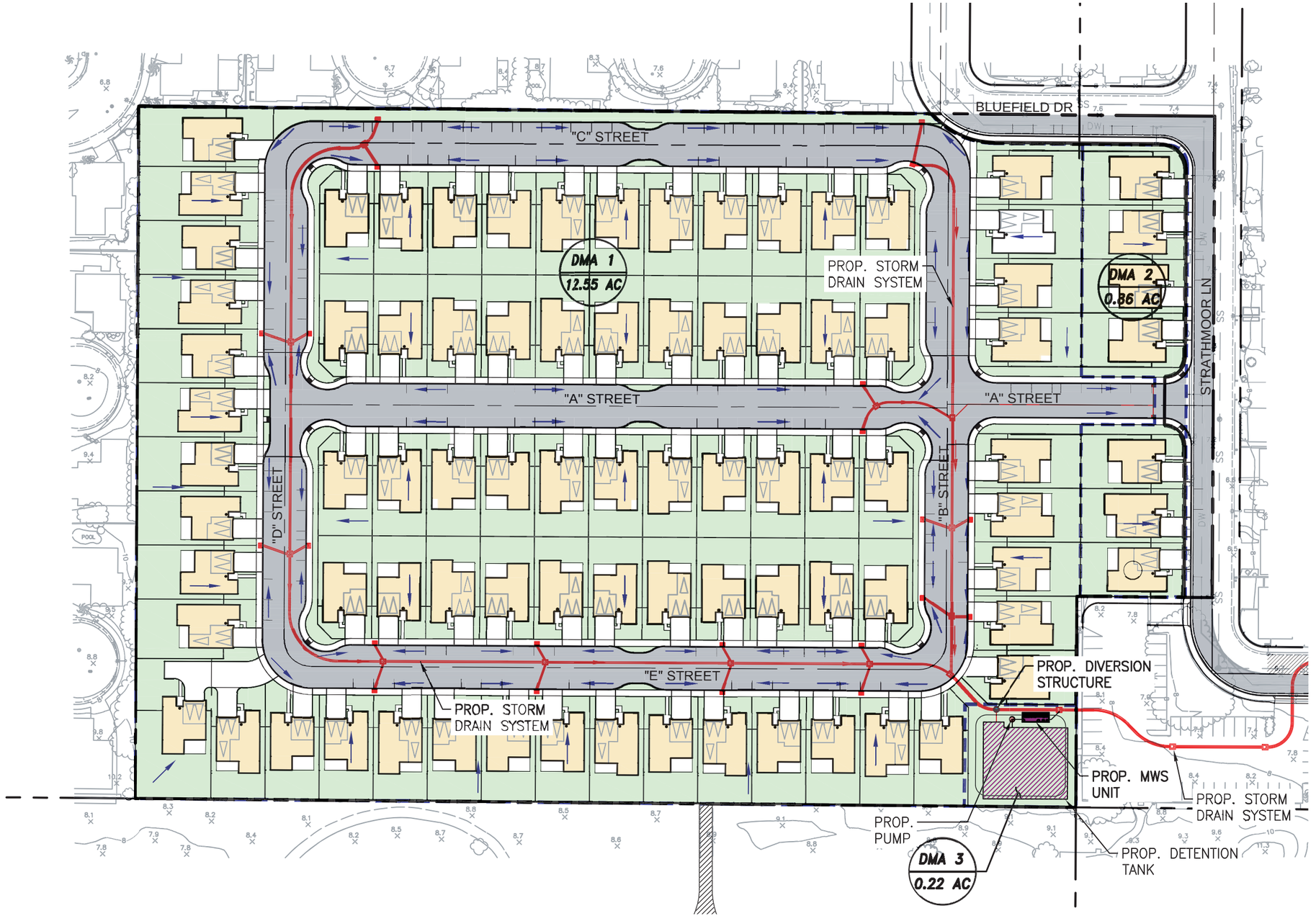
There would be minimal areas of exposed soils following completion of the proposed Project where erosion could occur. Site improvements and landscaping would also prevent long-term erosion (RR HWQ-2).

Additionally, based on the hydromodification analysis for the proposed Project, the site is located in an area of the Santa Ana River watershed that is not susceptible to hydromodification and therefore, the proposed Project would not have the potential to create hydrologic conditions of concern (HCOC) that may result in downstream flooding or the erosion of downstream natural channels. No hydromodification controls BMPs are required.

Therefore, construction- and operation-related erosion would be less than significant, with compliance with existing regulatory requirements RR HWQ-1 and RR HWQ-4, and no mitigation is required.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite? (Sources: 25)

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? (Sources: 25)



LEGEND

- PROPERTY LINE
- PROPOSED STORM DRAIN
- BMP DRAINAGE AREA BOUNDARY
- PROPOSED BUILDING
- STREET SWEEPING PRIVATE STREETS (N15)
- PROPOSED LANDSCAPING (S4)
- PROPOSED UNDERGROUND DETENTION TANK
- PROPOSED MODULAR WETLAND SYSTEM (BIO-7)
- DIRECTION OF SURFACE FLOW
- DIRECTION OF PIPE FLOW
- PROPOSED PUMP
- PROPOSED DIVERSION STRUCTURE
- CATCH BASIN STENCILING AND MAINTENENCE (S1)

Source: Fuscoe Engineering 2021

PWQMP-Drainage Management Areas

Exhibit 8-2

Gisler Residential Area

N
W E
S

PSOMAS

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Less Than Significant Impact. Currently, 40 percent of the Project site is covered with impervious surfaces, which would increase to 50 percent with implementation of the proposed Project. Off-site improvements would include storm drain improvements, parkway improvements, and utility connections (water, sewer, electricity, natural gas, and telecommunication lines). The existing drainage pattern is easterly to Strathmoor Lane and the drainage continues southerly and then easterly to Effingham Drive. The Project site would be drained via curb and gutter flows to catch basins along the private streets of the development and would continue to drain easterly, toward Strathmoor Lane. The Project's drainage locations include Strathmoor Lane; the southeasterly corner of the site; and a City storm drain extension to be constructed westerly in Effingham Drive. The collected flows from DMAs 1 and 3 would drain to proposed 18-inch RCP storm drain that would convey runoff to the southeast corner of the property, where an underground detention facility would mitigate the impact from increased runoff from the proposed development by ensuring that flows from the Project site do not exceed the existing Q25, per the Conditions of Approval from the City of Huntington Beach. In addition, the Project's LID flows would be treated by a Modular Wetlands System (MWS) proprietary biotreatment BMP prior to discharge off the property at Strathmoor Lane. The proposed detention tank would connect to the MWS unit to treat LID flows. High flows would be diverted before entering the detention tank to ensure that the MWS unit is not overloaded. The flows from DMA 2 would drain east directly to Strathmoor Lane. The onsite LID BMPs have been upsized to account for DMA 2.

Therefore, the proposed Project would include storage volume infrastructure that would provide the required storage volume and ensure that 25-year frequency storm event is not exceeded. Further, the storm drain system would be designed to accommodate 100-year flood flows, in accordance with Chapter 255 of the City's Municipal Code, the Orange County Hydrology Manual, and other City specifications (see RR HWQ-6).The proposed changes resulting from the Project site would not substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or offsite. Impacts would be less than significant, and no mitigation is required.

iv) Impede or redirect flood flows? (Sources: 14, 25, 28, 29, 37)

Less Than Significant Impact. The Project site is outside the 100-year floodplain and within Zone X, which is an area subject to flooding from the 500-year flood (0.2 percent annual chance of flooding) with a reduced flood risk due to the protection of a levee. Since the Project site is not within a special flood hazard zone, as defined by the Federal Emergency Management Agency (FEMA), a Conditional Letter of Map Revision (CLOMR) or Letter of Map Revision (LOMR) is not required. Off-site improvements would include storm drain improvements, parkway improvements, and utility connections (water, sewer, electricity, natural gas, and telecommunication lines). As described in Checklist Response threshold 5.10c (ii-iii), the Project would include storage volume infrastructure that will provide the required storage and ensure that 25-year frequency storm event is not exceeded. Therefore, the proposed Project would not expose the proposed residential development to flood hazards nor would it impede or redirect flood waters such that would result in a significant impact.

Implementation of temporary and permanent erosion control BMPs in the Project's SWPPP and WQMP (see RR HWQ-1 and RR HWQ-3) would ensure that substantial erosion or siltation would not occur on- or off-site during short-term construction and long-term occupancy of the dwelling units. Thus, the Project would not result in

erosion or siltation that would alter the drainage pattern of the area. Project impacts would be less than significant, and no mitigation is required.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? (Sources: 30, 45)

No Impact. A seiche is the resonant oscillation of a body of water, such as a lake, reservoir, pool, bay, or harbor. Seiche hazards exist where groundshaking causes water to splash out of the body of water and inundate nearby areas and structures. Seiches are caused by strong winds and rapid changes in atmospheric pressure. Earthquake, tsunamis, and severe storm fronts may also cause seiches. The City is located along the coast, and the Project site is approximately 1.5 miles from the Pacific Ocean. Additionally, the Huntington Beach Channel is approximately 0.35 miles to the west and the Santa Ana River 0.33 miles to the east. However, there is no large body of water upstream of the site that may be subject to seiche and that could result in potential flooding on the Project site. Therefore, because the proposed Project would not influence the likelihood or severity of a seiche.

Tsunamis are seismic sea waves generated by undersea earthquakes or landslides. The Project site is approximately 1.5 miles from the Pacific Ocean and based on the 2009 CalFEMA tsunami inundation (flooding) maps, the site is located within the defined tsunami inundation area (CalFEMA 2009). In light of the threat of tsunami, the City has prepared emergency and response plans in the event of a tsunami. These include a Tsunami Emergency Information brochure, designated Tsunami Evacuation Routes (which includes Magnolia Street) and evacuation zones/safe areas, Tsunami Ready video, Tsunami Preparedness Week, Tsunami Fair, and Tsunami Preparedness website. Additionally, the fire stations in the City have warning sirens that would be used in the event of a tsunami. As standard practice, future residents and tenants would be informed of tsunami inundation maps and tsunami potential at the project site through the disclosure process, including emergency evacuation plans.

Therefore, the proposed Project would not influence the likelihood or severity of a seiche nor contribute significantly to inundation by tsunami. As a result, no impacts related to seiche or tsunami would occur, and no mitigation is required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? (Sources: 25, 37)

Less Than Significant Impact. As discussed above in Response 5.10a, the Project would comply with applicable water quality regulatory requirements for short-term construction and long-term operation impacts. Specifically, the Project would have coverage under the NPDES Construction General Permit and implementation of the Project's SWPPP (see RR HWQ-1) would ensure that short term, construction related water quality impacts would be less than significant. For long-term water quality impacts, in accordance with the NPDES program and Section 230.82, Performance Standards of All Uses, of the Huntington Beach Charter and Codes, the Project would be constructed and operated in accordance with the standard final Project WQMP, prepared for the Project and approved by the City (see RR HWQ-3). Thus, with implementation of permanent BMPs in the final Project WQMP, the Project site would generate less stormwater pollutants than under existing conditions.

There are no groundwater wells on the Project site, and no wells are proposed as part of the Project. As discussed in Checklist Response threshold 5.10a, the proposed Project would not involve direct withdrawals of groundwater, nor would it interfere with groundwater recharge such that it would result in a net deficit in aquifer volume or lowering of the local groundwater table levels. Excavation activities would not extend into the underlying groundwater. The depth of the groundwater ranges from approximately 10 to 14 feet at the site, which has a historical high depth to groundwater at approximately 3 feet bgs at the Project site.

Therefore, the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Impacts are less than significant, and no mitigation is required.

Regulatory Requirements

RR HWQ-1 **Storm Water Pollution Prevention Plan.** Prior to the issuance of any grading or building permits, the Project Applicant shall demonstrate compliance with California's General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number or other proof of filing in a manner meeting the satisfaction of the City's Department of Public Works. Projects subject to this requirement shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) during all phases of construction. A copy of the current SWPPP shall be kept at the construction site and be available for State and City review on request.

RR HWQ-2 **General Waste Discharge Requirements.** Prior to the issuance of any grading or building permits, if construction dewatering or discharges from other specific activities (e.g., dewatering from subterranean seepage, potable water system maintenance discharges, fire hydrant flushing, etc.) are required, the Project Applicant shall notify the Santa Ana RWQCB and any discharges into surface waters shall be conducted in compliance with the Santa Ana RWQCB's Order No. R8-2015-0004 (NPDES No. CAG998001), which includes General Waste Discharge Requirements (WDRs) for discharges to surface water that pose an insignificant (de minimis) threat to water quality. The General WDRs include provisions mandating notification, testing, and reporting of dewatering and testing-related discharges, and contain numeric and performance-based effluent limits depending upon the type of discharge.

RR HWQ-3 **Water Quality Management Plan.** Prior to the issuance of any grading or building permits, the Project Applicant shall submit for review and approval by the City's Public Works Department, the final Project Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that address Pollutants of Concern. The WQMP shall comply with the requirements of the Orange County MS4 Permit, the Orange County Drainage Area Management Plan (DAMP), Model WQMP, and Technical Guidance Manual, and the City's Local Implementation Plan (LIP), Citywide Urban Runoff Management Plan (CURMP), Project WQMP Preparation Guidance Manual, and pertinent regulations in the Municipal Code.

Prior to the issuance of a certificate of use and occupancy, the Project Applicant shall demonstrate to the satisfaction of the City's Public Works Department the following:

- All structural BMPs described in the Project's approved WQMP have been implemented, constructed, and installed in conformance with approved plans and specifications;
- Demonstrate that the Project Applicant has complied with all non-structural BMPs described in the Project's WQMP;
- Provide certifications from the Engineer of Record or Landscape Architect that the LID BMPs and treatment control BMPs were constructed and installed per the approved plans and specifications;
- Copies of the Project's approved WQMP (with attached O&M Plan and Educational Materials) are available for each of the initial occupants and tenants of the Project; and
- The Covenants, Conditions, and Restrictions (CC&Rs) includes pertinent BMPs in the approved WQMP and O&M Plan.

RR HWQ-4 **Grading and Erosion Control Plans.** Prior to the issuance of any grading permit, the Project Applicant/Developer shall submit for review and approval by the City's Public Works Department, the grading and erosion control plans for the Project. The plans shall demonstrate that proposed grading and excavation activities on the site shall include the installation of permanent and semi-permanent erosion control measures in compliance with pertinent requirements of the City's Grading and Excavation Code, as contained in Chapter 17.05 of the Municipal Code.

RR HWQ-5 **Full Capture Systems.** In compliance with the Statewide Trash Provisions in Section 13383 of the Water Code, all BMPs shall be state certified full capture systems to ensure that trash does is not discharged off-site.

RR HWQ-6 **Storm Drainage Plan.** Prior to the issuance of any grading or building permits, the Project Applicant shall submit for review and approval by the City's Public Works Department, the storm drainage plan for the Project. The plan shall include the installation of an on-site storm drain system that would accommodate 100-year flood flows, in accordance with Chapter 255 of the City's Municipal Code, the Orange County Hydrology Manual, and other City specifications. In addition, the Project Applicant shall pay the applicable fees for the City's local drainage fund in accordance with Chapter 14.48 of the Municipal Code.

Prior to the approval of final inspection, the on-site storm drain system shall be constructed, or provide evidence of financial security (such as bonding), in a manner meeting the approval of the City's Public Works Department.

Mitigation Measures

Project implementation would not result in significant impacts related to hydrology and water quality; therefore, no mitigation measures are required.

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

Impact Analysis

a) Physically divide an established community? (Sources: N/A)

No Impact. As stated previously, the Project site is currently developed with a school campus, which is not in use and slated for demolition. The existing use is comprised of an approximately 73,000 sf building and associated surfacing parking lot on the eastern half of the site and sports fields on the western half of the site. No residential uses currently occur on the site that would be impacted or divided by development of the proposed Project.

The Project site is surrounded by single-family residential to the north, east, and west, with Gisler Park to the south. The proposed Project would be compatible with the adjacent residential neighborhoods. Therefore, the Project would not divide or disrupt the physical arrangement of the existing adjacent residential neighborhoods and would serve as an extension of existing residential area. No impact would on occur on an established community, and no mitigation is required.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? (Sources: 39, 40, 41)

Less Than Significant Impact. With respect to regional planning, SCAG is the metropolitan planning organization (MPO) for Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial counties. As the designated MPO, the federal government mandates SCAG to prepare plans for growth management, transportation, air quality, and hazardous waste management. In addition, SCAG reviews projects of regional significance for consistency with the existing regional plans. SCAG's regional planning programs, including the Regional Comprehensive Plan (RCP), Regional Housing Needs Assessment (RHNA), and RTP/SCS, are not directly applicable to the proposed Project because the Project is not of Statewide, regional, or area-wide significance, as defined by Section 15206 of the CEQA Guidelines. However, the Project would contribute to new housing development in the City of Huntington Beach, and thus contributes to the City's RHNA housing goal of 13,368 new dwelling units between 2021 and 2029. Local plans and programs relevant to the Project and the consistency of the proposed Project with these plans and programs are discussed below.

City of Huntington Beach General Plan

The *City of Huntington Beach General Plan*, comprehensively updated in 2017, is the primary planning and policy document of the City of Huntington Beach. It provides the regulatory framework for the use and management of the City's resources and articulates policies related to public and private land use, design guidelines for development and open spaces, housing conservation and new residential development, public services and infrastructure, natural resources, economic resources, and policies to guard against natural and manmade hazards. The City's General Plan consists of nine elements including Land Use, Circulation, Environmental Resources and Conservation, Natural and Environmental Hazards, Noise, Public Services and Infrastructure, Historic and Culture Resources, Housing, Implementation Program (2017), and Coastal. The Coastal Element of the General Plan serves as the Land Use Plan for the Local Coastal Program (LCP) and establishes detailed land use policies within the Coastal Zone. However, it should be noted that the Project site is not within the City's Coastal Zone. An evaluation of the Project's consistency with applicable goals and policies is provided in Table 8-17, Proposed Project General Plan Consistency Analysis.

TABLE 8-17
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

Policy	Compliance with Policy
Land Use Element	
Goal LU-1. New commercial, industrial, and residential development is coordinated to ensure that the land use pattern is consistent with the overall goals and needs of the community.	
LU-A: Ensure that development is consistent with the land use designations presented in the Land Use Map, including density, intensity, and use standards applicable to each land use designation.	**Proposed Project Would Conflict** Although the proposed Project is not consistent with the existing General Plan land use and Zoning designations for the site, as part of the discretionary actions, a General Plan Amendment and Zone Change are proposed that would render the proposed Project consistent with the plans.
LU-B: Ensure new development supports the protection and maintenance of environmental and open space resources.	**Proposed Project Would Not Conflict** Although the Project does not include an active park within the site, the Applicant will improve the active open space area (Gisler Park) immediately to the south, and the Applicant would contribute to the City's park in-lieu fee. There is also a 0.23-acre passive open space area provided in the southeast corner of the site above the underground water quality detention basin. This area would be planted with turf and vertical trees at its perimeters. No conflict with this policy would occur.
LU-C: Support infill development, consolidation of parcels, and adaptive reuse of existing buildings.	**Proposed Project Would Not Conflict** The proposed Project is an in-fill development on a site that is currently developed as a school campus, not currently in use. However, the component of the policy pertaining to adaptive reuse of existing buildings is not applicable, as the existing vacant building and associated site uses would be demolished to accommodate the Project. No conflict with this policy would occur.
LU-D: Ensure that new development projects are of compatible proportion, scale, and character to complement adjoining uses.	**Proposed Project Would Not Conflict** As described in detail in Section 8.11, Land Use and Planning, the proposed Project involves development of an 85-unit single-family detached residential development community surrounded by single-family residential cul-de-sac streets to the north and west, Gisler Park to the south, and Effingham Drive to the east. The proposed Project would be compatible with the adjacent residential communities. Further, the

TABLE 8-17
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

Policy	Compliance with Policy
	proposed Project aims at creating an aesthetically cohesive and high-quality development that compliments the area. No conflict with this policy would occur.
Goal LU-2: New development preserves and enhances a distinct Surf City identity, culture, and character in neighborhoods, corridors, and centers.	
LU-A: Ensure that new development and reuse projects protect existing Surf City culture and identity and preserve and recognize unique neighborhoods and areas as the building blocks of the community. **LU-B:** Ensure that new and renovated structures and building architecture and site design are context-sensitive, creative, complementary of the city's beach culture, and compatible with surrounding development and public spaces.	**Proposed Project Would Not Conflict** The proposed Project would be developed consistent with the existing Surf City culture, in line with the informal aesthetic elements of the existing area. The proposed Project would include integration of architectural design elements and landscaping complementary of the urban beach environment. As discussed under LU-1B, the proposed Project would include passive open space areas and encourage the protection of the adjoining Gisler Park. For a discussion of compatibility with the surrounding uses, refer to discussion under LU-1D. No conflict with these policies would occur.
LU-C: Distinguish neighborhoods and subareas by character and appearance and strengthen physical and visual distinction, architecture, edge and entry treatment, landscape, streetscape, and other elements. Evaluate the potential for enhancement of neighborhood entrances and perimeter walls.	**Proposed Project Would Not Conflict** The design of the proposed Project would aim at maintaining the informal aesthetic elements of the existing beach community. A hierarchy of landscaping, including trees, shrubs, and turf would be provided to soften edge conditions that would include thematic masonry yard walls. Additional landscape screening is proposed for the City's Gisler Park parking lot and along the entire southern edge shared with Gisler Park. The proposed Project design would be developed to complement the architectural style of the overall site and surrounding area. Both sides of all visible perimeter walls and fences would be architecturally designed and treated to complement the surrounding area. No conflict with this policy would occur.
LU-D: Maintain and protect residential neighborhoods by avoiding encroachment of incompatible land uses.	**Proposed Project Would Not Conflict** Please refer to the discussion above, under LU-1D. In light of that analysis, no conflict with this policy would occur.
LU-E: Intensify the use and strengthen the role of public art, architecture, landscaping, site design, and development patterns to enhance the visual image of Huntington Beach.	**Proposed Project Would Not Conflict** The proposed Project design would aim at maintaining the informal aesthetic elements of the existing beach community. A hierarchy of landscaping, including trees, shrubs, and turf would be provided to soften edge conditions that would include thematic masonry yard walls. Additional landscape screening is proposed for the City's Gisler Park parking lot and along the entire southern edge shared with Gisler Park. The proposed Project design would be developed to complement the architectural style of the overall area and incorporate artistic and aesthetic elements to add visual interest and enhanced site feature. Therefore, the proposed Project would be designed consistent with the goal of promoting enhancement of the visual image of Huntington Beach. No conflicts with this policy would occur.
Goal LU-3: Neighborhoods and attractions are connected and accessible to all residents, employees, and visitors.	
LU-A: Ensure that future development and reuse projects are consistent with the Land Use Map to provide connections between existing neighborhoods and city attractions.	**Proposed Project Would Not Conflict** Please refer to the discussion above, under LU-1D. In light of that analysis, no conflict with this policy would occur.

TABLE 8-17
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

Policy	Compliance with Policy
LU-B: Improve trail, bicycle pathway, roadway, sidewalk, and transit connections to new development and reuse projects. **LU-3C:** Ensure connections are well maintained and safe for users.	**Proposed Project Would Not Conflict** Pedestrian circulation would be provided via existing public sidewalks along Strathmoor Lane and Effingham Drive, which will connect to the Project's internal sidewalks/walkways. The Project will protect the existing sidewalk along project frontage and, if necessary, repair or reconstruct them along the Project frontage per the City's request. The existing sidewalk system within the Project vicinity provides direct connectivity to the adjacent existing residential communities and to public transit (i.e., OCTA Route 35 with bus stops on Brookhurst Street/Effingham Drive) along Brookhurst Street and Hamilton Avenue. Additionally, the Project recognizes that the City's Bikeway Master Plan considers the needs of bicycle users and aims to create a complete and safe bicycle network throughout the City. Currently Class II bike lanes are provided along Atlanta Avenue, Bushard Street, and Hamilton Avenue. A Class I bike lane is also provided along the Santa Ana River. Additionally, a class II bike lane is proposed to be built along Brookhurst Street. No conflict with these policies would occur.
Goal LU-4: A range of housing types is available to meet the diverse economic, physical, and social needs of future and existing residents, while neighborhood character and residences are well maintained and protected.	
LU-D: Ensure that single-family residences are of compatible proportion scale and character to surrounding neighborhoods.	**Proposed Project Would Not Conflict** Proposed single-family housing would overall be compatible with the proportion, scale and character of the existing residential neighborhoods. The proposed Project design would be developed to complement the overall architectural style of the environment. Additionally, the proposed rehabilitation of the Gisler Park is considered a public benefit to the existing community in return and as a requirement for the approval of a PUD. No conflict with this policy would occur.
Goal LU-7: Neighborhoods, corridors, and community subareas are well designed, and buildings, enhanced streets, and public spaces contribute to a strong sense of place.	
LU-A: Preserve unique neighborhoods, corridors, and subareas, and continue to use specific plans to distinguish districts and neighborhoods by character and appearance. **LU-B:** Use street trees, signage, landscaping, street furniture, public art, and other aesthetic elements to enhance the appearance and identity of subareas, neighborhoods, corridors, nodes, and public spaces.	**Proposed Project Would Not Conflict** As discussed under LU-2C and LU-2E, the proposed Project design would aim at maintaining the informal aesthetic elements of the existing beach community. A hierarchy of landscaping, including trees, shrubs, and turf would be provided to soften edge conditions that would include thematic masonry yard walls. Additional landscape screening is proposed for the City's Gisler Park parking lot and along the entire southern edge shared with Gisler Park. The proposed Project design would be developed to complement the architectural style of the overall area and incorporate artistic and aesthetic elements to add visual interest and enhanced site feature. No conflicts with this policy would occur.
LU-F: Encourage undergrounding of utilities on approaches to and within the intersection subareas.	**Proposed Project Would Not Conflict** All new and existing public and private utility lines and distribution facilities, would be installed underground, including dry (power and communications) and wet (water, gas, and sewer) utilities except for surface-mounted transformers, pedestal-mounted terminal boxes, meter cabinets, and other equipment requiring for above ground installation (see Section 8.19, Utilities and Service Systems for additional information). No conflict with this policy would occur.

TABLE 8-17
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

Policy	Compliance with Policy
Circulation Element	
Goal CIRC-1a: The circulation system supports existing, approved, and planned land uses while maintaining a desired level of service and capacity on streets and at critical intersections. **Goal CIRC-1c:** Through ongoing evaluation of jurisdiction, efficient transportation management provides the highest level of safety, service, and resources.	
CIRC-B: Maintain the following adopted performance standards for citywide level of service for traffic-signal-controlled intersections during peak hours. a. Locations with specific characteristics identified as critical intersections: LOS E (ICU to not exceed 1.00) b. Principal Intersections: LOS D (0.81–0.90 ICU) c. Secondary Intersections: LOS C (0.71–0.80 ICU)	**Proposed Project Would Not Conflict** A detailed Transportation Impact Analysis (TIA) has been prepared for the proposed Project to assess the potential impacts of the proposed Project on the street network and intersections in the area. The TIA is in compliance with the City of Huntington Beach performance standards and requirements and other pertinent jurisdictions, as applicable. No conflict with this policy would occur.
CIRC-D: Require additional right-of-way and restrict parking on segments adjacent to principal intersections to allow for future intersection improvements and turning movements as needed to satisfy performance standards.	**Proposed Project Would Not Conflict** The Project's street widths would accommodate double-loaded on-street parking throughout the entire neighborhood, with the exception of the short section at the entry. The Project would comply with the City's parking requirements. The on-street parking would not impact performance standards. No conflict with this policy would occur.
CIRC-E: Maintain compliance with the OCTA Congestion Management Program or any subsequent replacement program.	**Proposed Project Would Not Conflict** The Project generating approximately 802 daily trip-ends does not meet the criteria requiring a CMP analysis. CMP requires that a traffic impact analysis be conducted for any project generating 2,400 or more daily trips, or 1,600 or more daily trips for projects that directly access the CMP Highway System. The Project has an access driveway to Strathmoor Lane, which is not part of the CMP. No conflict with this policy would occur.
CIRC-F: Require development projects to provide circulation improvements to achieve stated City goals and to mitigate to the maximum extent feasible traffic impacts to adjacent land uses and neighborhoods as well as vehicular conflicts related to the project.	**Proposed Project Would Not Conflict** The proposed Project would incorporate circulation improvements to reduce traffic impacts to surrounding land uses and any potential vehicular conflicts due to proposed Project. A detailed TIA has been prepared for to assess the potential impacts of the proposed Project on the street network and intersections in the area. The TIA is in compliance with the City of Huntington Beach performance standards and requirements. The findings of the TIA, including potential impacts and mitigations, have been incorporated in Section 8.17, Transportation of the IS/MND. No conflict with this policy would occur.

TABLE 8-17
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

Policy	Compliance with Policy
CIRC-G: Limit driveway access points, require driveways to be wide enough to accommodate traffic flow from and to arterial roadways, and establish mechanisms to consolidate driveways where feasible and necessary to minimize impacts to the smooth, efficient, and controlled flow of vehicles, bicycles, and pedestrians.	**Proposed Project Would Not Conflict** The layout of the proposed internal streets is similar to the adjacent residential units and the streets meet City Standard, with widths of 40 ft curb to curb, for a total 52 ft wide public right-of-way. Also, the proposed circulation design would avoid pedestrian and vehicular conflicts. Project would be accessed only from Strathmoor Lane, and a 24-foot wide emergency access is also provided from Bluefield Drive to the north of the site. The mid-block entry from Strathmoor Lane is in accordance with City requirements. The residential private roads include development of sidewalks, continuous landscape and setback design in compliance with public works standard plans and would provide adequate areas for maneuvering and emergency vehicle access. No conflict with this policy would occur.
Goal CIRC-6: Connected, well-maintained, and well-designed sidewalks, bike lanes, equestrian paths, and waterways allow for both leisurely use and day-to-day required activities in a safe and efficient manner for all ages and abilities.	
CIRC-A: Provide pedestrian and bicycle routes that integrate with local and regional transit, connect destinations, and provide end-of-trip facilities.	**Proposed Project Would Not Conflict** Please see discussion for LU-B. No conflict with these policies would occur.
Environmental Resources and Conservation Element	
Goal ERC-1: Adequately sized and located parks meet the changing recreational and leisure needs of existing and future residents.	
ERC-A: Maintain or exceed the current park per capita ratio of 5.0 acres per 1,000 persons, including the beach in the calculations.	**Proposed Project Would Not Conflict** Gisler Park, a public park, is located immediately adjacent and to the south of the Project site. In addition to the Applicant contributing to the City's park in-lieu fee, the Project proposes improvements to the existing park, which is located on Southern California Edison (SCE) property. The proposed improvements of the Gisler Park is considered a public benefit to the existing community in return and as a requirement for the approval of a Planned Units Development (PUD). The proposed improvements to Gisler Park are identified in Section 3.4.1. The proposed improvements would help reduce the maintenance cost of the existing condition of the Gisler Park. No conflict with this policy would occur.
ERC-B: Seek opportunities to develop and acquire additional parks and open space in underserved areas where needed, including pocket (mini) parks, dog parks, athletic fields, amphitheaters, gardens, and shared facilities.	**Proposed Project Would Not Conflict** Please refer to the discussion above, under ERC-1A. In light of that analysis, no conflict with this policy would occur.
ERC-C: Distribute future developed park and recreational sites to equitably serve neighborhood and community needs while balancing budget constraints.	**Proposed Project Would Not Conflict** Please refer to the discussion above, under ERC-1A. In light of that analysis, no conflict with this policy would occur.
ERC-D: Require all park improvement projects to consider ways to improve access to park facilities by foot and bicycle.	**Proposed Project Would Not Conflict** Please refer to the discussion above, under ERC-1A. In light of that analysis, no conflict with this policy would occur.

TABLE 8-17
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

Policy	Compliance with Policy
Goal ERC-4: Air quality in Huntington Beach continues to improve through local actions and interagency cooperation.	
ERC-A: Continue to cooperate with the South Coast Air Quality Management District and other regional, state, and national agencies to enforce air quality standards and improve air quality.	**Proposed Project Would Not Conflict** As discussed in Section 8.3, Air Quality, the proposed Project would include compliance with all applicable regulatory thresholds including the South Coast Air Quality Management District (SCAQMD) and other regional, state, and national agencies to ensure enforcement of air quality standards as related to the proposed Project. No conflict with this policy would occur.
ERC-B: Continue to require construction projects to carry out best available air quality mitigation practices, including use of alternative fuel vehicles and equipment as feasible. **ERC-D:** Require grading, landscaping, and construction activities to minimize dust while using as little water as possible.	**Proposed Project Would Not Conflict** As discussed in Section 8.3, Air Quality, the Project would have emissions less than the SCAQMD's mass daily regional construction and operation emissions thresholds and localized significance thresholds. The proposed Project would include implementation of RR AQ-1, which requires compliance with all the fugitive dust control measures listed within SCAQMD Rule 403, and RR AQ-2, which requires compliance with nuisance from air contaminants. Therefore, the proposed Project would be developed consistent with the City's goals pertaining to air quality mitigation practices and minimization of dust. No conflict with this policy would occur.
Goal ERC-5: Greenhouse gas emissions from activities occurring in Huntington Beach are reduced to levels consistent with state goals.	
ERC-C: Explore strategies to reduce greenhouse gas emissions from off-road construction and landscaping equipment.	**Proposed Project Would Conflict** As discussed in Section 8.8, Greenhouse Gas Emissions, amortized construction and operation emissions would be less than the SCAQMD's recommended 3,000 $MTCO_2e$ threshold for all land use types. In addition, the proposed Project would be required to comply with the applicable Title 24 Energy Efficiency Standards for Residential and Nonresidential Buildings (RR GHG-1) and the applicable California Green Building Standards (CALGreen) Code (RR GHG-2). As such, no conflict with this policy would occur.
Goal ERC-9: Huntington Beach's trees and groves serves important biological functions, including but not limited to nesting and roosting areas for both birds and butterflies, and perches for raptor species.	
ERC-B: Maximize and maintain tree coverage on public lands and in open spaces.	**Proposed Project Would Not Conflict** The proposed Project includes improvements to Gisler Park and landscaping throughout the development. The proposed conceptual landscape plan for the Project would include a hierarchy of plant materials including trees, vines, shrubs, and turf throughout the Project site, and in open space areas. The Project would comply with the City's Memorandum CI-74 in terms of tree replacement. Therefore, the proposed Project would be developed consistent with the City's goals pertaining to tree coverage on public lands and in open spaces. No conflict with this policy would occur.
Goal ERC-10: An enhanced network of parks, open spaces, and recreation facilities contributes to habitat preservation.	
ERC-A: Continue to preserve portions of parks as natural habitat for a variety of species. **ERC-B:** Continue to naturalize disturbed areas within parks and prevent the invasion of exotic plants. Design nature parks and natural areas so	**Proposed Project Would Not Conflict** Please refer to the discussion above, under ERC-1A. In light of that analysis, no conflict with this policy would occur.

TABLE 8-17
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

Policy	Compliance with Policy
that habitat value for wildlife is emphasized on par with recreational value for people.	
Goal ERC-12: New buildings are increasingly energy efficient and ultimately equipped to support zero net energy performance.	
ERC-A: Create incentives for proposed development and reuse projects to exceed the minimum energy efficiency standards established in the California Building Standards Code when constructing new or significantly renovated residential and nonresidential buildings, including achieving zero net energy performance in advance of state-level targets. **ERC-B:** Promote the use of passive solar design techniques and technologies in new buildings to reduce energy use for heating and cooling.	**Proposed Project Would Not Conflict** The proposed Project would promote building energy efficiency through compliance with energy efficiency standards (Title 24 mandated in the 2019 code update). The Project will include solar photovoltaic system; high efficiency insulation and filters; and ultra-low NOx furnaces. No conflict with these policies would occur.
Goal ERC-15: Adequate water supply is available to the community through facilities, infrastructure, and appropriate allocation.	
ERC-B: Monitor demands on the water system, manage new development and reuse projects and existing land uses to mitigate impacts and/or facilitate improvements to the system, and maintain and expand water supply and distribution facilities.	**Proposed Project Would Not Conflict** The proposed Project would not require new or expanded off-site water or wastewater lines. The City has sufficient capacity to provide water service for the proposed Project. Orange County Sanitation District (OCSD) has issued a Sewer Verification Capacity memorandum on September 21, 2020 indicating OCSD has sufficient capacity and will provide wastewater treatment services to the proposed Project. Existing off-site infrastructure exists to provide water and wastewater service to the Project site. The Urban Water Management Plan (UWMP) indicates that the City would have adequate water supplies to meet demands during normal, single-dry, and multiple-dry years to 2040. The City would have available water supplies to serve the proposed Project. No conflict with this policy would occur.
Goal ERC-16: Water conservation efforts are maximized in every aspect of use.	
ERC-A: Continue to require incorporation of feasible and innovative water conservation features in the design of new development and reuse projects. **ERC-C:** Require the use of recycled water for landscaping irrigation, grading, and other non-contact uses in new development or substantial retrofit projects where recycled water is available or expected to be available.	**Proposed Project Would Not Conflict** As described in Section 8.19, Utilities of the IS/MND, the proposed Project would comply with Sections 4.303 and 4.304 of the CALGreen Code, which require indoor and outdoor water conservation measures such as low flush toilets, aerators on sinks and shower heads, other water-efficient appliances, and water-efficient automatic irrigation system controllers. The Project would also comply with the City's water conservation measures. No conflict with these policies would occur.
Goal ERC-17: Enhance and protect water quality of all natural water bodies including rivers, creeks, harbors, wetlands, and the ocean.	
ERC-A: Require redevelopment to comply with the City's National Pollutant Discharge Elimination System permit and other regional permits issued by the State Water Resources Control Board and the Santa Ana Regional Water Quality Control Board.	**Proposed Project Would Not Conflict** As discussed in Section 8.8, Hydrology and Water Quality, the proposed Project would generate storm water pollutants during demolition and construction activities on the site. However, preparation and implementation of the SWPPP in compliance with the NPDES Construction General Permit (RR HWQ-1) and compliance with the Santa Ana RWQCB's dewatering regulations (RR HWQ-2) would reduce

TABLE 8-17
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

Policy	Compliance with Policy
ERC-B: Require that new development and significant redevelopment projects employ innovative and efficient drainage technologies that comply with federal and state water quality requirements and reduce runoff and water quality impacts to downstream environments.	pollutants in the storm water. Therefore, the proposed Project would be developed consistent with the City's goals pertaining to future demands on the City's storm drain/stormwater conveyance system, compliance with the City's NPDES Permit and other regional permits issued by the Santa Ana Regional Water Quality Control Board. No conflict with these policies would occur.
ERC-C: Continue to require new development and significant redevelopment projects to propose protective safeguards and implement best management practices that minimize non-point source pollution and runoff associated with construction activities and ongoing operations. **ERC-D:** Continue to require that new development and significant redevelopment projects incorporate low-impact development best management practices, which may include infiltration, harvest and reuse, evapotranspiration, and bio-treatment. **ERC-F:** Reduce pollutant runoff from new development to marine biological resources and wetlands by requiring the use of the most effective best management practices currently available.	**Proposed Project Would Not Conflict** As specified in Section 8.10, Hydrology and Water Quality, the proposed Project would include water quality features and drainage system designed to meet the City's requirements for water quality. A preliminary WQMP has been prepared for approval by the City of Huntington Beach. The proposed Project's storm drain system would be maintained by the City of Huntington Beach while the proposed water quality BMPs would be maintained by an HOA. In addition to long-term water quality management, the proposed project would be required to mitigate the construction-period pollutant by developing a Stormwater Pollution Prevention Plan (SWPPP), including construction BMP procedures to control and prevent the entry of pollutants into the storm drain systems and waterways and incorporation of short-term and permanent BMPs that would remove pollutants and improve the water quality of storm water runoff from the site. No conflicts with these policies would occur.
ERC-H: Reduce impacts of new development and significant redevelopment project sites' hydrologic regime (hydromodification).	**Proposed Project Would Not Conflict** As discussed in Section 8.10, Hydrology and Water Quality of the IS/MND, based on the hydromodification analysis for the proposed Project, the site is located in an area of the Santa Ana River watershed that is not susceptible to hydromodification and therefore, the proposed Project would not have the potential to create hydrologic conditions of concern (HCOC) that may result in downstream flooding or the erosion of downstream natural channels. No conflict with this policy would occur.
Natural and Environmental Hazards Element	
Goal HAZ-4: The risk of urban fires is reduced through effective building design and effective fire services.	
HAZ-A: Ensure that all new construction is designed for easy access by fire and other emergency response personnel.	**Proposed Project Would Not Conflict** The proposed development includes a 24-foot wide emergency access road from Bluefield Drive to the north of the site. Additionally, the layout of the internal streets is similar to the adjacent residential developments. The development area would not be gated, allowing full access. All access ways would be free and clear of any and all structures including, but not limited to, utility devices. The fire access roads would meet the California Fire Code Section 503.1.1 and City of Huntington Beach Fire Department Specification No. 401 requirements for location, width, and turning radii. All private streets would provide adequate areas for maneuvering, stacking of vehicles, and emergency vehicle access. No conflict with this policy would occur.

TABLE 8-17
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

Policy	Compliance with Policy
Noise Element	
Goal N-1: Noise-sensitive land uses are protected in areas with acceptable noise levels	
N-A: Maintain acceptable stationary noise levels at existing noise-sensitive land uses such as schools, residential areas, and open spaces.	**Proposed Project Would Not Conflict** As detailed in Section 8.13, Noise, the operational on-site noise associated with the Project would be heating, ventilation, and air conditioning (HVAC) equipment, landscape maintenance, and trash collection. These noise sources are typical for developed land uses and would be consistent with the noise from surrounding residential land uses. No conflict with this policy would occur.
N-B: Incorporate design and construction features into residential, mixed-use, commercial, and industrial projects that shield noise-sensitive land uses from excessive noise.	**Proposed Project Would Not Conflict** As detailed in Section 8.13, Noise, noise-generating construction activities would be limited to the hours allowed by the Municipal Code. The Project would introduce residential uses within an area surrounded by the same and would therefore be consistent with existing uses. During construction, MM NOI-1 would be required to avoid potential vibration induced cosmetic building damage to offsite buildings. MM NOI-1 requires that construction activities using vibratory rollers, and large bulldozers restrict the operation of equipment by at least 25 feet from off-site buildings. With implementation of MM NOI-1, no conflict with this policy would occur.
Goal N-2: Land use patterns are compatible with current and future noise levels	
N-A: Require an acoustical study for proposed projects in areas where the existing or projected noise level exceeds or would exceed the maximum allowable levels identified in Table N-2. The acoustical study shall be performed in accordance with the requirements set forth in this Noise Element. **N-B:** Allow a higher exterior noise level standard for infill projects in existing residential areas adjacent to major arterials if no feasible mechanisms exist to meet exterior noise standards.	**Proposed Project Would Not Conflict** As detailed in Section 8.13, Noise, based on the noise calculations prepared for this IS/MND, all construction and operational noise impacts would comply with the City of Huntington Beach Municipal Code Section 8.40.090.D, which exempts construction noise from quantitative limits during specified hours. In addition, the Project's construction activities would not result in unusually noisy activities such as impact pile driving. With the incorporation of the restrictions in Huntington Beach Municipal Code Section 8.40.090.D which limits noise levels to the least noise sensitive portions of the day impacts would be less than significant. No conflict with these policies would occur.
Goal N-3: The community is not disturbed by excessive noise from mobile sources such as vehicles, rail traffic, and aircraft.	
N-A: Mitigate noise created by any new transportation noise source so that it does not exceed the exterior or interior sound levels specific in Table N-2.	**Proposed Project Would Not Conflict** As detailed in Section 8.13, Noise, operation of the proposed Project would generate traffic along roadways in the Project vicinity. This increase in traffic volumes would result in noise levels increases of less than 1 decibel. A doubling of traffic volumes would result in traffic noise increases of 3 decibels. A 3-decibel increase is the minimum change in noise levels that is perceptible to human hearing in outdoor environments. Because traffic noise increases are below the limits of human hearing to detect an audible change in noise levels, traffic noise increases from the Project would not be perceptible or substantial. No conflict with this policy would occur.

TABLE 8-17
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

Policy	Compliance with Policy
N-B: Prioritize use of site planning and project design techniques to mitigate excessive noise. The use of noise barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project. **N-C:** Employ noise-reducing technologies such as rubberized asphalt, fronting homes to the roadway, or sound walls to reduce the effects of roadway noise on noise-sensitive land uses.	**Proposed Project Would Not Conflict** As detailed in Section 8.13, Noise, the proposed residential uses would be consistent with the surrounding existing development. All operational noise was determined to be less than significant. As such, no conflict with these policies would occur.
Goal N-4: Noise from construction activities associated with discretionary projects, maintenance vehicles, special events, and other nuisances is minimized in residential areas and near noise-sensitive land uses.	
N-A: Reduce construction, maintenance, and nuisance noise at the source as the first and preferred strategy to reduce noise conflicts. **N-C:** Encourage shielding for construction activities to reduce noise levels and protect adjacent noise-sensitive land uses. **N-D:** Limit allowable hours for construction activities and maintenance operations located adjacent to noise-sensitive land uses.	**Proposed Project Would Not Conflict** The Project would result in noise associated with demolition activities including rock crushing; however, as detailed in Section 8.13, Noise, all noise impacts would be less than significant, except for potential vibration-induced cosmetic building damage to offsite buildings prior to mitigation. MM NOI-1 requires that construction activities using vibratory rollers, and large bulldozers restrict the operation of equipment by at least 25 feet from off-site buildings. Construction would occur during allowable hours. With implementation of MM NOI-1, no conflict with this policy would occur.
Public Services and Infrastructure Element	
Goal PSI-1: Public safety services, education, facilities, and technology protect the community from illicit activities and crime.	
PSI-A: Consider the relationship between the location and rate of planned growth and resulting demands on police facilities and personnel. **PSI-D:** Ensure that new development and reuse projects and existing land uses promote community safety.	**Proposed Project Would Not Conflict** As discussed in Section 8.15, Public Services of the IS/MND, the proposed Project would create the typical range of service calls for residential developments. The proposed Project would generate a demand for police protection services once the proposed dwelling units are occupied. The incremental demand of the Project for police protection services is not anticipated to increase Huntington Beach Police Department (HBPD) response times to the Project site or surrounding area. Compliance with RR PS-3, which requires payment of development impact fees for police facilities (Huntington Beach Municipal Code Chapter 17.75), would ensure that adequate police protection services are provided and impacts to police protection services would be less than significant. No conflict with these policies would occur.
Goal PSI-2: Huntington Beach residents and property owners are protected from fire hazards and beach hazards, and adequate marine safety and emergency medical services are provided by modern facilities and advanced technology	
PSI-2A: Consider the relationship between the location and rate of planned growth, the placement of critical facilities, and the resulting demands on fire, marine safety, and EMS facilities and personnel.	**Proposed Project Would Not Conflict** As discussed in Section 8.15, Public Services of the IS/MND, the proposed Project would create the typical range of service calls for residential developments. The City of Huntington Beach Fire Department (HBFD) provides response to fire protection, medical emergencies, marine safety, hazardous materials incidents, natural and man-made disasters and related emergencies in an effort to reduce life and property loss. The Project site is currently covered by the HBFD response standards and

TABLE 8-17
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

Policy	Compliance with Policy
PSI-E: Ensure that new development and reuse projects and existing land uses promote fire safety. **PSI2G:** Ensure development provides adequate access for public safety responders in the event of an emergency	would not have an impact on response standards. In addition, the proposed Project would not require an increase in firefighting staff or an increase in firefighting equipment, trucks, or facilities. No conflict with these policies would occur.
Goal PSI-5: A range of educational programs and facilities meets the needs of all ages of the community.	
PSI-D: Ensure that developers consult with the appropriate school district with the intent to mitigate a potential impact on school facilities prior to project approval by the City.	**Proposed Project Would Not Conflict** As discussed in Section 8.15, Public Services of the IS/MND, the proposed Project would generate approximately generate 17 elementary school students (K-6), 6 middle school students (7-8), and 17 high school students, for a total of 40 students. Huntington Beach City School District (HBCSD) (Grades K-8) and the Huntington Beach Unified High School District (HBUHSD) (Grades 9-12) will serve the future students. Compliance with RR PS-4, which requires payment of mandated school fees as required by Section 65995 of the California Government Code, would provide full and complete mitigation of potential impacts to schools resulting from the proposed Project. No conflict with this policy would occur.
Goal PSI-7: The flood control system supports permitted land uses while preserving public safety.	
PSI-C: Monitor demands and manage future development and reuse projects and existing land uses to mitigate impacts and/or facilitate improvements to the storm drainage system. **PSI-E:** Control surface runoff water discharge into the stormwater conveyance system to comply with the City's National Pollutant Discharge Elimination System Permit and other regional permits issued by the Santa Ana Regional Water Quality Control Board.	**Proposed Project Would Not Conflict** The proposed Project would generate storm water pollutants during grading and construction activities on the site. However, preparation and implementation of the SWPPP in compliance with the NPDES Construction General Permit (RR HWQ-1), compliance with the Santa Ana RWQCB's dewatering regulations (RR HWQ-2), and implementation of BMPs would reduce pollutants in the storm water. Therefore, the proposed Project would be developed consistent with the City's goals pertaining to future demands on the City's storm drain/stormwater conveyance system and compliance with the City's NPDES Permit and other regional permits issued by the Santa Ana RWQCB. No conflict with these policies would occur.
Goal PSI-9: An adequate and orderly system for solid waste collection and disposal meets the demands of new development and reuse projects, existing land uses, and special events.	
PSI-A: Ensure that new development and reuse projects provide adequate space for recycling and organics collection activities to support state waste reduction goals. **PSI-B:** Continue to exceed state solid waste reduction goals and work toward making Huntington Beach a zero-waste community.	**Proposed Project Would Not Conflict** As described in Section 8.19, Utilities and Service System of the IS/MND, the proposed Project would comply with applicable solid waste statutes and regulations including waste diversion programs. The proposed Project would generate 1,040 pounds of long-term solid waste per day prior to required waste diversion requirements. There is sufficient solid waste disposal capacity in the existing landfills to meet the solid waste disposal needs of the proposed Project. Therefore, the proposed Project would be developed consistent with the City's goals pertaining to solid waste. No conflict with these policies would occur.

TABLE 8-17
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

Policy	Compliance with Policy
Goal PSI-10: Superior electricity, natural gas, telephone, and data services improve quality of life and support economic development.	
PSI-A: Continue to consult with dry utility service providers to ensure that the community's current and future needs are met. **PSI-B:** Continue to require utilities to be placed underground as part of new development projects. **PSI-E:** Encourage integrated and cost-effective design and technology features within new development and reuse projects to minimize demands on dry utility networks.	**Proposed Project Would Not Conflict** The design and configuration of dry (electricity, natural gas, and communications) and wet (water, sewer, stormwater) utilities would take into account functionality and aesthetics, including street landscape and view protection and enhancement. All new and existing public and private utility lines and distribution facilities, on both the street and alley frontages, including but not limited to electric, communications, street lighting, and cable television lines, would be installed underground, where feasible. No conflict with these policies would occur.
Housing Element	
Goal 1: Maintain and enhance the quality and affordability of existing housing in Huntington Beach.	
Policy 1.1: Neighborhood Character: Preserve the character, scale and quality of established residential neighborhoods.	**Proposed Project Would Not Conflict** As described in response LU-2C, the design of the proposed Project would maintain the informal aesthetic elements of the existing beach community. The proposed Project design would complement the architectural style of the overall area and surrounding neighborhoods. No conflict with this policy would occur.
Goal 2: Provide adequate housing sites through appropriate land use, zoning and specific plan designations to accommodate Huntington Beach's share of regional housing needs.	
Goal 3: Enhance housing affordability so that modest income households can remain an integral part of the Huntington Beach community.	
Policy 3.1: Housing Diversity: Encourage the production of housing that meets all economic segments of the community, including lower, moderate, and upper income households, to maintain a balanced community. **Policy 3.2: Mixed Income Housing:** Utilize the City's Inclusionary Housing Ordinance as a tool to integrate affordable units within market rate developments. Continue to prioritize the construction of affordable units on-site, with provision of units off-site or payment of an in-lieu housing fee as a less preferred alternative. **Policy 3.4: Public/Private Partnerships:** Explore collaborative partnerships with non-profit organizations, developers, the business community and governmental agencies in the provision of affordable housing.	**Proposed Project Would Not Conflict** The Applicant seeks to comply with the City's updated Affordable Housing Ordinance, which is currently in the approval process. The revised ordinance is anticipated to allow residential developments of up to 100 units to pay the affordable housing in-lieu fee. However, if the proposed Project is not permitted to contribute toward the City's affordable housing fund through the payment of in-lieu fee, the Applicant would propose to address the affordable housing requirements through the establishment of a Specific Plan for the proposed development or comply with the Affordable Housing Ordinance. No conflict with these policies would occur.
Goal 4: Reduce potential governmental constraints to housing production and affordability.	
Goal 5: Promote equal housing opportunities for all residents, including Huntington Beach's special needs populations, so that residents can reside in the housing of their choice.	

TABLE 8-17
PROPOSED PROJECT GENERAL PLAN CONSISTENCY ANALYSIS

Policy	Compliance with Policy
Goal 6: Promote a healthy and sustainable Huntington Beach through support of housing which minimizes reliance on natural resources and automobile use.	
Policy 6.1: Green Building: Implement the City's Green Building Program to ensure new development is energy and water efficient. **Policy 6.2: Energy Efficiency and Alternative Energy Sources:** Promote modifications to increase energy efficiency and the use of alternative energy sources such as solar energy, cogeneration, and non-fossil fuels.	**Proposed Project Would Not Conflict** The proposed Project would promote building energy efficiency through compliance with energy efficiency standards (Title 24 mandated in the 2019 code update). The Project will include solar photovoltaic system; high efficiency insulation and filters; and ultra-low NOx furnaces. No conflict with these policies would occur.
Source: Huntington Beach 2021.	

As demonstrated in Table 8-17, the Project would be consistent with the General Plan's applicable goals and policies. The Project site has an existing General Plan Land Use designation of Civic: PS (RL) (Public/Semipublic with underlying Low Density Residential). Approval of the Project would require adoption of a General Plan Amendment (GPA) to change the designation to Low Density Residential (RL), which would allow densities of up to 7.0 dwelling units per acre (du/ac). The proposed Project seeks a density of 6.23 du/ac. The permitted uses under the proposed designation include traditional detached single-family housing, zero-lot-line developments, mobile home parks, low-density senior housing, and accessory dwelling units or "granny flats". The Project would provide residential uses adjacent to the existing single-family residences and provides an infill development that would revitalize the underutilized site. Therefore, in light of the above, there would be no conflict with the goals and policies of the General Plan or the land use designation for the site.

Huntington Beach Zoning and Subdivision Ordinance (Zoning Code)

The Huntington Beach Zoning and Subdivision Ordinance ("HBZSO" or "Zoning Code") regulates the use of private property and designates guidelines and requirements for residential, commercial, industrial, and other uses within the City. The City uses the HBZSO to evaluate a proposed project's land use compatibility with existing ordinances, provisions, and other zoning requirements.

The Project site is currently zoned as PS (Public/Semipublic). The Project would require a Zoning Map Amendment (ZMA) that would change the existing Zoning designation to Low Density Residential (RL). With the proposed Zone Change, the Project would not conflict with any local land use plan, policy, or regulation.

In light of the above analysis, the Project would not cause a significant environmental impact, as the Project would not conflict with any land use plan, policy, or regulation, including the City's General Plan and Zoning. Impacts would be less than significant, and no mitigation is required.

Regulatory Requirements

No regulatory requirements have been identified.

Mitigation Measures

Project implementation would not result in significant impacts related to land use and planning; therefore, no mitigation measures are required.

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

Impact Analysis

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? (Sources: 10, 14, 28, 41, 48)

No Impact. The California Department of Conservation (DOC), California Geological Survey (CGS) designates Mineral Resources Zones (MRZs) according to the presence of or potential for underlying mineral resources. MRZ-1 is an area with no significant mineral deposits; MRZ-2 is an area with significant mineral deposits; and MRZ-3 is an area containing known mineral resources of undetermined significance. The City of Huntington Beach General Plan Draft EIR indicates there are areas within the City designated as MRZ-1, MRZ-2 or MRZ-3. The Project site is designated as a MRZ-3 zone in the Huntington Beach General Plan Figure 4-26, Mineral Resources Zones. Additionally, there are no mines on the Project site or within the City as shown by the DOC, Division of Mine Reclamation map.

Additionally, there are no past or ongoing oil or gas drilling activities on or near the site. Review of the California Geologic Energy Management Division (CalGEM) Well Finder shows no oil or gas wells are located on the Project site or in the vicinity of the site. The nearest well is a dry, plugged hole approximately 0.12 miles northeast of the site (CalGEM 2021).

Therefore, redevelopment of the site with residential uses would not result in a loss of availability of a known mineral resource. No impacts would occur, and no mitigation is required.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? (Sources: 10, 14, 41, 48)

No Impact. There are no past or ongoing oil or gas drilling activities on or near the site. Review of the California Geologic Energy Management Division (CalGEM) Well Finder shows no oil or gas wells are located on the Project site or in the vicinity of the site. The nearest well is a dry, plugged hole approximately 0.12 mile northeast of the site (CalGEM 2021). Therefore, the Project would not result in the loss of availability of locally important mineral resources. Please refer to analysis 5.12(a) above. No impacts would occur, and no mitigation is required.

Regulatory Requirements

No regulatory requirements have been identified.

Mitigation Measures

Project implementation would not result in significant impacts related to mineral resources; therefore, no mitigation measures are required.

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

Introduction

(Sources: 37, 39)

Noise and Vibration Concepts

Several rating scales (or noise "metrics") are used to analyze the effects of noise on a community. These scales include the equivalent noise level (L_{eq}) and the community noise equivalent level (CNEL). Average noise levels over a period of minutes or hours are usually expressed as A-weighted decibels (dBA) L_{eq}, which is the equivalent noise level for that period of time. The period of time averaging may be specified where Leq(3) would be a 3-hour average. When no period is specified, a 1-hour average is assumed. Noise of short duration (i.e., substantially less than the averaging period) is averaged into ambient noise during the period of interest. Thus, a loud noise lasting several seconds or a few minutes may have minimal effect on the measured sound level averaged over a one-hour period.

To evaluate community noise impacts, CNEL was developed to account for human sensitivity to evening and nighttime noise. CNEL separates a 24-hour day into three periods: daytime (7:00 AM to 7:00 PM), evening (7:00 PM to 10:00 PM), and nighttime (10:00 PM to 7:00 AM). The evening sound levels are assigned a 5-dBA penalty, and the nighttime sound levels are assigned a 10-dBA penalty prior to averaging them with daytime hourly sound levels. Other statistical descriptors often used to describe noise, are L_{max} and L_{min}, which are the highest and lowest A-weighted sound levels that occur during a noise event, respectively.

Vibration amplitudes are commonly expressed in peak particle velocity (ppv) or root-mean square (RMS) vibration velocity. Ppv is defined as the maximum instantaneous positive or

negative peak of a vibration signal. Ppv and RMS vibration velocity are normally described in inches per second. Similar to airborne sound, vibration velocity can be expressed in decibel notation as vibration decibels (VdB).

Existing Conditions

To evaluate the existing noise environment, noise level measurements were collected at 4 locations in the morning of April 14, 2021. Short-term measurements were collected for 20-minute periods at each side of the Project site. The energy average (L_{eq}), maximum noise level (L_{max}), and minimum noise level (L_{min}) values were taken at each ambient noise measurement location, as shown in Table 8-18, below. The complete noise monitoring results are included in Appendix F, Noise Calculations.

TABLE 8-18
SUMMARY OF SHORT-TERM AMBIENT NOISE LEVEL MEASUREMENTS

Location	Noise Levels (dBA)			Primary Noise Source
	L_{eq}	L_{max}	L_{min}	
Northern Project Boundary	48.3	60.4	41.3	Low levels of landscaping activities, aircraft, leaves rustling, and birds.
Western Project Boundary	48.2	61.0	40.9	Low levels of landscaping activities, aircraft, barking dog, leaves rustling, and birds.
Southern Project Boundary	46.3	56.0	41.8	Low levels of landscaping activities, aircraft, and birds.
Eastern Project Boundary	52.8	70.4	41.8	Intermittent circular saw from across the street, low levels of traffic, landscaping activities, aircraft, and birds.
dBA: A-weighted decibels; L_{eq}: equivalent noise level; L_{max}: maximum noise level; L_{min}: minimum noise level.				

As shown in Table 4-16, the average daytime noise levels near the site range from approximately 46 to 53 dBA Leq. Noise levels are considered low at these measurement locations and primarily attributable to low levels of landscaping activities, a barking dog, aircraft overflights and traffic noise. Noise levels at all sides of the Project boundaries are substantially below the noise compatibility standards for residential uses.

Sensitive Receptors

The State of California defines noise-sensitive receptors as those land uses that require serenity or are otherwise adversely affected by noise events or conditions. The land use categories requiring the lowest noise thresholds are schools, libraries, churches, hospitals, and residences. Schools, libraries, churches, hospitals, and residences proximate to the Project site are referred to as the Project's "noise sensitive receptors" due to sensitivity of these uses to noise exposure.

City of Huntington Beach General Plan

The City of Huntington Beach is affected by several different sources of noise, including automobile traffic, commercial activity, and periodic nuisances such as construction, loud parties, and other events. The Noise Element of the City of Huntington Beach General Plan

(adopted October 2, 2017) is intended to identify these sources and provide objectives and policies that ensure that noise from these sources does not create an unacceptable noise environment. The Noise Element addresses protecting noise-sensitive land uses, ensuring land use/noise compatibility, reducing noise from mobile sources and mitigating noise from construction, maintenance, and other sources.

The goals established within the Noise Element include:

- Goal N-1 Noise-sensitive land uses are protected in areas with acceptable noise levels.
- Goal N-2 Land use patterns are compatible with current and future noise levels.
- Goal N-3 The community is not disturbed by excessive noise from mobile sources such as vehicles, rail traffic, and aircraft.
- Goal N-4 Noise from construction activities associated with discretionary projects, maintenance vehicles, special events, and other nuisances is minimized in residential areas and near noise-sensitive land uses.

The City's land use noise compatibility standards are provided for reference in Table 8-19 Land Use Noise Compatibility Standards.

TABLE 8-19
LAND USE-NOISE COMPATIBILITY STANDARDS

General Plan Land Use Designation	Proposed Uses	Exterior Normally Acceptable[1] (dBA CNEL)	Exterior Conditionally Acceptable[2] (dBA CNEL)	Exterior Normally Unacceptable [3] (dBA CNEL)	Interior Acceptable[4] (dBA CNEL)
Residential					
Low Density	Single-family, mobile home, senior housing	Up to 60	61–65	≥66	45
Medium Density, Medium High Density, High Density	Attached single-family, duplex, townhomes, multi-family, condominiums, apartments	Up to 65	66–70	≥71	45
Mixed-Use					
Mixed-Use	Combination of commercial and residential uses	Up to 70	71–75	≥76	45
Commercial					
Neighborhood Commercial, General Commercial	Retail, professional office, health services, restaurant, government offices, hotel/motel	Up to 70	71–75	≥76	45
Visitor Commercial	Hotel/motel, timeshares, recreational commercial, cultural facilities	Up to 65	66–75	>75	45
Office	Office, financial institutions	NA	NA	NA	NA

TABLE 8-19
LAND USE-NOISE COMPATIBILITY STANDARDS

General Plan Land Use Designation	Proposed Uses	Exterior Normally Acceptable[1] (dBA CNEL)	Exterior Conditionally Acceptable[2] (dBA CNEL)	Exterior Normally Unacceptable [3] (dBA CNEL)	Interior Acceptable[4] (dBA CNEL)
Public/Semi-public					
Semi-public (School)	Schools	Up to 60	61–65	≥66	45
Semi-public (Other)	Hospitals, churches, cultural facilities	Up to 65	66–70	≥71	45
Public	Public utilities, parking lot	NA	NA	NA	NA
Industrial					
Research and Technology	Research and development, technology, warehousing, business park	NA	NA	NA	NA
Industrial	Manufacturing, construction, transportation, logistics, auto repair	NA	NA	NA	NA
Open Space and Recreational					
Conservation	Environmental resource conservation	NA	NA	NA	NA
Park	Public park	Up to 65	65–75	≥76	NA
Recreation	Golf courses, recreational water bodies	Up to 65	66–75	≥76	NA
Shore	City and state beaches	NA	NA	NA	NA

1 Normally acceptable means that land uses may be established in areas with the stated ambient noise level, absent any unique noise circumstances.

2 Conditionally acceptable means that land uses should be established in areas with the stated ambient noise level only when exterior areas are omitted from the project or noise levels in exterior areas can be mitigated to the normally acceptable level. Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use. Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.

3 Normally unacceptable means that land uses should generally not be established in areas with the stated ambient noise level. If the benefits of the project in addressing other General Plan goals and policies outweigh concerns ab out noise, the use should be established only where exterior areas are omitted from the project or where exterior areas are located and shielded from noise sources to mitigate noise to the maximum extent feasible. Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use. Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.

4 Interior acceptable means that the building must be constructed so that interior noise levels do not exceed the stated maximum, regardless of the exterior noise level. Stated maximums are as determined for a typical worst-case hour during periods of use.

City of Huntington Beach Municipal Code

The City Municipal Code (Chapter 8.40, Noise Control) is the City's Noise Ordinance, discussed further below.

Impact Analysis

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (Source: 18, 37, 47, 65)

Project Related Temporary Noise Increases

Less Than Significant Impact. Construction activities are anticipated to involve demolition of existing structures, including crushing of concrete and pavement, grading and excavation for utilities and building foundations, building construction, paving, and architectural coating. Construction activities are anticipated to occur from 2022 through 2025. All construction activities would occur within the hours specified by the City's Noise Ordinance. It is estimated that approximately 50 truckloads of demolition debris would be exported off site during demolition over a three-month period. During the demolition and grading activities, trucks are expected to enter and leave the Project site on a regular basis during working hours. On average, it is anticipated that there would be two to four round trip truck hauls per day. The addition of four round haul truck trips per day during demolition would increase traffic noise levels by less than 3 dBA, which is the minimum change in noise levels necessary for a perceptible change in an outdoor noise environment. The grading phase of the Project is estimated to result in 3,125 truckloads of soils to be imported from an approved offsite location over a four-month period. This would result in an average of 36 round truck trips per day or approximately five round truck trips per hour. Local intersections would have approximately 1,000 to 5,000 vehicle trips in the morning and evening peak hour, and the addition of five round truck trips per hour would not contribute a substantial number of trips at these local intersections.

In typical construction projects, such as the proposed Project, demolition and grading activities generate the highest noise levels, since they involve the use of the largest equipment. During demolition and grading, persons in the immediate vicinity of the construction site would experience short-term noise impacts related to the operation of heavy construction equipment such as bulldozers, hoe-rams, excavators, and dump trucks. Noise levels would fluctuate depending on equipment type, duration of use, and distance between noise source and receiver. The operation of heavy equipment may occur adjacent to the residences located to the north, east, and west of the Project site. The Project would also occur to the north of the Gisler Park. Noise from localized point sources, such as construction equipment, decreases by approximately 6 dBA with each doubling of distance from the source to receptor.

Local residents and park users would be subject to elevated noise levels due to the operation of Project-related construction equipment. Construction activities are carried out in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise levels surrounding the construction site as work progresses. Construction noise levels reported in the USEPA's *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances* were used to estimate future construction noise levels for the Project. Typically, the estimated

construction noise levels are governed primarily by equipment that produces the highest noise levels. Construction noise levels for each generalized construction phase (ground-clearing/demolition, excavation, foundation construction, building construction, paving, and site cleanup) are based on a typical construction equipment mix for an industrial project and do not include use of atypical, very loud, and vibration-intensive equipment (e.g., pile drivers)

The degree to which noise-sensitive receptors are affected by construction activities depends heavily on their proximity. Estimated noise levels attributable to the development of the proposed Project are shown in Table 8-20, Construction Noise Levels at Noise-Sensitive Uses, and calculations are included in Appendix F, Noise Calculations.

TABLE 8-20
CONSTRUCTION NOISE LEVELS AT NOISE-SENSITIVE USES

	Noise Levels (L_{eq} dBA)							
	Residential Uses to the North of the Project Site		Residential Uses to the West of the Project Site		Park Uses to the South of the Project Site		Residential Uses to the East of the Project Site	
Construction Phase	Max (10 ft)	Avg (315 ft)	Max (10 ft)	Avg (490 ft)	Max (10 ft)	Avg (315 ft)	Max (60 ft)	Avg (525 ft)
Ground Clearing/Demolition	97	67	97	63	97	67	81	63
Excavation	102	72	102	68	102	72	86	68
Foundation Construction	95	65	95	61	95	65	79	61
Building Construction	95	65	95	61	95	65	79	61
Paving and Site Cleanup	102	72	102	68	102	72	86	68

L_{eq} dBA: Average noise energy level; Max: maximum; avg: average; ft: feet, NA: Not Applicable

Note: Noise levels from construction activities do not take into account attenuation provided by intervening structures.

Table 8-20 shows both the maximum and average noise levels for construction equipment. Maximum noise levels represent the noise levels from construction equipment occurring nearest to the noise sensitive use/receptor and would occur for a relatively short amount of time compared to the overall construction period. Average noise levels represent the noise exposure to sensitive uses based on the distance from the sensitive uses to the center of the Project site. Noise levels from general Project-related construction activities would range from 79 to 102 dBA Leq for the maximum noise levels and 61 to 72 dBA Leq for average noise levels. Construction of the proposed Project would comply with the City's Municipal Code Section 8.40.090.D, which exempts construction noise from quantitative limits during specified hours. In addition, the Project's construction activities would not result in unusually noisy construction activities, such as impact pile driving. The Project would comply with the restrictions in Municipal Code Section 8.40.090.D, which limits noise levels from construction activities to the least noise sensitive portions of the day. Because the Project would limit construction noise to the least noise sensitive portions of the day and would not involve especially loud pieces of construction equipment such as pile drivers, impacts would be less than significant.

Permanent Project-Related Noise Increases

Permanent sources of noise associated with the Project involves vehicle trips traveling to and from the Project site, property maintenance activities (landscaping), and mechanical sources of noise.

Noise Generated by Project Traffic

Operation of the proposed Project would generate traffic along roadways in the Project vicinity. The Project is anticipated to generate an additional 802 trips per day with 63 AM peak-hour trips and 84 PM peak-hour trips. Project related traffic volumes would be distributed across intersections local to the Project. As shown in Table 8-21, the Project would result in minimal increases in traffic volumes during the morning and evening peak hour. Increases in traffic attributable to the Project range from less than 1% to 3%. This increase in traffic volumes would result in noise levels increases of less than 1 decibel. A doubling of traffic volumes would result in traffic noise increases of 3 decibels. A 3 decibel increase is the minimum change in noise levels that is perceptible to human hearing in outdoor environments. Because traffic noise increases are below the limits of human hearing to detect an audible change in noise levels, traffic noise increases from the Project would not be perceptible or substantial. The impact on traffic noise levels would therefore be less than significant, and no mitigation is required.

TABLE 8-21
PROJECT-RELATED OFFSITE TRAFFIC NOISE INCREASES

	Build-Out No Project	Build-Out With Project	Project Only Traffic	Traffic Increase Over No Project Conditions
AM Peak Hour				
Bushard St/Atlanta Ave	2,725	2,734	9	<1%
Strathmoor Ln/Atlanta Ave	935	944	9	1%
Brookhurst St/Atlanta Ave	2,503	2,519	16	1%
Brookhurst St/Effingham Dr	2,088	2,142	54	3%
Bushard St/Hamilton Ave	2,591	2,594	3	<1%
Brookhurst St/Hamilton Ave	4,449	4,486	37	1%
PM Peak Hour				
Bushard St/Atlanta Ave	2,409	2,422	13	1%
Strathmoor Ln/Atlanta Ave	1,112	1,125	13	1%
Brookhurst St/Atlanta Ave	3,480	3,501	21	1%
Brookhurst St/Effingham Dr	2,866	2,938	72	3%
Bushard St/Hamilton Ave	3,027	3,032	5	<1%
Brookhurst St/Hamilton Ave	5,536	5,588	52	1%

Noise Generated by On-Site Sources

The primary noise sources generated by operation of the proposed Project would be heating, ventilation, and air conditioning (HVAC) equipment, landscape maintenance, and trash collection. Noise generated by trash collection is not regulated by the Municipal Code. This

source of noise is common with land use development. Noise generated by landscaping activities is regulated by Section 8.40.090.H. Special Provisions which restricts maintenance of property to the least noise sensitive hours of the day. Specific noise limits for leaf blowers detailed in Section 8.40.095 Leaf Blowers. These sources of noise are typical of developed land uses and because they are regulated by City, they would not result in noise levels of sufficient magnitude and frequency of occurrence to be considered by the City to result in a significant noise impact. Impacts to noise generated by on-site sources would be less than significant, and no mitigation is required.

Therefore, the Project would have less than significant impacts related to generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project, and no mitigation measures are required.

b) Generation of excessive groundborne vibration or groundborne noise levels? (Source: 18)

Less Than Significant With Mitigation. There are no applicable City standards for structural damage from vibration. The California Department of Transportation (Caltrans) vibration damage potential guideline thresholds are shown in Table 8-22.

TABLE 8-22
VIBRATION DAMAGE THRESHOLD CRITERIA

Structure and Condition	Maximum ppv (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.20	0.10
Historic and some old buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial/commercial buildings	2.00	0.50

ppv: peak particle velocity; in/sec: inch(es) per second.

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

The nearest structures to the Project site are the residences located 10 feet from the Project's northern and western boundaries. In reference to building classifications in Table 8-22, the residential structures to the west, east and north are conservatively evaluated as "older residential structures" for purposes of this analysis. Therefore, the criterion for a significant impact for continuous/frequency intermittent sources is 0.30 ppv in/sec. Similar to structural damage from vibration, there are no applicable standards in the City's Municipal Code for human annoyance from construction vibration. The Caltrans vibration annoyance potential guideline thresholds are shown in Table 8-23. Based on the guidance in Table 8-23, the "strongly perceptible" vibration level of 0.9 ppv in/sec is used in this analysis as the threshold for a potentially significant vibration impact for human annoyance.

TABLE 8-23
VIBRATION ANNOYANCE CRITERIA

Average Human Response	ppv (in/sec)
Severe	2.000
Strongly perceptible	0.900
Distinctly perceptible	0.240
Barely perceptible	0.035
ppv: peak particle velocity; in/sec: inch(es) per second. Source: Caltrans 2013.	

Conventional construction equipment would be used for demolition and grading activities, with no pile driving or blasting equipment. Table 8-24 summarizes typical vibration levels measured during construction activities for various vibration-inducing equipment at a distance of 25 feet.

TABLE 8-24
VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	ppv at 25 ft (in/sec)
Vibratory roller	0.210
Large bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003
ppv: peak particle velocity; ft: feet; in/sec: inches per second.	

Demolition, grading, and construction would occur up to the Project's boundaries and, as noted above, off-site land uses are relatively close to the Project's boundaries. Table 8-25, Unmitigated Project Vibration Impacts, shows the vibration annoyance criteria from construction-generated vibration activities proposed at the Project site.

TABLE 8-25
UNMITIGATED PROJECT VIBRATION IMPACTS

	Vibration Levels (ppv)			
	Residential Uses to the North of the Project Site	**Residential Uses to the West of the Project Site**	**Residential Uses to the South of the Project Site**	**Residential Uses to the East of the Project Site**
Equipment	**(ppv @ 10 ft)**	**(ppv @ 15 ft)**	**(ppv @ 200 ft)**	**(ppv @ 60 ft)**
Vibratory roller	**0.830**	**0.452**	0.009	0.056
Large bulldozer	**0.352**	0.191	0.004	0.024
Small bulldozer	0.012	0.006	0.000	0.001
Jackhammer	0.138	0.075	0.002	0.009
Loaded trucks	0.300	0.164	0.003	0.020
Annoyance Criteria	**0.9**	**0.9**	**0.9**	**0.9**
Exceeds Annoyance Criteria?	**No**	**No**	**No**	**No**
Building Damage Criteria	**0.3**	**0.3**	**0.3**	**0.5**
Exceeds Building Damage Criteria?	**Yes**	**Yes**	**No**	**No**

ppv: peak particle velocity; Max: maximum; avg: average; ft: feet
Note: Calculations can be found in Appendix F.

As shown in Table 8-25, vibration levels would be under the vibration annoyance criteria. However, vibration levels would exceed the criteria thresholds for cosmetic building damage for existing residential uses located to the north and west of the Project site when construction activities occur under maximum (i.e., closest to the receptor) exposure conditions with certain heavy equipment. Construction-related vibration would be substantially less under average conditions when construction activities are located further away. Because vibration levels could be above the significance thresholds, the Project's construction activities may result in cosmetic building damage at the nearest offsite residential uses located to the north and west of the Project site without the implementation of mitigation.

MM NOI-1 would avoid potential vibration induced cosmetic building damage to offsite buildings. MM NOI-1 requires that construction activities using vibratory rollers, and large bulldozers restrict the operation of equipment by at least 25 feet from off-site buildings. This would require that vibratory rollers and large bulldozer or their equivalents operate at least 15 feet from the Project site boundaries. Table 8-26, Mitigated Project Vibration Impacts, shows the ppv levels relative to mitigated vibration generating construction activities.

TABLE 8-26
MITIGATED PROJECT VIBRATION IMPACTS

Equipment	Vibration Levels (ppv)			
	Residential Uses to the North of the Project Site	**Residential Uses to the West of the Project Site**	**Residential Uses to the South of the Project Site**	**Residential Uses to the East of the Project Site**
	(ppv @ 25 ft)	**(ppv @ 25 ft)**	**(ppv @ 200 ft)**	**(ppv @ 60 ft)**
Vibratory roller	0.21	0.21	0.009	0.056
Large bulldozer	0.09	0.09	0.004	0.024
Small bulldozer	0.00	0.00	0.000	0.001
Jackhammer	0.04	0.04	0.002	0.009
Loaded trucks	0.08	0.08	0.003	0.020
Annoyance Criteria	**0.9**	**0.9**	**0.9**	**0.9**
Exceeds Annoyance Criteria?	**No**	**No**	**No**	**No**
Building Damage Criteria	**0.3**	**0.3**	**0.3**	**0.5**
Exceeds Building Damage Criteria?	**No**	**No**	**No**	**No**

ppv: peak particle velocity; Max: maximum; avg: average; ft: feet
Calculations can be found in Appendix F.

As shown in Table 8-26, ppv levels would be less than the annoyance and building damage criteria with implementation of MM NOI-1. Therefore, impacts would be less than significant with mitigation.

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? (Sources: N/A)

No Impact. The Project site is located approximately 5 miles west of the John Wayne Airport. The Project site is also located well outside the existing and projected 65 dBA CNEL noise contour, which would occur within 2 miles of an airport. Aircraft overflights do not significantly contribute to the noise environment at the Project site, and the Project would not expose future Project residents to excessive noise levels. In addition, the Project site is not located within the vicinity of a private airstrip. Therefore, the Project would not result in exposure of people residing or working in the Project area to excessive noise levels from either airport or airstrip-related activities, and no mitigation is required.

Regulatory Requirements

RR NOI-1 The Project shall comply with the City of Huntington Beach Municipal Code Chapter 8.40, Noise Control.

Mitigation Measures

MM NOI-1 The Applicant shall require that all construction contractors restrict the operation of the following construction equipment to beyond 25 feet from off-site buildings: vibratory rollers and other vehicles with a weight of greater than 24 tons. Smaller construction equipment could be used within these distances.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
8.14 POPULATION AND HOUSING *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 extensions of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Impact Analysis

a) Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extensions of roads or other infrastructure)? (Sources: 21, 52)

Less Than Significant Impact. The proposed Project involves development of 85 single-family dwelling units that would replace the existing school uses on the site. Using the City's population generation factor of 2.913 persons per unit (adopted pursuant to City Council Resolution No. 2012-66), the Project would directly generate approximately 248 residents. This would increase the City's 2020 resident population of 201,281 persons by 0.1 percent to 201,529 residents. It would increase the City's 2020 housing stock of 78,321 by 0.20 percent to 78,479 units. Jobs that would be created during construction would be short-term and would not increase the City's job base permanently. However, the temporary construction crew and long-term residents of the Project would not create a significant change in demand for goods and services that may induce business investment, growth, or development in the area. Additionally, these increases would be within anticipated growth for the City as projected by SCAG at 207,100 residents, 81,200 households, and 87,000 jobs by 2040.

Additionally, the proposed Project functions as an infill project and is served by existing roads and utility infrastructure. No extension of roads or infrastructure is proposed by the Project such that would encourage development levels beyond what is already planned elsewhere in the City or indirectly induce growth. Therefore, the Project would not result in substantial unplanned population growth, directly or indirectly. The impacts would be less than significant, and no mitigation is required.

The significant physical impacts on the environment associated with the direct growth have been evaluated in this IS/MND.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? (Sources: N/A)

No Impact. As stated previously, the Project site is currently developed with a school campus, which is not in use and slated for demolition. The existing use is comprised of an approximately 73,000 sf building and associated surfacing parking lot on the eastern half of the site and sports fields on the western half of the site. There are no existing housing and associated residents on the site that would be displaced by the development of the proposed residential Project. The proposed Project would develop 85 single-family dwelling units and help meet the City's housing goals under SCAG's RHNA, as identified in the Housing Element of the General Plan. Demolition of the existing school buildings would not lead to the loss of existing housing. Thus, no impact related to displacement of housing and associated residents would occur, and no replacement housing is required. Therefore, no significant impacts would occur, and no mitigation is required.

Regulatory Requirements

No regulatory requirements have been identified.

Mitigation Measures

Project implementation would not result in significant impacts related to population and housing; therefore, no mitigation measures are required.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
8.15 PUBLIC SERVICES *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*				
a) Fire protection?			X	
b) Police Protection?			X	
c) Schools?			X	
d) Parks?			X	
e) Other public facilities or governmental services?			X	

Impact Analysis

a) Fire protection? (Sources: 37)

Less Than Significant Impact. Fire protection services in the City, including the Project site, are provided by the Huntington Beach Fire Department (HBFD), which maintains and operates eight stations in the City. HBFD provides response to fire protection, medical emergencies, marine safety, hazardous materials incidents, natural and man-made disasters and related emergencies in an effort to reduce life and property loss. The Department also provides automatic and mutual aid assistance to neighboring fire departments. HBFD identifies the following for fire/rescue/emergency medical response arrival times:

- Provide a five-minute response time for emergency fire calls 80 percent of the time.
- Provide a five-minute response time for emergency medical calls 80 percent of the time.

Fire Station 4, located at 21441 Magnolia Street, approximately 0.6 mile to the southwest is the closest station and would provide fire response to the Project site.

The proposed Project would result in a resident population of approximately 248 persons, which is a nominal increase in the total number of City residents (estimated at 201,281 in 2020) served by HBFD. The proposed Project would replace an existing school use, which is currently vacated, but previously generated a demand for fire protection services. Given the size of the Project and the net increase in demand for fire protection services over existing uses (assumed as 720 students and 75 employees), the incremental demand of the Project for fire protection services would not result in the need for new firefighters and other personnel, nor would it require the construction of new or the alteration of existing fire protection facilities to maintain an adequate level of fire protection service in the City.

In the event there is a future demand for additional personnel, equipment, apparatus or facilities, this would be determined through the continued implementation of strategic planning for the Department and the City of Huntington Beach General Fund. Through this process, fire department needs are assessed, and budget allocations are revised accordingly to ensure that adequate levels of service are maintained throughout the City. Compliance with regulatory requirement (RR PS-1), which requires payment of development impact fees for fire suppression facilities would ensure that impacts to fire protection services would be less than significant, and no mitigation is required. The proposed Project would also comply with regulatory requirement (RR PS-2) regarding fire/emergency access during construction. No impacts would occur, and no mitigation is required.

b) Police Protection? (Sources: 31)

Less Than Significant Impact. Police protection services for the City of Huntington Beach, including the Project site, are provided by the Huntington Beach Police Department (HBPD). HBPD is headquartered at the Huntington Beach Civic Center complex located at 2000 Main Street. HBPD consists of four divisions: Executive, Administrative Operations, Uniform, and Investigations. The Executive Division includes the Chief of Police, and this division oversees the other three divisions. The Uniform Division is the largest division and includes the greatest number of personnel. In addition, to provide helicopter air support to the City, the City contracts out helicopter services to neighboring Costa Mesa and Newport Beach.

The City is divided into eight geographical areas, known as beats. Each beat is assigned a sufficient number of officers to provide the beat area with 24 hour a day, 7 day a week coverage. The Project site is located in Area 2, which is bordered by Indianapolis Street to the north, Gothard Street to the west, and the City limits to the east and south.

The proposed Project would generate a demand for police protection services during construction and operation of the proposed Project once the proposed dwelling units are occupied. The primary response to the Project site would be by patrol vehicles that are assigned by beats throughout the City. Although response time to service calls may vary depending upon their location at the time of dispatch, the City's goal is to respond in five minutes or less. The HBPD is authorized for sworn staff of 223 and non-sworn staff of 122, the HBPD currently has 213 sworn staff and 104 non-sworn staff.

The incremental demand of the Project for police protection services is not anticipated to increase HBPD response times to the Project site or surrounding area. The net increase in demand for police protection services over the existing uses (assumed as 720 students and 75 employees) is also not anticipated to generate the need for new sworn officers, nor would it require construction of new or physically altered police protection facilities to maintain an adequate level of service to the Project site and surrounding areas. Compliance with regulatory requirement RR PS-3, which requires payment of development impact fees for police facilities (Huntington Beach Municipal Code Chapter 17.75), would ensure that adequate police protection services are provided and impacts to police protection services would be less than significant, and no mitigation is required.

c) Schools? (Sources: 23, 34)

Less Than Significant Impact. The proposed Project involves the development of 85 dwelling units that would be occupied by approximately 248 residents with potential school-aged children requiring school services from both the Huntington Beach City School District (HBCSD) (Grades K-8) and the Huntington Beach Union High School District (HBUHSD) (Grades 9-12). The HBCSD has seven elementary schools and two junior high schools; the HBUHSD has six high schools and three alternative education schools. According to student generation rates for residential land uses within the HBCSD and as identified in Table 8-27, below, the Project may generate 17 elementary school students (K-6), 6 middle school students (7-8), and 17 high school students, for a total of 40 students.

TABLE 8-27
STUDENTS GENERATED BY THE PROPOSED PROJECT

School District	Units	K–6	7–8	9–12	Total
HBCSD	85	0.20	0.07	--	23
HBUHSD	85	--	--	0.20	17
Total students generated by the proposed Project					***40***
Source: HBCSD 2021, HBUHSD 2021.					

Table 8-28, below, identifies the available capacity of the schools that would serve the students generated by the proposed Project.

TABLE 8-28
ENROLLMENT AND CAPACITY OF SCHOOLS
SERVING THE PROJECT SITE

School Name	Current Capacity	Enrollment	Available Capacity	Distance to the Project Site (miles)
Huntington Beach City School District				
Eader Elementary	600	539	61	0.6
Sowers Middle	1,250	1,145	105	0.5
Huntington Beach Union School District				
Edison High School	1,983[a]	2,448	-465	0.3
[a] Capacity based on the State School Facility Programming loading factor of 27 students per 9th-12th grade class room, 13 students per non-severe special day classroom, and 9 students for severe special day classroom.				
Source: HBCSD 2021, HBUSD 2021.				

The Project would pay school development fees to the HBCSD and HBUHSD for the improvement of school facilities that would be needed to serve the Project's demand for school services and facilities (RR PS-4). As provided under Section 17620 of the *California Education Code* and Section 65970 of the *California Government Code*, the payment of statutory school development fees would fully mitigate a project's impacts on schools. Thus, impacts would be less than significant, and no mitigation is required.

d) Parks? (Sources: N/A)

Less Than Significant Impact. The proposed 85-unit residential development would generate a total of approximately 248 residents, which would increase demand for and use of existing parks and recreational facilities. However, an active open space area and park is located immediately adjacent to the south of the Project site at Gisler Park, which is a public park. The Project proposes improvements to the existing park, which is located on SCE property. The proposed improvement to the Gisler Park, as detailed in Section 3.4.1, is considered a public benefit to the existing community in return and as a requirement for the approval of a Planned Unit Development (PUD). In addition, the Project Applicant would be required to pay in-lieu fees for improvements to existing City parks (RR PS-5). Given the nominal increase in population and payment of park fees (RR PS-5), the potential impact would be less than significant, and no mitigation is required. Please refer to Section 8.16, Recreation, below for additional discussion.

e) Other public facilities or governmental services? (Sources: 27, 43, 50)

Less Than Significant Impact. The Huntington Beach Public Library provides library services to the City through five libraries (a Central Library and four branches: Banning, Main Street, Oak View, and Helen Murphy). The closest branch is the Banning Branch located at 9281, Banning Avenue, approximately 0.8 miles southwest of the Project site. In addition, it should be noted that there is one college in the City of Huntington Beach (i.e., Golden West Community College) and one college in adjacent Costa Mesa (i.e., Orange Coast Community College). The colleges have academic libraries, which are resources available to residents, as they allow non-students to purchase a library card with borrowing privileges. Golden West College has an on-site collection of more than 45,000 print and non-print materials and more than 9,000 e-books as well as access to online databases and full-text periodical articles. Orange Coast College has a collection of over 100,000 titles of books, periodicals, videos, and audio-cassettes.

Increased demands for library services are primarily driven by increases in permanent population, which is associated with development of residential land uses only. Therefore, the following analysis addresses the potential impacts associated with library facilities based on the proposed 85 residential units for the proposed Project. Residents of Huntington Beach can use any branches within the Huntington Beach Public Library system; however, the nearest branch is the Banning Branch location. With an estimated population increase of approximately 248 residents, it is anticipated that additional demand for library services would result from implementation of the proposed Project.

Based on coordination with the Huntington Beach Library system, the Banning Branch location is already undersized for the community it serves and the proposed Project would contribute to the existing demand on library service. Additionally, based on an Interdepartmental Communication from the Library Services Department to the Community Development Department, dated July 27, 2018, the Banning branch is one of the oldest in the Huntington Beach Public Library system and was a repurposed facility before conversion to a library branch. Due to conditions of the facility, it does not offer a full array of library service to the southeastern section of the City. The Library Services Department expressed concern that the addition of the proposed residential uses would render service provision more difficult and that the proposed development would have an impact on the library's traffic and parking.

However, it should be noted that the proposed Project would not, in and of itself, trigger the need for construction of new or expanded library facilities. In compliance with the Huntington Beach Municipal Code Chapter 17.67, the proposed development would contribute its fair share through payment of library development impact fees (see RR PS-6), which would ensure that adequate library services are provided and impacts to library services and facilities would be less than significant, and no mitigation is required. Therefore, with implementation of RR PS-6, the proposed Project would not result in impacts associated with the need for new or physically altered governmental facilities.

Regulatory Requirements

Fire Protection

RR PS-1 Prior to the issuance of certificate of occupancy or final building permit approval, the Project Applicant/Developer shall pay the required development impact fees for fire suppression facilities, as required by Huntington Beach Municipal Code Chapter 17.74.

RR PS-2 During Project construction, Fire/Emergency Access and Site Safety shall be maintained in compliance with California Fire Code (CFC) Chapter 33, Fire Safety during Construction and Demolition.

Police Protection

RR PS-3 Prior to the issuance of certificate of occupancy or final building permit approval, the Project Applicant/Developer shall pay required development impact fees for police facilities as required by Huntington Beach Municipal Code Chapter 17.75.

Schools

RR PS-4 The Project Applicant/Developer shall pay all applicable development impact fees in effect at the time of building permit issuance to the Huntington Beach City School and Union High School Districts to cover additional school services required by the new development. The applicable development impact fees would be consistent with SB 50.

Parks

RR REC-1 The Applicant shall comply with the Huntington Beach General Plan requirement of 5 acres of parkland per 1,000 residents through payment of in-lieu fees for improvements to existing City parks, to the satisfaction of the Community Services Department, prior to the issuance of certificate of occupancy or final building permit approval.

Libraries

RR PS-6 Prior to the issuance of certificate of occupancy or final building permit approval, the Project Applicant/Developer shall pay required library development impact fees as required by Huntington Beach Municipal Code Chapter 17.67.

Mitigation Measures

Project implementation would not result in significant impacts related to public services; therefore, no mitigation measures are required.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
8.16 RECREATION *Would the project:*				
a) Increase the use of existing neighborhood, community and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

Impact Analysis

a) Would the project increase the use of existing neighborhood, community and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? (Source: 39)

Less Than Significant Impact. According to the Environmental Resources and Conservation Element of the General Plan, Huntington Beach has 79 parks and public recreation facilities totaling 1,073 acres. This includes City-owned parks, a public golf course, non-City owned public open space areas/parks, recreation facilities, and 207 acres of City-operated beaches. The City also provides recreation facilities, including community centers, senior centers, golf courses, bikeways and trail systems, campgrounds, and City-run marine-based amenities such as beaches, a pier, and harbor channel. Table 8-29, Public Parks, lists public community parks and public neighborhood parks located within two miles of the boundaries of the Project site.

TABLE 8-29
CITY OF HUNTINGTON BEACH PUBLIC PARKS WITHIN 2-MILES OF THE PROJECT

Name	Location	Distance from Site Boundary (mile)	Size (acres)	Amenities
Public Neighborhood Parks				
Eader Park	9281 Banning Avenue	0.30	2.68	Playground, swings, open turf, branch library, and parking.
Seely Park	8711 Surfcrest Drive	0.73	3.37	Park benches, basketball court, picnic table, playground equipment, toddler and regular swings, and open turf.
Sowers Park	9272 Indianapolis Avenue	1.24	2.65	Playgrounds, swing set, grass area, and street parking.
Burke Park	20701 Queens Park Lane	1.26	2.50	Playground, toddler and regular swings, open turf, and grass volleyball.
Hawes Park	9731 Verdant Drive	1.60	2.68	Grass area, playgrounds, swing set, street parking, and benches.
LeBard Park	20461 Craimer Lane	1.78	11.49	Tennis courts, playground equipment with sand, park benches, picnic tables, shaded area, next to little league park, and parking lot
Public Community Parks				
Gisler Community Park	21215 Strathmoor Lane	0.01	11.6700	Playground equipment, park benches, and open grass area.
Edison Community Park	21377 Magnolia Street	0.28	39.69	Group picnic shelters, barbeques, lighted softball fields, basketball, tennis, racquetball, and handball courts, playground, and recreation center (Edison Community Center).
Source: Huntington Beach 2021.				

The Huntington Beach General Plan Environmental Resources and Conservation Element maintains an established citywide parkland level of service goal of 5 or more acres of parkland per 1,000 residents. Accordingly, this would require a total of approximately 1,004 acres of local parkland to serve the current population of 200,730 residents.

The proposed 85-unit single family dwelling units would result in a population of approximately 248 residents, as indicated in Checklist Response threshold 5.14a., which would generate a demand for parks and recreational facilities. Given the population of 248 (based on the City's generation factor of 2.913 persons per unit, adopted pursuant to City Council Resolution No. 2012-66), the Project would be required to provide 1.24 acres of parkland. However, the Project Applicant is proposing to pay park in lieu fees instead. The Project would include one on-site passive open space area immediately to the north of Gisler Park, in the southeast corner of the

site for a total of 0.23 acre. This space, indicated as Lot A on the Conceptual Site Plan (Exhibit 3-1), would be privately owned and maintained and include benches, mature trees, and a concrete walkway surrounding the open turf on four sides. Project residents would also use nearby City parks and other public and regional parks. Eight parks, including Gisler Community Park (Gisler), are within 2 miles of the Project site and are listed in Table 8-29, above. Additionally, as detailed in Section 3.4.1, the Project proposes improvements to the existing Gisler Park, which abuts the site to the south and extends from Bushard Street (west of the site) to Brookhurst Street (east of the site). Current amenities in Gisler include playground equipment, park benches, and open grass area. The proposed improvements to the park include but are not limits to replacement of existing walkway system with a 10-foot wide walk; replacement and relocation of damaged bollards; improvement connectivity to tot lots by installing additional walkways; replacement of existing tot lot with a large tot lot play area and site furnishings; replacement of the removed tree in the Gisler Park parking lots; replacement of the walkway to the Project site with turf; and addition of new trash cans throughout the park. For additional detail, please refer to Section 3.4.1.

In addition to onsite open space/parks and improvements to the Gisler Park, as stated in RR REC-1, the Project Applicant would be responsible for paying park in lieu fees for the development of new or expanded park facilities in the City such that physical deterioration of the existing parks would not occur. Therefore, with provision of amenities and payment of park in lieu fees, impacts would be less than significant, and no mitigation is required.

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? (Source: 39)

Less Than Significant. The Project would include one passive open space area that would be available for use by residents. As described above, the open space would include open turf area, walkway, mature trees, and benches. The area would be on the Project site and the physical impacts resulting from the construction of this amenity have been addressed through the impact analysis presented in this IS/MND document. Therefore, with the Project's construction of on-site open space and proposed improvements to Gisler Park, there would be adequate parks and recreational facilities that would serve the Project.

Additionally, the Project Applicant would pay the park in lieu fees to provide funds for improvement of City parks (see RR REC-1, below). Therefore, since the recreation needs of the residents would be partially met on site and with proposed improvements to Gisler Park in addition to payment of the necessary park in lieu fees, the proposed Project would not result in a substantial increased demand for recreational facilities, requiring the construction of new parks that would adversely affect the environment. Therefore, impacts would be less than significant, and no mitigation is required.

Regulatory Requirements

RR REC-1 The Applicant shall comply with the Huntington Beach General Plan requirement of 5 acres of parkland per 1,000 residents through payment of in-lieu fees to the satisfaction of the Community Services Department, prior to the issuance of certificates of occupancy or final building permit approval.

Mitigation Measures

Project implementation would not result in significant impacts related to recreation; therefore, no mitigation measures are required.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
8.17 TRANSPORTATION *Would the project:*				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?		X		
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?			X	
d) Result in inadequate emergency access?			X	

A Traffic Analysis Report and a Preliminary Vehicles Miles Traveled (VMT) Screening Assessment were prepared by Linscott, Law & Greenspan Engineers (LLG) for the proposed Gisler Residential Project. The TIA and VMT Assessment are dated December 10, 2020 and January 27, 2021, respectively. The findings of the said studies are incorporated in the following analyses, and the studies are included as Appendix G1 and Appendix G2 to this IS/MND.

Existing Conditions

Study Area

The principal local street network serving the proposed Project includes Strathmoor Lane, Effingham Drive, Atlanta Avenue, and Brookhurst Street. Based on the City of Huntington Beach guidelines, seven existing key study intersections were selected for evaluation. The key study intersections listed below provide local and regional access to the study area and define the extent of the boundaries for the analysis. All key study intersections are within the City limits.

1. Bushard Street at Atlanta Avenue (Huntington Beach)
2. Strathmoor Lane at Atlanta Avenue (Huntington Beach)
3. Brookhurst Street at Atlanta Avenue (Huntington Beach)
4. Brookhurst Street at Effingham Drive (Huntington Beach)
5. Bushard Street at Hamilton Avenue (Huntington Beach)
6. Brookhurst Street at Hamilton Avenue (Huntington Beach)
7. Placentia Avenue at Victoria Street (Costa Mesa)

The Level of Service (LOS) investigations at these key locations were used to evaluate the Project's potential impacts and the need for Project-related circulation improvements associated

with area growth, cumulative projects, and the proposed Project. When necessary, intersection improvements that may be required to accommodate future traffic volumes and restore/maintain an acceptable LOS, are recommended to mitigate identified Project related traffic impacts.

Existing Traffic Volumes

Existing and future traffic operation conditions have been evaluated at the seven key study intersections, as identified above, as some portion of potential Project-related traffic would pass through each of these intersections. In light of the pandemic, collecting traffic counts to establish baseline conditions that would be reflective of pre-pandemic traffic condition is not feasible. As such, to establish "baseline" traffic conditions, LLG has researched recent counts.

Existing AM and PM peak hour traffic counts from February and March 2014 for Intersection 1, were obtained from the *City of Huntington Beach General Plan Circulation Update*, prepared by Stantec Consulting Services Inc., dated January 13, 2017. Existing AM and PM peak hour traffic counts for Intersections 3, 5, and 6 were obtained from the *Magnolia Tank Farm Project Traffic Analysis Report*, dated June 28, 2018. Traffic counts for Intersection 7 were obtained from Transportation Studies, Inc. (TSI) and are dated November 2017. The turning movement counts were adjusted with one percent per year growth to obtain Year 2020 pre-pandemic baseline traffic conditions. It should be noted that the one percent annual growth rate tends to be conservative when compared to overlapping 2014 count data from the *City of Huntington Beach General Plan Circulation Update* and 2017 counts obtained from TSI. Historic traffic counts data for intersections 2 and 4 are unavailable; therefore, the volumes have been forecasted based on the number of existing homes. Figures 3-3 and 3-4 of the Traffic Analysis Report (Appendix G1 of the IS/MND) show the existing AM and PM peak hour traffic volumes at the key intersections, respectively. Appendix B of the Traffic Analysis (Appendix G1 of the IS/MND) contains the detailed peak hour count sheets for the key intersections.

Existing Intersection Conditions

Existing AM and PM peak hour operating conditions for the key intersections were evaluated using the Intersection Capacity Utilization (ICU) methodology for signalized intersections and the Highway Capacity Manual (HCM) methodology for unsignalized intersections.

Intersection Capacity Utilization (ICU) Method of Analysis

Pursuant to the Cities of Huntington Beach and Costa Mesa guidelines, existing AM and PM peak hour operating conditions for the key signalized intersections were evaluated using the ICU method. The ICU technique estimates the volume to capacity (V/C) relationship for an intersection based on the individual V/C ratios for key conflicting traffic movements. The ICU numerical value represents the percent signal (green) time, and thus capacity, required by existing and/or future traffic. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

Per City of Huntington Beach and Orange County Congestion Management Plan (CMP) guidelines, the ICU calculations use a lane capacity of 1,700 vehicles per hour (vph) for left-turn, through, and right-turn lanes. A clearance adjustment factor of 0.05 was added to each Level of Service calculation. Per the City of Costa Mesa guidelines, the ICU calculations use a lane capacity of 1,600

vph for left-turn, through, and right-turn lanes. No clearance adjustment factor was added to the LOS calculations.

The ICU value translates to an LOS estimate, which is a relative measure of the intersection performance. The ICU value is the sum of the critical volume to capacity ratios at an intersection; it is not intended to be indicative of the LOS of each of the individual turning movements. The six qualitative categories of LOS have been defined along with the corresponding ICU value range and are shown in Table 8-30.

TABLE 8-30
LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Level of Service (LOS)	Intersection Capacity Utilization Value (V/C)	Level of Service Description
A	< 0.61	EXCELLENT. No vehicle waits longer than one red light, and no approach phase is fully used.
B	0.61 – 0.70	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.71 – 0.80	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.81 – 0.90	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.91 – 1.00	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.00	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Potentially very long delays with continuously increasing queue lengths.
Source: LLG Engineers 2021 (taken from *Transportation Research Board Circular 212 - Interim Materials on Highway Capacity)*		

Highway Capacity Manual 6 (HCM 6) Method of Analysis (Unsignalized Intersections)

The HCM unsignalized methodology for stop-controlled intersections was utilized for the analysis of the unsignalized intersections. This methodology estimates the average control delay for each of the subject movements and determines the level of service for each movement. For all-way stop controlled intersections, the overall average control delay measured in seconds per vehicle and level of service is calculated for the entire intersection. For one-way and two-way stop-controlled (minor street stop-controlled) intersections, this methodology estimates the worst side street delay, measured in seconds per vehicle and determines the level of service for that approach. The HCM control delay value translates to an LOS estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding HCM control delay value range, as shown in Table 8-31.

TABLE 8-31
LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Level of Service (LOS)	Highway Capacity Manual (HCM) Delay Per Vehicle (seconds/vehicle)	Level of Service Description
A	≤ 10.0	Little or no delay
B	> 10.0 and ≤ 15.0	Short traffic delays
C	> 15.0 and ≤ 25.0	Average traffic delays
D	> 25.0 and ≤ 35.0	Long traffic delays
E	> 35.0 and ≤ 50.0	Very long traffic delays
F	> 50.0	Severe congestion

Source: Highway Capacity Manual 6, Chapter 20: Two-Way Stop-Controlled Intersections. The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.

Source: LLG Engineers 2021 (taken from *Highway Capacity Manual 6*, Chapter 20)

Level of Service Criteria

According to the City of Huntington Beach, LOS C is the minimum acceptable condition that should be maintained during the peak commute hours for "Secondary Intersections". LOS D is the minimum acceptable condition that should be maintained during the peak commute hours for "Principal Intersections", and LOS E is the minimum acceptable condition that should be maintained during the peak commute hours for "Critical Intersections". LOS D is the performance standard for the City of Costa Mesa intersections.

It should be noted that the City does not have LOS criteria for the unsignalized intersections (i.e., Brookhurst Street/Effingham Drive and Atlanta Avenue/Strathmoor Lane intersections). LOS standard C is used for these unsignalized locations in the analysis.

Based on the above, the City recommended an LOS standard C for Bushard Street at Atlanta Avenue; Strathmoor Lane at Atlanta Avenue; Effingham Drive at Brookhurst Street; and Bushard Street at Hamilton Avenue. An LOS "D" is required for Brookhurst Street at Atlanta Avenue; Brookhurst Street at Hamilton Avenue; and Placentia Avenue at Victoria Street.

Existing Level of Service Results

Table 8-32 summarizes the existing peak hour service level calculations for the seven key study intersections based on existing traffic volumes and current street geometry. Per Table 8-32, all seven key intersections currently operate at an acceptable level of service during the AM and PM peak hours. Appendix C (Appendix G1 of IS/MND) presents the ICU/LOS and HCM/LOS calculations for the seven intersections for the AM and PM peak hours.

TABLE 8-32
EXISTING PEAK HOUR LEVELS OF SERVICE

Key Intersections		Minimum Acceptable LOS	Control Type	Time Period	ICU/HCM	LOS
1.	Bushard Street at Atlanta Avenue	C	2∅ Traffic Signal	AM	0.485	A
				PM	0.410	A
2.	Strathmoor Lane at Atlanta Avenue	C	One-Way Stop	AM	11.7 s/v	B
				PM	11.0 s/v	B
3.	Brookhurst Street at Atlanta Avenue	D	5∅ Traffic Signal	AM	0.403	A
				PM	0.443	C
4.	Brookhurst Street at Effingham Drive	C	Two-Way Stop	AM	17.4 s/v	C
				PM	20.1 s/v	C
5.	Bushard Street at Hamilton Avenue	C	2∅ Traffic Signal	AM	0.491	A
				PM	0.668	B
6.	Brookhurst Street at Hamilton Avenue	D	8∅ Traffic Signal	AM	0.748	C
				PM	0.708	C
7.	Placentia Avenue at Victoria Street	D	8∅ Traffic Signal	AM	0.800	C
				PM	0.829	D

Note:
- **Bold** LOS values indicate adverse service levels based on City LOS standards
- s/v = seconds per vehicle (delay)
- ICU = Intersection Capacity Utilization
- HCM = Highway Capacity Manual
- Ø = Phase

Traffic Forecasting Methodology

A multi-step process has been utilized to estimate the traffic impact characteristics of the proposed Project. The first step is trip generation, which estimates the total arriving and departing traffic on a peak hour and daily basis. The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound project traffic. The third step is traffic assignment, which involves the allocation of project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds.

With the forecasting process complete and Project traffic assignments developed, the proposed Project is isolated by comparing operational (LOS) conditions at selected key intersections using expected future traffic volumes with and without forecast Project traffic. The need for site specific and/or cumulative local area traffic circulation improvements can then be evaluated to determine if the Project results in any traffic related impacts.

Traffic Analysis Methodology

The potential effect of the added project traffic volumes generated by the proposed Project during the AM and PM peak hours was evaluated based on analysis of future operating conditions at the seven key study intersections, without, then with, the proposed Project. The capacity analysis procedures were utilized to investigate the future volume-to-capacity relationships and service level characteristics. The effect of the added Project related peak hour traffic on the LOS at each key intersection was then evaluated using the following criteria.

Level of Service

- According to the City of Huntington Beach, LOS C is the minimum acceptable condition that should be maintained during the peak commute hours for "Secondary Intersections". LOS D is the minimum acceptable condition that should be maintained during the peak commute hours for "Principal Intersections", and LOS E is the minimum acceptable condition that should be maintained during the peak commute hours for "Critical Intersections". The City of Costa Mesa also considers LOS D as the level of service standard. Based on the above, the following summarizes the LOS required for each key study intersection:

Los C is required for Bushard Street at Atlanta Avenue; and Bushard Street at Hamilton Avenue. LOS D is required for Brookhurst Street at Atlanta Avenue; Brookhurst Street at Hamilton Avenue; and Placentia Avenue at Victoria Street.

Since the City does not have LOS criteria for unsignalized intersections, LOS C was used as the criteria for the unsignalized intersections of Brookhurst Street at Effingham Drive and Atlanta Avenue at Strathmoor Lane for analysis purposes.

- The project increases traffic demand at the study intersection by 1 percent of capacity (ICU increase ≥ 0.010) at an intersection operating at an unacceptable LOS. At unsignalized intersections, the project adds 1 percent or more traffic delay (seconds per vehicle) at an intersection operating at an unacceptable LOS.

Traffic Analysis Scenarios

Volume/capacity calculations have been performed for the seven key study intersections and one future Project driveway, under the following scenarios:

1. Existing Traffic Conditions
2. Existing Plus Project Traffic Conditions
3. Scenario (2) with Mitigation, if necessary
4. Year 2025 Cumulative Traffic Conditions
5. Year 2025 Cumulative Plus Project Traffic Conditions
6. Scenario (5) with, Mitigation, if necessary
7. Buildout Traffic Conditions
8. Buildout Plus Project Traffic Conditions

9. Scenario (8) with, Mitigation, if necessary.

Impact Analysis

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities? (Sources: 47, 66, 67)

Construction Traffic

Less Than Significant Impact. Construction traffic is not expected to create any significant impact due to the size of the Project and duration of construction. The construction activities associated with the proposed Project include site preparation; grading; building construction; paving; and architectural coating. Construction related trips associated with trucks and employees traveling to and from the site in the morning and afternoon may result in some minor traffic delays. Potential traffic interference caused by construction vehicles may create a temporary/short-term impact to vehicles using Brookhurst Streets, Atlanta Avenue, and Hamilton Avenue in the morning and afternoon hours.

However, traffic impacts to the adjacent roadway network would be minimal and not long-term. Construction-related trips would be less compared to the operation-related trips. Since the Project is not anticipated to have a significant impact that would need mitigation on any of the seven key study intersections under existing plus Project conditions, no significant impacts from construction traffic would result. Nevertheless, to minimize the potential disruptions on the local circulation system and to facilitate the movement of construction traffic, the City of Huntington Beach routinely requires the implementation of a construction management plan, which is provided as regulatory requirement RR TRAN-1. With compliance with City requirements, the Project would not conflict with applicable plans, ordinance, or policy, and Project's construction impact would be less than significant, and no mitigation is required.

Project Traffic Characteristics

Project Traffic Generation

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation equations and/or rates used in the traffic forecasting procedure are found in the 10th Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE).

Table 8-33 summarizes the trip generation rates used in forecasting the vehicular trips generated by the Brethren Christian School and the Project and also presents the forecast peak hour and daily traffic volumes. The table shows that the former Brethren Christian School has a trip generation potential of 406 daily trips and the proposed Project is forecast to generate 802 daily trips.

Based on the analysis, the Project would generate 396 more daily trips, 41 less AM peak hour trips and 56 more PM peak hour trips compared to the former school. However, since the school is currently vacant and to provide a conservative traffic assessment, the analysis is for the full trip generation potential of the proposed Project.

TABLE 8-33
PROJECT TRAFFIC GENERATION FORECAST

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Trip Generation Rates:							
210: Single-Family Detached Housing (TE/DU)	9.44	25%	75%	0.74	63%	37%	0.99
530: High School (TE/Student)	2.03	67%	33%	0.52	48%	52%	0.14
Existing Generation Forecasts:							
Brethren Christian High School (200 Students)	406	70	34	104	13	15	28
Total Existing Trip Generation	***406***	***70***	***34***	***104***	***13***	***15***	***28***
Proposed Project Generation Forecasts:							
Gisler Residential (85 du)	802	16	47	63	53	31	84
Total Project Trip Generation	***802***	***16***	***47***	***63***	***53***	***31***	***84***
Net Project Trips (Project – Existing)	***396***	***-54***	***13***	***-41***	***40***	***16***	***56***

TE/DU: trip end per dwelling unit; TE: Trip end per student

Source: LLG Engineers 2021 (taken from *Trip Generation*, 10th Edition, ITE 2017)

Project Traffic Distribution and Assignment

Figure 5-1 in the Traffic Analysis Report (Appendix G1 of the IS/MND) presents the traffic distribution pattern for the proposed Project. Project traffic volumes both entering and exiting the Project site have been distributed and assigned to the adjacent street system based on the following considerations:

- The site's proximity to major traffic carriers (i.e. Brookhurst Street, Hamilton Avenue, etc.),
- Expected localized traffic flow patterns based on adjacent street channelization and presence of traffic signals, and
- Ingress/egress availability at the Project site

The AM and PM peak hour project traffic volumes associated with the Project are presented in Figures 5-2 and 5-3 of the Traffic Analysis Report, respectively.

Existing Plus Project Traffic Conditions

The existing plus project traffic conditions have been generated based on existing baseline conditions and the estimated Project traffic. This traffic volume scenario and the related intersection capacity analyses would identify the roadway circulation improvements as a result of the Project.

Figures 5-4 and 5-5 in the Traffic Analysis Report present projected AM and PM peak hour traffic volumes at the seven key study intersections and one future Project driveway with the addition of the trips generated by the Project to existing traffic volumes, respectively.

Future Traffic Conditions

Year 2025 Traffic Conditions

Ambient Traffic Growth

Horizon year, background traffic growth estimates have been calculated using an ambient traffic growth factor. The ambient traffic growth factor is intended to include unknown and future cumulative projects in the study area, as well as account for regular growth in traffic volumes due to the overall development outside the study area. The future growth in traffic volumes has been conservatively calculated at one percent per year. Applied to the Year 2020 existing baseline traffic volumes, this factor results in a five percent growth in existing volumes to the near-term horizon year 2025. It should be noted that due to the overall existing development within the area (i.e. low amount of undeveloped areas for future development not accounted for in the cumulative project list); the actual ambient growth rate would likely be much less than the conservative 1 percent assumption.

Cumulative Projects Traffic Characteristics

In order to make a realistic estimate of future on-street conditions prior to implementation of the proposed Project, the status of other known development projects (cumulative projects) in the area has been researched at the Cities of Huntington Beach, Newport Beach and Costa Mesa. The proposed Project can be evaluated within the context of the cumulative development. Based on our research, there are six cumulative projects located in the City of Huntington Beach and one cumulative project located in the City of Costa Mesa. These seven cumulative projects have been included as part of the cumulative background setting. It should be noted that the ambient growth rate accounts for other cumulative projects within and outside the Project study area that generate nominal amount of traffic within the study area during peak hours. Furthermore, cumulative project construction traffic is typically not included in the analysis because of its temporary nature, nominal traffic generation, and its tendency to occur outside the commuter peak hours.

Table 8-34 provides a brief description for each of the seven cumulative projects. These cumulative projects are expected to generate vehicular traffic, which may affect the operating conditions of the key study intersections. Table 8-35 summarizes the trip generation potential for the cumulative projects on a daily and peak hour basis for a typical weekday. As shown, the cumulative projects are expected to generate 9,346 daily trips, with 702 trips (329 inbound, 373 outbound) anticipated during the AM peak hour and 718 trips (398 inbound, 320 outbound) produced during the PM peak hour.

TABLE 8-34
LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS

No.	Cumulative Project	Location/Address	Description
City of Huntington Beach			
1	Hilton Waterfront Beach Resort Expansion	21100 Pacific Coast Highway	156 DU new guestrooms and related facilities
2	Magnolia Tank Farm	21845 Magnolia Street	215,000 sf lodge, 250 DU, 19,000 sf retail, and 3,000 sf beach park
3	Hilltop Market	815 Indianapolis	1,000 sf retail addition
4	Georgia Townhomes	910 Georgia Street	20 three-story townhomes
5	Pegasus School	19692 Lexington Lane	Demolish 12,100 sf of classrooms and construct 24,500 sf of classrooms and library
6	Raising Cane's	10142 Adams Avenue	3,232 sf fast food restaurant with drive through window
City of Costa Mesa			
7	Lighthouse Project	1620-1644 Whittier Avenue	89 DU townhomes
Source: City of Huntington Beach and City of Costa Mesa Planning Department.			

TABLE 8-35
CUMULATIVE PROJECTS TRAFFIC GENERATION FORECAST

No.	Cumulative Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total
1	Hilton Waterfront Beach Resort Expansion	1,304	43	30	73	48	46	94
2	Magnolia Tank Farm	5,526	192	231	423	271	213	484
3	Hilltop Market	107	2	2	4	5	4	9
4	Georgia Townhomes	146	2	7	9	7	4	11
5	Pegasus School	242	47	39	86	8	9	17
6	Raising Cane's	1,370	34	32	66	27	26	53
7	Lighthouse Project	651	9	32	41	32	18	50
Cumulative Projects Total Trip Generation Potential		**9,346**	**329**	**373**	**702**	**398**	**320**	**718**
Unless otherwise noted, Source: Trip Generation, 10th Edition, Institute of Transportation Engineers (ITE), 2017.								

Year 2025Traffic Volumes

Figures 6-4 and 6-5 of the Traffic Analysis Report present the AM and PM peak hour cumulative traffic volumes (existing traffic + ambient growth + cumulative projects) at the seven key study intersections for the Year 2025, respectively. Figures 6-6 and 6-7 of the Traffic Analysis Report illustrate the Year 2025forecast AM and PM peak hour traffic volumes, with the inclusion of the one future Project driveway and the trips generated by the Project, respectively.

Buildout Traffic Conditions

Long-term (buildout) peak hour traffic volume forecasts for Huntington Beach locations were obtained from the *City of Huntington Beach General Plan Circulation Update,* prepared by Stantec Consulting Services Inc., dated January 13, 2017. Peak hour long-term traffic volumes were available for four of the six Huntington Beach locations. For the intersections of Strathmoor Lane/Atlanta Avenue and Brookhurst Street/Effingham Drive, volumes were tracked from the intersection of Brookhurst Street/Atlanta Avenue along with forecasting of the existing homes. Long-term (buildout) traffic volume forecasts for the one Costa Mesa location was obtained from the *City of Costa Mesa General Plan Update Traffic Analysis*, prepared by Stantec Consulting Services Inc., dated February 12, 2016. Appendix D of the Traffic Analysis Report contains the referenced buildout traffic volumes.

Buildout Traffic Volumes

Figures 6-8 and 6-9 of the Traffic Analysis Report present the AM and PM peak hour buildout traffic volumes at the seven key study intersections, respectively. Figures 6-10 and 6-11 of the Traffic Analysis Report illustrate the forecast buildout AM and PM peak hour traffic volumes, with the inclusion of the one future Project driveway and the trips generated by the proposed Project, respectively.

Peak hour intersection capacity analysis

Existing Plus Project Traffic Conditions

Table 8-36 summarizes the peak hour LOS results at the seven key study intersections for Existing plus Project traffic conditions. The first column (1) of ICU/LOS and HCM/LOS values in Table 8-36 presents a summary of existing AM and PM peak hour traffic conditions. The second column (2) lists existing plus project traffic conditions. The third column (3) shows the increase in ICU value and/or Delay value due to the added peak hour Project trips and indicates whether the traffic associated with the Project would result in LOS deficiencies per the significance criteria and whether feasible roadway improvements would be necessary to improve intersection performance. The fourth column (4) indicates the anticipated operating conditions with implementation of recommended improvements, as needed, achieve an acceptable LOS.

Existing Plus Project Traffic Conditions

Less Than Significant Impact. Review of columns (2) and (3) of Table 8-36 indicates that traffic associated with the proposed Project would result in an impact at one of the seven key study intersections, per the significance criteria. The other six intersections currently operate and are forecast to continue to operate at an acceptable LOS during the AM and PM peak hours with the addition of Project generated traffic to existing traffic.

The Project is forecasted to result in an impact at the intersection of Brookhurst Street/Effingham Drive by exceeding the level of service threshold . It should be noted that it is not uncommon for minor streets at unsignalized intersections to experience longer delay due to the heavy volumes on the major street. Most of the communities located along Brookhurst Street likely experience similar type delays. These residential communities are typically designed in a way to have multiple ingress and egress locations along each of the major arterials. This allows

the residents to adjust their inbound and outbound patterns as such. Having multiple ingress and egress points to the community allows the motorists to decide if waiting for a gap is an acceptable option. A gap analysis has also been conducted and shown under Brookhurst Street Gap Analysis (under threshold d). The existing gaps along Brookhurst Street have been determined to be adequate to accommodate vehicles from Effingham Drive. Additionally, a review of accident report data compiled from January 2016 through January 2021 via the Statewide Integrated Traffic Records System (SWITRS) shows no correctable collisions at this location. Existing sight lines at the intersection are also adequate. Therefore, based on the above, a signal is not recommended at this location.

Appendix E of the Traffic Analysis Report presents the existing plus project ICU/LOS and HCM/LOS calculations for the seven key study intersections for the AM peak hour and PM peak hour.

TABLE 8-36
EXISTING PLUS PROJECT PEAK HOUR INTERSECTION CAPACITY ANALYSIS

	Key Intersections	Minimum Acceptable LOS	Time Period	(1) Existing Traffic Conditions		(2) Existing Plus Project Traffic Conditions		(3) Impact		(4) Existing Plus Project with Improvements	
				ICU/HCM	LOS	ICU/HCM	LOS	ICU/HCM Increase	Yes/No	ICU/HCM	LOS
1	Bushard Street at Atlanta Avenue	C	AM	0.485	A	0.485	A	0.000	No	--	--
			PM	0.410	A	0.412	A	0.002	No	--	--
2	Strathmoor Lane at Atlanta Avenue	C	AM	11.7 s/v	B	12.2 s/v	B	0.5 s/v	No	--	--
			PM	11.0 s/v	B	11.4 s/v	B	0.4 s/v	No	--	--
3	Brookhurst Street at Atlanta Avenue	D	AM	0.403	A	0.403	A	0.000	No	--	--
			PM	0.443	A	0.446	A	0.003	No	--	--
4	Brookhurst Street at Effingham Drive	C	AM	17.4 s/v	C	20.2 s/v	C	2.8 s/v	No	--	--
			PM	20.1 s/v	C	**25.9 s/v**	**D**	5.8 s/v	Yes	--	--
5	Bushard Street at Hamilton Avenue	C	AM	0.491	A	0.491	A	0.000	No	--	--
			PM	0.668	B	0.668	B	0.000	No	--	--
6	Brookhurst Street at Hamilton Avenue	D	AM	0.748	C	0.752	C	0.004	No	--	--
			PM	0.708	C	0.719	C	0.011	No	--	--
7	Placentia Avenue at Victoria Street	D	AM	0.800	C	0.805	D	0.005	No	--	--
			PM	0.829	D	0.835	D	0.006	No	--	--

Bold LOS values indicate adverse service levels based on City LOS standards; s/v: seconds per vehicle (delay); ICU: Intersection Capacity Utilization; HCM: Highway Capacity Manual

Source: LLG 2021.

Year 2025 Cumulative Traffic Conditions

Table 8-37 summarizes the peak hour LOS results at the seven key study intersections for Year 2025 cumulative traffic conditions. The first column (1) of ICU/LOS and HCM/LOS values in Table 8-37 presents a summary of existing AM and PM peak hour traffic conditions. The second column (2) lists projected Year 2025 cumulative traffic conditions, but without any traffic generated from the proposed Project. The third column (3) presents forecast Year 2025 traffic conditions with the addition of Project traffic. The fourth column (4) shows the increase in ICU value and/or Delay value due to the added peak hour project trips and indicates whether the traffic associated with the Project would result in an impact and LOS deficiencies per the LOS significance criteria and whether feasible roadway improvements would be necessary to improve intersection performance to meet LOS standards. The fifth column (5) indicates the anticipated operating conditions with implementation of recommended improvements, where needed, to achieve an acceptable LOS.

Year 2025Cumulative Traffic Conditions

An analysis of future (Year 2025) cumulative traffic conditions indicates that the addition of ambient traffic growth and cumulative projects traffic would not result in impacts to any of the seven key study intersections; all seven intersections are forecast to continue to operate at acceptable levels of service during the AM and PM peak hours with the addition of ambient traffic growth and cumulative projects traffic.

Year 2025 Cumulative Plus Project Traffic Conditions

Less Than Significant Impact. Review of columns (3) and (4) of Table 8-37 indicates that traffic associated with the proposed Project would result in an impact at one of the seven key study intersections and exceed the LOS significance criteria. The remaining six key study intersections are forecast to continue to operate at an acceptable LOS during the AM and PM peak hours with the addition of project generated traffic in the horizon Year 2025. The location projected to operate at an adverse LOS is the intersection of Brookhurst Street at Effingham Street.

Although the intersection of Brookhurst Street/Effingham Drive exceeds the level of service threshold, . It should be noted that it is not uncommon for minor streets at unsignalized intersections to experience longer delay due to the heavy volumes on the major street. Most of the communities located along Brookhurst Street likely experience similar type delays. These residential communities are typically designed in a way to have multiple ingress and egress locations along each of the major arterials. This allows the residents to adjust their inbound and outbound patterns as such. Having multiple ingress and egress points to the community allows the motorist to decide if waiting for a gap is an acceptable option (refer to a discussion of gap analysis as shown under Brookhurst Street Gap Analysis [under threshold d]). The existing gaps along Brookhurst Street have been determined to be adequate to accommodate vehicles from Effingham Drive. Additionally, a review of accident report data compiled from January 2016 through January 2021 via the Statewide Integrated Traffic Records System (SWITRS) shows no correctable collisions at this location. Existing sight lines at the intersection are also adequate. Therefore, based on the above, a signal is not recommended at this location.

Appendix E of the Traffic Analysis Report also presents the Year 2025plus project ICU/LOS and HCM/LOS calculations for the seven intersections for the AM peak hour and PM peak hour.

TABLE 8-37
YEAR 2025 PEAK HOUR INTERSECTION CAPACITY ANALYSIS

	Key Intersections	Minimum Acceptable LOS	Time Period	(1) Existing Traffic Conditions		(2) Year 2025 Cumulative Traffic Conditions		(3) Year 2025 Cumulative Plus Project Traffic Conditions		(4) Impact		(5) Year 2025 Cumulative Plus Project with Improvements	
				ICU/HCM	LOS	ICU/HCM	LOS	ICU/HCM Increase	LOS	ICU/HCM	Yes/No	ICU/HCM	LOS
1	Bushard Street at Atlanta Avenue	C	AM	0.485	A	0.511	A	0.511	A	0.000	No	--	--
			PM	0.410	A	0.434	A	0.435	A	0.001	No	--	--
2	Strathmoor Lane at Atlanta Avenue	C	AM	11.7 s/v	B	12.0 s/v	B	12.5 s/v	B	0.5 s/v	No	--	--
			PM	11.0 s/v	B	11.2 s/v	B	11.7 s/v	B	0.5 s/v	No	--	--
3	Brookhurst Street at Atlanta Avenue	D	AM	0.403	A	0.428	A	0.429	A	0.001	No	--	--
			PM	0.443	CA	0.474	A	0.477	A	0.003	No	--	--
4	Brookhurst Street at Effingham Drive	C	AM	17.4 s/v	C	19.3 s/v	C	23.2 s/v	C	3.9 s/v	No	--	--
			PM	20.1 s/v	C	23.7 s/v	C	**32.7 s/v**	**D**	**9.0 s/v**	**Yes**	--	--
5	Bushard Street at Hamilton Avenue	C	AM	0.491	A	0.541	A	0.542	A	0.001	No	--	--
			PM	0.668	B	0.789	C	0.789	C	0.000	No	--	--
6	Brookhurst Street at Hamilton Avenue	D	AM	0.748	C	0.787	C	0.791	C	0.004	No	--	--
			PM	0.708	C	0.765	C	0.772	C	0.007	No	--	--
7	Placentia Avenue at Victoria Street	D	AM	0.800	C	0.845	D	0.850	D	0.005	No	--	--
			PM	0.829	D	0.876	D	0.882	D	0.006	No	--	--

Bold LOS values indicate adverse service levels based on City LOS standards; s/v: seconds per vehicle (delay); ICU: Intersection Capacity Utilization; HCM: Highway Capacity Manual

Source: LLG 2021.

Buildout Traffic Conditions

Table 8-38 summarizes the peak hour LOS results at the seven intersections for Buildout traffic conditions and is similar in setup in Table 8-37.

Buildout Traffic Conditions

Review of column 2 of Table 8-38 shows that projected buildout without project traffic would result in impacts to three of the seven key study intersections. The remaining four key study intersections are forecast to continue to operate at acceptable levels of service during the AM and PM peak hours under buildout without project traffic conditions. The locations projected to operate at an adverse LOS are Brookhurst Street at Effingham Drive; Brookhurst Street at Hamilton Avenue; and Placentia Avenue at Victoria Street.

Buildout Plus Project Traffic Conditions

Potentially Significant Unless Mitigated. Review of columns (3) and (4) of Table 8-38 indicates that traffic associated with the proposed Project would result in impacts at two of the seven intersections and exceed the LOS significance criteria. Although the intersection of Placentia Avenue at Victoria Street is forecast to operate at unacceptable LOS E during the PM peak hour with the addition of Project traffic, the proposed Project is expected to add less than 0.010 to the ICU value. The remaining four key study intersections are forecast to continue to operate at an acceptable LOS during the AM and PM peak hours with the addition of project generated traffic to buildout traffic conditions. The locations projected to operate at an adverse LOS are Brookhurst Street at Effingham Drive and Brookhurst Street at Hamilton Avenue.

With the Project the intersection of Brookhurst Street/Effingham Drive exceeds the LOS threshold. It should be noted that it is not uncommon for minor streets at unsignalized intersections to experience longer delay due to the heavy volumes on the major street. Most of the communities located along Brookhurst Street likely experience similar type delays. These residential communities are typically designed in a way to have multiple ingress and egress locations along each of the major arterials. This allows the residents to adjust their inbound and outbound patterns as such. Having multiple ingress and egress points to the community allows the motorist to decide if waiting for a gap is an acceptable option (refer to a discussion of gap analysis as shown under Brookhurst Street Gap Analysis [under threshold d]). The existing gaps along Brookhurst Street have been determined to be adequate to accommodate vehicles from Effingham Drive. Additionally, a review of accident report data compiled from January 2016 through January 2021 via the Statewide Integrated Traffic Records System (SWITRS) shows no correctable collisions at this location. Existing sight lines at the intersection are also adequate. Therefore, based on the above, a signal is not recommended at this location.

As shown in column (5), the implementation of recommended improvements at the intersection of Brookhurst Street/Hamilton Avenue completely offsets the resulting project impact, and the intersection is forecast to operate at an acceptable LOS during the AM and PM peak hours. Therefore, the potential impact at this location would be less than significant with implementation of proposed mitigation (MM TRAN-1).

Figure 11-1 in the Traffic Analysis Report graphically illustrates the recommended improvements. This figure also illustrates the Project-specific improvements and planned improvements. Appendix E of the Traffic Analysis Report also presents the buildout plus Project ICU/LOS and HCM/LOS calculations for the seven key study intersections for the AM peak hour and PM peak hour.

TABLE 8-38
BUILDOUT PEAK HOUR INTERSECTION CAPACITY ANALYSIS

Key Intersections		Minimum Acceptable LOS	Time Period	(1) Existing Traffic Conditions		(2) Buildout Traffic Conditions		(3) Buildout Plus Project Traffic Conditions		(4) Impact		(5) Buildout Plus Project with Improvements	
				ICU/HCM	LOS	ICU/HCM	LOS	ICU/HCM Increase	LOS	ICU/HCM	Yes/No	ICU/HCM	LOS
1	Bushard Street at Atlanta Avenue	C	AM	0.485	A	0.571	A	0.571	A	0.000	No	--	--
			PM	0.410	A	0.501	A	0.502	A	0.001	No	--	--
2	Strathmoor Lane at Atlanta Avenue	C	AM	11.7 s/v	B	13.7 s/v	B	14.5 s/v	B	0.8 s/v	No	--	--
			PM	11.0 s/v	B	13.3 s/v	B	14.1 s/v	B	0.8 s/v	No	--	--
3	Brookhurst Street at Atlanta Avenue	D	AM	0.403	A	0.512	A	0.512	A	0.000	No	--	--
			PM	0.443	A	0.648	B	0.651	B	0.003	No	--	--
4	Brookhurst Street at Effingham Drive	C	AM	17.4 s/v	C	21.5 s/v	C	**26.9 s/v**	**D**	**5.4 s/v**	**Yes**	--	--
			PM	20.1 s/v	C	**27.3 s/v**	**D**	**41.1 s/v**	**E**	**13.8 s/v**	**Yes**	--	--
5	Bushard Street at Hamilton Avenue	C	AM	0.491	A	0.541	A	0.542	A	0.001	No	--	--
			PM	0.668	B	0.795	C	0.795	C	0.000	No	--	--
6	Brookhurst Street at Hamilton Avenue	D	AM	0.748	C	0.850	D	0.854	D	0.004	No	--	--
			PM	0.708	C	**0.944**	**E**	**0.960**	**E**	**0.016**	**Yes**	0.813	D
7	Placentia Avenue at Victoria Street	D	AM	0.800	C	**0.862**	**D**	**0.867**	**D**	0.005	No	--	--
			PM	0.829	D	**0.950**	**E**	**0.956**	**E**	0.006	No	--	--

Bold LOS values indicate adverse service levels based on City LOS standards; s/v: seconds per vehicle (delay); ICU: Intersection Capacity Utilization; HCM: Highway Capacity Manual

Source: LLG 2021.

Congestion Management Program Compliance Assessment

This analysis is consistent with the requirements and procedures outlined in the current Orange County Congestion Management Program (CMP). The CMP requires that a traffic impact analysis be conducted for any project generating 2,400 or more daily trips, or 1,600 or more daily trips for projects that directly access the CMP Highway System (HS). The proposed Project has an access driveway to Strathmoor Lane, which is not part of the CMPHS. As discussed, the proposed Project is forecast to generate approximately 802 daily trip-ends; therefore, it does not meet the criteria requiring a CMP analysis.

Circulation System

Pedestrian

Pedestrian circulation would be provided via existing public sidewalks along Strathmoor Lane and Effingham Drive, which would connect to the Project's internal sidewalks/walkways. The Project would protect the existing sidewalk along Project frontage, and repair and reconstruct them, if requested by the City. The existing sidewalk system within the Project vicinity provides direct connectivity to the adjacent existing residential communities and to public transit located along Brookhurst Street and Hamilton Avenue. Thus, the Project would not result in a conflict with nor would it impact the existing public sidewalks or pedestrian travel.

Transit

The Orange County Transportation Authority (OCTA) operates bus lines within the City of Huntington Beach. Public transit bus services are provided in the Project area. One OCTA bus route operates within the vicinity of the Project site on Brookhurst Street.

OCTA Route 35 travels on Brookhurst Street. Nearest to the Project site are bus stops on Brookhurst Street/Effingham Drive. Route 35 operates on approximately 45-minute headways on the weekdays and weekends.

The proposed Project would not result in a conflict with nor would it impact the existing transit circulation in the area.

Bicycle

The City of Huntington Beach promotes bicycling as a means of mobility and a way in which to improve the quality of life within its community. The Bikeway Master Plan recognizes the needs of bicycle users and aims to create a complete and safe bicycle network throughout the City. Currently Class II bike lanes are provided along Atlanta Avenue, Bushard Street, and Hamilton Avenue. A Class I bike lane is also provided along the Santa Ana River. Additionally, a class II bike lane is proposed to be built along Brookhurst Street. Project would not result in a conflict with nor would it impact the existing bike lanes in the area.

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)? (Sources: 46)

Less Than Significant Impact

Senate Bill (SB) 743 Compliance

VMT Screening Assessment

On December 28, 2018, the California Natural Resources Agency adopted revised CEQA Guidelines. Among the changes to the guidelines was the removal of vehicle delay and LOS from consideration for transportation impacts under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on vehicle miles traveled. Lead agencies are allowed to continue using their current impact criteria, or to opt into the revised transportation guidelines. However, the new guidelines were to be used starting July 1, 2020, as required in CEQA section 15064.3.

The City of Huntington Beach has yet to adopt criteria for evaluating VMT impacts under CEQA. However, the City of Huntington Beach may likely utilize similar criteria to what are being considered by the County of Orange. The County of Orange recommended adoption of Guidelines for Evaluating Vehicle Miles Traveled Under CEQA and the 2020 Updated Transportation Implementation Manual. The Board of Supervisors adopted the said documents at their November 17, 2020 meeting. The Final Draft Guidelines for Evaluating Vehicle Miles Traveled Under CEQA for the County of Orange, dated September 17, 2020, prepared by LSA increased the Office of Planning Research (OPR) trip threshold requirement of 110 daily trips to 500 daily trips (small project).

Review of Table 8-33 shows the Project would add 396 new daily trips to the existing street system. Direct comparison of the Project's daily trips to the anticipated County threshold of 500 daily trips shows the proposed Project would fall 104 trips below the threshold. Therefore, based on the aforementioned criteria, this Project can be screened from further VMT analysis and the Project can be presumed to result in a less than significant impact on VMT.

Multimodal Transportation Facilities

The City of Huntington Beach has extensive multimodal transportation facilities that include both pedestrian friendly sidewalks, crosswalks, bike ways and an extensive OCTA bus system. There are currently multiple bus lines that provide service in the vicinity of the Project. The closest bus stop to the site is located along Brookhurst Street at Effingham Drive. Additionally, the Santa Ana River Trail is located less than half a mile from the Project. Below further highlights the Project's proximity to some of these multimodal facilities.

Facility	Proximity to Project
Transit Service	
OCTA Bus Route	~0.25 Miles (Brookhurst/Effingham)
Bikeways	
Atlanta Avenue – Class II	~0.2 Miles
Bushard Street – Class II	~0.25 Miles
Hamilton Avenue – Class II	~0.3 Miles
Santa Ana River – Class I	~0.4 Miles

The Project a residential development within close proximity to several different multimodal transportation facilities, thus providing future residents with several options for utilizing alternative modes of travel and promoting multimodal transportation. Furthermore, to help promote multimodal transportation, the project would be required to pay development impact fees, which may be used to partially fund citywide capital improvement projects that include active transportation projects.

Greenhouse Gas Emissions

In addition to the screening criteria identified above, Greenhouse Gas (GHG) emissions have been quantified and analyzed for this Project based on the application of CalEEMod. The proposed GHG emissions based on the VMT for this Project are approximately 1,341 metric tons of carbon dioxide equivalent ($MTCO_2e$) annually from VMT. The mobile source GHG emission is 55 percent lower than the applicable threshold of significance for GHG, which is 3,000 $MTCO_2e$ per year for non-industrial land use projects. Thus, indicating that the Project's contribution to VMT, which is directly correlated to GHG emissions, would not lead to a significant impact under CEQA. It can be concluded that the proposed Project would not generate GHG emissions that would have a significant impact on the environment. Therefore, based on the GHG emissions analysis, VMT would not contribute to a significant impact to GHG.

Therefore, the proposed Project would not result in a conflict or inconsistency with CEQA Guidelines Section 15064.3, subdivision (b).

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses? (Sources: 47)

Less Than Significant Impact

Site Access Evaluation

As shown in Figure 2-2 of the Traffic Analysis Report, access to the proposed Project would be provided via one full access unsignalized driveway located along Strathmoor Lane. Table 3-39 summarizes the intersection operations at the proposed Project driveway located along Strathmoor Lane for Year 2025 and buildout traffic conditions at completion and full occupancy of the proposed Project. Review of Table 8-39 shows that the proposed Project driveway is forecast to operate at acceptable LOS A during the AM and PM peak hours for future traffic conditions. As such, Project access would be adequate. Motorists entering and exiting the Project site would be able to do so without undue congestion.

Appendix E of the Traffic Analysis Report presents the level of service calculation worksheets for the proposed Project driveway located along Strathmoor Lane.

TABLE 8-39
PROJECT DRIVEWAY PEAK HOUR LEVELS OF SERVICE SUMMARY

Key Intersections		Control Type	Time Period	(1) Year 2025 Cumulative Plus Project Traffic Conditions		(2) Buildout Plus Project Traffic Conditions	
				ICU/HCM	LOS	ICU/HCM	LOS
A	Strathmoor Lane at Project Driveway 1	One-Way Stop	AM	8.6 s/v	A	8.6 s/v	A
			PM	8.8 s/v	A	8.8 s/v	A

s/v: seconds per vehicle (delay)
Source: LLG 2021.

Internal Circulation Evaluation

Site access and internal circulation for the proposed Project is adequate. The Project driveway are forecast to operate at acceptable LOS A during the AM and PM peak hours for Year 2025 and Buildout traffic conditions. The on-site circulation layout of the proposed Project on an overall basis is generally adequate. Curb return radii have been confirmed and are adequate for small service/delivery (FedEx, UPS) trucks and trash trucks, as well as fire trucks. The on-site circulation was evaluated in terms of vehicle-pedestrian conflicts. Based on our review of the preliminary site plan, the overall layout is efficient and does not create any unsafe vehicle-pedestrian.

Sight Distance Evaluation

At intersections a substantially clear line of sight should be maintained between the driver of a vehicle waiting at the crossroad and the driver of an approaching vehicle. Adequate time must be provided for the waiting vehicle to either cross all lanes of through traffic, cross the near lanes and turn left, or turn right, without requiring through traffic to radically alter their speed. The Sight Distance Evaluation prepared for the proposed Project Driveways was based on the criteria and procedures set forth by the California Department of Transportation (Caltrans) in the State's Highway Design Manual (HDM) for "Private Road Intersections".

The Caltrans HDM, identifies that the stopping sight distance is defined as the distance required by the driver of a vehicle, traveling at a given speed, to bring his vehicle to a stop after an object on the road becomes visible. Stopping sight distance is measured from the driver's eyes, which are assumed to be 3.5 feet above the pavement surface, to an object 0.5-foot high on the roadway.

The speed used in determining stopping sight distance is defined as the "critical speed" or 85th percentile speed, which is the speed at which 85 percent of the vehicles are traveling at or less. The critical speed is the single most important factor in determining stopping sight distance. Table 201.1 in the HDM is used in determining stopping sight distance based on the critical speed of vehicles on the affected roadway.

For this analysis, a design speed of 25 miles per hour was utilized. Using Table 201.1, titled Sight Distance Standards, in the Caltrans HDM for stopping, a minimum stopping sight distance of 150 feet applies based on the critical speed of 25 mph.

Figure 9-1 of the Traffic Analysis Report presents the results of the sight distance evaluation for the Project driveway based on the application of the stopping sight distance criteria. The figure illustrates the limited use areas. As shown, the sight lines at the proposed Project driveway is expected to be adequate as long as obstructions within the sight triangles are minimized.

Therefore, based on the above analyses, the proposed Project would not substantially increase hazards due to a geometric design feature such as sharp curves or dangerous intersections. Impacts would be less than significant, and no mitigation is required.

d) Result in inadequate emergency access? (Sources: 47)

Less Than Significant Impact. The proposed development would be accessed from Strathmoor Lane. The Project also proposes a 24-foot wide emergency access from Bluefield Drive to the north of the site.

The layout of the proposed internal streets is similar to the adjacent single-family residential units and the streets meet City Standard, with widths of 40 ft curb to curb, for a total 52 ft wide public right-of-way. The private streets within the development would include sidewalks. As shown on Exhibit 3-1, in Section 3.0, Project Description, two of the proposed streets, Street "C" and Street "D", would be oriented north-south and connect to three streets, Street "A", Street "B", and Street "E", which would be oriented east-west providing access to the lots within the middle portion of the Project site.

During demolition and construction, construction equipment would be staged on the Project site and would not block the roadways surrounding the Project site. Construction on and obstruction of public rights-of-way associated with utility connections to existing utility infrastructure would be made in accordance with applicable City regulations. During the grading and construction, fire/emergency access to the site would be maintained in compliance with California Fire Code Chapter 33, Fire Safety during Construction and Demolition, as well as Huntington Beach Fire Code Section 17.56.480.

Additionally, no full road closures would occur during the construction phase of the Project. Accordingly, temporary construction activities would not impede the use of surrounding roadways for emergency evacuation or access for emergency response vehicles. Adjacent streets would also be returned to their original conditions after construction activities. Impacts would be temporary and less than significant, and no mitigation is required.

Traffic Signal Warrant Analysis

The level of service analyses at the key unsignalized study intersections that exceed the level of service thresholds are supplemented with an assessment of the need for signalization of the intersections. This assessment is made on the basis of signal warrant criteria adopted by Caltrans. For this analysis, the need for signalization is assessed on the basis of the peak-hour traffic signal warrant. Warrant #3 described in the California Manual on Uniform Traffic Control Devices (MUTCD). Warrant #3 has two parts: (1) Part A evaluates peak hour vehicle delay for

traffic on the minor street approach with the highest delay and (2) Part B evaluates peak-hour traffic volumes on the major and minor streets. This method provides an indication of whether peak-hour traffic conditions or peak-hour traffic volume levels are, or would be, sufficient to consider installation of a traffic signal. Typically, the peak hour warrant only applies to unusual conditions such as office complexes and manufacturing/industrial plants that attract or discharge large numbers of vehicles within a short period of time, and it does not apply to a residential project. However, due to the inability to obtain accurate traffic data in light of the pandemic, the peak hour warrant was presented to provide a conservative analysis. Other traffic signal warrants are available; however, they cannot be checked under future conditions because they rely on data for which current and forecast data are not available.

The decision to install a traffic signal should not be based purely on the warrants alone. Instead, the installation of a signal should be considered and further analysis performed when one or more of the warrants are satisfied. Additionally, engineering judgment is exercised on a case-by-case basis to evaluate the effect a traffic signal would have on certain types of accidents and traffic conditions at the subject intersection as well as at adjacent intersections.

Existing Plus Project Traffic Conditions

The results of the peak-hour traffic signal warrant analysis for the Existing Plus Project traffic conditions are summarized in column (1) of Table 8-40. Considering that a traffic signal would have minimal benefits to the right-turn movements as there are adequate gaps along Brookhurst Street to accommodate the right-turn movement without the presence of a signal as shown in the Brookhurst Street Gap Analysis below, the volume for the right-turning vehicles has been omitted for the signal warrant analysis Therefore, the signal warrant takes into consideration eastbound left-turning vehicles from Effingham Drive to identify if a signal is warranted.

The results indicate that the intersection of Brookhurst Street at Effingham Drive does not have existing traffic conditions that would exceed the volume thresholds of Warrant #3, Part A or B for the AM or PM peak hour. Based on the above, the installation of a traffic signal is not recommended.

The Existing Plus Project Traffic Conditions Traffic Signal Warrant Analysis worksheets are contained in Appendix F of the Traffic Analysis Report.

Year 2025 Plus Project Traffic Conditions

The results of the peak-hour traffic signal warrant analysis for the Year 2025Plus Project traffic conditions are summarized in column (2) of Table 8-40. Considering that a traffic signal would have minimal benefits to the right-turn movements as there are adequate gaps along Brookhurst Street to accommodate the right-turn movement without the presence of a signal, as shown under the Brookhurst Street Gap Analysis below, the volume for the right-turning vehicles has been omitted for the signal warrant analysis. Therefore, the signal warrant takes into consideration eastbound left-turning vehicles from Effingham Drive to identify if a signal is warranted.

The results indicate that the intersection of Brookhurst Street at Effingham Drive does not experience existing traffic conditions that would exceed the volume thresholds of Warrant #3,

Parts A or B for the AM or PM peak hour. Based on the above, the installation of a traffic signal is not recommended.

The Year 2025 Plus Project Traffic Conditions Traffic Signal Warrant Analysis worksheets are contained in Appendix F of the Traffic Analysis Report.

Buildout Plus Project Traffic Conditions

The results of the peak-hour traffic signal warrant analysis for the Buildout Plus Project traffic conditions are summarized in column (3) of Table 8-40. Considering that a traffic signal would have minimal benefits to the right-turn movements as there are adequate gaps along Brookhurst Street to accommodate the right-turn movement without the presence of a signal, as shown in the Gap Analysis below, the volume for the right-turning vehicles has been omitted for the signal warrant analysis. Therefore, the signal warrant takes into consideration eastbound left-turning vehicles from Effingham Drive to identify if a signal is warranted.

The results indicate that the intersection of Brookhurst Street at Effingham Drive does not have existing traffic conditions that would exceed the volume thresholds of Warrant #3, Parts A or B for the AM and PM peak hour. Based on the above, the installation of a traffic signal is not recommended.

The Buildout Plus Project Traffic Conditions Traffic Signal Warrant Analysis worksheets are contained in Appendix F of the Traffic Analysis Report.

TABLE 8-40
INTERSECTION TRAFFIC SIGNAL WARRANT ANALYSIS SUMMARY

Key Intersection		Time Period	(1) Existing Plus Project Traffic Conditions		(2) Year 2025 Plus Project Traffic Conditions		(3) Buildout Plus Project Traffic Condition	
			Part A of Warrant 3 Satisfied?	Part B of Warrant 3 Satisfied?	Part A of Warrant 3 Satisfied?	Part B of Warrant 3 Satisfied?	Part A of Warrant 3 Satisfied?	Part B of Warrant 3 Satisfied?
4	Brookhurst Street at Effingham Drive	AM	No	No	No	No	No	No
		PM	No	No	No	No	No	No
Signal Warrant checks based on Warrant 3, Part A – Peak-Hour Delay Warrant and Part B – Peak-Hour Volume Warrant contained in the California MUTCD. Appendix F of the Traffic Analysis Report (Appendix XX of the IS/MND) contains the Traffic Signal Warrant Analysis worksheets for the key unsignalized study intersections that exceed the LOS thresholds.								

Brookhurst Street Gap Analysis

A gap analysis has been conducted at the intersection of Brookhurst Street at Effingham Drive to verify the need for a traffic signal. The gap analysis was done for the morning and evening peak periods along Brookhurst Street at Effingham Drive to determine the existing gaps along the roadway.

Eastbound Left-Turn Gap Analysis

Table 8-41 presents a summary of the field observations for the eastbound left-turn from Effingham Drive onto Brookhurst Street. Based on the Existing Plus Project traffic volumes, a total of 29 vehicles and 19 vehicles are forecast to make the eastbound left-turn movement during the AM and PM peak hours, respectively. Table 8-41 shows that a total of 120 vehicles during the AM peak hour and 86 vehicles during the PM peak hour may be accommodated within the existing gaps on Brookhurst Street. Therefore, the existing gaps along Brookhurst Street are considered adequate to accommodate the forecasted Existing Plus Project traffic volumes for the eastbound left-turn movement from Effingham Drive.

TABLE 8-41
EFFINGHAM DRIVE VEHICLE EASTBOUND LEFT-TURN GAP ANALYSIS

Gap[1] (seconds)	AM Peak Hour			PM Peak Hour		
	Vehicles Served by Gap[2]	Gaps Occurring During Peak Hour[3]	Total Vehicles Served[4]	Vehicles Services by Gap[2]	Gaps Occurring During Peak Hour[3]	Total Vehicles Served[4]
7 – 13	1	53	53	1	55	55
14 – 20	2	12	24	2	12	24
21 – 27	3	5	15	3	1	3
> 28	4	7	28	4	1	4
	Total Accommodated Vehicles		**120**	**Total Accommodated Vehicles**		**86**

1 A gap is defined as the time interval between cards crossing the Project driveway.
2 For purposes of this analysis, it is assumed that the minimum time for one vehicle to safely complete a turning movement into or out of the Project driveway is 7 seconds. For each vehicle subsequently following the first, the time to complete a turn is 7 seconds.
3 Values are based on video data collected on Wednesday, April 14, 2021.
4 Total Vehicles Served = (Number of Vehicles Served) x (Number of Gaps During Peak Hour)

Eastbound Right-Turn Gap Analysis

Table 8-42 presents a summary of the field observations for the eastbound right-turn from Effingham Drive onto Brookhurst Street. Based on the Existing Plus Project traffic volumes, a total of 83 vehicles and 56 vehicles are forecast to make the eastbound right-turn movement during the AM and PM peak hours, respectively. Table 8-42 shows that a total of 242 vehicles during the AM peak hour and 286 vehicles during the PM peak hour may be accommodated within the existing gaps on Brookhurst Street. Therefore, the existing gaps on along Brookhurst Street are considered adequate to accommodate the forecasted Existing Plus Project traffic volumes for the eastbound right-turn movement from Effingham Drive.

TABLE 8-42
EFFINGHAM DRIVE VEHICLE EASTBOUND RIGHT-TURN GAP ANALYSIS

Gap[1] (seconds)	AM Peak Hour			PM Peak Hour		
	Vehicles Served by Gap[2]	Gaps Occurring During Peak Hour[3]	Total Vehicles Served[4]	Vehicles Services by Gap[2]	Gaps Occurring During Peak Hour[3]	Total Vehicles Served[4]
7 – 13	1	34	34	1	66	66
14 – 20	2	11	22	2	22	44
21 – 27	3	14	42	3	12	36
> 28	4	36	144	4	35	140
	Total Accommodated Vehicles		**242**	**Total Accommodated Vehicles**		**286**

1 A gap is defined as the time interval between cards crossing the Project driveway.
2 For purposes of this analysis, it is assumed that the minimum time for one vehicle to safely complete a turning movement into or out of the Project driveway is 7 seconds. For each vehicle subsequently following the first, the time to complete a turn is 7 seconds.
3 Values are based on video data collected on Wednesday, April 14, 2021.
4 Total Vehicles Served = (Number of Vehicles Served) x (Number of Gaps During Peak Hour)

Recommended Improvements

For those intersections where projected Project traffic volumes are expected to result in unacceptable operating conditions, the analysis identifies improvement measures that change the intersection geometry to increase capacity. These capacity improvements may involve roadway widening and/or re-striping to reconfigure (add lanes) to specific approaches of a key intersection. The identified improvements are expected to:

- mitigate the LOS deficiencies that would result from added Project traffic and future non-project (ambient traffic growth and cumulative project) traffic in combination with existing traffic and/or
- Improve Levels of Service to an acceptable range and/or to pre-Project conditions.

Existing Plus Project Traffic Conditions – The results of the "Existing Plus Project" intersection capacity analysis indicates that the proposed Project would result in an impact at one of the seven key study intersections. However, although the intersection of Brookhurst Street/Effingham Drive exceeds the level of service threshold, is considered adversely impacted, and also satisfies the criteria for the peak hour traffic signal warrant during the AM and PM peak hours, based on detailed analysis above under Traffic Signal Warrant Analysis and Gap Analysis, physical improvements at this location are not recommended.

Year 2025 Cumulative Plus Project Traffic Conditions – The results of the "Year 2025Cumulative Plus Project" intersection capacity analysis indicates that the proposed Project would result in an impact at one of the seven key study intersections. However, although the intersection of Brookhurst Street/Effingham Drive exceeds the level of service threshold, is considered adversely impacted, and also satisfies the criteria for the peak hour traffic signal warrant during the AM and PM peak hours, based on detailed analysis above under Traffic Signal

Warrant Analysis and Gap Analysis, physical improvements at this location are not recommended.

Buildout Plus Project Traffic Conditions – The results of the "Buildout Plus Project" intersection capacity analysis indicates that the proposed Project would result in impacts at two of the seven key study intersections. However, although the intersection of Brookhurst Street/Effingham Drive exceeds the level of service threshold, is considered adversely impacted, and also satisfies the criteria for the peak hour traffic signal warrant during the AM and PM peak hours, physical improvements at this location are not recommended. However, mitigation is recommended for the impact at Brookhurst Street at Hamilton Avenue (see MM TRAN-1, below).

Project Fair Share Analysis

The improvements associated with the development of the proposed Project were determined based on the Buildout analysis. As summarized in Table 8-38, the development of the proposed Project would result in an impact at one key study intersection in the Buildout condition, which would require improvements. As such, the proposed Project can be expected to pay a proportional "fair-share" of the improvement costs to address the Project's potential impacts.

Buildout Plus Project Fair Share Percentage Contribution

Table 8-43 presents the Project's fair-share contribution to construct the recommended improvements. As presented in this table, the first column (1) presents a total of all movements for existing conditions. The second column (2) presents future Buildout traffic conditions. The third column (3) presents Buildout traffic conditions plus Project traffic. The fourth column (4) represents what percentage of total intersection traffic is project-related traffic.

Review of Table 8-43 shows that the Project's traffic percentage at the one impacted key study intersection under Buildout traffic conditions totals 5.34 percent.

TABLE 8-43
BUILDOUT PROJECT FAIR SHARE PERCENTAGE CONTRIBUTION

Key Intersections		Impacted Time Period	(1) Existing Traffic	(2) Buildout Traffic	(3) Buildout Plus Project Traffic	(4) Project Percentage Share
6	Brookhurst Street at Hamilton Avenue	AM	--	--	--	--
		PM	4,377	5,299	5,351	5.34%
Project Percentage Share (4) = [Column (3) – Column (2)]/[Column (3) – Column (1)]						

Regulatory Requirements

RR TRAN-1 To ensure impacts to the surrounding street system are kept at a minimum, a Construction Management Plan shall be developed in coordination with the City of Huntington Beach, prior to commencement of construction. The Construction Management Plan shall meet standards established in the current California

Manual on Uniform Traffic Control Device (MUTCD) as well as City of Huntington Beach requirements.

The Plan shall:

- Address traffic control for any street closure, detour, or other disruption to traffic circulation.
- Identify the routes that construction vehicles would utilize for the delivery of construction materials (i.e. lumber, tiles, piping, windows, etc.), to access the Project site, traffic controls and detours, and construction phasing plan for the proposed Project.
- Specify the hours during which transport activities can occur and methods to mitigate construction-related impacts to adjacent streets.
- Keep all haul routes clean and free of debris including but not limited to gravel and dirt as a result of its operations. The Applicant shall clean adjacent streets, as directed by the City Engineer (or representative of the City Engineer), of any material, which may have been spilled, tracked, or blown onto adjacent streets or areas.
- All hauling or transport of oversize loads between the hours of 7:00 AM and 5:00 PM only, Monday through Friday, unless approved otherwise by the City Engineer. No hauling or transport shall be allowed during nighttime hours, weekends or Federal holidays.
- Require that haul trucks entering or exiting public streets shall at all times yield to public traffic.
- Include that if hauling operations cause any damage to existing pavement, street, curb, and/or gutter along the haul route, the Applicant shall be fully responsible for repairs. The repairs shall be completed to the satisfaction of the City Engineer.
- Require that all construction-related parking and staging of vehicles will be kept out of the adjacent public roadways and will occur on-site.

Mitigation Measures

MM TRAN-1 **Intersection No. 6 – Brookhurst Street at Hamilton Avenue.** Prior to issuance of building permits, the Project Applicant shall provide a fair share contribution toward the modification of the existing traffic signal to provide a westbound right-turn overlap phase during the PM peak period (i.e., 4:00 PM – 6:00 PM).

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
8.18 TRIBAL CULTURAL RESOURCES				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				X
ii) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.?		X		

Introduction

This section evaluates the Project's potential to have adverse effects on Tribal Cultural Resources. The analysis in this section is based on the results of the archaeological record searches conducted by the South Central Coastal Information Center (SCCIC) and requests for consultation with California Native American Tribes, conducted by the City of Huntington Beach for the Project, as required by CEQA per Assembly Bill 52 (AB 52) and Senate Bill 18 (AB 18).

Additionally, an inquiry was made to the Native American Heritage Commission (NAHC) by Psomas to request a review of the Sacred Lands File (SLF) database regarding the possibility of Native American cultural resources and/or sacred places in the Project vicinity that are not documented on other databases. The NAHC completed its SLF search on March 30, 2021. The results of the SLF check conducted through the NAHC was positive for Native American cultural resources and/or sacred places in the Project vicinity.

The City of Huntington Beach initiated consultation on March 29, 2021 by notifying the City's consultation list of the Gisler Residential Project, located at 21141 Strathmoor Lane, as required by AB 52 and SB 18. Since initiating the consultation, the City did not receive responses from the tribes in response to AB 52 and SB 18 consultation letters. AB 52 allows 30 days and SB 18 allows

90 days to request consultation. As of June 29, 2021, no tribes have requested consultation for either AB 52 or SB 18. Therefore, after a good faith effort on the part of the City, consultation between California Native American tribes and the City has concluded for the Project

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

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

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. (Sources: 69)

Potentially Significant Unless Mitigated. As discussed in Section 5.5, Cultural Resources, the SCCIC record search identified 10 prior cultural resources studies within the ½-mile search, 3 of which were identified within the Project site. Additionally, the SCCIC identified one previously recorded cultural resource within the ½ -mile search radius of the Project site. The recorded resource, P-30-001531, was identified as prehistoric habitation site. Furthermore, the results of the SLF check conducted through the NAHC was positive for sacred sites important to Native Americans.

However, as noted above, the Project site does not contain any known resources determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. Nevertheless, due to known prehistoric archaeological resources within the vicinity of the Project site, the City's assessment recognizes the potential for intact tribal cultural resources below the surface.

According to the Geotechnical Evaluation, onsite soils primarily consist of layers of fine-grained clay, sandy clay and sandy silt, with varying amounts of silty sand to approximately 15 feet bgs and transitioning to primarily silty sand to sand with varying amount of sandy silty and silty clay to the maximum explored depth of approximately 50 feet bgs (LGC 2020). Although the native sediment has been disturbed, the Project may encounter cultural or tribal cultural resources during earth moving activities. To mitigate this potential effect, the Project would implement MM TCR-1 during construction grading and earthwork activities. Thus, impacts to tribal cultural resources that may be eligible for listing in the California Register of Historical Resources, or in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k), are considered less than significant with mitigation.

The implementation of RR TCR-1 and MM TCR-1 would ensure the Project would not have a substantial adverse change in the significance of a tribal cultural resource determined by the lead agency or a California Native American tribe, in its discretion and supported by substantial

evidence, as defined in Public Resources Code Section 21074 and 5024.1. Thus, impacts are considered less than significant with mitigation.

Regulatory Requirements

RR TCR-1 If human remains are encountered during any Project-related ground-disturbing activities, Section 7050.5 of the *California Health and Safety Code* states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition of the materials pursuant to Section 5097.98 of the *California Public Resources Code.* The provisions of Section 15064.5 of the California Environmental Quality Act Guidelines shall also be followed. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner shall notify the Native American Heritage Commission (NAHC). The NAHC will determine and notify a Most Likely Descendent (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The descendent must complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. These requirements shall be included as notes on the contractor specification and verified by the Community Development Department, prior to issuance of grading permits. This measure shall be implemented to the satisfaction of the City in consultation with the County Coroner.

Mitigation Measures

MM TCR-1 In the event that tribal cultural resources are discovered at the Project site, the handling of the discovered resources shall occur, as described below. However, it is understood that all artifacts, with the exception of human remains and related grave goods or sacred/ceremonial objects, belong to the property owner. All resources discovered shall be inventoried and analyzed by the professional Archaeologist retained for the Project. If any resources of Native American origin are discovered, all activities in the immediate vicinity of the find (within a 50-foot radius) shall stop, and the Project Archaeologist shall notify the property owner and tribes identified by the NAHC as being affiliated with the area. A designated Native American observer from one of the tribes identified by the NAHC as being affiliated with the area shall be retained to help analyze the Native American resources for identification as everyday life and/or religious or sacred items, cultural affiliation, temporal placement, and function, as deemed possible. The significance of Native American resources shall be evaluated in accordance with the provisions of the California Environmental Quality Act (CEQA) and shall consider the religious beliefs, customs, and practices of the affiliated tribes. All items found in association with Native American human remains shall be considered grave goods or sacred in origin and subject to special handling.

Native American resources that are relocated/reburied at the Project site would be subject to a fully executed relocation/reburial agreement with the assisting Native American tribes or bands. This shall include measures and provisions to

protect the reburial area from any future impacts. Relocation/reburial shall not occur until all cataloging and basic recordation have been completed. Native American resources that cannot be avoided or relocated at the Project site shall be prepared in a manner for curation at an accredited curation facility in Orange County that meets federal standards per 36 CFR Part 79 and makes the resources available to other archaeologists/researchers/tribes for further study. The Archaeologist shall deliver the Native American resources, including title, to the accredited curation facility within a reasonable amount of time, along with the fees necessary for permanent curation.

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

Impact Analysis

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction of which could cause significant environmental effects? (Sources: 19, 24, 25, 36, 51, 64)

Water

Less Than Significant Impact. The City of Huntington Beach provides water service to the City, including the Project site. The City relies on a combination of imported water and local groundwater to meet its water needs. The City works together with three primary agencies, Metropolitan Water District (MWD), Municipal Water District of Orange County (MWDOC), and Orange County Water District (OCWD) to ensure safe and reliable water supply for the City. The City has an extensive water system that includes system pipelines, wells, pumps, reservoirs, and pump stations. The City's water distribution system is connected to three MWD transmission main connections located respectively in the northeast, northwest, and southeast sections of the City. Groundwater is currently pumped from eight active wells located throughout the City. The

City operates four storage and distribution water reservoirs with a combined capacity of 55 million gallons. The water storage system is supported with four booster stations located at each reservoir.

The proposed Project's on-site water system would be public and include a looped system that would connect to the City's water system at two locations, one connection would be in Bluefield Drive at the emergency access gate and the other connection would be in Strathmoor Lane at the intersection with "A" Street. The City's Water Department has confirmed that the existing water mains in both Bluefield Drive and Strathmoor Lane would provide service to the Project. Exhibit 8-3, Conceptual Utility Plan, shows the layout of the proposed water improvements.

The proposed development is estimated to create a water demand of approximately 31,623 gallons per day (gpd)[2] or 35.4 acre-feet per year (afy)[3]. With the elimination of water demand from the existing school use, the net water demand is not anticipated to be significantly different, and upgrades to existing supply facilities would not be anticipated. Water service to the Project would also be provided in compliance with the latest City Water Division Standards and Title 14, Water and Sewers, of the Huntington Beach Municipal Code, which sets regulations for service connections, water rates, and other water system provisions (see RR UTL-1).

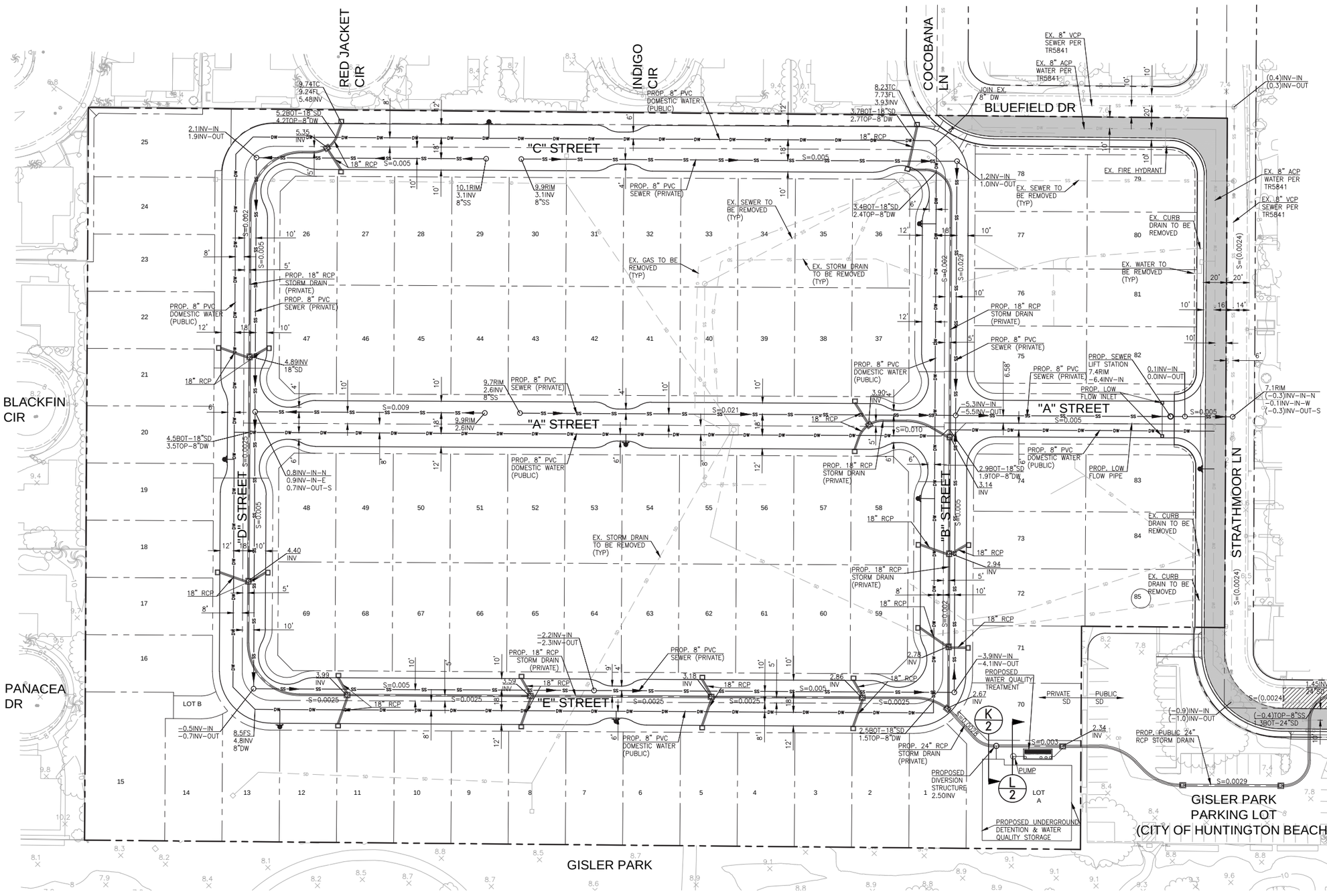
Prior to the issuance of the Public Works Encroachment permit, the Applicant would be required to verify that the City's water system can accommodate the proposed Project's fire flows and potable water demand by preparing a hydraulic water analysis for City approval. The estimated ultimate water demand of the Project is not expected to exceed available supplies or the available capacity within the distribution infrastructure that would serve the Project site. Per the outcome of the hydraulic water analysis, water pipelines in the existing City's water system may need to be upsized to comply with current Water Division Standards design requirements. Based on the analysis above, the Project would not require or result in the relocation or construction of new or expanded water supply and treatment facilities, which would cause significant environmental effects. The Project would comply with RR UTL-1. Impacts would be less than significant, and no mitigation is required.

Wastewater Treatment/Storm Drainage

Less Than Significant Impact. The City of Huntington Beach has 360 miles of wastewater piping sized from 6- to 30-inches in diameter. The City's wastewater system ultimately connects into Orange County Sanitation District (OCSD) sewer system. OCSD is a public agency that provides wastewater collection, treatment, and disposal services for approximately 2.6 million people in central and northwest Orange County. OCSD has two operating facilities that treat wastewater from residential, commercial and industrial sources. According to OCSD, the 2018/2019 estimated average daily flow of wastewater received from Wastewater Treatment Plant No. 1 (WWTP1) located in Fountain Valley was 120 million gallons per day (mgd) and 65 mgd from Wastewater Treatment Plant 2 (WWTP2) located in Huntington Beach, for a total of 185 mgd.

The proposed Project's on-site sewer system would be private and include a subterranean lift station in "A" Street prior to connecting to the City sewer in Strathmoor Lane at the entry street intersection, as shown in Exhibit 8-3. As stated above, WWRP1 has a maximum permitted

[2] 85 du x 142 gpd/capita x 2.62 persons per DU assumption = 31,623 gpd
[3] 31,623 gpd = 35.4 afy



LEGEND

- PROPERTY LINE
- RIGHT−OF−WAY
- LOT LINE
- PROPOSED CENTERLINE
- PROPOSED CURB
- EXISTING DOMESTIC WATER
- EXISTING SEWER MAIN
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN CATCH BASIN
- PROPOSED DOMESTIC WATER
- PROPOSED FIRE HYDRANT
- PROPOSED SEWER MAIN
- SEWER FLOW DIRECTION
- PROPOSED SEWER MANHOLE
- GRIND & OVERLAY
- REMOVE & REPLACE EX. PAVEMENT

NOTES

Fire hydrant locations will be determined during review of water improvement plans. All fire hydrant spacing will comply with the requirements stated in the California Fire Code and City Specification #407.

The locations of the proposed fire hydrants shown on this exhibit are examples and not the actual locations of fire hydrants for the Project area.

Source: Fuscoe Engineering 2021

Conceptual Utility Plan

Gisler Residential Area

Exhibit 8−3

PSOMAS

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capacity of 130 mgd and treats an average flow of 120 mgd. The remaining available capacity is 10 mgd. WWTP 2 has a capacity of 168 mgd and treats an average flow of 65 mgd, which leaves an available capacity of 103 mgd. The proposed Project would result in a wastewater generation of approximately 43,648 gpd[4]. Given the existing capacities at WWTP 1 and WWTP 2, both facilities would be able to serve the Project. Additionally, with the elimination of wastewater generation from the existing school use, the net wastewater generation is not anticipated to be significantly different, and upgrades to existing wastewater system are not anticipated. However, in compliance with the Public Works' requirements (Huntington Beach Zoning and Subdivision Ordinance 230.84 and Municipal Code 14.36.010), a sewer study will be prepared by the Applicant during the final design/plan check. The requirements of the said code are presented as RR UTL-2. The Project Applicant would be required to pay the applicable Connection Fee Program capital facilities fees to OCSD, as authorized by the California Health and Safety Code Sections 5400 to 5474 (see RR UTL-3).

Under existing conditions, the drainage pattern runs easterly, and drains to Strathmoor Lane at the easterly boundary of the Project site. There is not an existing storm drain within the adjacent roadway, and the drainage continues southerly and then easterly in Effingham Drive. The existing site has an imperviousness of approximately 40 percent, and it is estimated that the proposed development would increase the imperviousness of the approximately 13.64-acre site to 50 percent.

The proposed Project's on-site storm drain system would be private and include an underground detention vault and pump station to ensure that the storm runoffs in excess of the existing 25-year condition are mitigated on-site; thus, no impacts to the downstream capacity are anticipated. The closest existing storm drain is located approximately 1,000 feet east of the Project site on Effingham Drive. The Project would extend this existing public storm drain system westerly along Effingham Drive and through the Gisler Park parking lot and connect to the proposed on-site private system. Storm drain extension would help reduce the amount of street run-off in Effingham Drive that the existing site currently contributes to via curb drains. Exhibit 8-3, Conceptual Utility Plan, shows the layout of the proposed storm drain improvements.

The storm water runoff from the Project site would not exceed the capacity of the existing storm drain system, and no infrastructure improvements would be required beyond the installation of on-site storm drain facilities. The construction of the on-site water quality BMPs and storm drain lines within the Project site has the potential for temporary construction-related impacts. Since utility installations are within the construction impact limits identified for the proposed Project, the potential impacts associated with the construction of storm drain lines have been addressed in the respective sections of this IS/MND. No impacts would occur, and no mitigation is required.

Electricity

Less Than Significant Impact. Southern California Edison (SCE) currently provides electricity to the City of Huntington Beach, including the Project Site. The Project's projected electricity usage is shown in Table 8-13, Energy Use During Operations, in Section 8.6, Energy of this IS/MND. Electrical service to the Project site would be provided in accordance with SCE's policies and extension rules on file with the California Public Utilities Commission (CPUC). Therefore, a significant impact related to the need for new systems or supplies or substantial alterations

[4] 13.64 acres x 3,200 gpd/acre = 43,648 gpd

related to electricity would not occur. Additionally, the Project Applicant will coordinate with SCE to ensure avoidance of any notable service disruptions during the extension of, relocation of, upgrade of, or connection to services. Impacts are considered less than significant, and no mitigation is required.

Natural Gas

Less Than Significant Impact. The Southern California Gas Company (SCGC) currently provides natural gas service to the City of Huntington Beach, including the Project site. The Project's projected natural gas usage is shown in Table 8-13, Energy Use During Operations, in Section 8.6, Energy of this IS/MND. The service would be provided in accordance with SCGC's policies and extension rules on file with the CPUC. Therefore, a significant impact related to the need for new systems or supplies or substantial alterations related to natural gas would not occur. Additionally, the Project Applicant would coordinate with SCGC to ensure avoidance of any notable service disruptions during the extension of, relocation of, upgrade of, or connection to services. Impacts are considered less than significant, and no mitigation is required.

Telecommunications

Less Than Significant Impact. Spectrum and Frontier Communications provide telecommunications service to the area, including the Project site. The service would be provided in accordance with the provider's policies and extension rules on file with the CPUC. Therefore, a significant impact related to the need for new systems or supplies or substantial alterations related to telecommunications would not occur. Additionally, the Project Applicant would coordinate with the provider to ensure avoidance of any notable service disruptions during the extension of, relocation of, upgrade of, or connection to services. Impacts are considered less than significant, and mitigation is not required.

The Project would not require the construction or expansion of water or wastewater infrastructure and treatment facilities, storm water drainage, electric power, natural gas, or telecommunications facilities. Impacts would be less than significant, and no mitigation is required.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? (Sources: 35, 38)

Less Than Significant Impact. As previously stated, the City of Huntington Beach provides water service to the Project site. As indicated under Threshold 5.19a above, the proposed Project would result in an estimated net water demand of approximately 31,623 gpd, which could be accommodated with the existing off-site City of Huntington Beach infrastructure, and the City has sufficient capacity to meet the water demand of the proposed Project. The Project Applicant will be responsible for fire flow testing based on the final site plan and any additional testing and modeling required by the City before final approval of the Project.

With the elimination of water demand from the existing school use, the net water demand is not anticipated to be significantly different, and upgrades to existing water lines would not be anticipated. Water service to the Project would also be provided in compliance with Title 14, Water and Sewers, of the Huntington Beach Municipal Code, which sets regulations for service connections, water rates, and other water system provisions (see RR UTL-1).

The Huntington Beach 2015 Urban Water Management Plan (UWMP), adopted on June 20, 2016, and amendments to the 2015 UWMP adopted on February 5, 2018, serve as a long-range planning document for water supply and demand within the City's service area. The UWMP also identifies the water supplies that would meet future demand and current and planned conservation measures. As stated in the UWMP, the City's water demands are anticipated to increase from approximately 28,000 afy (25 mgd) in 2020 to approximately 31,000 afy (27 mgd) in 2040. The proposed Project would result in an increase in water demand of approximately 35.4 afy (0.031 mgd), which represents less than 0.01 percent contribution of the estimated increase. The adopted UWMP indicates that the City would have adequate water supplies to meet demands during normal, single-dry, and multiple-dry years to 2040.

The proposed Project would comply with Sections 4.303 and 4.304 of the CALGreen Code, which require indoor and outdoor water conservation measures such as low flush toilets, aerators on sinks and showerheads, other water-efficient appliances, and water-efficient automatic irrigation system controllers. Compliance with these regulations and programs is provided as RR UTL-4.

The increase in water demand generated by the proposed Project would be minimal; would be served by the City with minor impacts on current water supplies; and is within the projected growth and increased water demand within City's service area. With compliance with the City's water conservation measures, the proposed Project would not significantly impact the City's domestic water supply. Impacts would be less than significant, and no mitigation is required.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? (Sources: 51)

Less Than Significant Impact. As discussed above in Threshold 5-19a, wastewater flows from the Project site would go to OCSD's Wastewater Treatment Plant 2 (WWTP2) located in Huntington Beach, which has a capacity of 168 mgd, and in 2018/2019 received estimated flows of 65 mgd. OCSD provided a Sewer Capacity Verification memorandum, dated September 21, 2020, which calculated an existing peak discharge rate of 0.095 mgd and proposed peak discharge rate of 0.052 mdg for the proposed Project less than the currently rated use. Therefore, in light of the Sewer Capacity Verification memorandum and existing available capacity at WWTP2, OCSD would be able to accommodate all wastewater discharges to satisfy OCSD's estimated demands for wastewater treatment service. Impacts related to wastewater treatment capacity would be less than significant, and no mitigation is required.

d) Generate solid waste in excess of State and local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? (Sources: 15, 16, 38, 49)

Less Than Significant Impact. With implementation of proposed Project, there would be solid waste generated during construction in addition to an overall increase in daily solid waste generation.

Orange County (OC) Waste & Recycling is the government agency that owns and operates the local Orange County landfill. OC Waste & Recycling operates three landfills in Orange County, which are listed below in Table 8-44, along with the actual average daily rate of disposal, the

maximum daily permitted capacity, the remaining capacity, and the estimated closure date of each landfill.

TABLE 8-44
OC WASTE & RECYCLING LANDFILLS

Landfill	Address/City	Disposal Rate (tons per day)		Remaining Capacity (cubic yards)	Estimated Closure Date
		Maximum Permitted	Annual Average Disposal		
Frank R. Bowerman	11002 Bee Canyon Access Road, Irvine	11,500	7,500	181.8 mil	2075
Prima Deshecha	32250 La Pata Avenue San Juan Capistrano	4,000	1,300	136.1 mil	2102
Olinda Alpha	1942 North Valencia Avenue, Brea	8,000	7,000	29.8 mil	2030
Source: Arnau 2017.					

Solid Waste Generated During Construction

Based on the U.S. Environmental Protection Agency's (USEPA's) new construction and demolition waste generation rate of 4.38 lbs/sf for residential uses (USEPA 1998), construction of the proposed 85 residential units would generate solid waste over the construction period. Projects requiring any building, construction, or demolition permits would be required to comply with the AB 939, SB 1016, and the CALGreen Code. Diversion through reuse, recycling, and/or composting of construction and demolition materials at County-approved facilities or by the Franchised Waste Hauler can achieve compliance. To meet these demands, the City's Construction and Demolition (C&D) Debris Re-Use and Recycling Program, effective January 1, 2017, requires that all new construction projects shall divert at least 65 percent of the construction materials generated during the project (RR UTL-5). In compliance with the City's C&D Program, construction and demolition waste would be made available for deconstruction, salvage, and recovery prior to demolition, whereby a diversion rate of 65 percent of the total estimated debris must be recycled using a County-approved facility or franchise waste hauler. The Frank R. Bowerman Landfill is permitted for 11,500 tons per day (tpd) maximum with an 8,500 tpd annual average. The landfill has enough projected capacity to serve residences and business until approximately 2053. Therefore, the landfill could accommodate the short-term disposal of construction and demolition wastes from the proposed Project. Impacts would be temporary and less than significant, and no mitigation is required.

Solid Waste Generated During Operation

Estimated long-term solid waste generation associated with the proposed Project is presented in Table 8-45 below.

TABLE 8-45
ESTIMATED SOLID WASTE GENERATION

Land Use	Size	Waste Generation Factor[1]	Proposed Project Waste Generation (lbs/day)
Residential	85 units	12.23 lbs/household/day	1,040
Total Waste Generation During Operation			**1,040**

lbs: pounds; sf: square feet; CalRecycle: California Department of Resources Recycling and Recovery

[1] Based on waste generation factors from CalRecycle 2021b.

As shown in Table 8-45, the proposed Project is estimated to generate approximately 1,040 pounds of solid waste per day prior to required waste diversion requirements. This represents less than one percent of the permitted daily capacity of the Frank R. Bowerman Landfill. Therefore, the proposed Project would be served by a landfill with available capacity to accept the anticipated solid waste volume, and impacts would be less than significant. No mitigation is required.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? (Sources: 16)

No Impact. State, County, and local agencies with regulatory authority related to solid waste for the Project include CalRecycle, OC Waste & Recycling (County of Orange), and the City of Huntington Beach. Regulations specifically applicable to the proposed Project include the California Integrated Waste Management Act of 1989 (AB 939) and Section 4.408 of the CALGreen Code.

AB 939, which requires every County and City in the State to prepare a Source Reduction and Recycling Element to its Solid Waste Management Plan, identifies how each jurisdiction will meet the State's mandatory waste diversion goal of 50 percent by and after the year 2000. The California Solid Waste Re- use and Recycling Access Act of 1991 (California Public Resources Code, Sections 42900–42911) directs the California Integrated Waste Management Board to draft a "model ordinance" for the disposal of construction waste associated with development projects. On October 6, 2011, Governor Brown signed AB 341, establishing a State policy goal that no less than 75 percent of solid waste generated to be source reduced, recycled, or composted by 2020. The bill also mandates local jurisdictions to implement commercial recycling by July 1, 2012, for businesses and public entities generating 4 cubic yards of trash or more and multi-family residential dwellings with five or more units.

According to CalRecycle, the City of Huntington Beach has disposal rate targets of 10.4 pounds/person/day. In 2019, the City had disposal rates of 6.2 pounds/person/day. Consistent with State requirements, the City of Huntington Beach is consistently diverting more than 50 percent of its waste stream.

Section 4.408 of the current (2016) CALGreen Code requires preparation of a construction waste management plan that outlines ways in which the contractor would recycle and/or salvage for reuse a minimum of 65 percent of the non-hazardous construction and demolition debris. During the construction phase, the proposed Project would comply with the current CALGreen Code

through the recycling and reuse of at least 65 percent of the non-hazardous construction and demolition debris from the Project site.

No conflict with statutes and regulations related to solid waste would occur, and no mitigation is required.

Regulatory Requirements

RR UTL-1 Water service to the Project, including application for water service, service connections, water rates, fire service, and water mains, shall be constructed and provided in accordance with Title 14, Water and Sewer, of the Huntington Beach Municipal Code.

RR UTL-2 In accordance with the Public Works' requirements (Huntington Beach Zoning and Subdivision Ordinance 230.84 and Municipal Code 14.36.010), during the final design/plan check, the Applicant shall prepare a sewer study, which would include a 14-day or longer flow test data and submit to the Public Works Department for review and approval. The location and number of monitoring test sites shall be determined by the Public Works Department. The sanitary sewer system shall be designed and constructed to serve the development, including any offsite improvements necessary to accommodate any increased flow associated with the project.

RR UTL-3 The Project Applicant shall pay the applicable Connection Fee Program capital facilities fees to the Orange County Sanitation District (OCSD), as authorized by the California Health and Safety Code Sections 5400 to 5474.

RR UTL-4 The Project shall be designed and constructed with water-efficient fixtures and systems, as required by the CALGreen Code.

RR UTL-5 The Project contractor shall recycle, reuse, and/or salvage at least 65 percent of demolition and construction debris, in accordance with Section 4.408 of the CALGreen Code.

Mitigation Measures

Project implementation would not result in significant impacts related to utilities and service systems; therefore, no mitigation measures are required.

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

Impact Analysis

a) Substantially impair an adopted emergency response plan or emergency evacuation plan? (Sources: 37, 39)

No Impact. Fire Hazard Severity Zone maps are created by the California Department of Forestry and Fire Protection (CAL FIRE). The maps identify areas where a wildfire is more likely to occur. The City of Huntington Beach, including the Project site, is not located within or adjacent to an area designated as a Very High Fire Hazard Severity Zone (VHFHSZ). Additionally, the site is not in or near State responsibility areas.

The nearest Major Street, as designated in the City of Huntington Beach Circulation Element, to the Project site is Brookhurst Boulevard, which is approximately 0.25-mile east of the site. The nearest designated freeway disaster route is the I-405, located 3.4-miles north of the site. Temporary lane closures on adjacent streets (Strathmoor Lane and Effingham Drive) may be required during the short-term construction period in order to connect the proposed Project to the existing utility infrastructure within these roadways. However, Project construction would not involve full closure of any public roadway during construction. Implementation of traffic control measures during construction in accordance with the Huntington Beach Municipal Codes Chapter 12.13.240, Conditions of Use of Public Right-of-Way, and Chapter 19, Article X, Section 19-302, Standard Specifications for Public Works Construction, which adopts the Greenbook by reference would further reduce the potential for traffic hazards and the obstruction of access to adjacent parcels. Additionally, because Checklist Response thresholds 5.20a through 5.20d apply

only to those projects that are "located in or near state responsibility areas or lands classified as very high fire hazard severity zones", no impacts related to these thresholds would occur, and no mitigation is required.

In the long-term, the Project would provide a full access driveway off Strathmoor Lane, on the eastern boundary of the site. A 24-foot wide emergency access is also proposed from Bluefield Drive to the north of the Project site. The Project would not affect emergency response or emergency evacuation of adjacent land uses. Additionally, Strathmoor Lane and Effingham Drive are not designated evacuation corridors in the City. No impact would occur, and no mitigation is required.

b) Due to the 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? (Sources: 10, 39)

No Impact. As indicated in Checklist Response 5.9g, Hazards and Hazardous Materials, the Project site is in a highly urbanized area of the City, and there are no large, undeveloped areas and/or steep slopes on or near the site that would exacerbate fire risks such that would expose the Project and its occupants to wildfire related hazards. Additionally, as indicated above, the site and the surrounding areas are not located in designated VHFHSZ, as identified by CALFIRE. Rather, the site is within a Non-VHFHSZ area. Therefore, the Project is not expected to exacerbate wildfire risks and create pollutants associated with wildfire or uncontrolled spread of wildfire. Additionally, because Checklist Response thresholds 5.20a through 5.20d apply only to those projects that are "located in or near state responsibility areas or lands classified as very high fire hazard severity zones", no impacts related to these thresholds would occur, and no mitigation is required.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? (Sources: 10, 39)

No Impact. As previously discussed in Checklist Response 5.20a., above, the proposed Project is not within a designated VHFHSZ as defined by CALFIRE. As discussed previously, the site is located in a highly urbanized area and surrounded by developed land on all sides. All proposed structures would be constructed to meet current building and fire codes in accordance with the 2015 California Fire Code (CFC) Chapter 33, Fire Safety during Construction and Demolition and the Huntington Beach Fire Code (HBFD utilizes the 2016 California Fire Code, which is based on the 2015 Edition of the Internal Fire Code [IFC]), as well as applicable amendments and City specifications. Additionally, installation and maintenance of infrastructure, including roads, fuel breaks, emergency water sources, power lines, and other utilities would not exacerbate fire risk, as they would be conducted in compliance with City requirements and specification. Therefore, implementation of the proposed Project would not exacerbate fire risk or that may result in temporary or ongoing environmental impacts. Additionally, because Checklist Response thresholds 5.20a through 5.20d apply only to those projects that are "located in or near state responsibility areas or lands classified as very high fire hazard severity zones", no impacts related to these thresholds would occur, and no mitigation is required.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? (Sources: 10)

No Impact. As previously discussed in Checklist Response 5.20a, the proposed Project is not within a designated VHFHSZ, as defined by CALFIRE. Further, as discussed in Checklist Response 5.7a, Geology and Soils, the Project is in a highly urbanized area that is in a generally flat topographical area away from downslope or landslide areas. Additionally, as discussed in Checklist Response 5.7a (ii- iii), Hydrology and Water Quality, the proposed Project would not result in flooding on- or offsite. Therefore, implementation of the Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Additionally, because Checklist Response thresholds 5.20a through 5.20d apply only to those projects that are "located in or near state responsibility areas or lands classified as very high fire hazard severity zones", no impacts related to these thresholds would occur, and no mitigation is required.

Regulatory Requirements

No regulatory requirements have been identified.

Mitigation Measures

Project implementation would not result in significant impacts related to wildfire; therefore, no mitigation measures are required.

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

Impact Analysis

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? (Sources: as identified in the relevant sections above)

Potentially Significant Unless Mitigated. There are no sensitive biological resources, habitats, or species on the Project site that would be affected by the Project. As indicated in Section 8.4, Biological Resources, of this IS/MND, given the current developed condition and the existing trees and shrubs on the site, migratory birds may nest on the vegetation on-site. However, MM BIO-1 would avoid impacts to active bird nests during construction of the Project. Impacts on migratory birds would be less than significant after mitigation. Additionally, a *Tree Survey Report and Tree Assessment* (Tree Report) was prepared for the property and includes a series of recommendations pertaining to tree removal and new planting. The recommendations are included as MM BIO-2. With compliance with the City Memo CI-74, Tree Survey and Tree Assessment Report, the replacement of the removed trees, and MM BIO-2, impacts would be less than significant.

There are no historic resources on the Project site that would be impacted by the proposed Project. Additionally, implementation of MM CUL-1 would prevent or reduce impacts on buried archaeological resources and tribal cultural resources that may be uncovered during grading and excavation activities. Implementation of MM GEO-2 would also mitigate impacts on paleontological resources. Implementation of MM TCR-1 would reduce impacts to tribal cultural resources to less than significant. With implementation of these mitigation measures, the Project's potential impacts on cultural resources and tribal cultural resources would be less than significant.

Therefore, the Project would not 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; 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 mitigation.

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.) (Sources: as identified in the relevant sections above)

Less Than Significant Impact. As identified in the preceding analyses, all Project-level impacts have been determined to be less than significant with or without compliance with regulatory requirements or mitigated to a level considered less than significant with incorporation of mitigation measures. While the Project would contribute to potential environmental effects related to Biological Resources, Cultural Resources, Geology and Soils, Noise, Transportation, and Tribal Cultural Resources these impacts would not be cumulatively considerable, since mitigation measures would be implemented to avoid or reduce potential Project-specific impacts associated with these environmental issues. As discussed in Section 8.3, Air Quality, and Section 8.8, Greenhouse Gas Emissions, of this IS/MND, the Project's air quality and GHG emissions impacts would be less than significant and its impacts would not be considered cumulatively considerable.

Review of the City's development shows that no new development or redevelopment is planned adjacent to the site that would occur concurrently with Project construction. Development projects would be subject to environmental review by the City, pursuant to CEQA, the State CEQA Guidelines, and the City's Local CEQA Guidelines, to determine if they would lead to cumulative environmental effects as part of the appropriate CEQA analysis for each project. Since the proposed Project would not have significant impacts after mitigation, the impacts of the Project are not expected to result in cumulatively considerable impacts when added to the impacts of other projects planned or proposed in the vicinity of the site. Cumulative impacts would be less than significant, and no mitigation is required.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? (Sources: as identified in the relevant sections above)

Potentially Significant Unless Mitigated. Based on the environmental analyses above, with compliance with applicable regulatory requirements and/or the implementation of mitigation measures, the Project would have less than significant impacts on humans, as it relates to the following environmental issue areas: Aesthetics, Agriculture and Forestry Resources, Air Quality, Energy, GHG Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, Utilities and Service Systems, and Wildfire.

The proposed Project's impacts on the following issue areas would be significant and would require the implementation of mitigation measures: Biological Resources, Cultural Resources, Geology and Soils, Noise, Transportation, and Tribal Cultural Resources. All impacts would be avoided or reduced to less than significant levels after mitigation.

Therefore, the proposed Project would not result in environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly, with the implementation of mitigation measures. All impacts would be less than significant after mitigation.

9.0 SOURCE LIST

Reference No.	Document Title	Available for Review at:
1	CAPCOA. California Emission Estimator Model (CalEEMod)™ Version 2016.3.2, Developed by Trinity Consultants in Collaboration with SCAQMD and other California Air Districts. (2016)	California Air Pollution Control Officers Association (CAPCOA) 1107 9th Street, Sacramento, CA http://www.capcoa.org/
2	CARB. Top 4 Summary. (April 20, 2021,last accessed).	California Air Resources Board (CARB). 1001 I Street, Sacramento, CA https://www.arb.ca.gov/adam/topfour/topfourdispla.y.php
3	CARB. Emission Factor Model EMFAC 2017. (2019)	California Air Resources Board (CARB). 1001 I Street, Sacramento, CA https://www.arb.ca.gov/emfac/2017/
4	CARB Maps of State and Federal Area Designations. (October 2018, last updated).	California Air Resources Board (CARB). 1001 I Street, Sacramento, CA https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations
5	CARB. OffRoad 2017 Orion Database. (2017)	California Air Resources Board (CARB). 1001 I Street, Sacramento, CA https://www.arb.ca.gov/msei/ordiesel.htm
6	CBSC. Welcome to the California Building Standards Commission. (February 2016, access date).	California Building Standards Commission (CBSC). Sacramento, CA http://www.bsc.ca.gov/
7	CEC. 2019 Energy Efficiency Building Standards. (2020)	California Energy Commission (CEC). Sacramento, CA https://energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards
8	CEC. 2019 Building Energy Efficiency Standards. (March 2018)	California Energy Commission (CEC). Sacramento, CA
9	California Geological Survey (CGS). Landslide Inventory (Beta).	California Department of Conservation 801 K Street, MS 24-01, Sacramento, CA https://maps.conservation.ca.gov/cgs/lsi/app/
10	California Geological Survey (CGS). Minerals Land Classification. 2021. (March 24, last accessed)	California Department of Conservation 801 K Street, MS 24-01, Sacramento, CA https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc

Reference No.	Document Title	Available for Review at:
11	California Geological Survey (CGS). Orange County Tsunami Inundation Map	California Department of Conservation 801 K Street, MS 24-01, Sacramento, CA https://www.conservation.ca.gov/cgs/tsunami/maps/orange
12	California Important Farmland Finder. (March 24, 2021 last accessed).	California Department of Conservation 801 K Street, MS 24-01, Sacramento, CA https://maps.conservation.ca.gov/DLRP/CIFF/
13	California, State of. 2015 *California Code of Regulations* (Title 14, Natural Resources; Division 6, Resources Agency; Chapter 3, Guidelines for Implementation of the California Environmental Quality Act.	State of California Sacramento, CA https://casetext.com/regulation/california-code-of-regulations/title-14-natural-resources/division-6-resources-agency/chapter-3-guidelines-for-implementation-of-the-california-environmental-quality-act
14	California, State of/ Public Resources Code Section 122220(g) and Government Code Section 51104(g).	State of California California Office of Legislative Counsel 925 L Street, Room 302l, Sacramento, CA http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=12220&lawCode=PRC and http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=4526&lawCode=PRC
15	CalRecycle. Estimated Solid Waste Generation Rates. (April 5, last accessed).	California Department of Resources Recycling and Recovery (CalRecycle) 1001 I Street or PO Box 4025, Sacramento, CA https://www2.calrecycle.ca.gov/wastecharacterization/general/rates
16	CalRecycle. Jurisdiction Diversion/Disposal Rate Summary (2007-Current) (April 5, 2021 last accessed).	California Department of Resources Recycling and Recovery (CalRecycle) 1001 I Street or PO Box 4025, Sacramento, CA https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006 (search for Huntington Beach).
17	Caltrans. California Scenic Highways. (April 20, 2021 access date).	California Department of Transportation (Caltrans) 1120 N. Street, Sacramento, CA https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways.
18	Caltrans. *Technical Noise Supplement to the Traffic Noise Analysis Protocol.* (September 2013)	California Department of Transportation (Caltrans) 1120 N. Street, Sacramento, CA https://dot.ca.gov/programs/environmental-analysis/noise-vibration.

Reference No.	Document Title	Available for Review at:
19	Charter Communications. Re: May Serve Letter by Charter Communications or an affiliate authorized to provide service ("Charter"), Project Name: WSL - Bluefield Dr & Strathmoor Ln Huntington Beach CA 92646, Location: Bluefield Dr & Strathmoor Ln Huntington Beach CA 92646. (August 9, 2020).	Charter Communications 3430 E. Miroloma Avenue, Anaheim, CA https://corporate.charter.com/
20	Dane S. Shorta & Associates. Tree Inventory and Tree Assessment for the Gisler Site Project. (March 18, 2021).	City of Huntington Beach Community Development Department 2000 Main Street, Huntington Beach, CA
21	Department of Finance. E-5 Population Estimates for Cities, Counties, and the State, January 2011-2020, with 2010 Benchmark.	State of California Department of Finance 915 L St., Sacramento, CA http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/
22	DTSC's Hazardous Waste and Substances Site List – Site Cleanup (Cortese List).	State of California Department of Toxic Substances Control (DTSC) 1001 I Street or PO Box 806, Sacramento, CA https://dtsc.ca.gov/managing-hazardous-waste/
23	Education Management Solutions. Personal communication. Email from G. Magnusen, Consultant, to M. Larum (Psomas). (April 21, 2021).	Huntington Beach City School District (HBCSD) 8750 Dorsett Drive, Huntington Beach, CA
24	Frontier Communications. Reference: This project consists of 87 single-family lots. The project is located off of Bluefield Drive & Strathmoor Lane, Huntington Beach, CA. (August 7, 2020).	Frontier Communications Network Engineering-West District 7352 Slater Avenue, Huntington Beach, CA https://frontier.com/
25	Fusco Engineering. Preliminary Hydrology Study Strathmoor Lane (Gisler School Site), Huntington Beach, California. (January 2021).	City of Huntington Beach Community Development Department 2000 Main Street, Huntington Beach, CA
26	GeoKinetics. Preliminary Subsurface Methane Gas and Soil Testing Investigation for Proposed Residences at 21141 Strathmoor Lane, Huntington Beach, California (October 19, 2020)	City of Huntington Beach Community Development Department 2000 Main Street, Huntington Beach, CA
27	Golden West College. Library Services	Golden West College 15744 Goldenwest Street Huntington Beach, CA http://www.goldenwestcollege.edu/library/service

Reference No.	Document Title	Available for Review at:
28	Hillmann Consulting. Hazardous Materials Inspection, 21141 Strathmoor Lane, Huntington Beach, California 92646. (October 28, 2020).	City of Huntington Beach Community Development Department 2000 Main Street, Huntington Beach, CA
29	Hillman Consulting, Inc. Phase I Environmental Site Assessment, 21141 Strathmoor Lane, Huntington Beach, California 92646. (June 30, 2020).	City of Huntington Beach Community Development Department 2000 Main Street, Huntington Beach, CA
30	HBFD. Tsunami Evacuation Routes.	Huntington Beach Fire Department 200 Main Street, Huntington Beach, CA https://www.huntingtonbeachca.gov/about/maps/tsunami-evacuation-map.pdf
31	HBPD. Beat Map	Huntington Beach Police Department 2000 Main Street, Huntington Beach, CA https://www.huntingtonbeachca.gov/government/departments/pd/crime_info/BeatMap.cfm
32	HBPD. Personal communication. Email from I. Ono (Administrative Assistant to Interim Chief Julian Harvey) to M. Larum (Psomas). (April 19, 2021)	Huntington Beach Police Department 2000 Main Street, Huntington Beach, CA https://www.huntingtonbeachca.gov/government/departments/pd/
33	Huntington Beach Public Library. Personal communication. Email from J. Framson, Library and Cultural Services Manager, to M.Larum, (Psomas). (April 2021).	Huntington Beach Public Library. 7111 Talbert Avenue, Huntington Beach, CA https://www.huntingtonbeachca.gov/government/departments/library/
34	Huntington Beach Union School District. Personal communication. Email from J. Starr (Assistant Superintendent, Business Services) to M. Larum (Psomas). (April 20, 2021)	Huntington Beach Union School District 5832 Bolsa Avenue,, Huntington Beach, CA https://www.hbuhsd.edu/
35	Huntington Beach, City of. Amendments to 2015 Urban Water Management Plan (UWMP). (January 2018).	City of Huntington Beach Public Works Department 2000 Main Street, Huntington Beach, CA https://www.huntingtonbeachca.gov/files/users/public_works/urban-water-plan.pdf
36	Huntington Beach, City of. 2021 (April 7). Personal communication. Email from D. Spalding, Project Manager, to A. Hokuki (Psomas).	City of Huntington Beach Community Development Department, 2000 Main Street, Huntington Beach, CA
37	Huntington Beach, City of. Charter and Codes (April 2021 last accessed)	City of Huntington Beach City Clerk's Office 2000 Main Street, Huntington Beach, CA http://www.huntingtonbeachca.gov/government/charter_codes/municipal_code.cfm

Reference No.	Document Title	Available for Review at:
38	Huntington Beach, City of. Construction & Demolition Debris Waste Diversion Worksheet. (April 5, 2021 last accessed).	City of Huntington Beach Community Development Department 2000 Main Street, Huntington Beach, CA https://www.huntingtonbeachca.gov/files/users/building/2017ConstructionDemolitionDebrisApplicationandWorksheet.pdf
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