

Draft

March 2021

Environmental Impact Report for the Beach Cities Health District Healthy Living Campus Master Plan

SCH No. 2019060258



Prepared for:
Beach Cities Health District
514 North Prospect Avenue
Redondo Beach, California 90277



Prepared by:
Wood Environment & Infrastructure Solutions, Inc.
9177 Sky Park Court
San Diego, California 92123

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EXECUTIVE SUMMARY

This Environmental Impact Report (EIR) evaluates the potential environmental impacts of the proposed Beach Cities Health District (BCHD) Healthy Living Campus Master Plan (Project) in the Cities of Redondo Beach and Torrance, California. The EIR was prepared by Wood Environment & Infrastructure Solutions, Inc. (Wood) and its team of subconsultants including iLanco Environmental, LLC (Air Quality and Greenhouse Gas [GHG] Emissions), Fehr & Peers (Transportation), and VIZf/x (Aesthetics and Architectural Services).

As described in further detail in Section 2.0, *Project Description*, the proposed Healthy Living Campus Master Plan would redevelop the existing BCHD campus to: 1) address escalating building maintenance costs and seismic-related structural issues; and 2) to provide purpose-built facilities necessary to support BCHD's public health and wellness programs and services. BCHD has developed a detailed preliminary site development plan for Phase 1, which is evaluated in this EIR at a project level of detail. BCHD has also developed a more general development program for Phase 2 based on the design guidelines of the proposed Healthy Living Campus Master Plan and the best available planning information at this time. The Phase 2 development program has been evaluated programmatically in that construction impacts have been evaluated using maximum durations of construction, maximum areas of disturbance, and maximum building heights. Operational impacts have also been evaluated programmatically in that the analysis addresses maximum building space allocations.

New development under Phase 1 would include a 203,700-square-foot (sf) Residential Care for the Elderly (RCFE) Building with 157 new Assisted Living units, 60 Memory Care units (replacing the existing Silverado Beach Cities Memory Care Community located within Beach Cities Health Center), 14,000 sf of space for the Program of All-Inclusive Care for the Elderly (PACE), 6,270 sf of space for Community Services, and a 9,100-sf Youth Wellness Center. The RCFE Building would include a new driveway and pick-up/drop-off zone located on the vacant Flagler Lot as well as a new subterranean service area and loading dock entry/exit along Flagler Lane. Following the construction of the RCFE Building, the existing 158,000-sf Beach Cities Health Center would be demolished providing space for approximately 114,830 sf of open space as well as an approximately 40,725-sf surface parking lot with 86 (including accessible parking spaces and electric vehicle [EV] charging stations).

The long range development program under Phase 2, while less defined than the project-level preliminary site development plan under Phase 1, would provide a Wellness Pavilion of up to 37,150 sf, an Aquatics Center of up to 31,300 sf (including 24,000 sf of indoor space and 7,300 sf of outdoor space), and up to 20,000 sf of space for the Center for Health and Fitness (CHF), which

would be relocated back to the campus. Parking would be provided in a parking structure with up to 2 subterranean levels and up to 8.5 above ground levels. The EIR depicts three example site plans for the Phase 2 development program to illustrate the possible range. However, the EIR analyzes potential construction-related impacts (e.g., ground disturbance) and aesthetics impacts (e.g., building height) using conservative assumptions related to maximum building footprints and maximum building heights. The ultimate site development plan developed for Phase 2 would fit within this maximum building envelope.

PROJECT OBJECTIVES

CEQA Guidelines Section 15124(b) (Title 14 of the California Code of Regulations [CCR] Section 15000 *et seq.*) requires the description of the project in the EIR to include “[a] statement of objectives sought by the proposed project.” As further stated in CEQA Guidelines Section 15124(b), a clear statement of objectives will help the lead agency develop a reasonable range of alternatives for consideration in the EIR and aid decision-makers in preparing findings or a statement of overriding considerations, if necessary.

BCHD developed three major “*Project Pillars*,” which were presented to the Board of Directors during a public meeting on June 17, 2020. The Project Objectives are based on these three Project Pillars:

Health

- Build a center of excellence focusing on wellness, prevention, and research.
- Leverage the campus to expand community health programs and services.

Livability

- Focus on emerging technologies, innovation, and accessibility.
- Create an intergenerational hub of well-being, using Blue Zones Project principles.

Community

- Actively engage the community and pursue partnerships.
- Grow a continuum of programs, services, and facilities to help older adults age in their community.

Based on these Project Pillars, BCHD developed six Project Objectives:

- Eliminate seismic safety and other hazards of the former South Bay Hospital Building (514 North Prospect Avenue).

- Generate sufficient revenue through mission-derived services to replace revenues that will be lost from discontinued use of the former South Bay Hospital Building and support the current level of programs and services.
- Provide sufficient public open space to accommodate programs that meet community health needs.
- Address the growing need for assisted living with on-site facilities designed to be integrated with the broader community through intergenerational programs and shared gathering spaces.
- Redevelop the Project site to create a modern campus with public open space and facilities designed to meet the future health needs of residents, with meeting spaces for public gatherings and interactive education.
- Generate sufficient revenue through mission-derived services and facilities to address growing future community health needs.

The underlying purpose of the proposed BCHD Healthy Living Campus Master Plan is to solve the current seismic issues associated with the former South Bay Hospital Building and establish a center of excellence for community health. Implementation of the proposed Project is intended to meet the six objectives described above and therefore achieve the underlying purpose of the proposed Project.

ENVIRONMENTAL IMPACT ANALYSIS

This EIR examines potential short- and long-term impacts of the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program. These impacts were determined through a rigorous process mandated by CEQA in which existing conditions are compared and contrasted with conditions that would exist once the project is implemented. For each environmental topic area, the thresholds for determining the significance of potential impacts are identified based on Appendix G of the CEQA Guidelines, along with descriptions of methodologies used for conducting the impact analysis. For some environmental topic areas, such as air quality, greenhouse gas (GHG) emissions, noise, and transportation, the analyses of impacts are quantitative in nature and involve the comparison of potential impacts against numerical thresholds. For other environmental topic areas, such as land use and planning, the analyses of impacts are inherently more qualitative, involving the consideration of a variety of factors, such as adopted policies and regulations.

The EIR impact discussions classify impact significance levels as:

- **Significant and Unavoidable** – a significant impact to the environment that remains significant even after mitigation measures are applied;
- **Less Than Significant with Mitigation** – a significant impact to the environment that can be avoided or reduced to a less than significant level with mitigation;
- **Less Than Significant** – a potential impact that would not meet or exceed the identified thresholds of significance for the environmental topic area; and
- **No Impact/Beneficial Impact** – no impact would occur for the environmental topic area or a beneficial effect would result.

Determinations of significance levels in the EIR are made based on impact significance criteria and applicable CEQA Guidelines for each topic area.

Pursuant to CEQA Guidelines, Section 15126.4, where potentially significant environmental impacts have been identified in the EIR, feasible mitigation measures that would avoid or minimize the severity of those impacts are also identified. Pursuant to CEQA, feasible mitigation measures must be implemented for all significant impacts.

NOTICE OF PREPARATION/SCOPING

As a first step in complying with the procedural requirements of CEQA, the City conducted a public scoping process consistent with CEQA Guidelines Section 15083. The public was provided with an opportunity to comment on the scope of the EIR through a Notice of Preparation (NOP) released on June 27, 2019. The NOP was distributed to Federal, State, and local agencies, neighborhood groups, and all occupants and owners within a 1,000-foot radius of the Project site. The NOP comment period began on June 27, 2019 and ended on July 29, 2019. Three Public Scoping Meetings for the EIR were held during the NOP comment period on July 15, 2019 in Redondo Beach, July 17, 2019 in Manhattan Beach, and July 22, 2019 in Hermosa Beach. During the meetings, BCHD staff described the proposed Project and the environmental review process and received public comment on the scope and content of the EIR. The scoping process assisted the BCHD in determining if any aspect of the proposed Project may cause a significant effect on the environment and, based on that determination, narrow the focus of the subsequent environmental analysis. Comments received during the NOP comment period were considered during EIR preparation and are included in Appendix A.

SUMMARY OF PROJECT IMPACTS

The significance of each impact resulting from implementation of the proposed Project has been determined based on impact significance criteria and applicable CEQA Guidelines for each impact topic. Table ES-1 presents a summary of the impacts, mitigation measures, and residual impacts

that could result from implementation of the proposed Project. The proposed Project would result in significant and unavoidable construction-related noise impacts (refer to Section 3.11, *Noise*). Additionally, the proposed Project would result in less than significant (or less than significant with mitigation) impacts that are related to areas of community concern that were identified during community meetings held between 2017 and 2020 as well as agency and public comment letters received on the Notice of Preparation. These areas of community concern include aesthetics bulk/size, construction-related air emissions, soil erosion, hazardous materials, land use, and transportation (refer to Section 3.1, *Aesthetics and Visual Resources*, Section 3.2, *Air Quality*; Section 3.6, *Geology and Soils*; Section 3.8, *Hazards and Hazardous Materials*; Section 3.10, *Land Use and Planning*; and 3.14, *Transportation*, respectively). While this EIR determined that impacts related to these resource areas are not anticipated to be significant, these controversial impacts as well as the significant and unavoidable impacts identified for the proposed Project were used as screening criteria to determine feasible alternatives that could avoid or reduce these effects (see Section 5.4, *Alternatives Considered but Rejected from Further Analysis* and Section 5.5, *Alternatives Analysis*). Refer to Section 1.8, *Areas of Known Public Controversy* for the full list of environmental issues known to be of public concern.

SUMMARY OF CUMULATIVE IMPACTS

CEQA Guidelines Section 15130(a) states that an EIR shall “*discuss the cumulative impacts of a project when the project’s incremental effect is cumulatively considerable.*” In this context, “cumulatively considerable” means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and/or the effects of probable future projects (as defined by CEQA Guidelines Section 15130). The proposed Project would not substantially contribute to any cumulatively considerable impacts for any of the environmental issues areas evaluated within the EIR.

ALTERNATIVES ANALYSIS

CEQA Guidelines state that an “*EIR shall describe a range of reasonable alternatives to the proposed project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives*” (CEQA Guidelines Section 15126.6). As such, the EIR evaluates six alternatives, including a No Project Alternative, in compliance with CEQA. These alternatives include:

- Alternative 1 – No Project Alternative (Demolish and Replace with Limited Open Space)
- Alternative 2 – Sale and Redevelopment of the BCHD Campus

- Alternative 3 – Revised Access and Circulation
- Alternative 4 – Phase 1 Preliminary Site Development Plan Only
- Alternative 5 – Relocate CHF Permanently and Reduced Parking Structure
- Alternative 6 – Reduced Height Alternative

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Section 15126.6(e)(2) of the CEQA Guidelines indicates that an analysis of alternatives shall identify an environmentally superior alternative among the alternatives evaluated in the EIR. In general, the environmentally superior alternative as defined by CEQA should minimize adverse impacts to the project site and its surrounding environment.

Table 5.5-5 compares the environmental impacts of the proposed Project and the analyzed alternatives. Of the alternatives considered, the No Project Alternative generates the fewest environmental impacts; therefore, it is generally environmentally superior to any project that proposes to change existing conditions through the addition of increased development with associated impacts. However, CEQA Guidelines Section 15126.6 states that if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative from among the other alternatives.

According to CEQA Guidelines Section 15126.6(a), the purpose of an alternatives analyses is to identify alternative developments that would feasibly attain most of the basic objectives of the project but that would avoid or substantially reduce any of the significant effects of the proposed Project. Other than the No Project Alternative, none of the remaining alternatives would avoid the significant and unavoidable construction-related noise impacts at nearby sensitive receptors. Daily construction-related impacts would be similar to those described for the proposed Project (i.e., construction noise levels would be similar; however, the total duration of construction noise would be reduced due to the elimination of the Phase 2 development program).

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts		
Impacts	Mitigation Measures	Residual Impacts
SECTION 3.1, AESTHETICS AND VISUAL RESOURCES		
Impact VIS-1 The proposed Residential Care for the Elderly Building included in the Phase 1 preliminary development plan would interrupt public views of the Palos Verdes hills from the highpoint at 190 th Street and Flagler Lane. However, a reduction in the height of the building would reduce this impact to <i>less than significant with mitigation</i> .	MM VIS-1 Reduced RCFE Building Height. The final design of the Phase 1 preliminary site development plan shall be revised to reduce the maximum height of the RCFE Building in order to avoid interruption of the ridgeline of the Palos Verdes hills as viewed from the intersection of 190 th Street & Flagler Lane. This revision to the final design could include the removal of the uppermost stories of the building and/or recessing the building foundation further into the ground surface. The reduced building height shall be formalized on all final building plans and construction plans, as appropriate, prior to the issuance of any demolition, grading, or building permits by the Redondo Beach Building & Safety Division. City of Redondo Beach permit compliance staff shall observe and ensure compliance with these specifications during construction activities associated with the proposed Project.	Implementation of MM VIS-1 would reduce the height of the RCFE Building such that it would rise to a point just below the ridgeline of the Palos Verdes hills as viewed from 190 th Street & Flagler Lane. The panoramic views of the ridgeline would remain uninterrupted. Therefore, residual impacts would be <i>less than significant</i> .
Impact VIS-2 The proposed Project – including the Phase 1 preliminary development plan as well as the Phase 2 development program – would alter the visual character of the Project site and surrounding areas in Redondo Beach and Torrance. However, the proposed development would comply with the Redondo Beach and Torrance General Plans and municipal codes and would not degrade the surrounding visual character. Therefore, impacts would be <i>less than significant</i> .	No mitigation required	Less than significant
Impact VIS-3 The proposed Project – including the Phase 1 preliminary development plan as well as the Phase 2 development program – would create new sources of exterior lighting. Additionally, building materials used in the construction of the proposed buildings could result in new sources of glare. However, through the conformance of the proposed Project with the Redondo Beach Municipal Code (RBMC) and the Torrance Municipal Code (TMC),	No mitigation required	Less than significant

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
impacts associated with the proposed Project would be <i>less than significant</i> .		
Impact VIS-4 The proposed Project – including the Phase 1 preliminary development plan as well as the Phase 2 development program – would result in additional shading of adjacent properties. However, the extent and duration of shading would be <i>less than significant</i> .	No mitigation required	Less than significant
SECTION 3.2, AIR QUALITY		
Impact AQ-1 Construction and operation of the proposed Beach Cities Health District (BCHD) Healthy Living Campus – including the Phase 1 preliminary site development plan and the Phase 2 development program – would generate emissions that would contribute to Basin-wide air pollutant emissions. Because the proposed Project would not cause or increase the severity of air quality violations and mitigated emissions would not exceed the South Coast Air Quality Management District's (SCAQMD's) significance thresholds, the proposed Project would not conflict with the Air Quality Management Plan (AQMP). Therefore, impacts would be <i>less than significant with mitigation</i> .	Refer to MM AQ-1 below	With implementation of MM AQ-1, which would include requirements for soil stabilization and the use of U.S. Environmental Protection Agency (USEPA) Tier 4 engines – localized construction emissions from the proposed Project would not exceed SCAQMD's Localized Significant Thresholds (LSTs). Therefore, impacts related to potential conflicts with the AQMP would be <i>less than significant</i> .
Impact AQ-2 Construction activities associated with the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would generate air pollutant emissions; however, emissions of CO, NO _x , SO _x , PM ₁₀ , PM _{2.5} , and VOC, would not exceed South Coast Air Quality Management District's (SCAQMD's) regional significance thresholds for construction. On-site construction-related emissions would exceed the Localized Significant Thresholds (LSTs) for PM ₁₀ and PM _{2.5} . Therefore, the Project	MM AQ-1 Air Quality Management Plan. Beach Cities Health District (BCHD) shall prepare an Air Quality Management Plan for project construction, which shall be approved by the City of Redondo Beach and the City of Torrance prior to issuance of demolition, grading, or building permits for the Phase 1 preliminary site development plan or the Phase 2 development program. The plan shall include the following conditions for construction: <ul style="list-style-type: none"> Construction equipment engines shall be maintained in good condition and in proper tune per manufacturer's specification for the duration of construction. 	Implementation of MM AQ-1, which would include requirements for soil stabilization and the use of USEPA Tier 4 engines, would reduce on-site construction emissions for PM ₁₀ and PM _{2.5} below the SCAQMD LSTs. Therefore, with implementation of MM AQ-1, impacts regarding localized construction emissions with mitigation incorporated would be <i>less than significant</i> .

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
<p>could expose sensitive receptors to substantial pollutant concentrations. However, this impact would be <i>less than significant with mitigation</i>.</p>	<ul style="list-style-type: none"> • All construction activities that are capable of generating fugitive dust are required to implement dust control measures during each phase of construction to reduce the amount of particulate matter entrained in the ambient air. These measures include the following: <ul style="list-style-type: none"> ○ Quick replacement of ground cover in disturbed areas. ○ Watering of exposed surfaces three times daily. ○ Watering of all unpaved haul roads three times daily. ○ Covering all stock piles with tarp. ○ Post signs on-site limiting traffic to 15 miles per hour (mph) or less on unpaved roads. ○ Prohibit demolition when wind speed is greater than 25 mph. ○ Sweep streets adjacent to the project site at the end of the day if visible soil material is carried over to adjacent roads. ○ Cover or have water applied to the exposed surface of all trucks hauling dirt, sand, soil, or other loose materials prior to leaving the site to prevent dust from impacting the surrounding areas. ○ Install wheel washers where vehicles enter and exit unpaved roads onto paved roads to wash off trucks and any equipment leaving the site each trip. • Construction activities associated with the proposed Project shall use USEPA Tier 4 engines on all construction equipment, except crushing equipment, which would reduce DPM emissions from combustion 	

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	<p>by 94 percent for Phase 1 and 79 percent for Phase 2 construction.</p> <ul style="list-style-type: none"> Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes. 	
Impact AQ-3 Operational activities associated with the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would generate criteria air pollutant emissions that would be below South Coast Air Quality Management District (SCAQMD) mass daily thresholds and Localized Significance Thresholds (LSTs). Therefore, this impact would be <i>less than significant</i> .	No mitigation required	Less than significant
Impact AQ-4 Construction-related diesel particulate matter (DPM) emissions – including emissions associated with the Phase 1 preliminary site development plan as well as emissions with the Phase 2 development program – would exceed the South Coast Air Quality Management District’s (SCAQMD’s) thresholds. However, this impact would be <i>less than significant with mitigation</i> .	Refer to MM AQ-1 above	With implementation of MM AQ-1, which requires use of USEPA Tier 4 engines on all construction equipment, mitigated DPM emissions generated during Project construction activities would not exceed SCAQMD’s significance threshold. Therefore, impacts with mitigation incorporated would be <i>less than significant</i> .
Impact AQ-5 The net increase in daily traffic, together with other cumulative traffic in the area, would generate increases in CO levels near local intersections. However, CO levels generated as a result of the proposed Project would not exceed Federal and State CO standards and would not result in CO hotspots. Therefore, this impact would be <i>less than significant</i> .	No mitigation required	Less than significant

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts		
Impacts	Mitigation Measures	Residual Impacts
Impact AQ-6 None of the land uses included in the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would result in objectionable odors that would affect a substantial number of people. Therefore, this impact would be <i>less than significant</i> .	No mitigation required	Less than significant
SECTION 3.3, BIOLOGICAL RESOURCES		
Impact BIO-1 The proposed redevelopment of the Beach Cities Health District (BCHD) campus – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would result in the removal of landscaped trees, shrubs, and other non-native vegetation that may provide nesting and roosting habitat. With the implementation of pre-construction nesting bird surveys, if necessary, and new landscaping, the proposed Project would not substantially interfere with resident or migratory birds. Impacts would be <i>less than significant with mitigation</i> .	MM BIO-1 Pre-Construction Nesting Bird Surveys. To prevent impacts to nesting or roosting birds through loss or damage of mature trees, Beach Cities Health District (BCHD) shall comply with the following: <ul style="list-style-type: none"> Where suitable vegetation and structures for nesting birds occur within 500 feet of project construction activities, all phases of construction shall avoid the general nesting season (i.e., between February 15 and August 31) to the maximum extent practicable. If the nesting season cannot be avoided, a qualified biologist shall be retained to conduct a pre-construction survey for nesting birds. The survey shall be conducted within 72 hours prior to commencement of vegetation removal. If any nesting birds are present within or immediately adjacent to the construction area, the following shall be required: A qualified biologist shall be retained by BCHD to flag and demarcate the location of all nesting birds and monitor construction activities. Temporary avoidance of active nests, including the enforcement of an avoidance buffer as determined by the qualified biological monitor, shall be required until the qualified biological monitor has verified that the young have fledged or the nest has otherwise become inactive. If Federal or State protected species are observed during the site survey, consultation shall be completed 	Implementation of MM BIO-1 would require pre-construction nesting bird surveys to identify and avoid active nests during construction that occurs in the nesting season. With implementation of the recommended MM BIO-1 and compliance with Federal, State, and local regulations, impacts on biological resources – including resident and migratory birds provided with protection under the Migratory Bird Treaty Act and/or California Fish and Game Code – would be reduced to <i>less than significant</i> .

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	with the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) to determine if work shall commence or proceed during the breeding season; and, if work may proceed, what specific measures shall be taken to ensure protected bird species are not affected.	
SECTION 3.4, CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES		
Impact CUL-1 Redevelopment of the Beach Cities Health District (BCHD) campus would include the proposed demolition of Beach Cities Health Center and the attached Maintenance Building during Phase 1 as well as the demolition of the existing parking structure and potentially the Beach Cities Advanced Imaging Center during Phase 2. However, no historic architectural resources exist on the campus and the proposed redevelopment of the campus would not damage or result in a substantial change in the historic setting of historic architectural resources in the vicinity of the Project site. Therefore, impacts would be <i>less than significant</i> .	No mitigation required	Less than significant
Impact CUL-2 Ground disturbing activities associated with the proposed Project – particularly demolition of existing pavements and excavation of subterranean levels during Phase 1 and Phase 2 – could uncover previously unknown prehistoric or historic archaeological deposits that qualify as archeological resources as defined CEQA Guidelines Section 15064.5. Damage or destruction of any such archaeological resources would be considered a potentially significant impact. However, this impact would be <i>less than significant with mitigation</i> .	MM CUL-1 Cultural Resources Monitoring Plan. Prior to issuance of a demolition or excavation/grading permit, a Cultural Resources Monitoring Plan shall be developed by a qualified archaeologist, with provisions for review and input by representatives of the Native American tribe(s) that consulted on the project pursuant to Assembly Bill (AB) 52. The Cultural Resources Monitoring Plan shall identify those specific locations on the Project site where a qualified archaeologist and Native American tribal monitor shall be required during ground disturbing activities – including (but not limited to) clearing/grubbing, excavations, grading, and trenching – during the construction activities associated with Phase 1 and Phase 2 of the proposed Project. The rate of excavation, the types of activities, their proximity to known archaeological resources, the provenance and character of materials	Implementation of MM CUL-1 requires observation and monitoring of excavation and grading by a qualified archaeologist and a Native American tribal monitor to identify any potential prehistoric or historic-period archaeological and/or tribal resources. MM CUL-1 also requires the preparation of a Treatment Plan to appropriately mitigate impacts to any such resources. In the case of an inadvertent discovery of historic-period archaeological and/or tribal resources, implementation of MM

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Impacts	Mitigation Measures	Residual Impacts
	<p>being excavated (e.g., non-cultural fill, younger alluvium, or older alluvium), the depth of excavation, and if found, the abundance and type of prehistoric archaeological or tribal resources encountered, will determine the frequency of monitoring in these areas. Full-time field observation shall be reduced to part-time inspections or ceased entirely if determined appropriate by the qualified archaeologist and Native American tribal monitor. The Cultural Resources Monitoring Plan shall also include a Treatment Plan that sets forth explicit criteria for appropriately mitigating impacts to archaeological resources that may be eligible for the California Register of Historic Resources (CRHR), human remains, and/or burial goods or other significant tribal resources inadvertently discovered during ground disturbing activities. The Treatment Plan shall also include requirements for a final technical report on all cultural resource studies and requirements for curation of artifacts and other recovered remains, including appropriate treatment of tribal resources, as necessary.</p> <p>MM CUL-2 Inadvertent Discoveries. A qualified professional archaeologist and approved Native American monitor shall be retained for the duration of ground-disturbing activities. In the event of any inadvertent discovery of prehistoric or historic-period archaeological and/or tribal resources during construction, ground-disturbing activities in the immediate vicinity of the discovery shall stop. Construction activities shall temporarily be redirected to areas located more than 50 feet from the find. The qualified archaeologist and/or Native American monitor shall evaluate the significance of the discovery based on the Treatment Plan prior to resuming any activities that could impact the discovery. All tribal cultural resources unearthed by ground disturbing activities shall be evaluated by the Native American monitor. Any required testing or data recovery shall be directed by the qualified archaeologist and Native American monitor pursuant to the Treatment Plan.</p>	<p>CUL-2 would halt construction activities within 50 feet to allow the qualified archaeologist and/or Native American monitor to evaluate the significance of the discovery and avoid potentially significant impacts (i.e., damage or destruction). Therefore, impacts to archeological resources as defined CEQA Guidelines Section 15064.5 with mitigation incorporated would be <i>less than significant</i>.</p>
Impact CUL-3 While unlikely, unknown, isolated Native American human remains could potentially be inadvertently uncovered during construction	No mitigation required.	Less than Significant

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
activities associated with the Phase 1 preliminary site development plan and the more general Phase 2 development program. In the event of this occurrence, Beach Cities Health District (BCHD) would immediately cease activity in the vicinity of the discovery and comply with existing regulations. Therefore, impacts would be <i>less than significant</i> .		
Impact CUL-4 Potential tribal cultural resources, as defined in Public Resources Code (PRC) Section 21074, may be inadvertently uncovered during excavation and grading associated with the Phase 1 preliminary site development plan and the more general Phase 2 development program. Damage or destruction of such tribal cultural resources would be a potentially significant impact. However, impacts would be reduced to <i>less than significant with mitigation</i> .	Refer to MM CUL-1 and MM CUL-2 above	With incorporation of MM CUL-1 and MM CUL-2, in the event of an unanticipated discovery there would be a clear Treatment Plan and any required testing or data recovery would be completed, as necessary. Therefore, impacts to tribal cultural resources, as defined in PRC Section 21074 with mitigation incorporated would be <i>less than significant</i> .
SECTION 3.5, ENERGY		
Impact EN-1 The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not result in wasteful, inefficient, or unnecessary energy consumption. Conformance with of State regulations including the California Title 24 Building Energy Efficiency Standards (Part 6) CALGreen (Part 11) as well as conformance with the Redondo Beach and Torrance General Plans and Climate Action Plans would ensure that this impact would be <i>less than significant</i> .	No mitigation required	Less than significant
Impact EN-2 The proposed Project – including the Phase 1 preliminary site development plan as well as the Phase 2 development program – would conform with State regulations including the California Title 24 Building Energy Efficiency Standards (Part 6)	No mitigation required	Less than significant

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts		
Impacts	Mitigation Measures	Residual Impacts
CALGreen (Part 11) as well as the Redondo Beach and Torrance General Plans, Climate Action Plans, and other applicable local plans for renewable energy and energy efficiency. Therefore, this impact would be <i>less than significant</i> .		
SECTION 3.6, GEOLOGY AND SOILS		
Impact GEO-1 Compliance with all applicable State and local regulations as well as the recommendations of the Geotechnical Report would ensure that the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program would not directly or indirectly cause potential substantial adverse effects involving strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides. Potential impacts would be <i>less than significant with mitigation</i> .	MM GEO-1 Geotechnical Report Recommendations. The proposed Project shall comply with all earthwork and site grading, design, and construction recommendations provided in the Geotechnical Report prepared for the proposed Project. These recommendations shall be reviewed by the City of Redondo Beach and the City of Torrance Building & Safety Divisions and formalized on all final grading plans, design drawings, and construction plans, as appropriate, prior to the issuance of any demolition or grading permits. City of Redondo Beach and City of Torrance permit compliance staff shall observe and ensure compliance with these recommendations and specifications during grading and construction activities associated with the proposed Project.	Required compliance with the California Building Code (CBC) along with the implementation of the recommendations in the Geotechnical Report prepared for the proposed Project would reduce the risk of potential impacts associated with geologic hazards. Therefore, impacts involving strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides with mitigation incorporated would be <i>less than significant</i> .
Impact GEO-2 The proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would redevelop the existing BCHD campus. The proposed Project would not result in substantial soil erosion or the loss of topsoil. While the construction of the proposed Project would involve excavation of soils and grading, compliance with applicable State and local regulations would ensure potential impacts would be <i>less than significant</i> .	No mitigation required	Less than significant
Impact GEO-3 The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not be located on an unstable geologic unit or	No mitigation required	Less than significant

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
soil that is made unstable as a result of the proposed Project or an expansive soil creating a substantial risk to life or property. Compliance with all applicable State and local regulations as well as the recommendations of the Geotechnical Report would ensure that potential impacts associated with the proposed Project would be <i>less than significant</i> .		
<p>Impact GEO-4 The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would require excavations below fill soils placed during previous grading activities. However, the geologic unit that is likely to be affected by these excavations has a low potential to contain paleontological resources. Therefore, adherence with applicable mitigation measures would ensure potential impacts would be <i>less than significant with mitigation</i>.</p>	<p>MM GEO-2a Worker Paleontological Resource Awareness Session. In order to educate construction contractors regarding the protection of any paleontological resources that are unexpectedly discovered during excavations associated with the proposed Project, Beach Cities Health District (BCHD) shall retain a qualified paleontologist to develop a worker awareness program to educate all workers regarding the paleontological resources that, while unlikely, may occur on the development site as well as appropriate procedures to enact should paleontological resources be discovered during development. The qualified paleontologist shall develop appropriate training materials including, but not limited to, a summary of geologic units present at the Project site by depth, a description of potential paleontological resources that may be encountered during the proposed excavations, and worker attendance sheets to record workers' completions of the awareness session. The worker awareness session for paleontological resources shall occur prior to the initiation of excavation and grading activities. BCHD shall provide awareness session sign-in sheets documenting employee attendance to the City of Redondo Beach and City of Torrance permit compliance staff, if requested.</p> <p>MM GEO-2b Paleontological Resources Inadvertently Discovered During Ground-Disturbing Activities. In the unlikely event that any potentially significant paleontological resources are uncovered during ground disturbance or construction activities the following actions would be implemented by the construction contractor to prevent potential significant impacts on paleontological resources:</p>	<p>Implementation of MM GEO-2a would ensure that workers are trained to identify and properly handle potential paleontological resources discovered on-site during construction activities. MM GEO-2b sets forth specific actions to prevent potentially significant impacts to paleontological resources in the case of discovery. Therefore, impacts with mitigation incorporated would be <i>less than significant</i>.</p>

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts		
Impacts	Mitigation Measures	Residual Impacts
	<ul style="list-style-type: none"> Temporarily cease grading in the vicinity of the find and redirect activity elsewhere to ensure the preservation of the resource and surrounding rock in which the discovery was made. Immediately notify the City of Redondo Beach and/or the City of Torrance regarding the resource and redirected ground-disturbing activity. Obtain the services of a qualified professional paleontologist who shall assess the significance of the find and provide recommendations, as necessary, for its proper disposition. Complete all significance assessment and mitigation of impacts to the paleontological resource prior to resuming ground-disturbing activities in the area of the find. 	
SECTION 3.7, GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE		
Impact GHG-1 The proposed Project – including the Phase 1 preliminary site development plan as well as the more general Phase 2 development program – would not generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. Therefore, this impact would be <i>less than significant</i> .	No mitigation required	Less than significant
SECTION 3.8, HAZARDS AND HAZARDOUS MATERIALS		
Impact HAZ-1 The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not create a hazard to the environment or public health through the temporary or routine transport, use, or disposal of hazardous materials.	No mitigation required	Less than significant

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
Compliance with Federal, State, and local regulations would ensure that any such impact would be <i>less than significant</i> .		
Impact HAZ-2 The proposed Project – including the Phase 1 preliminary site development plan as well as the more general Phase 2 development program – could create a hazard to the environment or public health through reasonably foreseeable upset and accident conditions involving the disturbance of hazardous materials during demolition as well as excavation, trenching, and grading. Impacts would be <i>less than significant with mitigation</i> .	<p>MM HAZ-1 Asbestos-Containing Material (ACM), Lead-Based Paint (LBP), polychlorinated biphenyls (PCBs), and Mold Surveys. Prior to the issuance of a demolition permit by the Redondo Beach Building & Safety Division, Beach Cities Health District (BCHD) shall retain a licensed contractor to conduct a comprehensive survey of ACM, LBP, PCBs, and mold, including invasive physical testing within the buildings proposed for demolition including the Beach Cities Health Center during Phase 1 as well as the existing parking structure and potentially the Beach Cities Advanced Imaging Building during Phase 2. If such hazardous materials are found to be present, BCHD the licensed contractor shall follow all applicable Federal, State, and local codes and regulations (e.g., Rule 1403, Asbestos Emissions from Renovation/Demolition Activities), as well as applicable best management practices (BMPs), related to the treatment, handling, and disposal of ACM, LBP, PCBs, and molds to ensure public safety. This generally includes sealing off an area with plastic and filtering air to ensure that hazardous building materials are let out into the surrounding environment. During construction the licensed contractor shall conduct additional surveys as new areas (e.g., interior portions) of the buildings become exposed.</p> <p>MM HAZ-2a Soils Management Plan. Prior to approval of issuance of demolition, grading, or building permit by the Redondo Beach Building & Safety Division and/or approval of a grading plan by the City of Redondo Beach Building & Safety Division and the City of Torrance Building & Safety Division, Beach Cities Health District (BCHD) shall prepare and submit a Soils Management Plan and a Transportation Plan to the Los Angeles County Fire Department (LACoFD) Health Hazardous Materials Division and Los Angeles Regional Water Quality Control Board (RWQCB) as well as the City of Redondo Beach and City of Torrance, for review.</p>	Implementation of standard regulatory measures, best management practices, and MMs HAZ-1, HAZ-2a through -2d, and HAZ-3 would require methods and procedures to reduce and/or eliminate potential impacts related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials or environmental contamination into the environment. Therefore, impacts with mitigation incorporated would be <i>less than significant</i> .

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	<p>The Soils Management Plan and Transportation Plan shall include, but shall not be limited to the following:</p> <p><u>Soils Management Plan</u></p> <p>Affected soils shall be either directly loaded into awaiting trucks for immediate off-site disposal or temporarily stockpiled on plastic sheeting prior to load-out and off-site disposal. If temporarily stockpiled, soil removed from the excavations shall be placed next to or as close as possible to the excavation from which it came.</p> <p>Prior to load-out, the construction contractor shall prepare waste profiles and example waste manifests for approval by the receiving facilities. Soil and material segregation, stockpile handling, truck loading, and storm water management practices shall be followed during the remedial action according to the following:</p> <p><u>Soil and Material Segregation</u></p> <p>Overburden soils shall be screened with an Organic Vapor Analyzer (OVA) in accordance with South Coast Air Quality Management District (SCAQMD) Rule 1166. Any significant quantities of construction debris encountered during excavation shall be segregated and disposed of in accordance with Federal, State, and local regulations. Soil cuttings during the excavation and installation of soldier piles shall be disposed of off-site with any affected soils from the deep excavation.</p> <p><u>Stockpile Management</u></p> <p>The stockpiled soils for load-out shall be segregated by waste classification:</p> <ul style="list-style-type: none"> • Non-hazardous waste. • Volatile organic compound (VOC)-contaminated non-hazardous waste with OVA readings greater than 50 parts per million (ppm) but less than 1,000 ppm. • VOC-contaminated non-hazardous waste with OVA readings of 1,000 ppm or greater. These soils shall be immediately sprayed with water or suppressant and placed in a sealed container (roll-off bin) or directly 	

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	<p>loaded into a suitable transport truck, moistened with water, and covered with a tarp for off-site transportation to the appropriate disposal facility, as specified in the SCAQMD Rule 1166 Mitigation Plan.</p> <p>The temporary stockpiles containing affected soils shall be managed as follows:</p> <ul style="list-style-type: none"> • The temporary stockpiles for non-VOC contaminants shall be placed on plastic sheeting and kept moist during working hours and covered with plastic sheeting at the end of the day to control dust. • The VOC-contaminated stockpiles shall be placed on plastic sheeting and immediately covered with plastic sheeting. The edges of the plastic shall have an overlap of at least 24 inches. The plastic shall be secured at the base of the stockpile and along the seams of overlapping plastic sheeting with sandbags or equivalent means. The stockpiles shall remain covered until load-out. • Daily inspections of the stockpiles shall be conducted to verify the integrity of the stockpile covers. Any gaps, tears, or other deficiencies shall be corrected immediately. Daily records shall be kept of stockpile inspections and any repairs made. • If necessary, commercial vapor suppressants and sealants shall be prepared and applied to VOC-contaminated soil in accordance with the manufacturer's recommendations. • During stockpile generation and removal, only the working face of the stockpile shall be uncovered. <p><u>Decontamination Methods and Procedures</u></p> <p>Each piece of equipment used for the excavation of affected soils shall have a clean-out bucket or continuous edge across the cutting face of its bucket. No excavation of affected soil shall be permitted with equipment utilizing teeth across the cutting edge of its bucket.</p>	

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	<p>Entry to the contaminated areas (i.e., work exclusion zones) shall be limited to avoid unnecessary exposure and related transfer of contaminants. In unavoidable circumstances, any equipment or truck(s) that come into direct contact with affected soil shall be decontaminated to prevent the on- and off-site distribution of contaminated soil. The decontamination shall be conducted within a designated area by brushing off equipment surfaces onto plastic sheeting. Trucks shall be visually inspected before leaving the site, and any dirt adhering to the exterior surfaces shall be brushed off and collected on plastic sheeting. The storage bins or beds of the trucks shall be inspected to ensure the loads are properly covered and secured. Excavation equipment surfaces shall also be brushed off prior to removing the equipment from contaminated areas.</p> <p>Movement of affected soils from the excavation area to temporary stockpiles shall be conducted using enclosed transfer trucks, if possible. If affected soils must be moved within an open receptacle (e.g., loader bucket), the travel path for the loader shall be scraped following this activity, with scraped soils placed in the temporary stockpile for load-out.</p> <p>Sampling equipment that comes into direct contact with potentially contaminated soil or water shall be decontaminated to assure the quality of samples collected and/or to avoid cross-contamination. Disposable sampling equipment intended for one-time use shall not be decontaminated, but shall be packaged for appropriate off-site disposal. Decontamination shall occur prior to and after each designated use of a piece of sampling equipment, using the following procedures:</p> <ul style="list-style-type: none"> • Non-phosphate detergent and tap-water wash, using a brush if necessary. • Tap-water rinse. • Initial deionized/distilled water rinse. • Final deionized/distilled water rinse. <p><u>Truck Loading</u></p>	

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	<p>Trucks may be loaded directly from the excavation or temporary stockpile based on truck availability and excavation logistics. Trucks shall be routed, and stockpile areas shall be located so as to avoid having trucks pass through impacted areas. The truckloads shall be wetted and tarped prior to exiting the site. All soil hauled from the site shall comply with the following:</p> <ul style="list-style-type: none"> • Materials shall be transported to an approved treatment/disposal facility. • No excavated material shall extend above the sides or rear of the truck/trailer. • Trucks/trailers carrying affected soils shall be completely tarped/covered to prevent particulate emissions to the atmosphere. Prior to covering/tarping, the surface of the loaded soil shall be moistened. • The exterior of the trucks/trailers shall be cleaned off prior to leaving the site to eliminate tracking of material off-site. <p><u>Storm Water Management</u></p> <p>General construction BMP) identified by the Los Angeles RWQCB shall be implemented during soil excavation activities to contain and control storm water runoff that might convey contaminated or excessive sediments. If rainfall is expected, the areas around open excavations shall be graded and bermed to prevent storm water from flowing into the excavation. Any standing water that collects in the bottom of the excavations shall be removed and handled in accordance with Federal, State, and local regulations. The water shall be sampled and analyzed either as standing water in the excavation or following containment in a temporary above-ground storage tank. Depending on the volume of water and the sampling results, options for handling the standing water could include:</p> <ul style="list-style-type: none"> • Pumping the standing water into temporary aboveground storage tanks for reuse on-site for dust suppression. 	

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	<ul style="list-style-type: none"> • Pumping the standing water through filters and a carbon adsorption filter (if required based on analytical results) prior to discharge to a storm drain. • Pumping the standing water into vacuum trucks for transport and disposal at a recycling facility. <p><u>Transportation Plan</u></p> <p>All affected soils shall be transported off-site for lawful management and disposal. Prior to load-out, the construction contractor shall prepare waste profiles for the receiving facility using analytical data from the previous environmental site assessment.</p> <p>MM HAZ-2b Soil Vapor Monitoring. During soil disturbance activities with the potential to disturb tetrachloroethylene (PCE)-contaminated soil, soil vapor monitoring shall be conducted by the construction contractor using a photoionization detector (PID) 10.6 or 11.7 eV lamp. Use of the PID shall ensure that the Occupational Safety and Health Administration (OSHA) exposure limits for PCE and other volatile organic compounds (VOCs) are maintained. In the event that the OSHA exposure limits are exceeded, work within the confined space would be temporarily stopped until the use of a Soil Vapor Extraction (SVE) vacuum blower reduces it to below this limit (see MM HAZ-2c)</p> <p>MM HAZ-2c Soil Vapor Extraction (SVE) Equipment. Use of an SVE vacuum blower (e.g., regenerative blowers, rotary lobe blowers, rotary claw blowers, centrifugal fan blowers, etc.) shall be implemented during construction within confined spaces, as necessary, to maintain Occupational Safety and Health Administration (OSHA) exposure limits or trichloroethylene (PCE) and other volatile organic compounds (VOCs).</p> <p>MM HAZ-2d Discovery of Contamination. In the event that previously unknown or unidentified soil and/or groundwater contamination that could present a threat to human health or the environment is encountered during construction at a development site, construction activities in the immediate vicinity of the contamination shall cease immediately. A qualified environmental</p>	

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	<p>specialist (e.g., a licensed Professional Geologist, a licensed Professional Engineer, or similarly qualified individual) shall conduct an investigation to identify and determine the level of soil and/or groundwater contamination. If contamination is encountered, a Human Health Risk Management Plan shall be prepared and implemented that: 1) identifies the contaminants of concern and the potential risk each contaminant would pose to human health and the environment during construction and post-development; and 2) describes measures to be taken to protect workers, and the public from exposure to potential site hazards. Such measures could include a range of options, including, but not limited to, physical site controls during construction, remediation, long-term monitoring, post-development maintenance or access limitations, or some combination thereof. Depending on the nature of contamination, if any, appropriate agencies shall be notified (e.g., Los Angeles County Fire Department [LACoFD] and Los Angeles Regional Water Quality Control Board [RWQCB]). If needed, a Site Health and Safety Plan that meets Occupational Safety and Health Administration (OSHA) requirements shall be prepared and in place prior to commencement of work in any contaminated area.</p> <p>MM HAZ-3 Well Review Program. Prior to demolition or ground-disturbing activities on the vacant Flagler Lot, Beach Cities Health District (BCHD) shall enroll in the California Geologic Energy Management Division's (CalGEM's) Well Review Program. Following enrollment in the Well Review Program CalGEM would:</p> <ul style="list-style-type: none"> • Identify/confirm the location of the previously abandoned and plugged oil and gas well on the property. • Provide a review of the previously abandoned and plugged oil and gas well located on the Project site. The review process shall consist of determining the abandonment status of the well by examining past plugging operations, and then comparing the abandonment status with current abandonment standards. 	

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	<ul style="list-style-type: none"> • Provide an evaluation of all known wells located on the development site property. The evaluation process will consist of: 1) verifying that the previously abandoned and plugged oil and gas well has a competent surface plug; and 2) verifying the wells are not leaking any fluids or gas. BCHD shall be responsible for the removal of all metal plates attached to the top of casings of the well prior to the evaluation to prevent the buildup of methane gas underneath metal plates. Following evaluation, a metal identification plate shall be welded (without full bead) to the top of the well casing to allow any potential gas leakage to vent out of the casing and prevent pressure from building up in the wellhead. For identification purposes, the metal identification plate shall show the well's name and Assessor Parcel Identification number. • Ensure proper well restoration following evaluation. Proper well site restoration shall include the removal of all associated well equipment, junk, and debris and any well excavation needs to be filled with earth, compacted properly to prevent settling, and graded over. Pursuant to California Code of Regulations (CCR) Section 1776, well site restoration must be completed within 60 days following the evaluation of a well. • Issue a Well Review Letter to BCHD and local permitting agencies (i.e., the City of Redondo Beach and the City of Torrance. The Well Review Letter will list the current status of all known wells located on the development site property, and it will provide other important information associated with development near oil or gas wells. <p>BCHD shall adhere to all recommendations provided by CalGEM, which may include maintaining rig access to the well, avoiding building over or in close proximity to the well, and implementing</p>	

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	surface mitigation measures are determined necessary by CalGEM. Surface mitigation measures may include installation of venting systems for wells, venting systems for parking lots, patios, and other hardscape, methane barriers for building foundations, methane detection systems, and collection cellars for well fluids by a licensed Professional Engineer. The permitting of surface mitigation measures shall fall under the authority of the City of Redondo Beach and the City of Torrance.	
Impact HAZ-3 The proposed Project could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within a 0.25-mile radius of an existing or proposed school. Compliance with Federal, State, and local regulations would ensure that any such impact would be <i>less than significant</i> .	No mitigation required	Less than significant
Impact HAZ-4 The proposed Project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant of Government Code Section 65962.5, which could create a significant hazard to the public or the environment. Compliance with all applicable regulations and mitigation measures would reduce this impact to <i>less than significant with mitigation</i> .	Refer to MM HAZ-2a through -2d above	Implementation of MM HAZ-2a through -2d would require methods and procedures to ensure volatile organic compounds (VOC) compounds and contaminated soils are properly detected, removed, and handled during ground disturbing activities associated with the proposed Project. Therefore, impacts related to hazards to the public or the environment with mitigation incorporated would be <i>less than significant</i> .
Impact HAZ-5 The proposed Project would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts would be <i>less than significant</i> .	No mitigation required	Less than significant

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts		
Impacts	Mitigation Measures	Residual Impacts
SECTION 3.9, HYDROLOGY AND WATER QUALITY		
Impact HYD-1 Neither construction nor operation of the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would result in a violation of water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality. The proposed Project would comply with existing regulations and plans to ensure the potential impacts to water quality would be <i>less than significant</i> .	No mitigation required	Less than significant
Impact HYD-2 Construction and operation of the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would not require dewatering activities or otherwise substantially deplete groundwater supplies. The proposed Project would increase groundwater recharge by increasing pervious surface area and improving the existing infiltration system; therefore, there would be a minor <i>beneficial</i> impact.	No mitigation required	Less than significant
Impact HYD-3 The proposed Project would involve the construction of an on-site infiltration system to facilitate groundwater recharge and eliminate stormwater drainage to the City of Torrance municipal storm drain system by abandoning the existing infrastructure that discharges to Flagler Lane in place. Additionally, the proposed Project – including the Phase 1 preliminary development plan and the more general Phase 2 development program – would not contribute additional runoff to the City of Redondo Beach municipal storm drain system that would exceed existing capacity or increase sources of polluted runoff. The proposed Project would comply with existing regulations and plans to ensure the	No mitigation required	Less than significant

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
potential impacts related to drainage would be <i>less than significant</i> .		
Impact HYD-4 The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan – including the Ocean Plan, Los Angeles Basin Plan, Groundwater Basin Master Plan (GBMP), and the California Water Service Company (Cal Water) Urban Water Management Plan (UWMP). Therefore, impacts would be <i>less than significant</i> .	No mitigation required	Less than significant
SECTION 3.10, LAND USE AND PLANNING		
LU-1 The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not cause a significant environmental impact due to a conflict with applicable land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental effect. Impacts associated with the proposed Project would be <i>less than significant</i> .	No mitigation required	Less than significant
SECTION 3.11, NOISE		
Impact NOI-1 Construction activities associated with proposed Project – including the Phase 1 preliminary development plan and the more general Phase 2 development program – would result in a temporary, but prolonged increase in noise levels at the following noise-sensitive residential areas: 1) Beryl Street between North Prospect and Flagler Lane; 2) Flagler Lane and Flagler Alley between Beryl Street and North Prospect Avenue; 3) Diamond	MM NOI-1 Construction Noise Management Plan. BCHD shall prepare a Construction Noise Management Plan for approval by the Redondo Beach and Torrance Building & Safety Divisions, in accordance with TMC Section 46.3.1. The Construction Noise Management Plan would address noise and vibration impacts and identify measures that would be used to reduce impacts. At a minimum measures would include: <ul style="list-style-type: none"> Construction activities shall be restricted to the hours between 7:30 a.m. and 6:00 p.m., Monday through 	Implementation of MM NOI-1 and compliance with the Redondo Beach and Torrance Noise Regulations would reduce construction noise impacts; however, feasible noise barrier heights do not reduce noise levels for construction activities occurring above 30 feet. These construction activities would result in

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
Street between Flagler Alley and North Prospect Avenue; and, 4) North Prospect Avenue between Diamond Street and Beryl Street. While compliance with the Redondo Beach and Torrance Noise Regulations and implementation of a Construction Noise Management Plan would reduce construction noise, construction noise levels would exceed Federal Transit Administration (FTA) thresholds and this impact would remain <i>significant and unavoidable</i> during both Phase 1 and Phase 2 of the proposed Project.	<p>Friday, or the hours between 9:00 a.m. and 5:00 p.m. on Saturday to the maximum extent feasible, in accordance with RBMC Sections 4-24.503 and 9-1.12 and TMC Section 6-46.3.1.</p> <ul style="list-style-type: none"> • BCHD and its contractors and subcontractors shall coordinate approvals with the City of Redondo Beach and the City of Torrance and construct noise barriers to reduce noise levels to on- and off-site sensitive receptors, where feasible: <ul style="list-style-type: none"> ○ During Phase 1, noise barriers containing sound-absorbing materials would be constructed to a height that blocks the line-of-sight to sensitive receptors to the maximum extent feasible taking into account environmental constraints (e.g., wind loading, property ownership, etc.). ○ During Phase 2, noise barriers containing sound-absorbing materials would be constructed to a height that blocks the line-of-sight to sensitive receptors to the maximum extent feasible taking into account environmental constraints (e.g., wind loading, property ownership, etc.). • BCHD's construction contracts shall require implementation of the following construction best management practices (BMPs) by all construction contractors and subcontractors working in or around the Project site to reduce construction noise levels: <ul style="list-style-type: none"> ○ BCHD and its contractors and subcontractors shall ensure that construction equipment is properly muffled according to manufactures specifications or as required by the Redondo Beach and City of Torrance Building & Safety Division, whichever is the more stringent. 	noise levels that would exceed the FTA residential criterion. Therefore, noise impacts resulting from construction of the proposed Project with mitigation incorporated would remain <i>significant and unavoidable</i> .

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts		
Impacts	Mitigation Measures	Residual Impacts
	<ul style="list-style-type: none">○ BCHD and its contractors and subcontractors shall use electrically powered tools and facilities to the maximum extent feasible. Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers or caretaker facilities.○ BCHD and its contractors and subcontractors shall place noise-generating construction equipment and locate construction staging areas away from on-site and off-site sensitive uses (e.g., centrally on the existing campus), where feasible, to the satisfaction of the Redondo Beach and Torrance Building & Safety Divisions.● BCHD’s construction contracts shall include the requirement that construction staging areas, construction worker parking and the operation of earthmoving equipment within the Project site, are located as far away from noise-sensitive sites as feasible. Contract provisions incorporating the above requirements shall be included as part of the construction documents, which shall be reviewed and approved by the City of Redondo Beach and Torrance Building & Safety Divisions prior to issuance of demolition or grading permits.● BCHD’s construction contracts shall include the requirement that haul trucks remain on the designated haul routes identified in the Redondo Beach and Torrance General Plans. Further, haul trucks should attempt to operate in traffic lanes that are located at the greatest distance from sensitive receptors, typically the lane nearest the roadway centerline on a four-lane roadway. Contract specifications shall be included in the proposed Project’s construction documents, which shall be reviewed by the	

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts		
Impacts	Mitigation Measures	Residual Impacts
	<p>Redondo Beach and Torrance Building & Safety Divisions prior to issuance of demolition or grading permits.</p> <p>At least 1 month prior to the initiation of construction-related activities during Phase 1 and Phase 2, BCHD shall prepare and distribute notices to residents and businesses located within a 0.25-mile radius of the Project site. At a minimum, the notices shall describe the overall construction schedule, advise residents, business owners, and employees of increased construction-related noise. During construction, BCHD shall monitor noise and vibration resulting from construction activities to ensure that all noise attenuation measures are implemented as described in the Plan. Further, BCHD shall provide a non-automated telephone number for residents and employees to call to submit complaints associated with construction noise. BCHD shall keep a log of complaints and shall address complaints as feasible to minimize noise issues for neighbors. The Redondo Beach and Torrance Building & Safety Divisions shall require modification to the conditions of the Construction Noise Plan, if necessary, to address non-performance issues.</p>	
<p>Impact NOI-2 Ground-borne vibration levels generated during construction of the proposed Project – including the Phase 1 preliminary site development plan as well as the more general Phase 2 development program – would be below Federal Transit Administration (FTA) thresholds for on-site construction activities but would exceed FTA thresholds for off-site haul truck operations. Nevertheless, impacts to sensitive receptors associated with construction vibration would be <i>less than significant</i>.</p>	<p>Recommended MM NOI-2 Haul and Delivery Truck Operations. Where feasible, haul and delivery truck operations associated with Phase 1 and Phase 2 development would enter and exit the Project site utilizing Lane 1 (the lane farthest from residences) along the given haul route.</p>	<p>According to the FTA, the proposed Project would have no impact even if the existing vibration exceeds the standard vibration criteria so long as the number of events does not increase significantly (i.e., approximate doubling of events) and the vibration does not exceed the existing vibration by 3 dBA or more (FTA 2018). Haul truck operations associated with Phase 1 and Phase 2 would not resulting in the doubling of events, would be temporary in nature, and would not exceed the existing vibration by 3 dBA or more. Therefore, vibration levels from</p>

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
		construction equipment and haul trips associated with BCHD development would be <i>less than significant</i> . While not required to reduce impacts to <i>less than significant</i> , the recommended mitigation measure MM NOI-2 would be implemented to further reduce noise levels for off-site residential uses from haul truck trips during construction associated with the proposed Project.
<p>Impact NOI-3 Operational noise associated with the proposed Project – particularly noise associated with outdoor events (e.g., movie nights, farmers’ markets, fitness classes, etc.) – would result in potentially significant noise impacts. However, operational noise impacts would be <i>less than significant with mitigation</i>.</p>	<p>MM NOI-3a Delivery Truck Hours and Idling. Deliveries from heavy-duty trucks, including refrigerator trucks, trash and recycling pick-ups, and parking lot sweeping, shall be restricted to daytime operating hours (7:00 a.m. to 4:00 p.m.); idling longer than 5 minutes in the same period shall be prohibited.</p> <p>MM NOI-3b Events Management Plan. BCHD shall prepare an Event Management Plan, which shall include, but is not limited to, establishment of procedures to limit noise generated by operations on the proposed BCHD Healthy Living Campus, particularly for outdoor events. The Plan shall also detail the hours of outdoor classes/events, maximum class/event capacities, and allowable noise levels consistent with the RBMC and TMC. Limitations on outdoor events shall include prohibiting the use of amplification systems for outdoor events after 10:00 p.m. to comply with RBMC and TMC lower nighttime noise level criteria and review of the proposed sound system by a qualified acoustical engineer to ensure that event set ups would meet the acceptable exterior noise criteria of 50 to 55 dBA consistent with RBMC Section 4-24.301 and TMC Section 6-46.7.2.</p> <p>MM NOI-3c Outdoor Pool Activities. The Aquatics Center, specifically the outdoor pool and deck area would close operations</p>	<p>Implementation of MM NOI-3a would eliminate noise impacts associated with heavy-duty delivery trucks and would reduce daytime noise impacts associated with heavy-duty delivery trucks by prohibiting idling longer than five minutes. Implementation of MM NOI-3b would substantially reduce operational noise associated with outdoor fitness classes and community events. Implementation of MM NOI-3c would ensure that outdoor activities at the Aquatic Center are concluded by 10:00 p.m. With required compliance with RBMC Section 4-24.301 and TMC Section 6-46.7.2, as well as the implementation of MM NOI-3a, MM NOI-3b, and MM NOI-3c, impacts associated with proposed Project operations with mitigation incorporated would be <i>less than significant</i>.</p>

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts		
Impacts	Mitigation Measures	Residual Impacts
	by 10:00 p.m. to comply with RBMC and TMC lower nighttime noise level criteria.	
SECTION 3.12, POPULATION AND HOUSING		
Impact PH-1 The proposed Residential Care for the Elderly (RCFE) Building would provide a total of 217 on-site residential units, including 60 replacement Memory Care units and 157 new Assisted Living units. Additionally, the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would create a total of approximately 170 new jobs on the campus. However, the anticipated increase in population within Redondo Beach, Torrance, and the surrounding cities would be minor and well within the forecasted population growth for the region. The proposed Project would not induce substantial population growth and impacts would be <i>less than significant</i> .	No mitigation required	Less than significant
SECTION 3.13, PUBLIC SERVICES		
Impact PS-1 The proposed Project – including the Phase 1 preliminary site development plan under Phase 1 and the more general Phase 2 development program – could incrementally increase the demand for the Redondo Beach Fire Department (RBFD) fire protection and Emergency Medical Services (EMS) services as well as other non-emergency services. However, this increase would not result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered fire protection and EMS services and facilities in order to maintain acceptable service ratios, response times, or other performance	No mitigation required	Less than significant

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
objectives. This impact would be <i>less than significant</i> .		
Impact PS-2 The implementation of the proposed Project – including the preliminary development plan under Phase 1 and the development program under Phase 2 – would incrementally increase the demand for law enforcement services. However, the required compliance with existing building security standards (e.g., Redondo Beach Municipal Code [RBMC] Section 9-15.01) would ensure that implementation of the Project would not result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered police protection and EMS services and facilities in order to maintain acceptable service ratios, response times, or other performance objectives. This impact would be <i>less than significant</i> .	No mitigation required	Less than significant
SECTION 3.14, TRANSPORTATION		
Impact T-1 The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not cause significant environmental impacts due to conflicts with any transportation plan, policy, or regulation. Therefore, impacts would be <i>less than significant with mitigation</i> .	Refer to MMs T-1 and T-2 below	The implementation of recommended MM T-1 would require the preparation of a TDM plan consistent with the requirements of Redondo Beach Municipal Code (RBMC) Section 10-2.2406. The TDM plan would describe trip reduction strategies such as transit and carpool incentives for employees (e.g., designated parking for carpools and vanpools on-site), intended to reduce single-occupancy vehicle trips to the Project site. Implementation of MM T-2 would require the preparation of a Construction Traffic and Access Management Plan, which would

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts		
Impacts	Mitigation Measures	Residual Impacts
		include provisional measures to reduce construction traffic and maintain public safety. With the implementation of these mitigation measures, the proposed Project would not conflict with a program, plan, ordinance or policy addressing the circulation system and impacts would be <i>less than significant</i> .
Impact T-2 Additional vehicle miles traveled (VMT) generated during construction would be minimized with implementation of a Construction Traffic and Access Management Plan. Long-term operation of the proposed Project would generate an incremental increase in VMT that would be <i>less than significant</i> .	Recommended MM T-1 Transportation Demand Management (TDM) Plan. Beach Cities Health District (BCHD) would prepare and implement a comprehensive TDM plan, which would provide trip reduction strategies for BCHD employees, tenants, and campus visitors. The TDM plan would be prepared by a qualified transportation engineer/planner and overseen by a TDM Coordinator to be designated by BCHD. The TDM plan would be developed prior to the issuance of a Conditional Use Permit (CUP) for Phase 1 of the proposed Project and would be continuously maintained and adjusted as needed.	With implementation of recommended MM T-1, the proposed Project would implement a TDM plan with trip reduction strategies such as transit and carpool incentives for employees (e.g., designated parking for carpools and vanpools on-site), to reduce single-occupancy vehicle trips to the Project site. Implementation of MM T-2 below would reduce construction VMT impacts by requiring the preparation of a Construction Traffic and Access Management Plan, which would include provisional measures to reduce construction traffic, maintain public safety, and reduce associated VMT. Although not required to mitigate a significant impact, MM T-1 is recommended to assist in implementing the Project's proposed TDM plan by describing its requirements. Therefore, impacts related to increased VMT during construction and operation with

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	<p>The BCHD TDM Coordinator would monitor employee, tenant, and visitor mode share with annual surveys and develop annual reports for submittal to the BCHD Board of Directors. The surveys shall capture trip origin data, travel mode, rideshare (e.g., number of people in the party), and other key data and indicators for TDM program performance relative to vehicle miles traveled (VMT) (e.g., employee incentives for bicycling to work). The BCHD TDM Coordinator would ensure that monitoring efforts capture all BCHD-related travel behavior. Annual monitoring reports would include trip length surveys completed at least biannually by a sample of BCHD employees and tenants by BCHD employees (e.g., trip origin data collection). Survey results would be used to determine the appropriate TDM measures to employ in the coming year to maximize reductions in VMT per capita, champion transit and alternative mode transportation to the BCHD employees, develop appropriate incentives to increase the BCHD's transit mode share incrementally over time, and develop effective marketing tools to advertise transit and non-vehicular travel mode availability and incentives.</p> <p>Each annual TDM Program monitoring report would:</p> <ul style="list-style-type: none"> • Describe the TDM efforts in place at the time to reduce vehicular trips; • Summarize collected employee and tenant survey data and results; • Evaluate survey data and results, comparing trends and annual changes; • Evaluate change in available transportation infrastructure and programs serving the BCHD campus; • Provide recommendations for adjustments to the TDM Program to adaptively manage VMT reductions for employees, tenants, and visitors. 	<p>mitigation would be <i>less than significant</i>.</p>

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	<p>The TDM Coordinator would oversee annual monitoring and reporting to evaluate the effectiveness of the TDM measures being implemented at the BCHD campus and recommend adjustments as needed to the TDM plan on an annual basis. Final annual reports and data (e.g., survey data) shall be shared with the cities of Redondo Beach and Torrance and made readily available for public review and use. Information regarding the TDM plan shall be distributed to all BCHD employees and tenants and shall be posted on BCHD's website and other marketing materials for BCHD visitors and updated annually as needed based on the annual reports.</p> <p>The TDM Coordinator would consider a range of measures for the TDM plan to reduce employee and visitor VMT per capita, including, but not limited to, the following:</p> <ul style="list-style-type: none"> • Provide employee incentives to participate in a vanpool program and regularly advertise the opportunities to vanpool through a variety of employee communication formats. • Partner with rideshare companies such as Uber or Lyft to guarantee availability of an emergency ride home or provide access to City vehicles for this purpose. • Offer employee TDM benefits for use of active transportation commuter modes, including ridesharing, transit, bicycling walking, carpool/vanpool, etc. Incentives for BCHD employees could include flexible scheduling or options for telecommuting. • Maximize opportunities for BCHD employee to telecommute as part of regular scheduling. • Provide a transportation information center and wayfinding signage for nearby Beach Cities Transit Line 102 bus stops. • Expand the proposed onsite bicycle facilities (i.e., shower, racks, and lockers) for BCHD employees in an amount and location informed by annual employee surveys and monitoring reports. 	

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	<ul style="list-style-type: none"> • Encourage bicycles as a primary commute mode for employees and provide incentives for biking to work, including providing free or discounted equipment to employees such as helmets, locks, bicycle commuter gear, and bicycles (electric or non-electric). • Coordinate with the cities of Redondo Beach and Torrance to identify and facilitate new bicycle paths between the BCHD campus and neighboring communities, particularly linkages to existing bicycle path segments. BCHD and the cities of Redondo Beach and Torrance shall ensure that all bicycle paths to the BCHD campus are well-signed and provide lighting, are regularly patrolled by law enforcement. • Provide commuter clubs for BCHD employees and campus visitors to support a collaborative approach to TDM. • Maintain and expand onsite bicycle parking for BCHD visitors in an amount and location informed by visitor surveys and annual monitoring reports. <ul style="list-style-type: none"> ○ Maintain and expand short-term bicycle parking within the BCHD campus to meet changing demands evaluated in the TDM Program annual reports. ○ Provide well-lit, clearly signed, bicycle parking that is convenient and in close proximity to the Entry Plaza to encourage bicycling by visitors. ○ Provide secure short-term bicycle parking and/or a bicycle parking attendant, bicycle valet, or indoor bicycle parking facility to prevent theft and ensure parking availability for BCHD visitors. 	

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	<ul style="list-style-type: none"> Design bicycle racks with space-efficient configurations, such as vertically staggered racks and two-tier racks. Provide a bike share station at the campus as a part of the Metro Bike Share, or a new bike share program specific to BCHD. Funding shall be determined based on the area required for the bike station. The bike share station shall be well-lit and located at a safe and convenient location adjacent to the Entry Plaza. 	
<p>Impact T-3 Construction traffic hazards would be mitigated by implementation of a Construction Traffic and Access Management Plan. Operation of the proposed Project may increase hazards for pedestrians and transit along eastbound Beryl Street due to the proposed new driveway entrance at the Flagler Lot. Construction and operational impacts related to hazards due to design features would be <i>less than significant with mitigation</i>.</p>	<p>MM T-2 Construction Traffic and Access Management Plan. Following preparation of the final design plan for Phase 1 of the proposed Project, the Beach Cities Health District (BCHD) shall expand upon the Construction Traffic Control Plan and prepare, implement, and maintain a Construction Traffic and Access Management Plan to address and manage traffic during construction. The Construction Traffic and Access Management Plan shall be subject to review and approval by BCHD, the County Department of Transportation (DOT) and Redondo Beach Community Development Department prior to issuance of a Conditional Use Permit. The Construction Traffic and Access Management Plan shall be designed to:</p> <ul style="list-style-type: none"> Prevent traffic impacts on the surrounding roadway network; Minimize parking impacts both to public parking and access to private parking to the greatest extent practicable; Ensure safety for both those constructing the project and the surrounding community; and Prevent substantial truck traffic through residential neighborhoods. <p>The Plan shall, at a minimum, include the following:</p>	<p>Implementation of MM T-2 would require the preparation of a construction traffic and access management plan which would identify haul truck routes and traffic control procedures (e.g., traffic cones, temporary signs, changeable message signs, and construction flaggers, etc.) that would be in place throughout the duration of construction and would reduce construction-related traffic hazards to <i>less than significant</i>. Additionally, implementation of MM T-3 would relocate the existing Beach Cities Transit Line 102 northbound bus stop along eastbound Beryl Street and would reduce operational impacts associated with sight distance and vehicle-bus conflicts at the proposed one-way driveway along Beryl Street to <i>less than significant</i>.</p>

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	<ul style="list-style-type: none"> • Designated haul routes consistent with the Redondo Beach and Torrance General Plan designations; • On-site staging areas, which would avoid residential streets to the maximum extent feasible; • Traffic control procedures (e.g., traffic cones, temporary signs, changeable message signs, and construction flaggers at the three driveways along North Prospect Avenue as well as the proposed driveways along Beryl Street and Flagler Lane) to address circulation requirements and public safety in accordance with the standards in the County DOT Area Traffic Control Handbooks; • Emergency access provisions (i.e., North Prospect Avenue and Beryl Street); and • Construction crew parking. <p>Ongoing Requirements throughout the duration of construction:</p> <ul style="list-style-type: none"> • A detailed Construction Traffic Control Plan for work zones shall be maintained. At a minimum, this shall include parking and travel lane configurations; warning, regulatory, guide, and directional signage; and area sidewalks, bicycle lanes, and parking lanes. Such plans shall be reviewed and approved by the Redondo Beach Community Development Department, Redondo Beach Public Works Department, and Torrance Community Development Department prior to issuance of a demolition, excavation, grading, or building permit and implemented in accordance with this approval. • Work within the public right-of-way shall be performed between 9:00 a.m. and 4:00 p.m. This work includes dirt and demolition material hauling and construction material delivery. Work within the public right-of-way outside of these hours shall only be allowed contingent upon the issuance of an after-hours construction permit from the Redondo Beach and Torrance Community Development Department. 	

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	<ul style="list-style-type: none"> Streets and equipment shall be cleaned in accordance with established Redondo Beach and Torrance Public Works Department requirements. Trucks shall only travel on approved construction routes. Truck queuing/staging shall only be allowed at approved locations. Limited queuing may occur on the construction site itself. Materials and equipment shall be minimally visible to the public; the preferred location for materials is to be on-site, with a minimum amount of materials within a work area in the public right-of-way, subject to a current City of Redondo Beach permit. <p>Project Coordination Elements That Shall Be Implemented Prior to Commencement of Construction:</p> <ul style="list-style-type: none"> Prior to Phase 1 and Phase 2 of Project implementation, BCHD shall advise the traveling public of impending construction activities (e.g., information signs, portable message signs, and media listing/notification) as well as provide a call line for complaints and concerns regarding construction traffic. BCHD shall provide timely notification of construction schedules to all affected agencies (e.g., public and private transit, Redondo Beach Fire Department [RBFD], Redondo Beach Police Department [RBPD], Public Works Department, and Community Development Department) and to all owners and residential and commercial tenants of property within a radius of 500 feet prior to Phase 1 and Phase 2 of Project implementation. BCHD shall coordinate construction work with affected agencies in advance of start of work. Approvals may take up to 2 weeks per each submittal. BCHD shall obtain approval from the cities of Redondo Beach and Torrance of any haul routes for earth, concrete, or construction materials and equipment hauling. 	

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
	<ul style="list-style-type: none"> BCHD shall obtain an Excavation Permit, Street/Lane Closure Permit, Sewer Permit, Demolition Permit, and any other applicable permits for construction work requiring encroachment into public rights-of-way, detours, or any other work within the public right-of-way. <p>MM T-3 Relocation of Beach Cities Transit Line 102. To implement the proposed one-way driveway and pick-up/drop-off zone on Flagler Lot, BCHD shall work with the Redondo Beach Community Services Department Transit Division to relocate the existing Beach Cities Transit Line 102 northbound bus stop along eastbound Beryl Street. The bus stop shall be located along the south side of Beryl Street between the proposed one-way driveway entrance to the west and the intersection with Flagler Lane to the east. All proposed transit stop improvements shall be incorporated into final plans and reviewed and approved by the Redondo Beach Community Services Department Transit Division prior to the issuance of permits for these improvements.</p>	
<p>Impact T-4 Emergency access to the Project site is currently adequate and would be maintained following the construction of the proposed Project. During construction, emergency access could be impeded due to haul truck traffic, temporary lane closures, or other construction activities. However, with implementation of a Construction Traffic and Access Management Plan, impacts of construction on emergency access would be <i>less than significant with mitigation</i>.</p>	Refer to MM T-2 above	Implementation of MM T-2 would require the preparation and implementation of a Construction Traffic and Access Management Plan, which would identify noticing requirements for the Redondo Beach Fire Department (RBFD) and Redondo Beach Police Department (RBPD). Additionally, the Construction Traffic and Access Management Plan would provide for emergency access throughout the duration of construction. Therefore, impacts with mitigation incorporated would be <i>less than significant</i> .

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts		
Impacts	Mitigation Measures	Residual Impacts
SECTION 3.15, UTILITIES AND SERVICE SYSTEMS		
Impact UT-1 Implementation of the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would increase the overall operational water demand at the Project site. However, with the exception of on-site trenching for the new connection to the 8-inch water line located along North Prospect Avenue, the proposed Project would not require or result in the substantial construction or expansion of existing water facilities. Therefore, potential impacts to water infrastructure would be <i>less than significant</i> .	No mitigation required	Less than significant
Impact UT-2 The proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would result in an overall increase in water demand, but this water demand would be adequately met by existing and planned future water supplies. This impact would be <i>less than significant</i> .	No mitigation required	Less than significant
Impact UT-3 Implementation of the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would result in an increase in operational wastewater generation at the Project site as compared to existing conditions. Environmental effects associated with the construction of wastewater facilities would be <i>less than significant</i> .	No mitigation required	Less than significant
Impact UT-4 Implementation of the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would result in an overall increase in wastewater generation at the Project site; however, the proposed Project would not result in an exceedance of the Joint Water Pollution Control	No mitigation required	Less than significant

Table ES-1. Project Impacts, Mitigation Measures and Residual Impacts

Impacts	Mitigation Measures	Residual Impacts
Plant's (JWPCP's) wastewater treatment capacity. Impacts would be <i>less than significant</i> .		
Impact UT-5 The implementation of the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not result in the generation of solid waste during construction or operation that would exceed the existing capacity of existing landfills serving Redondo Beach. Therefore, impacts would be <i>less than significant</i> .	No mitigation required	Less than significant
Impact UT-6 The proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would not result in generation of solid waste that would conflict with Federal, State, and local statutes and regulations related to solid waste. Due to existing local programs implementing State laws for diversion, would be <i>no impact</i> .	No mitigation required	No impact
CUMULATIVE IMPACTS		
The proposed Project would not substantially contribute to any cumulatively considerable impacts for any of the environmental issues areas evaluated within the EIR.		

As previously described the EIR evaluates six alternatives, including a No Project Alternative, in compliance with CEQA. These alternatives include:

- Alternative 1 – No Project Alternative (Demolish and Replace with Limited Open Space)
- Alternative 2 – Sale and Redevelopment of the BCHD Campus
- Alternative 3 – Revised Access and Circulation
- Alternative 4 – Phase 1 Preliminary Site Development Plan Only
- Alternative 5 – Relocate CHF Permanently and Reduced Parking Structure
- Alternative 6 – Reduced Height Alternative

Alternative 4 is the environmentally superior alternative because it would substantially reduce the severity of the construction-related noise impacts, which would be significant and unavoidable under the proposed Project. This alternative would reduce the total duration of construction-related noise to 29 months over one phase of development. Additionally, this alternative would similarly reduce the duration of construction-related criteria pollutant and GHG emissions. Finally, Alternative 4 would eliminate the net increase in trips associated with Phase 2 and would instead result in a substantial reduction relative to existing conditions. However, while this is the environmentally superior alternative, it is unclear if this alternative would be financially feasible given the required reduction in the height of the proposed RCFE Building required by MM VIS-1, without any replacement of the square footage (e.g., as described for Alternative 6). As such, Alternative 4 may not be able to meet the Project Objective 6 to “[g]enerate sufficient revenue through mission-derived services and facilities to address growing future community health needs.”

Table ES-2. Impact Comparison of Alternatives to the Proposed Project

Issue Area	Project	Comparison to Project				
		No Project	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Aesthetics and Visual Resources	Less than Significant with Mitigation	Less	Slightly Less	Slightly Less	Similar	Slightly Less
Air Quality	Less Than Significant with Mitigation	Less	Similar	Less	Slightly Less	Similar
Biological Resources	Less Than Significant with Mitigation	Slightly Less	Similar	Slightly Less	Similar	Similar
Cultural Resources and Tribal Cultural Resources	Less Than Significant with Mitigation	Less	Similar	Slightly Less	Similar	Similar
Energy	Less Than Significant	Less	Similar	Less	Slightly Less	Similar
Geology and Soils	Less Than Significant with Mitigation	Less	Similar	Less	Similar	Similar
Greenhouse Gas Emissions and Climate Change	Less Than Significant	Less	Similar	Less	Slightly Less	Similar
Hazards and Hazardous Materials	Less Than Significant with Mitigation	Less	Similar	Slightly Less	Similar	Similar
Hydrology and Water Quality	Less Than Significant	Less	Similar	Slightly Less	Slightly Less	Similar
Land Use and Planning	Less Than Significant	Less	Less	Slightly Less	Slightly Less	Slightly Less
Noise	Significant and Unavoidable	Less	Similar	Less	Slightly Less	Similar
Population and Housing	Less Than Significant	Slightly Greater	Similar	Slightly Less	Similar	Similar
Public Services	Less Than Significant with Mitigation	Less	Similar	Slightly Less	Similar	Similar
Transportation	Less Than Significant with Mitigation	Less	Slightly Less	Less	Less	Slightly Less
Utilities and Service Systems	Less Than Significant	Less	Similar	Less	Slightly Less	Similar
Meets Most of the Project Objectives?	Yes	No	Yes	No	Yes	Yes

READER'S GUIDE

This section of the Environmental Impact Report (EIR) is provided to aid the reader in understanding the environmental issue areas that are addressed and where to find them. It is also intended to help the reader understand how the California Environmental Quality Act (CEQA) frames the discussion of each environmental issue area. The EIR takes its approach in defining the range of environmental issues analyzed from the CEQA Guidelines along with the input received from comments provided by agencies and interested members of the public during the 30-day public scoping process, which are provided in **Appendix A, Initial Study, Notice of Preparation, and Scoping Comments**. The EIR addresses the proposed Beach Cities Health District (BCHD) Healthy Living Campus Master Plan (Master Plan) and its reasonably foreseeable direct, indirect, and cumulative environmental impacts, including construction-related impacts and long-term operational impacts after construction is completed.

The EIR addresses both phases of the proposed Master Plan. The Master Plan presents Phase 1 in the form of a preliminary site development plan. However, because Phase 2 would be developed approximately 5 years after the completion of Phase 1, there are uncertainties in the future health and wellness programming needs and financing. Therefore, the Master Plan presents a program of anticipated uses and design objectives for Phase 2. An illustrative range of potential designs for Phase 2 is depicted in the Master Plan in three example site plan scenarios which are also described in the EIR (see **Figures 2-11 through 2-13** and accompanying text in **Section 2.5.2, Phase 2 Development Program**). The three scenarios are presented to enable the EIR to identify the potential environmental impacts of the Phase 2 development program, and to demonstrate the inherent trade-offs in decisions related to Phase 2 programming and design (see **Table 2-4** on **Page 2-54**). To address the potential impacts of the Phase 2 development program, the EIR analyzes operational impacts using conservative (i.e., worst-case) assumptions. For example, the daily vehicle trip generation analyzed for the Phase 2 development program is based on the maximum square footage described for each of the proposed uses (i.e., a Wellness Pavilion of up to 37,150 square feet [sf], an Aquatics Center of up to 31,300 sf, and a new Center for Health and Fitness of up to 20,000 sf; see **Section 2.5.2.1, Proposed Uses** on **Page 2-46**). Similarly, the EIR analyzes potential construction-related impacts (e.g., ground disturbance) and aesthetics impacts (e.g., building height) using conservative assumptions related to maximum building footprints and maximum building heights. The ultimate site development plan developed for Phase 2 would fit within the maximum square footage and building envelope analyzed by the EIR.

Therefore, while the EIR analyzes the Phase 1 preliminary site development plan at the **project level**, the EIR analyses the Phase 2 development program at the **programmatic level**; that is, the assessment of potential environmental impacts associated with the Phase 2 development program addresses a range of possible development site plan scenarios that occur within the parameters of the proposed Master Plan. Although the EIR's analysis of Phase 1 is project-level and its analysis of Phase 2 is programmatic, the depth and level of detail of the analysis of impacts is the same for both phases. This approach – of addressing a long-range development plan, such as the proposed Master Plan, with a project-level design phase and a programmatic phase in a single, comprehensive EIR – is not unusual and meets the definition of a “*stable and finite project description*.” The EIR's comprehensive approach to evaluating environmental effects of both phases of the Master Plan complies with CEQA's requirement to address “*the whole of the action*” that is presented to the decision-makers. At some time in the future, when BCHD has completed more detailed planning for the Phase 2 program and has developed a final site plan, the Phase 2 development will be subject to the CEQA process once again. The final site plan would be addressed in a separate CEQA document which could take the form of an Addendum to the EIR (CEQA Guidelines Section 15164[a]), or a Supplemental EIR (CEQA Guidelines Section 15162), depending on the nature of the Phase 2 site plan, its potential range of environmental impacts and future conditions.

The Draft EIR consists of seven major sections and supporting appendices with additional levels of technical detail and/or modeling results. **Section 1.0, *Introduction*** describes the purpose and scope of the EIR, the public review process, and the required approvals for the proposed Project. The introduction identifies the BCHD as the “*lead agency*” (i.e., the public agency that has the primary responsibility for carrying out or approving a project). Additionally, the City of Redondo Beach and City of Torrance are identified as “responsible agencies. (i.e., public agencies, other than the lead agency, which have responsibility for carrying out or approving a project.)” **Section 1.8, *Areas of Known Public Controversy*** lists issues of concerns that have been raised by agencies and interested members of the public to date in the public scoping process. **Section 1.4, *Public Review and Comments*** identifies several available methods for the public to provide formal comment on the Draft EIR.

The main body of the EIR is comprised of three sections **Section 2.0, *Project Description***, **Section 3.0, *Environmental Impact Analysis and Mitigation Measures***, and **Section 5.0, *Alternatives*** as described further below:

Section 2.0, *Project Description* presents detailed information about the proposed Master Plan. It identifies the project location, existing and proposed uses, proposed design elements, and other

features of the proposed Project. It describes in detail the proposed Master Plan's two phases: the Phase 1 preliminary site development plan and the Phase 2 development program. The Project Description also identifies other components of the proposed Master Plan, including the Project Objectives and Design Guidelines. The Project Description as presented in the EIR is the basis for the EIR's environmental impact analysis and findings.

The largest section of the EIR is **Section 3.0, *Environmental Impact Analysis and Mitigation Measures***. This section discusses the potential for the proposed Project to result in environmental impacts related to a broad range of environmental issue areas – including aesthetics and visual resources, air quality, biological resources, cultural resources and tribal cultural resources, geology and soils, hazards and hazardous materials, noise and vibration, transportation, and several others – each of which is addressed in their own sub-section (e.g., **Section 3.1, *Aesthetics and Visual Resources***). The range of environmental issue areas discussed in this section is based on a preliminary analysis, prepared as the first stage in the CEQA process (i.e., **Initial Study**), and on input received from agencies and concerned members of the public to date in the public review process (see **Appendix A, *Initial Study, Notice of Preparation, and Scoping Comments***). Each sub-section is divided into four smaller sections that generally follow a uniform format:

1. **Environmental Setting** – Describes the current conditions related to the specific topic (e.g., ambient air quality, ambient noise levels, etc.) at the Project site and within the surrounding vicinity. The EIR identifies relevant environmental resources (e.g., **Section 3.3, *Biological Resources*** presents an inventory of plants and wildlife known to occupy the Project site at the time of the field surveys conducted in 2019), along with other conditions that define the environmental setting or “baseline” against which the potential environmental impacts of the proposed Project are evaluated (i.e., the number of daily vehicle trips generated by the current uses at the BCHD campus).
2. **Regulatory Setting** – Lists relevant policies, plans, and regulations (Federal, State, regional, and local) that may play a role in defining how impacts are determined to be significant, and/or reducing or avoiding impacts through regulation (e.g., Clean Water Act and Storm Water Pollution Prevention Plan requirements in **Section 3.9, *Hydrology and Water Quality***). The Regulatory Setting section often identifies government agencies with special expertise with respect to the environmental issue area in question (e.g., the South Coast Air Quality Management Agency as the expert agency relative to air quality issues and impacts in **Section 3.2, *Air Quality***).
3. **Impact Assessment and Methodology** – Identifies the Thresholds of Significance (see below) used to determine if the environmental impacts associated with the proposed

Project are “*significant*” or “*less than significant*” and describes the methodology used to identify and evaluate the level of the environmental impacts.

4. **Project Impacts and Mitigation Measures** – Analyzes the environmental impacts of the proposed Project related to the environmental issue area being addressed and determines if the impact is significant when judged against baseline conditions and the thresholds of significance. In cases where the EIR determines that the proposed Project would have a significant impact, it presents measures (i.e., “*mitigation measures*”) that, if feasible, would avoid or substantially reduce the impact to a level that is less than significant. For each environmental issue area, the EIR discloses the impacts of the proposed Project and the level of significance after mitigation (if mitigation measures are adopted and implemented by the decision-makers). It is this disclosure of impacts, and the effectiveness of mitigation measures, that constitutes the major findings of the EIR.

Section 5.0, *Alternatives* is central to the EIR’s analysis and its role in addressing significant environmental impacts associated with the proposed Project. CEQA requires a discussion of a reasonable range of feasible alternatives to the proposed Project. The core of the Alternatives section is a comparison of the alternatives to the proposed Project in terms of whether they would reduce any impacts associated with the proposed Project and whether they would meet most of the basic Project Objectives. Although they serve the same function – which is to reduce impacts – alternatives are different from mitigation measures in that they fundamentally modify the proposed Project, while mitigation measures simply require adjustments to the design and/or the implementation of the proposed Project.

CEQA requires that the EIR base its determination of whether or not a project impact is significant on clearly stated criteria (i.e., “*significance thresholds*”). The significance thresholds used in this EIR are based on Appendix G of the CEQA Guidelines, which provides a list of generic questions intended to guide lead agencies in determining what level of CEQA documentation is appropriate for a project. (These questions are used in the Initial Study presented in **Appendix A, *Initial Study, Notice of Preparation, and Scoping Comments***.) The EIR follows the common practice of using those questions as a framework for addressing environmental impacts, with modifications or additional criteria provided by specific pertinent policies and regulations adopted by relevant agencies. Examples of established policies and regulations that serve as criteria are the air pollutant standards established by the South Coast Air Quality Management District and the Redondo Beach Stormwater Management and Discharge Control Ordinance. Established criteria adopted by relevant authoritative agencies such as these are used to inform application of the questions provided in Appendix G of the CEQA Guidelines as significance thresholds. Each of the sub-sections in **Section 3.0, *Environmental Impact***

Analysis and Mitigation Measures, identifies the **Thresholds of Significance** used to assess impacts related to the specific environmental issue area under consideration. They are identified in the third sub-section within a major environmental issue area heading, often immediately following the **Regulatory Setting** sub-section. The Thresholds of Significance sub-section is followed immediately by the **Methodology** sub-section, which describes the sources of information used in the impact analysis, methods uses, and any specific criteria used to interpret or apply the significance threshold. The significance thresholds are used again when the EIR evaluates the effectiveness of any mitigation measures or alternatives designed to reduce or avoid potential impacts.

Impacts are measured against baseline environmental conditions, defined by CEQA as the environmental conditions existing before the proposed Project. (These baseline environmental conditions are generally defined as the conditions at the time of the issuance of the Notice of Preparation for the EIR.) For example, traffic counts were conducted at the intersections and along the roadways within the immediate vicinity of the Project site shortly after the release of the Notice of Preparation for the EIR, before the on-set of the COVID-19 pandemic in March 2020.

Many impacts can readily be addressed by standard conditions of approval and/or compliance with regulations already enforced by regulatory agencies and municipalities. This is especially true for potential impacts associated with hydrology and water quality, for example, and most of the potential impacts related to geologic hazards. The EIR's task in such cases is to evaluate the potential impact, then identify the relevant regulations and/or adopted development standards enforced by State and local agencies to avoid the impact, evaluate their effectiveness in mitigating the impact, and make a finding as to whether or not the impact would still be significant. The EIR also considers project design features or standard best management practices that can be relied on to have mitigating effects. Project design features that are explicitly identified as elements of the proposed Master Plan in the Project Description (e.g., Leadership in Energy and Environmental Design [LEED] Gold Certification and WELL Building Certification) and can be relied on in the EIR's impact assessment for their mitigating effect, become binding commitments for the proposed Project upon the certification of the Final EIR and approval of the proposed Project. In cases where environmental impacts are not reduced to a less than significant level, even after compliance with regulations and the mitigating effects of project features are considered, the task of the EIR is then to identify feasible mitigation measure that can substantially reduce or avoid the environmental impact when adopted and implemented.

SECTION 2.0, *PROJECT DESCRIPTION*

The EIR gives an overview of the proposed Project in the first two pages of the Project Description, followed by an in-depth description of the Master Plan in the sub-sections that follow. **Section 2.2, *Existing Project Site Characteristics*** describes the location and characteristics of the Project site, as they existed at the time when the Notice of Preparation for the EIR. The existing uses, buildings, infrastructure and programs of the BCHD campus are described in detail. It should also be noted that the Notice of Preparation was issued in June 2019, before the on-site of the ongoing COVID-19 pandemic. Therefore, while conditions may have temporarily changed (e.g., vehicle trip making patterns in response to State-issued public health guidelines and prolonged closure of public schools), the EIR considers a pre-pandemic condition. **Section 2.4, *Project Objectives*** presents the three Project Pillars and six Project Objectives that were used to guide the development of the Master Plan and the alternatives. Detailed elements and features of the Phase 1 preliminary site development plan are described in **Section 2.5.1, *Phase 1 Preliminary Site Development Plan***. The EIR describes the more general Phase 2 development program in **Section 2.5.2, *Phase 2 Development Program***. Construction activities are also described in detail for the Phase 1 preliminary site development plan and the Phase 2 development program (i.e., **Section 2.5.1.6, *Construction Activities*** and **Section 2.5.2.4, *Construction Activities***, respectively).

SECTION 3.0, *ENVIRONMENTAL IMPACT ANALYSIS AND MITIGATION MEASURES*

Section 3.0, *Environmental Analysis and Mitigation Measures* comprises the main body of the EIR in which each of the major environmental issue areas are addressed in separate sections in the alphabetical order in which they are listed in Appendix G of the CEQA Guidelines and in the Initial Study. Each section or chapter follows the same general format, beginning with Environmental Setting, followed by Regulatory Setting, Thresholds for Determining Significance, Methodology, and Project Impacts and Mitigation Measures. Each section ends with a discussion of the potential for the proposed Project to result in Cumulative Impacts in combination with other projects causing related impacts.

The **Section 3.0.1, *Introduction*** provides information that is important to the reader's understanding of the impact classifications used in the EIR to characterize the level of a potential environmental impact.

The EIR impact discussions classify impact significance levels as:

1. **Significant and Unavoidable** – a significant impact to the environment that remains significant even after mitigation measures are applied;

2. **Less Than Significant with Mitigation** – a significant impact to the environment that can be avoided or reduced to a less than significant level with mitigation;
3. **Less Than Significant** – a potential impact that would not meet or exceed the identified thresholds of significance for the environmental topic area; and
4. **No Impact/Beneficial Impact** – no impact would occur for the environmental topic area or a beneficial effect would result.

The determinations of significance in the EIR are made based on the thresholds of significance and the applicable provisions of CEQA and the CEQA Guidelines for each environmental topic area (see **Page 3-2**).

The introductory section also lists the projects considered in the assessment of cumulative impacts in the EIR (see **Section 3.0.2, Cumulative Impacts**).

3.1 Aesthetics and Visual Resources

CEQA requires the EIR to address impacts to aesthetics and visual resources in specific ways. Appendix G of the CEQA Guidelines calls for analysis: 1) of impacts to “*scenic vistas*,” 2) to “*scenic resources within a State Scenic Highway*,” 3) “*conflicts with applicable zoning and other regulations governing scenic quality*” (for projects in urbanized areas); and 4) “*impacts to public views resulting from light or glare*.” **Section 3.1, Aesthetics and Visual Resources** provides an analysis of each of these potential impacts. This section also discusses shade and shadow effects and briefly considers other issues not required by CEQA (e.g., private views and line of sight). Because the discussion of aesthetics and visual resources can be highly subjective, standard CEQA practice commonly relies on the adopted policies and regulations of local municipalities as the criteria for determining what features in the public landscape are significant visual resources and what degree and type of effect should be considered a significant adverse impact. **Section 3.1.1, Environmental Setting**, describes visual resources and visual character of the Project site and the surrounding vicinity. Not surprisingly, the visual environment of the neighborhoods and commercial area around the Project site is characteristic of a suburban environment. The BCHD campus, however, is distinct in that it presents a campus-like appearance in its arrangement of buildings related by a common institutional mission that is visually apparent to the casual observer from off-site. The existing buildings on the campus, by their scale and internal physical relationships, signal a land use that is fundamentally unlike its commercial and residential neighbors. The EIR provides representative views of the Project site as it appears today from six different viewpoints within the public realm. **Section 3.1.1, Environmental Setting** identifies sources of light and glare in the existing visual environment. It also depicts current conditions related to shade and shadow effects created by the existing

buildings on the BCHD campus. The shade and shadow study shows that BCHD buildings, especially the 5-story Beach Cities Health Center (514 North Prospect Avenue), along with the topography of the Project site, contribute to shadows that extend off-site into the residential neighborhood and Towers Elementary School to the northeast (see **Page 3.1-19**).

Section 3.1.2, *Regulatory Setting*, identifies the Redondo Beach and Torrance General Plan policies and municipal code regulations related to visual resources. The Redondo Beach General Plan does not identify any designated scenic vistas or view corridors, and the Project site is not located within any of the scenic view corridors identified in the Torrance Community Resources Element. **Section 3.1.3, *Impact Assessment and Methodology*** presents the thresholds for determining the significance of environmental impacts to aesthetic and visual resources (from Appendix G of the CEQA Guidelines) and describes the methodologies for analyzing impacts.

- **Scenic Vistas** – The discussion of impacts to scenic vistas in CEQA is usually focused on scenic vistas that have been designated as significant visual resources by city policies or some other adopted public planning document. There are no designated scenic vistas, corridors or viewsheds in Redondo Beach or in the vicinity of the Project site. Nevertheless, the EIR identifies a nearby public viewpoint that it considers to be important because of its expansive view of the Palos Verdes hills from a well-travelled intersection at a high point within Redondo Beach (190th Street & Flagler Lane). Under existing conditions, the former hospital building on the campus rises to a height just below the ridgeline of the Palos Verdes hills. As shown in the simulated view of the proposed Project (Representative View 6; see **Page 3.1-35**) the proposed Residential Care for the Elderly (RCFE) Building would obstruct the view of the ridgeline, interrupting the view of the Palos Verdes hills from this public viewpoint. Although the view from the 190th Street & Flagler Lane intersection has no formal status as a designated scenic vista or scenic view corridor, the EIR identifies the obstruction of the ridgeline from this viewpoint as a significant environmental impact due to its scenic qualities. To address the impact, the EIR presents a mitigation measure, which requires that the proposed RCFE Building be modified to avoid obstruction of the ridgeline as seen from this public viewpoint. MM VIS-1 (see **Page 3.1-38**) identifies the reduction in the effective height of the proposed building that would be necessary to avoid the impact, but does not prescribe a precise method for implementing the mitigation. Possible methods would be to remove the uppermost stories of the building, recess the building foundation into the ground surface, or a combination of these two methods.
- **Degradation of Visual Character** – The EIR provides a detailed discussion of the changes in visual appearance, and in some cases to visual character, that would occur as a result of the Project (beginning on **Page 3.1-39**). This discussion complements the previous description of the existing visual character of the site and surroundings in **Section 3.1.1, *Environmental Setting***. The EIR evaluates these changes in the visual environment to consider whether or not they constitute a “*degradation*” of visual

character. The assessment of impacts then goes on to apply the standard prescribed in Appendix G of the CEQA Guidelines, applicable to projects in an urbanized area: *“If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?”* The EIR reviews the proposed Project for potential conflicts with applicable policies and zoning regulations governing scenic quality (see **Table 3.1-2** and **Table 3.1-3**). The review finds no conflicts with these applicable policies and zoning regulations, leading to the finding that the changes to the visual character associated with the proposed Project would not constitute a significant environmental impact.

- **Light and Glare** – This analysis identifies potential sources of light and glare that would result from implementation of the proposed Master Plan. This discussion complements the overview of existing sources of lighting and glare in **Section 3.1.1, *Environment Setting***. New sources of lighting under the proposed Project would include vehicle headlights, outdoor lighting on buildings and on the campus grounds, and interior lighting in proposed buildings. The EIR considers the potential effects of these sources and determines that standards of the City of Redondo Beach in combination with design features of the Master Plan would effectively avoid adverse impacts such as light spillover to off-site land uses. Potential sources of glare include windows and reflective materials of building facades. The EIR explains that the Phase 1 site development plan and the Phase 2 development program would comply with Torrance Municipal Code Section 92.30.5 and further that the exterior of the proposed buildings shall be constructed using low- or no-glare materials, such as high-performance tinted non-reflective or non-mirrored glass and low reflective surfaces, with Light Reflective Values of less than 35 percent. Therefore, the analysis finds that potential changes in lighting and glare would not constitute significant impacts.
- **Shade and Shadow Effects** – Although not an environmental issue area included under Appendix G of the CEQA Guidelines, the contribution of the proposed Project to shade and shadow conditions is addressed through an analysis of shadows cast during the summer and winter solstices and the autumnal equinox. In the northern latitudes (i.e., away from the equator), shadows are shorter during summer and longer during winter. The EIR compares the extent of shadows cast at those times of year under existing conditions with shadows cast at the same times of the year under post-development conditions. Shadows are at their greatest extent at the winter solstice in late December. Under existing, pre-development conditions much of the adjacent Torrance neighborhood to the east is in shadow – particularly during the late afternoon hours (see **Figure 3.1-2** through **Figure 3.1-4**). The longest shadows cast during the winter solstice encroach into the residential neighborhood and extend as far as Towers Elementary School due to the combined effects of the natural topography, existing buildings, and trees on the BCHD campus, and self-shading effects of homes in the residential neighborhood. With the proposed implementation of the Phase 1 preliminary site development plan, the configuration of shadows at the winter solstice would change, shifting slightly north and diminishing in some portions of Towers Elementary School (because of the removal of existing buildings on the BCHD campus) and extending farther east on the northern

portion of the Towers Elementary School, as a result of the RCFE Building (see **Figure 3.1-5** through **Figure 3.1-7**). However, the shadows would generally only extend off-site during the late afternoon hours (i.e., after 6:00 p.m. in the Summer, after 5:00 p.m. in the Fall, and after 4:00 p.m. in the Winter). Therefore, due to the limited duration of shading the analysis has determined that this impact would be less than significant.

3.2 Air Quality

The Air Quality section is a relatively complex section of the EIR because it analyzes several different kinds of impacts. It also necessarily employs a specialized technical vocabulary that uses many acronyms and technical terms. Air emissions generated by construction and operation of the proposed Project are analyzed in various ways. Air quality impacts are addressed at the regional scale of the South Coast Air Basin. However, some impacts, particularly construction emissions, are assessed at the local scale to evaluate their potential to adversely impact nearby “sensitive receptors.” The EIR not only identifies construction emissions at the local level, but models their dispersion and potential health effects in terms of cancer risk (see **Appendix B, Human Health Risk Assessment and CalEEMod Air Quality Calculation Results**). The analytic methods, thresholds of significance and key parameters for CEQA analysis are clearly prescribed by the South Coast Air Quality Management District, which is the regional agency that regulates air quality of the South Coast Air Basin.

The key terms used in the impact analysis are explained in detail in the EIR. **Criteria air pollutants** refers to seven specific pollutants regulated to comply with Federal and State ambient air quality standards (see **Table 3.2-1**). **Localized Significance Thresholds** (LSTs) are thresholds prescribed by South Coast Air Quality Management District for evaluating potential impacts to sensitive receptors (from a given distance from construction activities) of construction emissions for a subset of criteria pollutants. **Toxic Air Contaminants** (TACs), are a different group of pollutants that are regulated because of their potential health effects at the local level. TACs have been known to cause chronic and acute adverse effects on human health (see **Page 3.2-6**). **Diesel Particulate Matter** (DPM) refers to particulate matter emissions from diesel engines (e.g., heavy construction equipment) commonly evaluated in a **Health Risk Assessment** (HRA). Key terms used in the Health Risk Assessment are **Point of Maximum Impact** (PMI) and **Maximum Exposed Individual Resident** (MEIR).

Current air quality conditions are described in **Section 3.2.1, Environmental Setting**. The relevant Federal, State, regional, and local regulations are summarized in **Section 3.2.2, Section 3.2.2, Regulatory Setting**. **Section 3.2.2.1, Thresholds for Determining Significance** identifies

the relevant regulatory thresholds that further build upon the questions provided in Appendix G of the CEQA Guidelines and **Section 3.2.3.2, *Methodology*** for analysis of the impacts discussed.

The EIR addresses the potential for the proposed Project to conflict with the South Coast Air Quality Management District's Air Quality Management Plan in Impact AQ-1 (beginning on **Page 3.2-24**). Additionally, the EIR addresses impacts related to criteria air pollutant emissions in Impact AQ-2 (beginning on **Page 3.2-35**). Impacts related to DPM emissions during construction and health hazards during construction are described under Impact AQ-4 (beginning on **Page 3.2-45**). With the implementation of an Air Quality Management Plan requiring soil stabilization measures and the use of U.S. Environmental Protection Agency Tier 4 engines impacts (MM AQ-1) would be below the thresholds established by the South Coast Air Quality Management District.

The EIR also addresses operational emissions (beginning on **Page 3.2-42**), the potential for carbon monoxide (CO) “hotspots” near local intersections (beginning on **Page 3.2-48**) and the potential for significant impacts related to odors (beginning **Page 3.2-50**). However, operational emissions of criteria pollutants (including CO) would not exceed the thresholds established by the South Coast Air Quality Management District and the potential for noticeable odors (e.g., associated with kitchens, etc.) would be minimal and similar to existing conditions. Therefore, these operational impacts would be less than significant.

3.3 Biological Resources

The Draft EIR addresses the potential of the proposed Project to impact biological resources. **Section 3.3.1, *Environmental Setting*** describes the biological resources in the vicinity and presents findings of two surveys conducted by a field biologist to identify resources on-site. **Section 3.3.2, *Regulatory Setting*** identifies Federal, State and local regulations and policies that govern biological resources. The thresholds for determining significant impacts to biological resources are presented in **Section 3.3.3, *Impact Assessment Methodology***. Because the BCHD campus is already developed, and the vacant Flagler Lot has no significant native vegetation, there is very little in the way of biological resources on the Project site. No riparian habitat, aquatic features or other sensitive natural community habitats occur on-site or in the immediate vicinity. The Project site is not a wildlife corridor or a significant habitat linkage for wildlife movement or provide significant nursery habitat. The many mature trees on the perimeter offer potential nesting and roosting habitat for native and non-native birds. The EIR therefore identifies a potential to impact nesting birds, either directly (i.e., from tree removal) or indirectly (i.e., disturbance from construction noise), should they be present during construction activities. This impact could be avoided through implementation of the standard mitigation measure that

requires a survey for nesting birds prior to construction activities, followed by impact avoidance measures (MM BIO-1; see **Page 3.3-19**). The Cooper's hawk (*Accipiter cooperii*) is the only special-status species that has more than a low potential to use the site as potential roosting, foraging and nesting habitat. But the removal of trees and subsequent introduction of native tree species as elements of the proposed landscape plan (see **Figure 2-7**) would not significantly impact the Cooper's hawk.

3.4 Cultural Resources and Tribal Cultural Resources

Cultural resources include historic structures and objects as well as archaeological (prehistoric or historic-period) resources. Tribal resources are objects, sites, landscapes or features that have cultural value to a California Native American tribe. The Public Resources Code and CEQA Guidelines provide clear definitions for these resources and their evaluation under CEQA. This section of the EIR presents the prehistoric and historic context for cultural resources known to occur in the vicinity of the BCHD campus. The discussion presents findings of an Historic Resources Assessment of the Beach Cities Health Center and the attached Maintenance Building, which found that these structures do not have historical significance, based on Federal, State and local criteria (see discussion beginning on **Page 3.4-7** as well as **Appendix D, Cultural Resources Technical Studies**). The EIR identifies four historically significant properties in the vicinity of the Project site (see **Table 3.4-1**) and addresses the potential for the proposed Project to adversely impact these properties. The analysis finds that in each case, the physical features that contribute to the historical integrity of each of the four properties would not be affected by the proposed Project – particularly given that the two historically significant properties that have a view of the Project site were relocated to their current locations from other parts of Redondo Beach (see **Page 3.4-10**).

The EIR presents information on other cultural resources derived from archival records research, scholarly publications on local prehistory, history and archaeology, and in the case of tribal cultural resources, from direct formal consultation with Native American Tribe representatives. While there are no known archaeological or tribal cultural resources at the Project site, a high degree of presence and activity by Native Americans in the past in and around the South Bay (related to salt marshes, tribal villages and trade routes), indicates the possibility that resources may be present in the area. The fact that the BCHD campus has been previously graded and developed does not entirely rule out the possibility of buried resources being present, and potentially uncovered, during ground disturbance associated with the proposed redevelopment. The EIR identifies mitigation measures designed to avoid impacts to both cultural and tribal cultural resources in an integrated and comprehensive approach (MM CUL-1 and CUL-2; see

Page 3.4-26). Potential impacts to any significant resources encountered during construction (including human remains) would be avoided and/or fully mitigated with the implementation of these measures (see **Page 3.4-27**).

3.5 Energy

Potential impacts related to energy fall into two categories: 1) impacts resulting from wasteful, inefficient, or unnecessary consumption of energy during project construction or operation; and 2) conflict or obstruction with a state or local plan for renewable energy or energy efficiency. **Section 3.5, *Energy*** evaluates the potential for the proposed Project to result in either of these two impacts. Energy consumption occurs due to use of electrical energy, natural gas, and fuel for transportation. **Section 3.5.1, *Environmental Setting*** describes how electrical power and natural gas are provided to the South Bay Region and the Project site, and estimates current energy consumption of the BCHD campus for electricity, natural gas, and transportation fuel. **Section 3.5.2, *Regulatory Setting*** presents policies and regulations related to energy consumption and the thresholds for determining significant impacts related to energy are presented in **Section 3.5.3, *Impact Assessment Methodology***. The discussion of environmental impacts provided in **Section 3.5.4, *Project Impacts and Mitigation Measures*** addresses energy consumption during construction and in the post-construction operational stage after development of the proposed Project. As required by CEQA, the impact assessment focuses on whether or not the consumption of energy during construction is wasteful, inefficient or unnecessary, and evaluates the compliance of the proposed Project with energy reduction measures. The EIR also projects the amount of electrical energy, natural gas that would be consumed by the proposed Project during its operation after construction (see **Tables 3.5-8 and 3.5-9**, respectively). The impact assessment again focuses on project design features (e.g., photovoltaic solar panels, solar hot water systems, energy efficient heating, ventilation and air conditioning systems, high performance insulation and energy efficient lighting and plumbing systems). The proposed Project would result in an increase in energy use at the site after completion, but the increase is relatively small (0.5 percent of electricity and 0.2 percent of natural gas consumption in Redondo Beach) and would not adversely regional or local energy supplies and capacities. As a redevelopment project in an already established urbanized environment (e.g., in contrast to a greenfield development), the net increase in daily vehicle trips generated by the uses included in the Phase 2 development program would not represent a wasteful, inefficient or unnecessary use of fuel. A review of the energy-reducing project design features (e.g., LEED Gold Certification and WELL Building Certification) has led the EIR to conclude that the proposed Project would not conflict with or obstruct State or local plans for renewable energy or energy efficiency.

3.6 Geology and Soils

CEQA requires analysis of the potential for the proposed Project to result in significant hazards related to geologic or soil conditions, or to impact geologic resources such as unique paleontological resources or unique geologic features. Most hazards related to geology and soils are linked to seismic conditions and the potential for significant seismic events to bring about catastrophic damage ranging from structural damage to buildings and infrastructure, or human death or injury. The EIR describes seismic conditions in regional and local terms, along with the probability of seismically induced impacts to occur at the Project site under current conditions, and the potential of the proposed Project to introduce or increase hazards during or after construction. Soil hazards include several potentially seismically induced effects (e.g., liquefaction, subsidence, lateral spreading) and soil expansion. Other hazards addressed in this section include the potential for the proposed Project to subject persons or property to tsunami impacts.

In some cases (e.g., with regard to liquefaction, landslide, slope instability, differential settlement, expansion, tsunami) the proposed Project presents no risk or a very low risk of impact because conditions for occurrence of the impact are not present at the Project site. Catastrophic failure resulting from significant seismic events is a regional hazard that potentially affects all structures. For new structures this hazard is addressed through strict compliance with current seismic standards of the California Building Code. The EIR identifies the significant public safety hazard presented by the existing condition of the former South Bay Hospital Building (currently operated as the Beach Cities Health Center), which was constructed over 60 years ago in compliance with the now-obsolete seismic standards in effect at that time. The assessment finds that the proposed Project would result in a significant beneficial impact through the action of removing the hazardous building and replacing it with structures built in compliance with today's seismic standards. MM GEO-1 (see **Page 3.6-25**) would require the proposed Project to comply with all earthwork and site grading, design, and construction recommendations provided in the Geotechnical Report prepared for the proposed Project.

This section also evaluates the potential of the proposed Project to impact unique paleontological resources (i.e., fossil remains in the underlying geology that have scientific value). The EIR finds that the probability of encountering significant resources is low, based on the geologic units that underlie the site and their history of yielding few significant fossils in the area. The implementation of MM GEO-2a and MM GEO-2b would require a construction worker awareness training and an established protocol for addressing any inadvertently discovered paleontological resources (see **Page 3.6-30**).

Key sources used to identify conditions at the site include the Geotechnical Study of the site prepared by Converse Consultants (2019), a Seismic Assessment of the Beach Cities Health Center Building (Nabih Youssef and Associates Structural Engineers 2018), and the Redondo Beach General Plan Environmental Hazards / Natural Hazards Element. Standard and regulated methods for addressing geotechnical and soil hazards are derived from multiple sources, including the California Building Code and the Redondo Beach Municipal Code. The evaluation of paleontological resources and potential impacts draws on the archival body of paleontological research in the region and standard methodologies of the Society of Vertebrate Paleontology.

3.7 Greenhouse Gas Emissions and Climate Change

The proposed Project would generate Greenhouse Gas Emissions (GHG) during construction and in its operations after development. CEQA requires analysis of GHG emissions and a determination of whether or not they result in a significant effect. The EIR discloses the proposed GHG emissions associated with the proposed Project in accords with the methodology employed by the South Coast Air Quality Management District. Construction GHG emissions are presented in **Table 3.7-4** and operational emissions are presented in **Table 3.7-5**. However, following the qualitative thresholds defined by the CEQA Guidelines, the EIR bases its determination on the consistency of the proposed Project with State, regional and local plans, policies and regulations adopted to reduce GHG emissions. Methods of analysis used, and their basis in CEQA Guidelines and applicable plans and policies, are described in **Section 3.7.3, Impact Assessment and Methodology**. Analysis of the consistency of the proposed Project with GHG reduction plans, policies and regulations is performed in **Table 3.7-8** and **Table 3.7-9**, and includes policies of the Redondo Beach and Torrance General Plans, the Climate Action Plans of both cities, and applicable regional GHG emissions reduction strategies (see **Table 3.7-10** and related discussion).

3.8 Hazards and Hazardous Materials

Hazardous materials are present on-site and would be present in relatively small amounts during operation after Project completion. The EIR discusses the following hazards that were identified as a part of the Phase I and Phase II Environmental Site Assessments prepared by Converse Consultants in 2019 and 2020, respectively:

- Asbestos-containing materials, lead-based paint, polychlorinated biphenyls, and mold in old buildings proposed for demolition;
- Previously abandoned and plugged oil well on the vacant Flagler Lot;
- Soils contaminated with tetrachloroethylene (PCE) from a neighboring use (i.e., former dry cleaner); and

- Hazardous materials routinely used in proposed uses and activities on-site (e.g., cleaning fluids, paints, etc.).

The EIR addresses the potential for the proposed Project to result in significant impacts resulting from the use, transport, disposal or presence of hazardous materials. Exposure to hazardous materials is a concern both during and after construction and to persons on- and off-site. This section addresses five categories of hazards related to the routine use of hazardous materials, as well as the potential accidental release of hazardous materials.

The handling, storage, use and transportation of hazardous materials is highly regulated by Federal, State, regional, and local agencies. Consequently, the EIR cites the regulations and oversight role of these several agencies in **Section 3.8.2, *Regulatory Setting***. The EIR presents extensive mitigation measures, all linked to the regulatory oversight and approval of the oversight agencies. With the implementation of these mitigation measures the EIR determined that impacts associated with hazards and hazardous materials would be less than significant.

3.9 Hydrology and Water Quality

Section 3.9, *Hydrology and Water Quality* addresses the potential for the proposed Project to cause significant adverse impacts related to both surface water and groundwater. The two topics are related and the potential for impacts is largely a function of how storm runoff is managed by the site development plan and on-site drainage systems associated with the proposed Project. Water quality and hydrology impacts can also occur during construction activities, in addition to the long-term effects of post-development operations and activities that might involve materials or chemicals that are potential contaminants if they enter the municipal storm drain system. The effects of construction activities and land uses on hydrology, and particularly on water quality, are highly regulated through Federal, State, regional, and local regulations that implement the Federal Clean Water Act. Consequently, the analysis of potential impacts and identification of feasible methods for their avoidance refer to adopted regulations that already exist as standard requirements and conditions of approval enforced at the municipal level. For that reason, **Section 3.9.2, *Regulatory Setting*** presents considerable background on the regulatory environment that provides the framework for impact avoidance relative to hydrology and water quality. It is preceded by **Section 3.9.1, *Environmental Setting*** which describes conditions of the hydrology and water quality in the subregion, the at the Project site, and in the surrounding vicinity including conditions related to groundwater.

Section 3.9.3, *Impact Assessment and Methodology*, is followed by the discussion of impacts, which cites the many applicable regulations that both provide criteria for defining a significant

impact and the compliance mechanisms for avoiding impacts. The significance thresholds related to water quality focus on the potential for impacts related to erosion and the potential to conflict or obstruct the locally enforced water quality control plan or groundwater management plan. Significance thresholds related to hydrology address hazards such as flooding and tsunamis, or changes in the amount or rate of runoff that exceed the capacity of the stormwater drainage system.

The EIR identifies the hydrology and water quality benefits of redevelopment of the BCHD campus through the substantial increase in pervious surfaces on-site (through the creation of 114,830 square feet of open space) and the construction of an infiltration system designed to retain, treat and infiltrate the 85th percentile storm, which can be expected to result in 0.30 to 1.50 inches of rainfall, into the groundwater. (The 85th percentile storm is used to represent the approximate amount of rainfall that would occur from 85 percent of storms occurring in the Los Angeles RWQCB region.) The EIR explains, in language that necessarily uses acronyms of regulatory agencies and their requirements, that avoidance of impacts to hydrology and water quality is achieved through compliance with established standards, regulations, procedures and best management practices.

3.10 Land Use and Planning

CEQA calls for analysis of the proposed Project's potential to conflict with any "*land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect*" and if so, whether such conflict would cause a significant environmental impact. This section of the EIR reviews the potential for the proposed Project to conflict with a broad range of adopted land use plans, policies and regulations, most of which were adopted by the City of Redondo Beach, but the analysis also addresses policies of the City of Torrance that may be applicable to the portion of the proposed Project in the City of Torrance right-of-way. For the determination of whether or not the proposed Project conflicts with a given plan, policy or regulation, the EIR provides a detailed analysis of proposed Project features and components and their relationship to the intent of adopted plans, policies and regulations. Some adopted plans and policies, particularly those adopted at the State and regional levels, and many goals and policies of the General Plans, are directed at governing bodies (i.e., the cities themselves) for their implementation and may not be intended for implementation directly by individual projects. In cases where a potential conflict may arise, the EIR addresses the question of whether or not that conflict would "*cause a significant environmental effect*" based largely on the analysis of effects provided in other sections of the EIR (e.g., aesthetics and visual resources, air quality, biological resources, noise, etc.).

The scope of this analysis is focused on “*land use*” plans, policies and regulations. Several plans, policies and regulations that are not related primarily to land use but are relevant to other environmental topics are discussed in other EIR sections.

Section 3.10.1, *Environmental Setting* provides an overview of land use throughout Redondo Beach and Torrance, with a more detailed discussion of land use in the vicinity of the Project site (see **Page 3.10-4**) and on the Project site (see **Page 3.10-5**). **Section 3.10.2, *Regulatory Setting*** describes the relevant policies and regulations at the state, regional and municipal levels that govern land use. Significance thresholds and methods of analysis are described in **Section 3.10.3, *Impact Assessment and Methodology*** (beginning on **Pages 3.10-15**). The impact analysis begins on **Page 3.10-16** in **Section 3.10.4, *Project Impacts and Mitigation Measures*** and is presented with the aid of several tables that address policies from several different sources (e.g., General Plans and zoning regulations). The EIR finds that the proposed Project does not conflict with any adopted plans, policies and regulations adopted for the purpose of avoiding an environmental effect. The City of Torrance has indicated their view that the project may be inconsistent with Torrance Municipal Section 92.30.8 which prohibits access “*to a local street from a commercially or industrially zoned through lot which also has frontage on a major or secondary street;*” however, this provision applies only to “*land uses within the City [of Torrance]*” (Torrance Municipal Code Section 93.30.1) and the EIR finds that any inconsistency with respect to that provision would not result to a significant environmental effect (e.g., air quality, noise, transportation, etc.).

3.11 Noise

The EIR analyzes the potential for the proposed Project to cause impacts related to either noise or ground-borne vibration. The analysis begins with a discussion of the current noise environment, current noise sources and the level of ambient noise around the Project site. The EIR explains that various metrics are used to evaluate different types of community noise (see **Section 3.11.1, *Environmental Setting***). Ambient noise levels are commonly measured using a 24-hour average. The predominant source of ambient noise is roadway noise from vehicles. **Table 3.11-4** presents peak hour noise levels on the streets near the Project site. The text also identifies the level and frequency of noise generated by medical response vehicles visiting the site (see **Page 3.11-7**), along with other sources of noise such as noises from parking garages and on-site equipment. The EIR also identifies “*sensitive receptors,*” defined as uses that are especially noise-sensitive, primarily schools and residences. **Section 3.11.3, *Regulatory Setting*** presents various Federal, State, and municipal regulations and policies related to community noise. Both the City of Redondo Beach and the City of Torrance establish permissible noise

levels for specific land use types. However, neither city has noise level standards for construction noise, but both jurisdictions limit the hours of construction.

Section 3.11.4, *Impact Assessment and Methodology* identifies the thresholds of significance used for determining noise and vibration, and the discussion that follows reviews the applicable numerical standards for evaluating impacts compared to those thresholds. The EIR identifies two different methods for measuring vibration, one for its potential effects on persons and activities, the other to measure the potential for structural damage. The EIR describes the methods used to calculate levels of construction noise that can be expected from the proposed Project, based on the number and types of equipment that will be active onsite and the duration of their activity. For construction noise and vibration, the EIR applies standards established by the Federal Transit Administration (FTA).

Project impacts are identified in **Section 3.11.5, *Project Impacts and Mitigation Measures***. Estimated construction noise levels at sensitive receptors are given in **Table 3.11-16** for Phase 1 and in **Table 3.11-17** for Phase 2. The analysis finds that construction noise levels during Phase 1 would significantly impact residences in the Torrance neighborhood to the east across Flagler Lane and Flagler Alley as well as the residences in Redondo Beach to the north across North Prospect Avenue and to the west across North Prospect Avenue. Phase 2 construction noise would also significantly impact residences in the Torrance neighborhood to the east of the campus and the on-site sensitive receptors within the RCFE Building constructed during Phase 1. The level of noise would exceed the FTA noise standards for the duration of the construction phases. Conventional methods of mitigating construction noise impacts – placement of noise barriers on-site to block the “*line of sight*” between the noise source and receptors – can reduce noise emanating from sources at or near the ground level. However, noise barriers are generally infeasible above a height of 30 feet, and therefore, noise barriers would not mitigate construction-related noise on the uppermost stories of the proposed buildings during Phase 1 and Phase 2 construction activities. The EIR discusses the limits of feasibility and concludes that the level of construction noise would result in a significant impact, even with implementation of all feasible measures (MM NOI-1 on **Page 3.11-37**).

The EIR addresses noise on off-site roadways generated by haul trucks and other construction traffic and presents peak hour construction traffic noise levels at sensitive receptors in **Table 3.11-21**. The increase in noise generated by construction trips is 1 A-weighted decibels (dBA) or less, which is below the level of a perceptible change in noise level (3 dBA), and so the EIR determines that construction-related vehicle trips, including haul truck trips, would not result in a significant impact.

Under Impact NOI-2 (see **Page 3.11-39**), the EIR calculates the level of ground-borne vibration that would be generated by construction vehicles operating during each construction phase. For each phase, the greatest vibration levels occur during site preparation activities. However, vibration levels from construction equipment would not exceed criteria established by the FTA and impacts would be less than significant both Phases 1 and 2. According to the FTA, haul truck trips associated with the proposed Project would have no impact because the number of events would not increase significantly (i.e., approximate doubling of events) and the vibration associated with the proposed Project does not exceed the existing vibration by 3 dBA or more.

The EIR evaluates noise generated by activities that would occur on-site after the completion of the proposed Project. These include outdoor activities (e.g., outdoor fitness classes, movie nights, farmers' markets, etc.), delivery and service trucks, trash pickup, parking lot and parking structure noises, and the sirens of emergency medical vehicles visiting the site. The impact assessment finds there is a potential for noise from on-site activities to generate significant impacts – particularly outdoor activities using a sound amplification system – but finds that these impacts can be avoided through feasible measures to limit the amplitude, duration, and timing of noise-generating activities. The EIR identifies a mitigation measure that calls for an Events Management Plan, which would establish operational procedures to limit noise levels to avoid exceeding municipal standards and require that activities on-site fully comply with the applicable municipal noise regulations (see MM NOI-3b and NOI-3c on **Page 3.11-48**). A separate measure limits the hours of deliveries by heavy-duty trucks and the amount of time truck engines are allowed to idle during deliveries (see MM NOI-3a on **Page 3.11-48**). The assessment identifies an increase in medical emergency vehicles to the site (due to the increase in assisted living care residents). Following the completion of the proposed development under the Phase 1 preliminary site development plan, it is anticipated that the BCHD campus would generate an estimated 244 ambulance calls per year (see **Page 3.11-43**); however, the increased number of emergency trips would be minimal and would not significantly increase ambient noise levels in the community.

3.12 Population and Housing

In compliance with CEQA Guidelines, the EIR addresses the question of whether the proposed project would “*induce substantial unplanned population growth, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).*” The EIR also considers whether the project would “*displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere).*” In addressing the first question the EIR draws on U.S. Census data as well as data and housing policies of the respective Redondo Beach and Torrance General Plans. The analysis

also draws from the Southern California Association of Government's (SCAG's) regional planning data related to current and projected population and jobs and housing demands and supply in the South Bay. Following an overview of current and projected population, jobs and housing numbers in Redondo Beach, Torrance, and Los Angeles County (see **Section 3.12.1, *Environmental Setting***), the analysis presents the projected number of new employees that would be supported by the proposed Project, along with the increased housing demand of those new employees. The analysis specifically addresses the new housing demand in terms of the probable salary range (and therefore the range of affordable housing) of new employees (see **Section 3.12.4, *Project Impacts and Mitigation Measures***). This is followed by an analysis of the availability of housing within the affordable range in Redondo Beach or within a reasonable commute distance from the BCHD campus, which is based on today's trends in local job-commuter behavior. The analysis finds that the local housing supply is more than sufficient to meet the project's increase in housing demand. This is true even when other anticipated projects (i.e., cumulative projects) in the vicinity are considered.

The EIR discusses the increase in the local population that would result from the new assisted living units. The new Assisted Living units would increase the resident population by up to 177 new residents on-site. The number of new residents on-site would increase the population of Redondo Beach by 0.3 percent, a negligible increase that is well within the projected population growth assumed by SCAG, which in turn is based on the Redondo Beach General Plan. Future residents of the Assisted Living units would not increase the demand for local jobs, as they will not belong to the work-force population.

The analysis finds that the proposed Project would not "*induce substantial unplanned population growth,*" through its proposal to provide housing for 177 residents or through its creation of approximately 170 new jobs at the campus. The population growth resulting from the proposed Project is neither "*substantial*" in its magnitude, nor "*unplanned,*" because it conforms to the General Plan and SCAG population growth projections for the City of Redondo Beach and the SCAG region.

The EIR also addresses the relocation of the current residents of the 60 Memory Care units on-site to new facilities in the new RCFE Building proposed to be completed in Phase 1. The phasing plan provides that current residents remain in place until the new units are ready to be occupied. The project would not "*displace substantial numbers of people or existing housing, necessitating the construction of replacement housing*" other than the housing proposed by the project onsite.

3.13 Public Services

The EIR addresses the question of whether the project will increase demands for public services and as a consequence lead to substantial adverse physical impacts due to the need to build new facilities or alter the existing facilities of service providers. The analysis examines the demand of the proposed Project on fire protection services and emergency medical services as well as police protection services. (The Initial Study determined the project would have no impacts on schools, parks and other public services; these issues are briefly discussed in **Section 4.0, Other CEQA Considerations**). **Section 3.13.1, Environmental Setting – Fire Protection** discusses current demands on fire protection services in both Redondo Beach and Torrance, the facilities and personnel of the fire departments of both cities, and the average response times relative to targeted performance standards. The Redondo Beach Fire Department, which is the first responder to the Project site, achieves average response times for both fire protection and emergency medical services that meet industry standards. The EIR estimates the increased demand generated by the new uses associated with the proposed Project, focusing on the increase in emergency medical services from the proposed 177 new assisted living residents. Based on the number of annual calls generated by current residents of the Silverado Beach Cities Memory Care Community on-site, the increased demand generated by new residents of Phase 1 would be approximately 244 new calls per year for emergency medical services. This represents an annual increase of 3 percent in the total responses by the Redondo Fire Department. Based on the assumption that new calls would be responded to from Fire Station No. 1 or 2 in Redondo Beach, 1.2 mile and 1.1 mile, respectively, from the Project site, the EIR concludes that the proposed Project would not trigger the need for new fire protection facilities, or alteration of fire protection facilities that might in turn result in substantial adverse physical impacts.

Section 3.13.5, Environmental Setting – Police Protection describes the resources and service levels of the Redondo Beach Police Department, as well as the Torrance Police Department. The EIR evaluates the potential increase in demands for police services based on the increased population of residents, employees and visitors to the Project site as a result of the proposed Project. According to the Redondo Beach Police Department, there are no plans to expand facilities or build new facilities. Based on this evidence, the EIR concludes the proposed Project will not result in an impact relative to the CEQA-based threshold of resulting in “*substantial adverse physical impacts associated with the provision of new or altered government facilities.*”

3.14 Transportation

The EIR's discussion of impacts related to transportation addresses the relationship of the proposed Project to multiple modes of transportation – vehicular, transit, bicycle and pedestrian.

Its assessment includes Project-induced trips from both construction and operations. It also describes, at a detailed technical level, the policy basis for and methods of analyzing potential impacts related to vehicle miles traveled (VMT), the newly mandated criterion for gauging impacts related to transportation. In accordance with Appendix G of the CEQA Guidelines, the EIR discusses the potential of the proposed Project to increase hazards that might impact the circulation system, along with the potential of the proposed Project to result in inadequate emergency access. The impacts assessment also evaluates the potential of the proposed Project to result in significant environmental impacts due to a conflict with relevant transportation plans, policies and regulations.

Section 3.14.1, *Environmental Setting*, identifies the existing conditions of all aspects of the circulation system. It describes the streets in the vicinity of the Project site and their configurations, with special attention to local street access to the BCHD campus. It describes public transit service in the area, and it describes bicycle and pedestrian facilities. This section also describes the history and frequency of vehicular collisions in the vicinity as well as the phenomenon of cut-through traffic in the nearby residential neighborhood east of the BCHD campus in Torrance. The EIR presents recent data on collisions and cut-through traffic (beginning on **Page 3.14-18**).

The concept of VMT (i.e., the number of vehicle trips, multiplied by the length of each trip) is first introduced on the first page of the transportation section on **Page 3.14-1**. This section presents current data on VMT State-wide, at the County level, and in Redondo Beach. Additional background information related to the policy and legislative actions establishing VMT as the metric for traffic impact assessment in CEQA is provided in **Section 3.14.2, *Regulatory Setting*** (beginning on **Page 3.14-23**). This section also presents various regional regulations and local General Plan policies that have bearing on transportation planning.

Section 3.14.3, *Thresholds of Significance and Methodology* presents the thresholds and identifies the methodology for the analysis of transportation impacts. As with other environmental topics, the thresholds of significance are based on the Appendix G of the CEQA Guidelines. The EIR explains that it relies on the guidance provided by California Governor's Office of Planning and Research (OPR) Technical Advisory as a source for the appropriate methods, screening criteria and metrics for determining traffic impacts. The EIR implements OPR's methods in a manner that is consistent with VMT procedures currently being considered for adoption by the City of Redondo Beach (beginning on **Pages 3.14-37**). The EIR describes in detail the extensive site-specific and Project-specific research and analysis conducted as part of the technical traffic study (Fehr & Peers 2021a) to estimate the number of daily trips and the

length of trips generated by existing uses and the uses proposed by Phases 1 and 2 of the Master Plan. The total number of trips generated by the proposed Project, compared to existing trips generated by the project site, is presented in **Table 3.14-7** on **Page 3.14-43**. The analysis shows that Phase 1 of the Project reduces the number of daily vehicle trips from the existing number of trips generated by the campus, largely due to the substantially lower trip generation rate of the proposed Assisted Living units compared to the higher trip generation rate of the existing medical office use. With the addition of Phase 2, however, the proposed Project increases the number of daily vehicle trips over existing conditions by 376 trips, while reducing the AM Peak Period trips by 37 and the PM Peak Period trips by 28 trips.

In **Section 3.14.4, *Project Impacts and Mitigation Measures***, the EIR analyzes four categories of impacts, reflecting the four impact categories identified in the CEQA Guidelines (Appendix G).

The EIR reviews the proposed Project for consistency with applicable regional plans and refers to the analysis in **Section 3.10, *Land Use and Planning*** which addresses the consistency of the proposed Project with other relevant plans, policies and regulations adopted at the local level, including goals, policies and programs related to transportation management, alternative transportation and walkable communities. The EIR finds there are no significant impacts resulting from conflicts with plans, policies or regulations related to transportation.

The discussion of VMT analysis and methodology identifies two distinct metrics for evaluating VMT impacts. One is **Home-Based Work VMT per Employee** and the other is **Home-Based VMT per Capita** (see **Page 3.14-56**). Both metrics apply to the proposed Project because it would generate trips by employees on campus and trips generated by residents of the proposed RCFE Building. The analysis applies vehicle trip generation rates and trip length estimates derived through site-specific and use-specific research and compares the Home-Based Work VMT per employee and Home-Based VMT per capita to the applicable thresholds. In both cases, the Project VMT is below the thresholds. Based on these results, the EIR determines that the Project will not result in significant traffic impacts related to VMT.

This impact category addresses construction-related traffic, such as truck trips (beginning on **Page 3.14.61**); cut-through traffic in the nearby Torrance neighborhood (beginning on **Page 3.14-62**); access to the Project site (beginning on **Pages 3.14-64**); and internal campus circulation (beginning on **Page 3.14-67**). The EIR finds that there would be no increase in hazards due to cut-through traffic because the proposed access on Flagler Lane (exits and entries) would be controlled to prohibit turning movements into the Torrance neighborhood (see discussion beginning on **Pages 3.14-62**). The EIR identifies an extensive mitigation measure that

requires specific actions to address construction-related traffic in a Construction Traffic and Access Management Plan to be reviewed and approved by the County Department of Transportation and Redondo Beach Community Development Department (MM T-2 on **Page 3.14-65**). The EIR also identifies the need to relocate the existing bus stop located on the south side of Beryl Street between the proposed driveway entrance on Beryl Street and the intersection with Flagler Lane, in order to avoid potential safety hazards related to vehicle-bus conflicts at this location. This requirement is identified in a separate mitigation measure, MM T-3 on **Page 3.14-67**. The EIR determines that with implementation of these two mitigation measures, MM T-2 and MM T-3, the impacts of the proposed Project related to hazards would be reduced to a level that is less than significant.

Provisions for emergency access during construction are identified in mitigation measure MM T-2, which requires an alternative entrance and secondary access to the campus during construction and procedures for coordination with local emergency service providers. The Construction Traffic and Access Management Plan prescribed in mitigation measure MM T-2 is required to address construction traffic routing and control, vehicle, bicycle and pedestrian safety, street closures and construction parking in a coordinated manner, to ensure that emergency access is not inhibited. Following construction, the campus would be accessible to emergency vehicles by its multiple access points, drop-off zone and internal circulation system (see **Page 3.14-69**).

3.15 Utilities and Service Systems

Development projects can cause environmental impacts directly or indirectly if they include or necessitate the construction of new utility or service facilities, or the expansion or relocation of facilities. New, relocated or expanded facilities are not in and of themselves an impact, but they may cause physical changes that in turn have significant environmental effects. This category of impact is more common with “*greenfield*” projects that have no existing utility connections prior to development. In addition to this category of impact, CEQA calls for an analysis of the availability of water supply to serve the project, along with other reasonably foreseeable developments, not only during normal years, but through multiple dry years. The effect of the proposed Project on the wastewater treatment system, along with other existing and projected demands on the wastewater system, is another potential source of impact identified by CEQA. And finally, CEQA calls for an analysis of the potential for the proposed Project to generate solid waste that exceeds State or local standards, exceeds the capacity of local infrastructure (e.g., landfills), impairs the attainment of solid waste reduction goals or fails to comply with Federal, State and local management and reduction statutes and regulations related to solid waste.

The EIR describes the utility systems and facilities that currently serve the site. In separate subsections, it identifies the potential of the proposed Master Plan to result in adverse impacts related to its service demands on the regional and local water, wastewater and solid waste systems.

Section 3.15.1, *Water Supply and Infrastructure* describes in detail the water supply system, sources of local water supply, water use trends and projected regional and local water demand. The EIR identifies current water use at the BCHD campus (see **Table 3.15-4**) and identifies a projected increase in water consumption as a result of the proposed Project (see **Table 3.15-8** and **Table 3.15-9**). Through its analysis of the existing and future supply and the assurance through a “*Will Serve*” letter from the local water provider (Cal Water) that the operational water needs associated with the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – can be met, the EIR makes the finding that the Project would not have a significant impact on water supply.

Section 3.15.2, *Wastewater Collection, Conveyance, and Treatment* describes the local wastewater treatment system, including the capacity of the sewer main that presently serves the campus. **Table 3.15-10** presents the estimated volume of wastewater generated by current uses at the BCHD campus. The EIR’s methodology for assessing the potential for impacts related to wastewater is described on **Page 3.15-27**. The projected wastewater generated by Phases 1 and 2 of the Project are presented in **Table 3.15-11** and **Table 3.15-12**, showing a net increase in wastewater over existing conditions. However increase in volume would not exceed the design criteria established by the City of Redondo Beach for the local sewer mains. Nor would the increased volume exceed the capacity of the wastewater treatment facilities of the Joint Water Pollution Control Plant that serves the South Bay cities (see **Page 3.15-32**).

Section 3.15.3, *Solid Waste Management Services* describes the solid waste management system in Redondo Beach and the capacity of landfills in the region that might serve the solid waste disposal needs for the proposed Project. The amount of solid waste currently generated by uses at the BCHD campus is identified in **Table 3.15-15**. The EIR’s methodology for evaluating the potential for impacts related to solid waste is described on **Page 3.15-40**. The projected volume of solid waste that would be generated by the proposed uses is provided in **Table 3.15-16**. The EIR determines that sufficient capacity exists in landfills serving the region to accommodate the volume generated by the Project. Compliance with State standards for solid waste management is assured through compliance with policies and standards established by the Redondo Beach General Plan Solid Waste Management and Recycling Element (beginning on **Page 3.15-43**). Construction waste generated during construction of Phases 1 and 2 would be

subject to the City of Redondo Beach Construction and Demolition Ordinance, which would bring the management of solid waste from construction into compliance with local standards.

SECTION 4.0, *OTHER CEQA CONSIDERATIONS*

This section addresses five topics required by CEQA.

- Significant Unavoidable Environmental Effects
- Reasons the Project is Being Proposed Notwithstanding Its Significant and Unavoidable Impacts
- Significant Irreversible Environmental Changes
- Growth Inducing Impacts
- Effects Found Not to be Significant

SECTION 5.0, *ALTERNATIVES*

This section of the EIR begins with a review of the Project Objectives (**Section 5.2, *Project Objectives***), followed by a summary of potentially significant effects (**Section 5.3, *Summary of Potentially Significant Impacts***) to provide the context for the discussion of alternatives. Alternatives considered but rejected for further analysis are discussed in **Section 5.4, *Alternatives Considered but Dismissed from Further Analysis***. The in-depth consideration and analysis of six alternatives occurs in **Section 5.5, *Alternatives Analysis***. The six alternatives analyzed are:

- Alternative 1 – No Project Alternative (Demolish and Replace with Limited Open Space)
- Alternative 2 – Sale and Redevelopment of the BCHD Campus
- Alternative 3 – Revised Access and Circulation
- Alternative 4 – Phase 1 Preliminary Site Development Plan Only
- Alternative 5 – Relocate Center for Health and Fitness Permanently and Reduced Parking Structure
- Alternative 6 – Reduced Height Alternative

For each of these alternatives, the EIR describes the alternative's potential environmental effects and compares the effects to those of the proposed Project. The six alternatives are briefly summarized below.

Alternative 1 No Project Alternative

If the proposed Master Plan were not implemented, BCHD would likely consider a local bond measure to fund seismic retrofit of the Beach Cities Health Center and Beach Cities Advanced Imaging Building. If the bond measure were to be successful, a retrofit project could take the place of the proposed Master Plan project. If not, BCHD would proceed with demolishing the Beach Cities Health Center, an action that it anticipates taking within the next 2 to 3 years,

regardless of the future of the proposed Master Plan. The No Project Alternative would not introduce any new impacts that were not identified for the proposed Project. It would substantially reduce the temporary impact related to construction noise, but would still result in a significant effect of a much shorter duration. Compared to the proposed Project, the No Project Alternative would result in reduced impacts.

The No Project Alternative would not accomplish any of the other basic objectives of the Master Plan. Removal of the seismic safety hazard (Project Objective 1) would occur without achieving any of the benefits provided by the other objectives. Upon demolition of the building, the demolition site would be filled and landscaped with turf and limited hardscaping. The vacant space area left by the demolished building would have no amenities and would not adequately support community health programs (and there would be no revenue to support programs under this alternative), nor would it be a functional public park.

Alternative 2 Sale and Redevelopment of the BCHD Campus

The CEQA Guidelines state that “[i]f disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this ‘no project’ consequence should be discussed” (CEQA Guidelines, Section 15126.6[e][3][B]). Consistent with this guidance, the EIR discusses Alternative 2, which would result in actions by others. Under Alternative 2, BCHD would sell the campus and the vacant Flagler Lot. This alternative would likely result in redevelopment of the campus and development of the vacant Flagler Lot, but because of the uncertainty of the nature of potential future actions by others the EIR does not speculate on the consequent environmental effects. Environmental impacts could be less than or greater than those of the proposed Project, depending on the uses developed and their intensity. Alternative 2 would not accomplish any of the basic Project Objectives. Redevelopment by others would likely result in demolition of the Beach Cities Health Center, eliminating the seismic safety hazard, but that is not certain. The revenue generated through sale of the properties would provide a temporary support for BCHD programs and services, but that support would be short-lived and not accomplish the Project’s revenue generation objectives.

Alternative 3 Revised Access and Circulation

In response to the request by the City of Torrance in its response to the Notice of Preparation, the EIR includes an alternative that considers a revised access and circulation plan, with no access from Flagler Street. This alternative is described and illustrated on **Figure 5-1** and includes a one-way access to the Project site from Beryl Street (as in the proposed Project) but no driveways on Flagler Lane. The internal circulation of the Master Plan is modified to

accommodate this revised access plan and the proposed RCFE Building is slightly modified in its configuration as result. The modified configuration would result in a slight reduction in the planned programmable open space. Otherwise, the alternative site design is fundamentally similar to the proposed Project. Environmental impacts of this alternative are also similar to the proposed Project. The reduction in open space is not great enough to compromise its utility for community health programs and public use. This alternative would accomplish all of the basic Project Objectives in a manner similar to the proposed Project.

Alternative 4 Phase 1 Preliminary Site Development Plan Only

All six alternatives would reduce impacts. Alternatives 2, 3, 5 and 6 would further reduce impacts that are less than significant or less than significant with the mitigation measures identified in the EIR. Aside from the No Project Alternative, only Alternative 4 would substantially reduce a significant impact (significant and unavoidable construction noise) by reducing the duration of construction (eliminating altogether the second construction phase to develop Phase 2). It would be similar to the proposed Project in all other respects, with further reductions to less than significant impacts. It should be noted that even under Alternative 4, the temporary impact of construction noise, though substantially reduced, would still be considered a significant effect during the shortened duration of construction.

Alternative 4 would not achieve all six of the Project Objectives. It would achieve Project Objectives 1, 2 and 3:

1. Eliminate seismic safety and other hazards of the former South Bay Hospital Building (i.e., 514 North Prospect Avenue).
2. Generate sufficient revenue through mission-derived services to replace revenues that will be lost from discontinued use of the former South Bay Hospital Building and support the current level of programs and services.
3. Provide sufficient public open space to accommodate programs that meet community health needs.

Alternative 5 Relocate Center for Health and Fitness Permanently and Reduced Parking Structure

BCHD plans to vacate the Beach Cities Health Center building in the next 2 to 3 years to eliminate exposure of its occupants to the building's seismic safety hazard. The Center for Health and Fitness will be temporarily relocated to another location but is planned to return to the campus to occupy a new facility in the Community Wellness Pavilion proposed as an

element of the Phase 2 development program. Alternative 5 considers a future scenario in which the Center for Health and Fitness remains off-site permanently. The EIR's traffic study found that the Center for Health and Fitness generates a relatively high number of daily trips and consequently represents a significant amount of the Master Plan's parking demand. Permanent relocation of the CHF would therefore allow the parking structure proposed as part of the Phase 2 development program to be reduced substantially in size, eliminating the need for approximately 200 spaces and allowing a reduction in height of two stories, approximately 30 feet.

This alternative would have similar environmental impacts to the proposed Project, though some environmental effects would be reduced. The reduced size of the parking structure and elimination of the 20,000 sf facility to house the Center for Health and Fitness from the development program would reduce the Phase 2 construction period by 4 to 6 months, with a corresponding reduction in construction-related impacts. The temporary impact of construction noise would still be significant. The reduced height would reduce the visibility of the proposed parking structure from views to the southeast in the vicinity of Diamond Street east of North Prospect Avenue. This alternative would accomplish all of the basic Project Objectives in a manner similar to the proposed Project.

Alternative 6 Reduced Height Alternatives

Alternative 6 would reduce the height of the proposed RCFE Building as a means of addressing the impact to the public view of the Palos Verdes hills ridgeline identified in the **Section 3.1, *Aesthetics and Visual Resources***. This impact is addressed in MM VIS-1, but the mitigation measure does not prescribe the method of avoiding the impact. Implementation of the mitigation measure through a redesign that eliminates one or more floors of the building would reduce the ability of the proposed Project to accomplish Project Objective 4, to *“address the growing need for assisted living with on-site facilities.”* It may also inhibit fulfillment of Project Objective 2, to *“generate sufficient revenue through mission-derived services to replace revenues that will be lost from discontinued use of the former South Bay Hospital Building and support the current level of programs and services,”* and Project Objective 6, to *“generate sufficient revenue through mission-derived services and facilities to address growing future community health needs.”* Mitigation Measure MM VIS-1 may lead to a project that fails to accomplish most of the basic Project Objectives. For this reason, the EIR considers Alternative 6, which would reduce the height of the proposed RCFE Building, but instead of eliminating square footage, this alternative would redistribute it as a 3-story addition to the building along the eastern perimeter of the Project site (see **Figure 5-2**). The EIR assesses the environmental effects of the alternative

and finds that its impacts would be similar to the proposed Project (construction noise would differ from the proposed Project in location and duration, but would remain significant and unavoidable). Alternative 6 would result in a reduction of proposed open space (displaced by the 3-story addition) identified in Project Objective 3 as a key project element. Nevertheless, the EIR concludes that Alternative 6 would accomplish all of the basic Project Objectives, because the remaining open space would still be sufficient to accommodate community health programs.

Environmentally Superior Alternative

CEQA requires the EIR to identify the environmentally superior alternative. If the environmentally superior alternative is the No Project Alternative, the EIR must also identify an environmentally superior alternative among the other alternatives. The EIR finds Alternative 4 to be the environmentally superior alternative, because it would substantially reduce the duration of the temporary but significant construction noise impact. Although Alternative 5 would also substantially reduce the duration of construction noise (by 4 to 6 months), the reduction achieved by Alternative 4 would be much greater (28 months).

SECTION 6.0, *LIST OF PREPARERS*

This section lists the persons responsible for preparing the EIR.

SECTION 7.0, *REFERENCES*

References cited in the EIR are listed by environmental topic.

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ACRONYMS AND ABBREVIATIONS

°F	degrees Fahrenheit
µg/kg	micrograms per kilogram
AB	Assembly Bill
ACM	asbestos-containing material
ACS	American Community Survey
ADA	Americans with Disabilities Act
ADT	average daily trip
AES	AES Corporation
AF	acre-feet
AFY	acre-feet per year
AHERA	Asbestos Hazard Emergency Response Act of 1986
AIN	Assessor's Identification Number
APS	Alternative Planning Strategy
AQMP	Air Quality Management Plan
ARB	Architectural Review Board
ASTM	American Standard for Testing and Materials
ATSDR	Agency for Toxic Substances and Disease Registry
AVO	average vehicle occupancy
BCHD	Beach Cities Health District
bgs	below ground surface
BMP	best management practice
C&D	construction and demolition
CAA	Clean Air Act of 1963
CAAQS	California Ambient Air Quality Standards
Cal EMA	California Emergency Management Agency
Cal Water	California Water Service Company
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalGEM	California Geologic Energy Management Division
CALGreen	California Green Building Standards
CalOES	California Office of Emergency Services
CalOSHA	California Occupational Safety and Hazard Administration
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAT	Climate Action Team
CBC	California Building Code
CBSC	California Building Standards Code
CC	Catalina Corridor
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDC	Centers for Disease Control and Prevention
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission

ACRONYMS AND ABBREVIATIONS

CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CESA	California Endangered Species Act
CFC	chlorofluorocarbon
CFR	Code of Federal Regulations
cfs	cubic foot per second
CGS	California Geological Survey
CH ₄	methane
CHF	Center for Health and Fitness
CHL	California Historical Landmarks
CHP	California Highway Patrol
CIWMA	California Integrated Waste Management Act
CIWMB	California Integrated Waste Management Board
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historic Resources
CRPR	California Rare Plant Rank
CTR	California Toxics Rule
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CWG	Community Working Group
cy	cubic yard
d/D	depth to diameter
dB	decibel
DDE	4,4'-dichlorodiphenyldichloroethylene
DDT	Dichlorodiphenyltrichloroethane
DHS	Department of Health Services
DOGGR	California Department of Conservation, Division of Oil, Gas, and Geothermal Resources
DOT	U.S. Department of Transportation
DPM	diesel particulate matter
DPW	Department of Public Works
DTSC	Department of Toxic Substances Control
DWQ	Division of Water Quality
DWR	California Department of Water Resources
ECL	Edward C. Little
EECAP	Energy Efficiency Climate Action Plans
EIR	Environmental Impact Report

EMFAC	EMission FACtors
EMS	Emergency Medical Services
EPCRA	Emergency Planning and Community Right to Know Act of 1986
EPD	Environmental Programs Division
ESA	Environmental Site Assessment
EV	Electric Vehicle
EWMP	Enhanced Watershed Management Program
FAR	Floor Area Ratio
Federal ESA	Federal Endangered Species Act
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FY	Fiscal Year
FTA	Federal Transit Administration
g/L	grams per liter
gal/hp/hr	gallons per horsepower per hour
GBMP	Groundwater Basins Master Plan
GHG	greenhouse gas
GIS	geographic information system
GPAC	General Plan Advisory Committee
gpd	gallons per day
gpm	gallons per minute
GSA	groundwater sustainability agency
GSP	groundwater sustainability plan
GWh	gigawatt hours
GWP	global warming potential
H&SC	Health and Safety Code
H ₂ CO ₃	carbonic acid
H ₂ S	hydrogen sulfide
HARP	Hotspots Analysis Reporting Program
HBCSD	Hermosa Beach City School District
HERO	Home Energy Renovation Opportunity
HI	hazard index
HIc	chronic hazard index
HIN	High Injury Network
HOV	High Occupancy Vehicles
HRA	Health Risk Assessment
HVAC	heating, ventilation, and air conditioning
Hyperion	Hyperion Wastewater Treatment Plant
I-	Interstate
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
ISO	Insurance Service Office
ITE	Institute of Transportation Engineer
JWPCP	Joint Water Pollution Control Plan

ACRONYMS AND ABBREVIATIONS

kV	kilovolt
KVL	Key Viewing Location
kWh	kilowatt hours
LACDPW	Los Angeles County Public Works Department
LACFCD	Los Angeles County Flood Control District
LACoFD	Los Angeles County Fire Department
LACSD	Los Angeles County Sanitation District
LAUSD	Los Angeles Unified School District
LAX	Los Angeles International Airport
LBP	lead-based paint
LEED	Leadership in Energy and Environmental Design
Leq	Equivalent Continuous Noise Level
L _{dn}	Day-Night Average Noise Level
L _{min}	Minimum Instantaneous Noise Level
L _{max}	Maximum Instantaneous Noise Level
LID	low impact development
LOS	Level of Service
LRA	Local Responsibility Area
L RTP	Long Range Transportation Plan
LST	Localized Significance Threshold
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MBUSD	Manhattan Beach Union School District
MEIR	maximum exposed individual resident
Metro	Los Angeles Metropolitan Transit Authority
mg/cm ²	milligram per square centimeter
mg/kg	milligram per kilogram
mg/L	milligrams per liter
mgd	million gallons per day
MICR	maximum individual cancer risk
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MODRAT	Modified Rational Method
mph	miles per hour
MPO	Metropolitan Planning Organization
MRF	Materials Recovery Facility
MS4	Municipal Separate Storm Sewer System
MSL	mean sea level
MT CO _{2e}	metric tons of carbon dioxide equivalent
MUTCD	Manual on Uniform Traffic Control Devices
MWD	Metropolitan Water District
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NAL	Numeric Action Level

NASA	National Aeronautics and Space Administration
NCDC	National Climatic Data Center
NEL	Numeric Effluent Limitation
NERHP	National Earthquake Hazards Reduction Program
NESHAP	National Emission Standard for Hazardous Air Pollutants
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO ₂	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOP	Notice of Preparation
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O ₃	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OHP	California Office of Historic Preservation
OPR	California Governor's Office of Planning and Research
OSHA	Occupational Health and Safety Administration
OTC	Once-Through Cooling
OVA	Organic Vapor Analyzer
PACE	Program of All-Inclusive Care for the Elderly
Pb	lead
PBDE	polybrominated diphenyl ethers
PCB	polychlorinated biphenyl
PCE	tetrachloroethylene
P-CF (zoning)	Public Community Facility zoning
PCH	Pacific Coast Highway
PDWF	Peak Dry Weather Flow
PID	photoionization detector
PM ₁₀	respirable particulate matter
PM _{2.5}	fine particulate matter
PMI	point of maximum impact
ppb	parts per billion
ppm	parts per million
ppmv	parts per million by volume
PRC	Public Resources Code
Project	Healthy Living Campus Master Plan
psi	pounds per square inch
PWWF	Peak Wet Weather Flow
R1 (zoning)	Single Family Residential zoning
RAST	Risk Assessment Standalone Tool

ACRONYMS AND ABBREVIATIONS

RBFD	Redondo Beach Fire Department
RBMC	Redondo Beach Municipal Code
RBDP	Redondo Beach Police Department
RBUSD	Redondo Beach Unified School District
RCFE	Residential Care for the Elderly
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environment Condition
REL	reference exposure level
RGWMP	Regional Groundwater Monitoring Program
RHNA	Regional Housing Needs Assessment
R-LO (zoning)	Low Density Residential zoning
ROG	reactive organic gas
RRP	Rehabilitation and Replacement Program
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan / Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SBCCOG	South Bay Cities Council of Governments
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SCH	State Clearinghouse
SCS	Sustainable Communities Strategy
SEA	Significant Ecological Area
SECAP	System Evaluation and Capacity Assurance Plan
sf	square foot/feet
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SLIC	Spills, Leaks, Investigations, and Cleanups
SMBRC	Santa Monica Bay Restoration Commission
SO ₂	sulfur dioxide
SoCal Gas	Southern California Gas Company
SR-	State Route
SRRE	Source Reduction and Recycling Elements
SSO	sanitary sewer overflows
SUSMP	Standard Urban Stormwater Mitigation Plan
SVE	Soil Vapor Extraction
SVP	Society for Vertebrate Paleontology
SWITRS	California Highway Patrol Statewide Integrated Traffic Records Systems
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board

TAC	toxic air contaminant
TAZ	transportation analysis zone
TCE	dichlorodifluoromethane
TDM	Transportation Demand Management
TDS	total dissolved solids
TFD	Torrance Fire Department
TIMS	Transportation Injury Mapping System
TMC	Torrance Municipal Code
TMDL	Total Maximum Daily Loads
TNC	Transit Network Company
TOD	transit-oriented development
TPA	transit priority area
TPD	Torrance Police Department
TPH	Total Petroleum Hydrocarbons
TSCA	Toxic Substances Control Act of 1976
UBC	Uniform Building Code
UCMP	University of California Museum of Paleontology
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGBC	U.S. Green Building Council
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan
UWMPA	Urban Water Management Planning Act
V/C	volume to capacity
VMT	vehicle miles traveled
VOC	Volatile organic compounds
W (zoning)	Waterfront zoning
WBMWD	West Basin Municipal Water District
WMA	Watershed Management Area
WMG	Watershed Management Group
WMP	Watershed Management Plan
Wood	Wood Environment & Infrastructure Solutions, Inc.
WRD	Water Replenishment District of Southern California

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1.0 INTRODUCTION

1.1 OVERVIEW

This Environmental Impact Report (EIR) evaluates the potential physical environmental impacts of the proposed Beach Cities Health District (BCHD) Healthy Living Campus Master Plan (Project). The EIR was prepared by Wood Environment & Infrastructure Solutions, Inc. (Wood) and its team of subconsultants including iLanco Environmental, LLC (Air Quality and Greenhouse Gas [GHG] Emissions), Fehr & Peers (Transportation), and VIZf/x (Aesthetics and Architectural Services).

As described in further detail in Section 2.0, *Project Description*, the proposed Healthy Living Campus Master Plan would redevelop the existing BCHD campus to: 1) address escalating building maintenance costs and seismic-related structural issues; and 2) to provide purpose-built facilities necessary to support BCHD's public health and wellness programs and services. BCHD has developed a detailed preliminary site development plan for Phase 1, which is evaluated in this EIR at a project level of detail. BCHD has also developed a more general development program for Phase 2 based on the design guidelines of the proposed Healthy Living Campus Master Plan and the best available planning information at this time. The Phase 2 development program has been evaluated programmatically in that construction impacts have been evaluated using maximum durations of construction, maximum areas of disturbance, and maximum building heights. Operational impacts have also been evaluated programmatically in that the analysis addresses maximum building space allocations.

The Project site is located along the eastern border of Redondo Beach, adjacent to the western border of Torrance (i.e., West Torrance) in Los Angeles County, California. The Project site consists of two legal parcels – the existing 9.35-acre BCHD campus and a 0.43-acre undeveloped lot at the southwest corner of Beryl Street and Flagler Lane (vacant Flagler Lot) – totaling approximately 9.78 acres. The BCHD campus (Assessor's Identification Number [AIN] 7502-017-901) is currently developed and occupied by the former South Bay Hospital (currently operated as the Beach Cities Health Center), an attached maintenance building, two privately operated medical office buildings with space that is individually leased from BCHD to a variety of tenants, and a parking structure. The Flagler Lot is an undeveloped, vacant lot owned by BCHD (AIN 7502-017-902). The majority of the BCHD campus and the vacant Flagler lot are located within Redondo Beach; however, eastern edge of these properties is partially located within City of Torrance right-of-way along Flagler Lane and Flagler Alley (see Section 2.2.1, *Project Location*).

1.2 LEAD AGENCY

BCHD is a California Healthcare District – one of the leading preventive health agencies in the Nation – that has served the Beach Cities (i.e., Redondo Beach, Hermosa Beach, and Manhattan Beach) since 1955. BCHD offers a range of evidence-based health and wellness programs with innovative services and facilities to promote health and well-being and prevent diseases across the lifespan of its service population – from pre-natal and children to families and older adults. Its mission is to enhance community health through partnerships, programs, and services focused on people who live and work in the Beach Cities. In many BCHD services are also available to residents throughout the South Bay. BCHD strives to provide its service population with a center of excellence for intergenerational community health, livability, and well-being (see Section 2.4.1, *BCHD Mission*).

Pursuant to Section 21067 of the California Environmental Quality Act (CEQA) as well as CEQA Guidelines Sections 15367 and 15050 through 15053, BCHD is the lead agency under whose authority this environmental document has been prepared. The lead agency is the public agency that has the principal responsibility for approving or carrying out a project. The lead agency decides whether a project is subject to CEQA or is categorically exempt, and, if subject to CEQA, whether an EIR, Mitigated Negative Declaration, or Negative Declaration will be required for the project.

1.3 PURPOSE AND LEGAL AUTHORITY

This EIR has been prepared in accordance with the CEQA Guidelines, published by the California Natural Resources Agency (Title 14 of the California Code of Regulations [CCR] Section 15000 *et seq.*). It is intended to provide information to decision-makers, public agencies, and the general public regarding the potential physical environmental impacts that would result from implementation of the proposed Project. Under the provisions of CEQA, “*the purpose of the environmental impact report is to identify the significant effects of a project on the environment, to identify alternatives to the project, and to indicate the manner in which significant effects can be mitigated or avoided*” (Public Resources Code 21002.1[a]). This EIR analyzes the environmental effects of the proposed Project to the degree of specificity required under CEQA Guidelines Section 15146. The analysis considers the construction and operational activities associated with the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – to determine the short- and long-term physical environmental effects. The EIR also considers the Design Guidelines and other relevant elements of the proposed Healthy Living Campus Master Plan that may result in or otherwise mitigate physical environmental impacts associated with the proposed redevelopment of the

campus. As described in Section 3.0, *Environmental Impact Analysis and Mitigation Measures*, the EIR discusses both direct and indirect impacts as well as the cumulative impacts associated with other past, present, and reasonably foreseeable future projects.

Given the location of the Project site in Redondo Beach, Redondo Beach is a responsible agency with discretionary permit authority. Redondo Beach will be responsible for considering this EIR and reaching their own conclusions on whether and how to approve the proposed Project. Torrance is also a responsible agency and will similarly be responsible for considering this EIR and reaching their own conclusions regarding activities occurring within the City of Torrance right-of-way along Flagler Lane and Flagler Alley (e.g., curb cuts, grading, construction of retaining walls, and landscaping within the right-of-way).

The CEQA environmental review process was established to enable public agencies to evaluate a project in terms of its environmental consequences, to examine and implement mitigation measures for eliminating or reducing any potentially adverse impacts, and to consider alternatives to the project. While CEQA Guidelines Section 15021(a) requires that major consideration be given to avoiding environmental damage, pursuant to CEQA Guidelines Section 15021(d) the lead agency and other responsible public agencies must balance adverse environmental effects against other public objectives, including social and economic goals, in determining whether and in what manner a project should be approved. If significant environmental impacts cannot be mitigated to a level considered less than significant, the impacts are considered to be significant and unavoidable. In accordance with CEQA Guidelines Section 15093, if a public agency approves a project that has significant impacts that are not substantially mitigated (i.e., significant unavoidable impacts where impacts cannot be mitigated to less than significant levels), the agency must state in writing the specific reasons for approving the project, based on the Final EIR and any other information in the public record for the project. This is known as a “*Statement of Overriding Considerations*.”

1.4 PUBLIC REVIEW AND COMMENTS

As a first step in complying with the procedural requirements of CEQA, BCHD prepared an Initial Study (IS) to determine if any aspect of the proposed Project, either individually or cumulatively, may cause a significant effect on the environment, and based on that determination, to narrow the focus (or scope) of the subsequent environmental analysis (see Appendix A). For the proposed Project, the IS found that this EIR should cover all environmental issue areas required by CEQA with the exception of Agriculture and Forestry Resources, Mineral Resources, Recreation, and Wildfire (see Section 1.7, *Scope of the EIR*). Tribal Cultural Resources are evaluated along with Cultural Resources in Section 3.4, *Cultural Resources and Tribal Cultural Resources*. The public

was provided an opportunity to comment on the scope of the EIR through a Notice of Preparation (NOP) which was made available to Federal, State, and local agencies and interested members of the public through various methods. The NOP was advertised to the general public electronically on the BCHD website and monthly calendar, via news releases, and posters placed in the BCHD Community Services office and Center for Health and Fitness (CHF). Physical copies of the NOP and IS were delivered to public libraries including Redondo Beach Main, North Branch, Hermosa Beach, Manhattan Beach, and Isabel Henderson branch in Torrance. The NOP and IS were also distributed to the Governor's Office of Planning and Research (OPR), school superintendents, and City Councilmembers in Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach. The NOP comment period ran from June 27, 2019 to July 29, 2019 (see Appendix A). Comments made during the comment period for the NOP were considered and addressed during EIR preparation (see Appendix A).

As with the NOP and IS, the Draft EIR has also been made available to Federal, State, and local agencies as well as interested members of the public. CEQA requires a 45-day comment period for the Draft EIR. However, given the ongoing COVID-19 pandemic and in an interest to facilitate increased levels of public participation, BCHD has extended the comment period to 90 days in order to ensure the public has ample time to review and comment. The public comment period begins on March 10, 2021 and will end on June 10, 2021. Written comments or questions regarding the Draft EIR should be addressed to:

Nick Meisinger
Wood Environment & Infrastructure Solutions, Inc.
Environmental Planner
9177 Sky Park Court
San Diego, CA 92123
EIR@bchd.org

Additionally, oral public comments will be received during the three virtual public meetings hosted by BCHD to describe the findings of the Draft EIR.

Following the public review period, a Final EIR will be prepared. The Final EIR will include responses to all written comments received during the public review period.

1.5 REQUIRED APPROVALS

The following entitlements and approvals would apply to various components of the proposed Healthy Living Campus Master Plan – including the Phase 1 preliminary site development plan and the Phase 2 development program:

- Adoption of the proposed Healthy Living Campus Master Plan (BCHD Board of Directors);
- City Engineer approval of the building plan or design for the Phase 1 preliminary site development plan and Phase 2 development program under the proposed Project pursuant to Redondo Beach Municipal Code (RBMC) Section 2-6.1.05 (Redondo Beach Planning Commission; Redondo Beach Engineering Services Division);
- Conditional Use Permit for Phase 1 preliminary site development Plan and Phase 2 development program under the proposed Project pursuant to RBMC Section 10-2.2506 within the P-CF zone (Redondo Beach Planning Commission);
- Building, grading, shoring, plumbing, electrical, mechanical permits from the City of Redondo Beach (Redondo Beach Building & Safety Division);
- Landscape and Irrigation Plan pursuant to RBMC Section 10-2.1900 (Redondo Beach Building & Safety Division);
- Sign review subject to Administration Design Review or Planning Commission Design Review pursuant to RMBC Section 10-2.1806 (Redondo Beach Building & Safety Division);
- Community Development Department approval for shared parking pursuant to RMBC Section 10-2.1706 (Redondo Beach Building & Safety Division);
- Landscape and Irrigation Plan approval pursuant to RBMC Section 10-2.1900 (Redondo Beach Building & Safety Division);
- City Engineer approval of improvements to curbs, gutters, sidewalks, driveways, and construction of retaining walls associated with the one-way driveway and pick-up/drop-off zone as well as the service and loading dock entrance along Flagler Lane pursuant to Torrance Municipal Code (TMC) Section 74.3.2 and 74.3.4 (Torrance Engineering Division)
- Grading Permit pursuant to TMC Section 81.2.49 (Torrance Engineering Division);
- City Engineer approval of a building permit for retaining walls associated with the service area and loading dock entry/exit pursuant to TMC Section 92.13.2 (Torrance Engineering Division).
- Landscape Plan approval pursuant to TMC Section 92.30.6 (Torrance Community Development Department)

- Wastewater Discharge Permit (Los Angeles Regional Water Quality Control Board [RWQCB]);
- Standard Urban Storm Water Mitigation Plan (Los Angeles RWQCB); and
- Permit to Construct (South Coast Air Quality Management District).

Other ministerial permits related to construction activities – haul routes, extended construction hours, etc. – would also be required.

1.6 PROJECT BACKGROUND

In 2017, BCHD began investigating escalating maintenance costs and seismic-related structural issues associated with the former South Bay Hospital, originally constructed in 1958. Following initial public outreach with neighbors, residents, and community leaders in May 2017, BCHD formed a 20-person Community Working Group (CWG) to engage local participants in the planning of a modernized campus that would be integrated with the surrounding community including Redondo Beach and the Torrance. The CWG consisted of an



The CWG was formed in 2017 to represent the various populations and organizations in the Beach Cities and to serve as a community sounding board and guidepost. The proposed Project was developed as a result of more than 60 meetings hosted over a 3-year period and attended by more than 550 community members.

informal, voluntary group of stakeholders from each of the three Beach Cities and the Torrance. Participants included leaders from local businesses, civic organizations, older adult services, the Blue Zones Project, and neighboring residents. The focused group was formed to engage in constructive collaboration and assisting in distributing information to the community as the planning process progressed. The CWG held 17 meetings to discuss various components of the proposed Healthy Living Campus Master Plan and was eventually dissolved in December 2020 following the conclusion of the preliminary planning and design phases for the proposed Healthy Living Campus Master Plan.

BCHD staff also conducted outreach for the Healthy Living Campus Master Plan through study circles, Community Open Houses, and focused outreach meetings for participants to discuss and share insights on the proposed Healthy Living Campus Master Plan. Study circles (i.e., informal group sessions) were comprised of diverse stakeholders from Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach and were designed to encourage local input into the planning process

for the proposed Healthy Living Campus Master Plan. The three study circles were each centered on a primary focus, which included Intergenerational Programs, Creating Community Gathering Spaces, and Creating a Center of Excellence. Key comments collectively expressed by participants were related to accessibility and inclusivity of the campus, improving transportation options, providing activities and facilities for all ages, creating multi-use outdoor spaces, and fostering community connections to provide an inclusive and welcoming environment.



BCHD has held two Open Houses since the start of the project. Open House events allowed community members and key stakeholders the opportunity to walk the BCHD campus, learn about the proposed Healthy Living Campus Master Plan, provide comments, and ask questions directly to project team members.

BCHD also held two community Open House events in November 2017 and March 2019 to inform community members and key stakeholders of the plans being considered. Open House events also provided an opportunity for attendees to ask questions and contribute comments. The first Open House introduced the proposed Healthy Campus Master Plan and provided nine informational stations, including but not limited to About BCHD, Project Overview, Community Need, EIR Process, and CHF. The second Open House provided the general public with an updated description of the Healthy Living Campus project, visualizations of its design, walking tours of the campus and opportunities for public involvement. The event also highlighted the existing and proposed programs and services provided by BCHD.

The refined Healthy Living Campus Master Plan as analyzed in this EIR was developed from more than 60 meetings over 2 years attended by more than 550 community members and drawing more than 1,000 comments regarding individual elements of the Master Plan. A timeline of key community outreach events associated with the proposed Healthy Living Campus Master Plan is summarized in Table 1-1.

Table 1-1. Overview of the Outreach and Planning Process

Date	Meeting Type/Host	Overview
June 2017	CWG Meeting	CWG hosted a meeting to gather input from the community on the first iteration of the proposed Healthy Living Campus Master Plan.
July 2017	CWG Meeting	CWG held a Campus Features Feedback presentation which began with a summary of the feedback received from the CWG, BCHD staff, and BCHD volunteers regarding potential development features.
August 2017	CWG Meeting	CWG held a meeting on the preliminary plans for the proposed CHF which began with a summary of the CWG's feedback on the plans and the plan refinements that were made to address the feedback.
September 2017	Focused BCHD Outreach Meeting	BCHD staff met with six condominium owners who comprise the Board of the Homeowner's Association of 1321 Beryl Street in Redondo Beach where owners could share their concerns.
October 17, 2017	Community Open House	An open house with 156 attendees was held to provide community members and key stakeholders with opportunities to learn about the conceptual plans being considered, provide comments, and ask questions directly to design team members.
October 19, 2017	Focused BCHD Outreach Meeting	BCHD presented the proposed Healthy Living Campus Master Plan to approximately 20 attendees at a community meeting for Redondo Beach District 3 residents following invitation from District 3 Councilmember Christian Horvath.
November 2017	CWG Meeting	CWG met again to discuss refinements that had been made to the site design based on community input from the October 2017 meetings.
January 2018	CWG Meeting	CWG provided a summary of outreach conducted and feedback received since the inception of the proposed Healthy Living Campus Master Plan, including 44 community presentations and meetings with groups of various sizes. It was also disclosed that the EIR process had been delayed due to new seismic-related structural information.
March 2018	CWG Meeting	CWG proposed opportunities for public participation to take a broader view of the campus while continuing to engage community feedback and ensuring BCHD meets program goals.
June 13, 2018	BCHD Study Circle (Public)	BCHD provided opportunities for participants consisting of 54 attendees to discuss and share insights on Intergenerational Programs.
June 18, 2018	CWG Meeting	CWG summarized previous input and included discussion and suggestions for pedestrian and cyclist safety and traffic conditions on North Prospect Avenue.
August 1, 2018	BCHD Study Circle	BCHD held group exercises for 56 attendees to discuss Creating Community Gathering Spaces to gather input for the Master Plan.
August 20, 2018	CWG Meeting	BCHD staff provided an update on potential campus improvements on the southwest corner of the property based on feedback received from residents, namely those along Diamond Street; CWG provided comments regarding Creating Community Gathering Spaces.
September 2018	BCHD Study Circle	BCHD facilitated a study circle for 50 attendees to discuss the topic of Creating a Center of Excellence. Feedback generally focused on marketing and research, creating an inclusive and welcoming environment, community engagement and involvement, and strengthening and expanding partnerships.
January 2019	CWG Meeting	BCHD provided a description of the updated Healthy Living Campus Master Plan as compared to the original 2017 iteration.

Table 1-1. Overview of the Outreach and Planning Process (Continued)

Date	Meeting Type/Host	Overview
February 2019	CWG Meeting	CWG held a Master Plan Financial Strategy meeting to discuss financial strategies for the proposed Project and review feedback received from previous outreach events.
March 2019	Community Open House	A second Open House with 139 attendees from the surrounding area, including the Beach Cities and Torrance, provided a walking tour of the BCHD campus and opportunity to learn more about existing BCHD programs and services.
April 2019	CWG Meeting	BHCD described the requirements of CEQA and the timeline for the EIR process.
June 2019	BCHD Staff Meeting	This meeting recapped the status of the updated Healthy Living Campus Master Plan and described two other Redondo Beach projects that are unrelated to the Master Plan but would impact access to the BCHD campus.
July 2019	Public Scoping Meetings	BCHD presented the IS and held five public scoping meetings to present the 2019 Master Plan and gather feedback on the scope of the EIR (refer to Section 1.4, <i>Public Review and Comments</i>).
December 2019	CWG Meeting	BCHD staff reviewed the highlights of the Healthy Living Campus Master Plan since formation of the CWG in June 2017 and the status of the EIR process.
June 2020	CWG Meeting	This meeting was held virtually (due to restrictions related to the COVID-19 pandemic) to describe plan refinements to the 2019 Master Plan based on the extensive public comments on the potential constraints during the NOP period.
December 2020	CWG Meeting	BCHD staff reviewed objectives of the proposed Project and the key planning milestones of the proposed Healthy Living Campus, highlighting the major public engagement activities since May 2017, including an open house in October 2017 and more than 60 public meetings to date garnering more than 1,000 comments.

1.6.1 Summary of Revisions to the Proposed Healthy Living Campus Master Plan

Following the release of the conceptual plans for the proposed Healthy Living Campus Master Plan to the public in June 2017, community feedback indicated a common desire for more active open spaces and community gathering spaces, integration with community, and increased accessibility through the campus, including walking and biking paths. Common concerns were also related to building heights, density, and potential transportation-related impacts of proposed Project. Comments received during the 2018 Study Circles indicated a desire for an intergenerational campus, an inclusive and welcoming community, and active open space. The 2019 Master Plan refined the original conceptual plan including the removal of the proposed parking structure from the vacant Flagler Lot, and relocation to the southeast corner of the campus. The 2019 Master Plan also featured reduced building heights, the removal of the previously proposed site access from Diamond Street, and the addition of a Community Wellness Pavilion.

The 2019 Master Plan also relocated the proposed buildings to enhance active open space and community gathering spaces.

Following community outreach efforts for the 2019 Master Plan, including a second community Open House in March 2019 and five public scoping meetings in July 2019, BCHD received continued concerns regarding the proposed density and number of residential units. Community response to the 2019 Master Plan also indicated the community's concerns over impacts to neighbors, including the long construction period (i.e., three individual 3-year long phases spanning a period 15 years) and the impacts on neighborhood traffic. Common concerns were also related to views of the proposed buildings from the surrounding residential neighborhoods.

In response to the community's concerns described above, BCHD downsized the development envisioned in the Healthy Living Campus Master Plan by 203 Assisted units and 107,800 sf of occupied building space under the 2020 Master Plan. Additionally, the construction period was reduced from three phases and 9 years of active construction to two phases and 5 years of active construction to address the community's concerns regarding construction-related impacts to air quality, noise, and traffic (see Table 1-2).

The proposed circulation scheme has been revised such that Flagler Lane would no longer serve as primary parking entrance as previously proposed under the 2019 Master Plan. Instead, only service and delivery vehicles would access the campus through the Flagler Lane vehicle entrance. The vehicle entrance to the RCFE Building was reconfigured as a one-way driveway with access from Beryl Street, with a left-turn-only exit onto Flagler Lane.

To address concerns for effective community benefits and intergenerational uses, the 2020 Master Plan includes a Program of All-Inclusive Care for the Elderly (PACE), a Youth Wellness Center, and an Aquatics Center. PACE would provide comprehensive medical and social services (e.g., adult day care, meals, nutritional counseling, dentistry, primary care including doctor and nursing services), laboratory/X-ray services, emergency services, hospital care, occupational therapy, recreational therapy, physical therapy, prescription drugs, social services, social work counseling, and transportation for older adults. The Youth Wellness Center would provide after-school behavior and health program for school-aged children (i.e., ages 12-18) and young adults (i.e., ages 18-25) with to access social services and life skills, job skills, mental health, sexual health services, etc. The Aquatics Center would provide an indoor leisure pool for adult and child swimming lessons and water aerobics classes, an indoor heated therapy pool that could be used by CHF members and support programming for PACE participants and campus residents, and an outdoor pool designed for fitness activities and offering play features (e.g., slide, river current, etc.) (see Section 2.0, *Project Description*).

Table 1-2. Summary of Revisions to the Proposed Healthy Living Campus Master Plan

	Existing Campus	2019 Master Plan	2020 Master Plan (Proposed Project)
Summary of Changes	-	Increased open space, addition of 360 net new RCFE units	Reconfigured RCFE Building, removed Child Development Center, one-way driveway and pick-up/drop-off zone, fewer RCFE units
Programs	Medical Office, Beach Cities Silverado Memory Care Community, Community Services, CHF	RCFE, Community Services, Child Development Center, Wellness Pavilion, CHF	Assisted Living, Memory Care, PACE, Community Services, Wellness Pavilion, Aquatics Center, CHF, Youth Wellness Center
Number of RCFE Units	60	420 (360 net new)	217 (157 net new)
Total Occupied Building Area (sf)	260,4000	592,700	484,900
Active Construction Time (years)	-	9	5
Number of Stories	4	4	7
Active Open Space (acres)	0.3	3.6	2.45

1.7 SCOPE OF THE EIR

This EIR assesses the potential environmental impacts of the proposed Healthy Living Campus Master Plan, including the Phase 1 preliminary site development plan and the Phase 2 development program. The scope of the EIR includes assessment and evaluation of potentially significant physical environmental impacts identified in the IS and comments in response to the NOP as well as scoping discussions among the City of Redondo Beach and the City of Torrance. The IS, NOP, and comment letters received during the NOP review period are included in Appendix A. The IS determined that construction and/or operation of the proposed facility may result in potentially significant impacts with respect to the following issue areas, which are addressed in detail in this EIR:

- Aesthetics and Visual Resources
- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Transportation
- Utilities and Service Systems

This EIR addresses the issues referenced above and identifies potential physical environmental impacts, including cumulative effects of the proposed Project, in accordance with the provisions set forth in CEQA and the CEQA Guidelines. In addition, the EIR recommends feasible mitigation measures, where possible, that would reduce or eliminate significant adverse environmental effects.

In accordance with CEQA Guidelines Section 15128, physical environmental impacts related to Agriculture and Forestry Resources, Mineral Resources, Recreation, and Wildfire were not considered potentially significant based on the findings of the IS (see Appendix A). These environmental resources are not further addressed in the EIR because they were determined not to be relevant to or because the proposed Project clearly has no potential impact related to certain topics. Further, additional topics within environmental issue areas that were not anticipated to result in potentially significant impacts were eliminated from further assessment in the EIR through the IS. The resource sections and topics not discussed further in the EIR include:

- Damage to scenic resources along a State-designated scenic highway (Section I, *Aesthetics* of the IS): There are no designated state scenic highways or other designated scenic resources near the Project site; the nearest designated highway is the Mulholland Highway, located approximately 20 miles to the northwest.
- Impacts to species identified as a candidate, sensitive, or special status species (Section II, *Biological Resources* of the IS): The Project site is completely developed and nearly 90-percent paved and special status species are unlikely to occur, and the Biological Resources Survey completed for the Project site concluded that the site does not provide suitable habitat for any candidate, sensitive, or special status species in local or regional plans, policies, or regulations.
- Impacts to riparian habitat or other sensitive natural community (Section II, *Biological Resources* of the IS): No riparian habitat or other sensitive natural communities exist on or adjacent to the Project site.
- Impacts to state or federally protected wetlands (Section II, *Biological Resources* of the IS): The Project site is completely developed and there are no potential wetlands located on the Project site or in the nearby vicinity.
- Conflict with an adopted local, regional, or state Habitat Conservation Plan (Section II, *Biological Resources* of the IS): The Project site is not subject to an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

- Conflict with or obstruction of a state or local plan for renewable energy or energy efficiency (Section VI, *Energy* of the IS): The proposed Project would not displace any existing renewable energy facilities, would include the installation of solar electric and solar hot water systems as well as a stormwater capture system, and would comply with energy efficiency standards in the Building Code.
- Adverse effects including risk of loss, injury, or death related to rupture of a known earthquake fault (Section VII, *Geology and Soil* of the IS): There are no known active faults on or adjacent to the Proposed site and the proposed Project is not located within an Alquist-Priolo Earthquake Zone.
- Impacts related to soils incapable of adequately supporting septic tanks or alternative wastewater disposal facilities where sewers are not available (Section VII, *Geology and Soils* of the IS): The Project site and surrounding area is served by an existing sewer system; septic tanks would not be installed for the proposed Project.
- Safety hazards or excessive noise for people residing or working in a project area located within an airport land use plan or within 2 miles of an airport (Section IX, *Hazards and Hazardous Materials* of the IS): The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not subject workers, clients, or visitors of the Project site to substantial hazards related to aircraft operating to or from the Hawthorne Municipal Airport or Los Angeles International Airport (LAX).
- Redirection of flood flows (Section X, *Hydrology and Water Quality* of the IS): There are no streams or rivers that traverse the Project site, and the proposed Project would not result in an impediment or alteration of flood flows.
- Release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone (Section X, *Hydrology and Water Quality* of the IS): The Project site is located outside of 100-year and 500-year flood zones and the tsunami inundation zone, and is not located near inland water bodies.
- Physical division of an established community (Section XI, *Land Use and Planning* of the IS): Development would be consistent with existing land uses and would not remove or divide any residential units.
- Exposure of people residing or working in the project area to excessive noise levels for projects located within the vicinity of a private airstrip or an airport land use plan (Section XIII, *Noise and Vibration* of the IS): The Project site is not located in the vicinity of a private airstrip or Airport Influence Area for the Hawthorne Municipal Airport or and LAX.

- Displacement of existing people or housing (Section XIV, *Population and Housing* of the IS): The proposed Project would occur within the existing campus and would not remove or displace any housing or residential areas.
- Impacts associated with the need for or provision of new or physically altered schools (Section XV, *Public Services* of the IS): The proposed Project includes the development of 157 new Assisted Living units for use by the elderly and would not result in an increase in the number of students to the Redondo Beach Unified School District.
- Impacts associated with the need for or provision of new or physically altered parks (Section XV, *Public Services* of the IS): Implementation of the proposed Project would increase recreational space and result in a beneficial impact to recreational facilities in Redondo Beach.
- Impacts associated with the need for or provision of new or physically altered libraries (Section XV, *Public Services* of the IS): The robust library system in Redondo Beach would be able to accommodate the modest increase in population under the proposed Project.

Cumulative effects, which consider other projects in the immediate vicinity that are expected to be operational at the time the proposed Project would be built, are discussed in each resource area analysis section of EIR. The cumulative analyses represent a comprehensive assessment of potential impacts using a list of past, present, and probable future projects producing related or cumulative impacts in accordance with CEQA Guidelines Section 15130(b)(1)(A) (see Section 3.0.2, *Cumulative Impacts*).

1.8 AREAS OF KNOWN PUBLIC CONTROVERSY

CEQA Guidelines Section 15123 states that an EIR shall identify areas of controversy known to the lead agency, including issues raised by public agency as well as interested members of the public. Based on community meetings held between 2017 and 2020 as well as agency and public comment letters received on the NOP (see Appendix A), the following environmental issues are known to be of concern and may be controversial (each issue will be further discussed in the EIR):

- Potential construction-related air quality and noise impacts to on-site and adjacent sensitive receptors, including but not limit to: on-site residents of the Silverado Beach Cities Memory Care Community; off-site residents along North Prospect Avenue, Beryl Street, and Flagler Lane; nearby parks (e.g., Dominguez Park); and schools (e.g., Towers Elementary School) (see Sections 3.2, *Air Quality*, and Section 3.11, *Noise*).

- Potential impacts related to fugitive dust emissions and human health risk during construction activities, particularly within the adjacent residential neighborhoods (see Section 3.2, *Air Quality*).
- Duration and extent of on- and off-site noise and vibration impacts associated with the use of heavy construction equipment. (see Section 3.11, *Noise*)
- Potential impacts to existing biological resources (e.g., mature trees and landscaping along Flagler Lane; (see Section 3.03, *Biological Resources*)
- Compliance with the National Pollutant Discharge Elimination System Program and development of a Stormwater Pollution Prevention Plan that addresses erosion, particularly along Flagler Lane and Flagler Alley (see Section 3.09, *Hydrology*).
- Potential construction-related impacts on pedestrian and bicycle safety, especially as it relates to truck traffic within the vicinity of nearby residential neighborhoods, parks, and schools (see Section 3.14, *Transportation*).
- Construction planning and monitoring (e.g., standard construction times, heavy haul truck routes, temporary road and sidewalk closures, construction flaggers, etc.) (see Section 3.11, *Noise*).
- Building height compatibility (e.g., bulk, mass, and scale) and potential impacts to the existing public views and shade/shadows, particularly within the adjacent residential neighborhoods (see Section 3.1, *Aesthetics and Visual Resources*).
- Potential for the former South Bay Hospital or other buildings on campus to merit review by the Redondo Beach Historic Preservation Commission and the potential to encounter archaeological resources during construction (see Section 3.4, *Cultural Resources and Tribal Cultural Resources*).
- Seismicity, soil stability, and other related on-site geologic hazards (see Section 3.6, *Geology and Soils*).
- GHG emissions associated with construction and operational activities of the proposed Healthy Living Campus Master Plan (see Section 3.7, *Greenhouse Gas Emissions*).
- Noise impacts associated with operations under the proposed Healthy Living Campus Master Plan (e.g., frequency of emergency response and associated noise from sirens; see Section 3.11, *Noise*).
- The potential for exposure to hazardous materials including but not limited to asbestos, lead-based paints, mold, and other materials associated with the former South Bay Hospital (see Section 3.8, *Hazards and Hazardous Materials*).
- Potential impacts associated with the previously decommissioned oil and gas well on the vacant Flagler Lot (e.g., exposure to hazardous substances) (see Section 3.8, *Hazards and Hazardous Materials*).

- Potential impacts associated with contaminants from adjacent land uses (e.g., tetrachloroethylene [PCE] associated with historical dry-cleaning operations; see Section 3.8, *Hazards and Hazardous Materials*).
- Land use and zoning compatibility (see Section 3.10, *Land Use and Planning*).
- Increased vehicle congestion (see Section 3.14, *Transportation* and Appendix J).¹
- On-site parking requirements and potential impacts to off-site parking (see Section 3.14, *Transportation*).²
- Cut-through traffic through nearby residential neighborhoods in Torrance (see Section 3.14, *Transportation*).
- Potential for circulation changes related to the vehicle driveways associated with the proposed Project and the potential increased risk of hazards along Flagler Lane, Towers Street, and other local roadways (see Section 3.14, *Transportation*).
- Integration with existing and proposed multi-modal transportation connections (see Section 3.14, *Transportation*).
- Potential increases in utility usage at the Project site (i.e., water, sewer, electricity; see Section 3.15, *Utilities and Service Systems*).
- Increased instances of emergency response and potential effects on public service demands (see Section 3.12, *Population and Housing*).

1.9 ORGANIZATION OF THE EIR

This EIR is organized into the following eight sections.

- *Executive Summary*, provides a summary-level description of the proposed Project, physical environmental impacts, and required mitigation measures.
- Section 1.0, *Introduction*, summarizes the background of the proposed Project and explains the environmental review process.
- Section 2.0, *Project Description*, provides a detailed description of the proposed Project and the Project site setting.
- Section 3.0, *Environmental Impact Analysis and Mitigation Measures*, is organized according to major environmental topics and provides analysis of existing environmental

¹ Pursuant to CEQA Guidelines Section 21099(b)(2), vehicle delay as described by level of service or similar measures of capacity or traffic congestion, shall not be considered significant impacts on the environment. Nevertheless, at the request of the City of Redondo Beach and the City of Torrance, a Non-CEQA Intersection Operation Analysis has been prepared and provided in Appendix J.

² Recent caselaw has confirmed that effects to parking supply and demand are not CEQA issues and are not included in Appendix G of the CEQA Guidelines. However, physical impacts related to parking have been addressed in the EIR (*Covina Residents for Responsible Development v. City of Covina [City Ventures, Inc., et al., Real Parties in Interest]* [2018] 21 Cal.App.5th 712).

conditions, Project-specific impacts, mitigation measures, cumulative impacts, and residual impacts after mitigation for each topic.

- Section 4.0, *Other CEQA Considerations*, identifies significant and irreversible, growth-inducing, and unavoidable effects, as well as resource areas that would not be significantly affected by the proposed Project.
- Section 5.0, *Alternatives*, describes alternatives to the proposed Project, and identifies the Environmentally Superior Alternative.
- Section 6.0, *List of Preparers*, identifies the Lead Agency and consultant team that prepared the EIR.
- Section 7.0, *References and Persons or Organizations Contacted*, provides information about resources used in the preparation of the EIR.

Appendices to the EIR include the NOP and responses to the NOP (see Appendix A) as well as the supporting technical studies used as a basis of information and analyses in preparation of the environmental analysis in the EIR (Appendix B through M).

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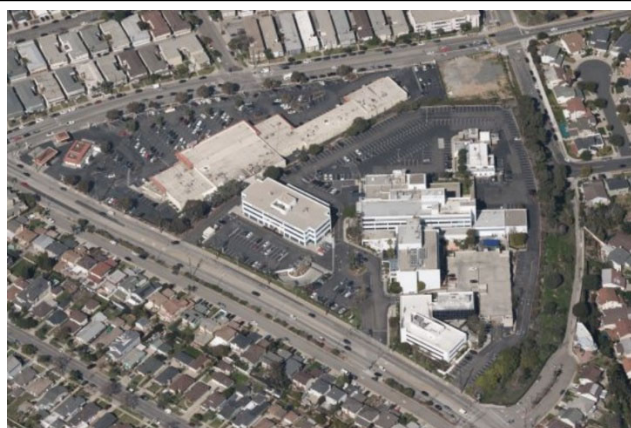
2.0 PROJECT DESCRIPTION

2.1 INTRODUCTION

The proposed Beach Cities Health District (BCHD) Healthy Living Campus Master Plan (Project) would redevelop the existing BCHD campus located in Redondo Beach and adjacent to Torrance to the east. The proposed Project includes a preliminary site development plan under Phase 1 and a more general long range development program under Phase 2.

The campus was originally developed in 1958, beginning with the construction of the South Bay Hospital (514 North Prospect Avenue), which was later converted to the Beach Cities Health Center in the 1990s to support outpatient medical uses (LSA 2018; see Section 3.4, *Cultural Resources and Tribal Cultural Resources*). The two medical office buildings (510 and 520 North Prospect Avenue) were added to the campus in 1976 and 1989, respectively. The Beach Cities Health Center, and to a lesser extent the Beach Cities Advanced Imaging Building (510 North Prospect Avenue), have seismic-related structural deficiencies because they were constructed prior to development of modern seismic safety standards (Nabih Youssef Associates 2018; see Section 3.6, *Geology and Soils*). Additionally, due to their age, these buildings require substantial annual

Proposed Project at a Glance	
Phase 1 – Preliminary Site Development Plan	
New Assisted Living Units	157 units
New PACE Services	14,000 sf
New Youth Wellness Center	9,100 sf
Relocation of Memory Care Units	60 units
Relocation of Community Services Space	6,270 sf
Demolition of the Beach Cities Health Center	158,000 sf
Demolition of the Maintenance Building	3,200 sf
Phase 2 – Development Program	
New Wellness Pavilion	37,150 sf
New Aquatics Center	31,300 sf (24,000-sf indoor area and 7,300-sf outdoor area)
Relocation of Center for Health and Fitness Back to the Campus	20,000 sf



The existing BCHD campus includes three buildings, a parking structure, and a subterranean parking garage surrounded by paved asphalt surface parking. The eastern edge of the campus is lined by mature trees; however, the remainder of the campus generally lacks landscaping or open space.

maintenance. Within the near future (i.e., approximately 2 to 3 years), BCHD's annual maintenance costs for the campus are expected to exceed the annual operational revenues. If prolonged, this operational deficit would lead to a reduction in BCHD programs and may ultimately lead to insolvency.

New development under Phase 1 would include a 203,700-square-foot (sf) Residential Care for the Elderly (RCFE) Building with 157 new Assisted Living units, 60 Memory Care units (replacing the existing Silverado Beach Cities Memory Care Community located within Beach Cities Health Center), 14,000 sf of space for the Program of All-Inclusive Care for the Elderly (PACE), 6,270 sf of space for Community Services, and a 9,100-sf Youth Wellness Center. The RCFE Building would include a new one-way driveway and pick-up/drop-off zone located on the vacant Flagler Lot as well as a new subterranean service area and loading dock entry/exit along Flagler Lane. Following the construction of the RCFE Building, the existing 158,000-sf Beach Cities Health Center would be demolished providing space for approximately 114,830 sf of open space as well as an approximately 40,725-sf landscaped surface parking lot with 86 new parking spaces (including accessible parking spaces and electric vehicle [EV] charging stations). The preliminary site development plan under Phase 1 is described in detail in Section 2.5.1, *Phase 1 Preliminary Site Development Plan*.

- **ASSISTED LIVING:** Assisted Living is for older adults that need help with daily care. Assisted living residents usually live in their own apartments or rooms and share common areas. They have access to many services, including meals; assistance with personal care; help with medications, housekeeping, and laundry; and social and recreational activities.
- **MEMORY CARE:** Memory Care is similar to Assisted Living, but provides specialized services and more intensive 24-hour care for people with mental impairments (e.g., Alzheimer's, Parkinson's, Lewy body, and other types of dementia).
- **PACE:** PACE is a Medicare and Medicaid program that provides comprehensive medical and social services to older adults – involving a combination of adult day care center services and in-home care services. PACE is intended to allow older adults to remain in the community rather than receive care in an Assisted Living facility.
- **COMMUNITY SERVICES:** BCHD provides a wide variety of community services and programs including food security, housing security, safety in the home, and socialization.
- **YOUTH WELLNESS CENTER:** After-school (e.g., from 2:00 p.m. onward) behavioral and health program for school-aged children.

The long range development program under Phase 2, while less defined than the project-level preliminary site development plan under Phase 1, would provide space for a Wellness Pavilion of up to 37,150 sf, an Aquatics Center of up to 31,300 sf (including 24,000 sf of indoor space and 7,300 sf of outdoor space), and a new CHF of up to 20,000 sf, which would be relocated back on-campus. Parking would be provided in a new parking structure with up to 2 subterranean levels and up to 8.5 above ground levels. These square footages define the maximum intensity of uses, and support the analysis of operational impacts for the Phase 2 development program provided in this EIR. For example, the trip generation during Phase 2 is dependent of the square footage of

each use. However, the configuration of physical development supporting these uses could assume one of several possible site plans as described further in Section 2.5.2, *Phase 2 Development Program*. The EIR depicts three example site plans for the Phase 2 development program to illustrate the possible range. However, the EIR analyzes potential construction-related impacts (e.g., ground disturbance) and aesthetics impacts (e.g., building height) using conservative assumptions related to maximum building footprints and maximum building heights. The ultimate site development plan developed for Phase 2 would fit within this maximum building envelope.

2.2 EXISTING PROJECT SITE CHARACTERISTICS

2.2.1 Project Location

The Project site is located along the eastern border of Redondo Beach, adjacent to the western border of Torrance (i.e., West Torrance) in Los Angeles County, California. The Project site is generally bordered by North Prospect Avenue to the southwest, Diamond Street to the southeast, Flagler Lane and Flagler Alley to the east, and Beryl Street and existing commercial development to the north and northwest (see Section 3.14, *Transportation*). The Project site consists of two legal parcels:

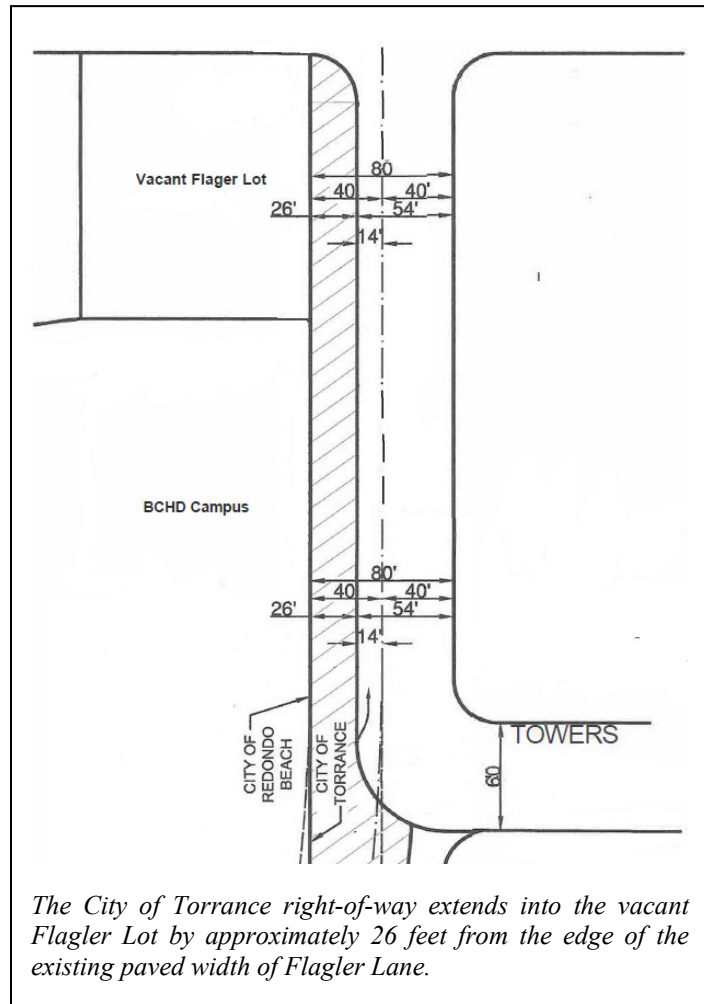
- The existing 9.35-acre campus (Assessor's Identification Number [AIN] 7502-017-903), which is developed with the former South Bay Hospital (currently operated as the Beach Cities Health Center), an attached maintenance building, two privately operated medical office buildings with space that is individually leased from BCHD, and a parking structure. The majority of the campus is located within Redondo Beach; however, eastern edge of the campus is partially located within City of Torrance right-of-way along Flagler Lane and Flagler Alley.
- A 0.43-acre vacant lot owned by BCHD located on the northern edge of and adjacent to the existing campus at the southwest corner of Flagler Lane and Beryl Street (vacant Flagler Lot) (AIN 7502-017-902). This lot is currently undeveloped and is periodically leased by BCHD as a temporary construction staging area for surrounding developments. This lot is currently being leased by The Gas Company as a construction staging area for gas utility improvements in the vicinity. The majority of the vacant Flagler Lot is also located with Redondo Beach; however, the eastern edge of the vacant Flagler Lot partially located within City of Torrance right-of-way along Flagler Lane.

The proposed Project would extend into the City of Torrance right-of-way at three locations. The proposed Project includes two access points with driveways along Flagler Lane. One driveway would serve a left-turn only exit from the proposed pick-up/drop-off zone located on the vacant

2.0 PROJECT DESCRIPTION

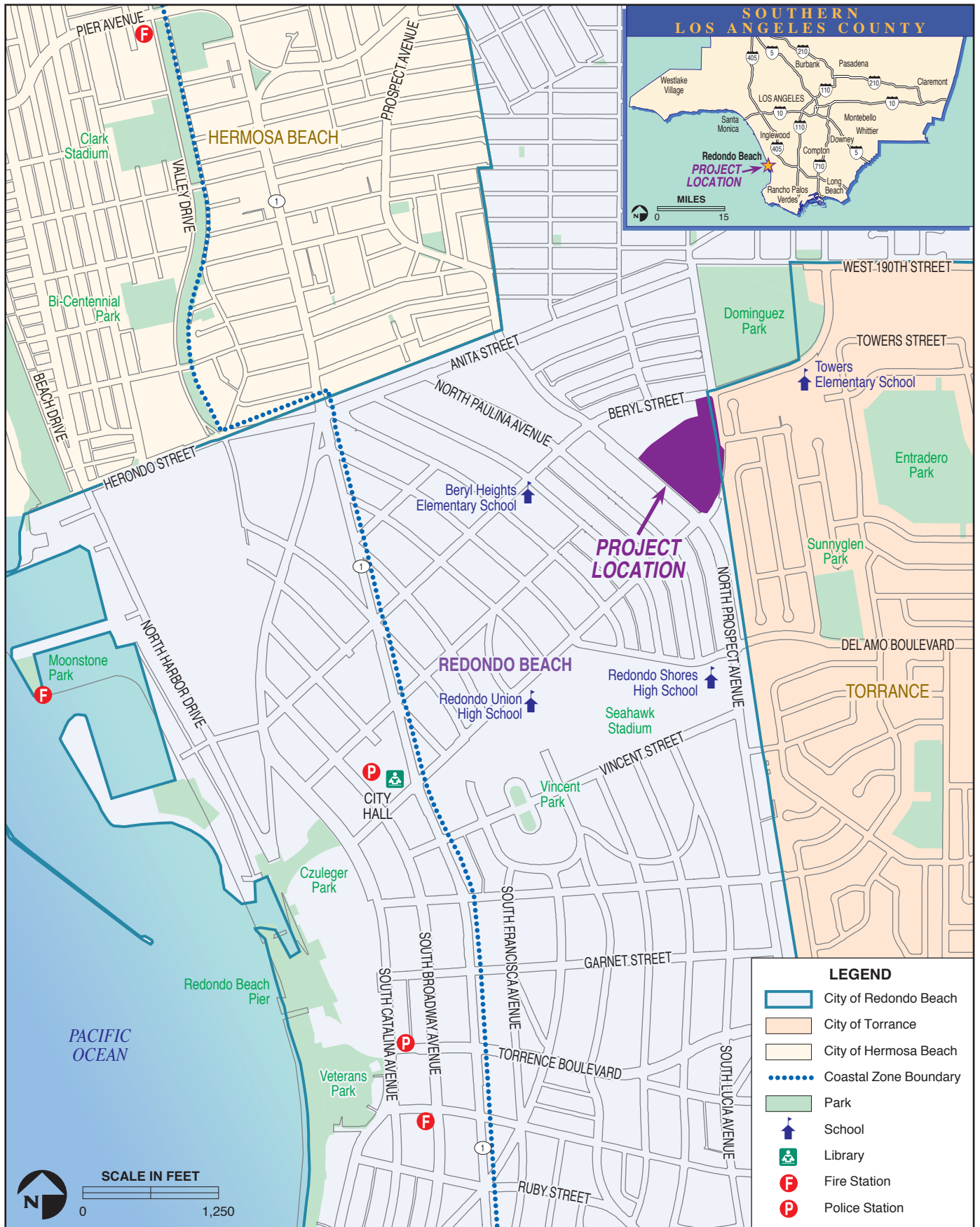
Flagler Lot. A second driveway is proposed for a subterranean service area and loading dock entry/exit, which would require grading and construction of retaining walls (see Section 2.5.1.3, *Proposed Access, Circulation and Parking*). These elements of the proposed Project would require grading and building permits from the City of Torrance (refer to Section 1.5, *Required Approvals*).

The Project also proposes to re-landscape the eastern slope of the campus to be consistent with the landscaping proposed within the remainder of the campus. The proposed grading and landscaping on this portion of the slope would also require a grading permit, landscape plan approval, and site plan review from the City of Torrance (refer to Section 1.5, *Required Approvals*).



2.2.2 Surrounding Land Uses

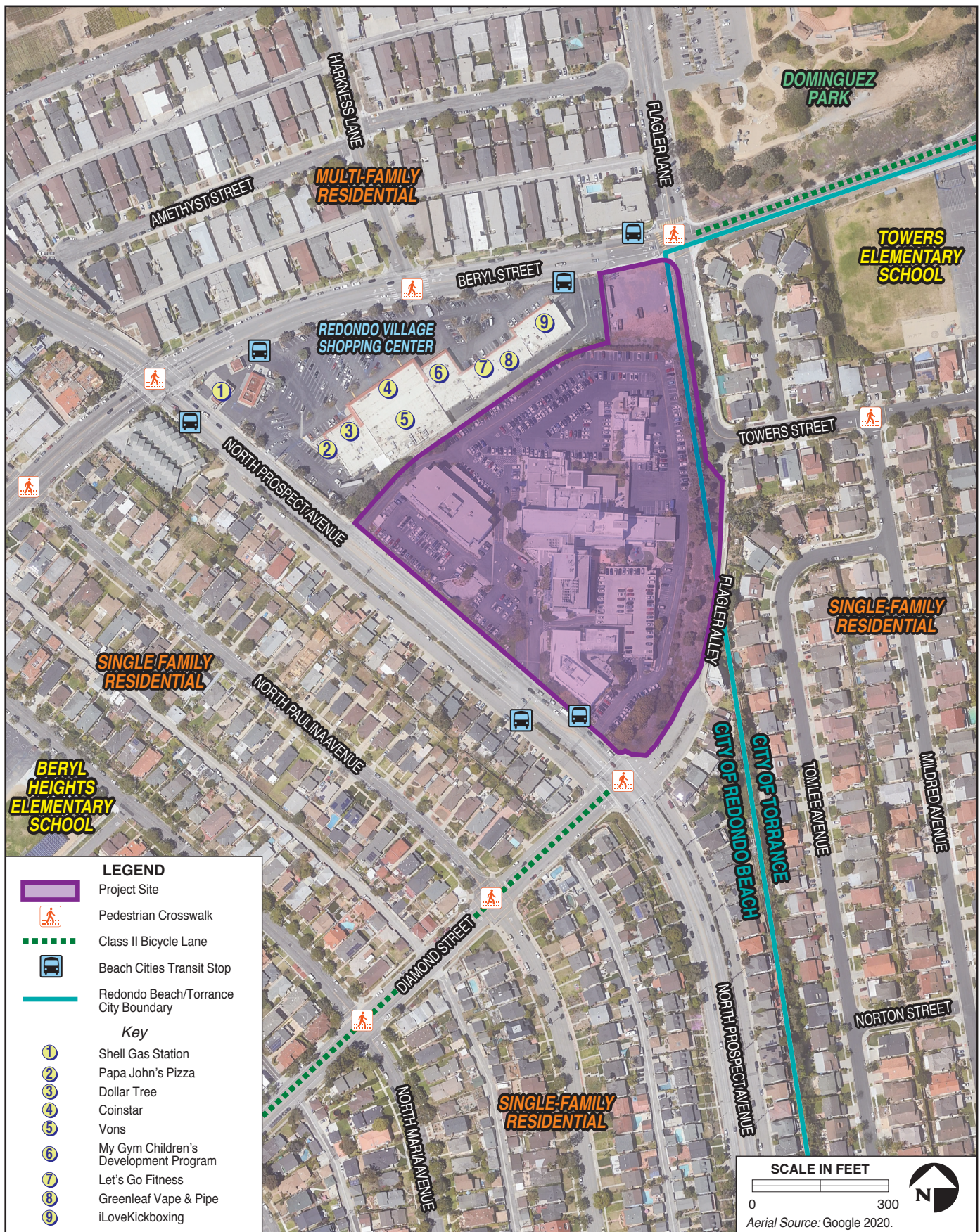
The Project site is bordered to the north by the Redondo Village Shopping Center, a commercial shopping center, with one driveway from North Prospect Avenue into the Shell gas station at the western end of the shopping center and three driveways along Beryl Street. The Redondo Village Shopping Center, zoned C-2 (Commercial) by the City of Redondo Beach, is anchored by a Vons grocery store and also currently supports smaller commercial retail stores (see Figure 2-2).



wood.

Project Vicinity and Regional Location

FIGURE 2-1



2.0 PROJECT DESCRIPTION



Single- and multiple-family residences border the BCHD campus to the south, east, and west (left). Dominguez Park (right) is located at the intersection of Flagler Lane & Beryl Street immediately to the northeast of the Project site. This 24-acre park provides picnic areas and play equipment, the park features a dog park, Heritage Court, and two Little League fields.



A Shell gas station (left) and the Redondo Village Shopping Center (right) border the Project site to the north. Redondo Village Shopping Center is a neighborhood-serving shopping center, with commercial uses such as a grocery store, restaurants, and fitness studios.

2.0 PROJECT DESCRIPTION

Single-family residences face North Prospect Avenue opposite the Project site to the southwest, in an area zoned R-1 (Single Family Residential) by the City of Redondo Beach, and multi-family residences exist to the north along Beryl Street, in an area zoned RMD (Medium Density Multi-Family Residential) by the City of Redondo Beach. The nearest multi-family residences to the Project site are located approximately 110 feet north of the vacant Flagler Lot across Beryl Street. Other multiple-family residences along Beryl Street are located approximately 250 to 500 feet to the north of the Project site, with intervening buildings associated with the Redondo Village Shopping Center (refer to Figure 2-2). Additionally, the Project site is bordered by single-family residences to the east across Flagler Lane and Flagler Alley, in an area zoned R-LO (Low Density Residential) by the City of Torrance (refer to Figure 2-2). The closest of these single-family residences is located approximately 80 feet from the developed edge of the campus.

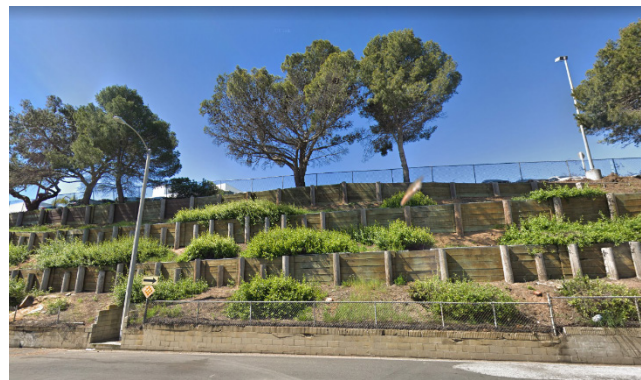


Open space and recreational land uses in the vicinity of the Project site include Dominguez Park adjacent to and northeast of the Project site across the intersection of Beryl Street & Flagler Lane; Entradero Park approximately 1,350 feet to the east, Sunnyglen Park approximately 1,125 feet to the southeast; and the Edith Rodaway Friendship Park approximately 2,750 feet to the northwest of the Project site (see Section 3.13, *Public Services*). The following schools are also located in the vicinity of the Project site: Towers Elementary School, approximately 300 feet to the east; West High School, located approximately 2,600 feet to the southeast; Perras Middle School, approximately 2,150 feet to the south; Redondo Union High School and Redondo Shores High School, approximately 1,400 feet to the southwest; and Beryl Heights Elementary School, located approximately 900 feet to the west (see Section 3.13, *Public Services*).

2.2.3 Existing Project Site

The existing campus is developed with the Beach Cities Health Center and an attached maintenance building located at 514 North Prospect Avenue, two medical office buildings located at 510 and 520 North Prospect Avenue, and a parking structure located at 512 North Prospect Avenue (see Figure 2-3).

The developed area of the Project site gently slopes from an elevation of approximately 166 feet above mean sea level (MSL) within the central area of the campus, to an elevation of approximately 146 feet MSL at the southern entrance from North Prospect Avenue. The ground level elevation of the Project site is approximately 30 feet higher than the vacant Flagler Lot as well as the residential area to the east along Flagler Lane and Flagler Alley. A series of retaining walls support the slope above Flagler Lane and



Only the tops of the tallest buildings on the BCHD campus are visible from Flagler Lane and Flagler Alley due to the approximately 30-foot change in elevation. A series of retaining walls and landscaped vegetation support the eastern slope of the BCHD campus.

Flagler Alley, which is vegetated with several large mature trees (see Section 3.3, *Biological Resources*). Landscaping on the Project site is limited primarily to perimeter planters, scattered surface parking lot trees, and a small internal lawn area. The vacant Flagler Lot is undeveloped and characterized by patches of low-growing weedy vegetation.

Table 2-1. Existing Development within the Project Site

Address	Building Name	Use	Floor Area (sf)	Height
510 North Prospect Avenue	Beach Cities Advanced Imaging Building	Medical Office (Surgical)	52,000	3 stories
512 North Prospect Avenue	Parking Structure	Parking	52,000	3 stories
514 North Prospect Avenue	Beach Cities Health Center	Community Wellness and Memory Care	158,000	5 stories
	Maintenance Building	Maintenance	3,200	1 story
520 North Prospect Avenue	Providence Little Company of Mary Medical Institute Building	Medical Office (Family Medical)	47,700	3 stories





2.0 PROJECT DESCRIPTION

510 North Prospect Avenue, known as the Beach Cities Advanced Imaging Building, is developed with a 3-story medical office building on the southern corner of the campus near the intersection of North Prospect Avenue & Diamond Street. The southern face of the building fronts North Prospect Avenue located immediately to the south. The Beach Cities Advanced Imaging Building is owned by BCHD and includes BCHD's medical diagnostic imaging center. Individual space within the building is also leased to various other tenants as described in Section 2.3, *Existing Tenants*.

512 North Prospect Avenue is developed with a concrete and brick above-ground parking structure that primarily serves the Beach Cities Advanced Imaging Building at 510 North Prospect Avenue. The parking structure has 2 above ground levels with additional uncovered parking on the roof (i.e., Level 3). The parking structure contains approximately 199 parking spaces (including 2 accessible parking spaces).



514 North Prospect Avenue is the former South Bay Hospital Building, currently operated as the Beach Cities Health Center, located in the center of the campus. There are three sections of the building: the north low rise, the north tower, and the south tower. The north low rise portion of the building is 1 story tall, the north tower is 4 stories tall (plus the equivalent of a 2-story rooftop projection), and the south tower is 5 stories tall (plus the equivalent of a 1-story rooftop projection), with a parapet structure (i.e., elevator shaft) reaching up to a height of 76 feet above the campus ground level and 112.5 feet above the vacant Flagler Lot below.

The building is bordered by landscaping, such as manicured grasses, palm trees, and large ferns. A 120-foot-long outdoor covered walkway connects the north low rise section of the Beach Cities Health Center to the attached maintenance building, which houses mechanical equipment for the Beach Cities Health Center.

BCHD's Community Services program is located within the Beach Cities Health Center, with a front desk for walk-ins, office space for Care Managers, and meeting rooms for juvenile diversion meetings and core support groups (see Section 2.2.5, *Existing BCHD Programs*). The Beach Cities Health Center includes the Silverado Beach Cities Memory Care Community with 60 double occupancy Memory Care units. Silverado provides specialized care for people living with Alzheimer's and

other forms of dementia. BCHD's existing CHF is also located within the Beach Cities Health Center building (see Section 2.2.5, *Existing BCHD Programs*).



The Beach Cities Health Center is divided into four separate segments that have been added on over the years. The Beach Cities Health Center is supported by the attached maintenance building.

520 North Prospect Avenue is developed with a 3-story family medical office and urgent care center located immediately south of the Redondo Village Shopping Center and west of the Beach Cities Health Center. This building is owned by BCHD and is leased to the Providence Little Company of Mary Medical Institute. The Providence Little Company of Mary Medical Institute



The Providence Little Company of Mary Medical Institute, which is owned by BCHD, is located immediately west of the Beach Cities Health Center at the northwestern corner of the Campus.

Building provides a variety of services, including family practice, internal medicine, and endocrinologists. The urgent care offers a variety of services, including immunizations and vaccinations, lab services (e.g., X-rays and EKGs), physicals (e.g., annuals, sports, school, camp), pre-employment exams, drug screenings, and well-woman exams. The building also includes an on-site pharmacy (i.e., South Bay Pharmacy). The area adjacent to the building is improved with

2.0 PROJECT DESCRIPTION

a 62-space surface parking lot fronting North Prospect Avenue and an approximately 219-space subterranean parking garage below the building. The entrance to the subterranean parking garage is located adjacent and west of the main signalized entrance to the campus off of North Prospect Avenue and associated roundabout (see Section 2.2.4, *Existing Access and Circulation*).

Flagler Lot. Flagler Lot, currently owned by BCHD, is attached to the northeastern corner of the campus. The lot was historically within the Torrance Oil Field and is underlaid by an oil and gas well, which was originally drilled in the 1930s and was active up to 1989 before it was plugged and abandoned (Converse Consultants 2020; see Section 3.8, *Hazards and Hazardous Materials*). The lot is accessible via a driveway along Beryl Street as well as a locked gate at the corner of the campus's northern parking lot. Flagler Lot is currently undeveloped and supports low-growing weedy vegetation. The northern portion of the lot is level with Beryl Street, while the southern portion of the lot slopes up approximately 30 feet to the elevation of the campus. A wrought iron fence is located along the western, northern, and eastern borders of Flagler Lot.



Flagler Lot is separated from the adjacent parking lot for the Redondo Village Shopping Center by a wrought iron fence.

2.2.4 Existing Access and Circulation

2.2.4.1 Street Network

Current access to the campus is provided from North Prospect Avenue at three locations, as described below:

- The main entrance to the campus is located at a signalized driveway intersection with North Prospect Avenue, approximately 275 feet to the northwest of the intersection of North Prospect Avenue & Diamond Street. This primary entrance provides full left- and right-turn access (refer to Figure 2-3);
- A secondary driveway is located approximately 100 feet northwest of the intersection of North Prospect Avenue & Diamond Street. This secondary entrance is unsignalized, and provides right-turn-only entry/exit to the southern portion of the campus (refer to Figure 2-3); and

- Another secondary driveway is located approximately 450 feet northwest of the main entrance along North Prospect Avenue. This secondary entrance is unsignalized and provides right-turn-only entry/exit to the northern portion of the campus (refer to Figure 2-3).



The main entrance to the campus (left) is located at a signalized intersection that provides for left and right turns into the campus. Secondary access to the Project site includes two driveways to the north (middle) and south (right) of the main entrance. These unsignalized driveways provide for right-turn-only entry/exit. These driveways also provide access to the perimeter circulation road that follows along the edge of the campus and the surface parking lots in the northwestern corner of the Project site.

The main entrance to the campus routes vehicles through a roundabout leading to the short-term surface parking lot and drop-off area as well as the entrance to the subterranean parking garage. The secondary driveways provide access to a 30-foot-wide perimeter circulation road that runs along the northwest, north, and east borders of the campus and provides access to surface parking spaces distributed throughout the campus (refer to Figure 2-3). Additionally, the vacant Flagler Lot is accessible via a driveway along Beryl Street as well as a locked gate at the corner of the campus's northern parking lot.

2.2.4.2 Transit

The Project site is currently served by one transit line: Beach Cities Transit Line 102 (Beach Cities Transit 2018). The northbound Line 102 has three bus stops adjacent to the Project site – one stop at the campus's southern secondary vehicle entrance (approximately 100 feet north of the intersection of North Prospect Avenue & Diamond Street), and two stops along the southern side of Beryl Street, at the Shell gas station and just west of the vacant



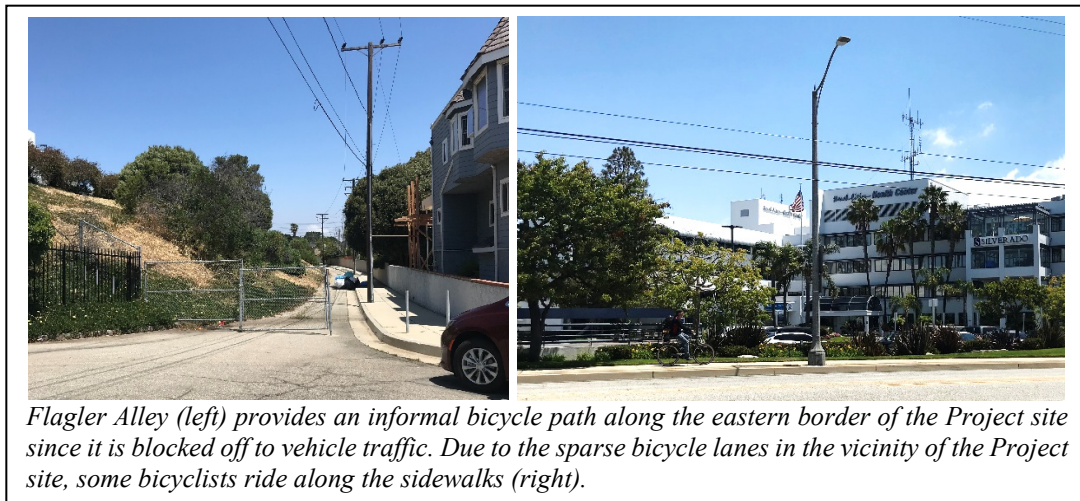
The Beach Cities Transit Line 102 stops at two locations along Beryl Street, including next to the Shell gas station immediately north of the Project site.

2.0 PROJECT DESCRIPTION

Flagler Lot. The southbound Line 102 has two bus stops adjacent to the Project site – one bus stop along the western side of North Prospect Avenue, directly across the street from the campus’s main entrance, and one stop along the northern side of Beryl Street, directly across the street from the vacant Flagler Lot. Line 102 headways vary between 30 and 45 minutes. The Project site is not served by any Torrance Transit lines. The nearest Torrance Transit line, Line 2, runs along Anza Avenue approximately 0.80 miles east of the BCHD campus.

2.2.4.3 Bicycle and Pedestrian Facilities

No developed bicycle paths or striped bicycle lanes currently exist along the streets bordering the Project site; however, Flagler Alley, which is blocked to vehicle traffic, provides an informal pathway used by bicyclists. The nearest Class II (i.e., striped) bicycle lanes are located along Beryl Street east of its intersection with Flagler Lane and along Diamond Street, southwest of its intersection with North Prospect Avenue. These segmented bicycle lanes provide incomplete connections between the Redondo Beach, Torrance, and the Pacific Ocean.



Sidewalks currently exist along the Project site’s frontage with North Prospect Avenue and along Beryl Street. Additionally, sidewalks occur along the eastern side of Flagler Lane and Diamond Street, with Flagler Alley providing an informal pedestrian connection between the two roadways. Crosswalks are provided along all four legs of the intersection of Beryl Street and North Prospect Avenue and along three legs of the intersection of Beryl Street and Flagler Lane. Additionally, there is a crosswalk located in the middle of this roadway segment at the driveway entrance to the Redondo Village Shopping Center.

2.2.5 Existing Land Use Designations and Zoning

The campus, which is located within Redondo Beach, is designated P (Public or Institutional) land use within the Redondo Beach General Plan (City of Redondo Beach 2008; see Section 3.10, *Land Use and Planning*). The P designation includes lands that are owned by public agencies, special use districts, and public utilities. Permitted uses under the P land use designation include governmental administrative and maintenance facilities, parks and recreation, public open space, police, fire, educational (i.e., schools), cultural (e.g., libraries, museums, performing and visual arts, etc.), human health, human services, public utility easements, and other public uses. The campus is zoned Community Facility (P-CF) under the Redondo Beach Zoning Ordinance (City of Redondo Beach 2011; see Section 3.10, *Land Use and Planning*). The vacant Flagler Lot is designated as C-2 (Commercial) land use under the Redondo Beach General Plan and zoned C-2 (Commercial) under the Redondo Beach Zoning Ordinance (City of Redondo Beach 2008, 2011; see Section 3.10, *Land Use and Planning*).

Redondo Beach Municipal Code (RBMC) Section 10-2.622 includes maximum height limits along with other development standards for the C-2 zone designation that governs the vacant Flagler Lot. Development standards in the C-2 zone allow for a baseline maximum building height of 30 feet. Development standards in the C-2 zone also require that the maximum density or intensity of development adheres to a Floor Area Ratio (FAR) of 0.5. The RBMC does not specify building heights or FARs for development standards of P-CF



The vacant Flagler Lot, located west of the Redondo Village Shopping Center and north of the northernmost surface parking lot on the campus, is designated C-2 (Commercial) land use, which differs from the P (Public or Institutional) land use designation of the campus.

zoned parcels. However, any proposed facilities on P-CF zoned parcels would be subject to review and approval by the Redondo Beach Planning Commission (RBMC Section 10-2.1116).

The eastern portion of the Project site is located within City of Torrance right-of-way along Flagler Lane and Flagler Alley. This area is designated R-LO (Low Density Residential) in the Torrance General Plan Land Use Policy Map (City of Torrance 2005; see Section 3.10, *Land Use and Planning*), which primarily allows for single-family residences together with accessory buildings such as private garages, children's playhouses, buildings for the housing of domesticated animals, non-commercial greenhouses, and non-commercial workshops. This area is zoned as R1 (Single

Family Residential) in the Torrance Property Zoning Map (City of Torrance 2019). The Torrance Zoning Code (Torrance Municipal Code [TMC] Section 91.4.2) establishes a maximum building height in the R-1 zone as 18 feet measured from the lowest portion of the property that is above ground. The Torrance Property Zoning Map also identifies these Flagler Lane and Flagler Alley within the Hillside Overlay, which generally extends along the western border of Torrance.

The Project site is located outside of the Coastal Zone (refer to Figure 2-1), and therefore is not subject to the provisions of the California Coastal Act and the Local Coastal Plan for the City of Redondo Beach or City of Torrance.

2.2.6 Existing BCHD Programs

The Beach Cities Health Center supports a wide range of health programs and community service which include Community Services program, CHF, and various partnership programs. Partnership programs include group meetings, a variety of public health classes (e.g., caregiver support, meditation), and Blue Zones Moais (i.e., social support groups that form in order to provide varying support from social, financial, health, or spiritual interests). Most of these programs involve smaller meetings (between 10 and 15 people); however, some (e.g., BCHD Partnership for Youth) can be up to 80 to 100 people.

2.2.6.1 Community Services

The Community Services program is located in the Beach Cities Health Center and provides health-related resources and information for adults and families within the South Bay and Greater Los Angeles area. The Community Services office includes a front desk for walk-ins, administrative space for approximately 10 to 15 Community Services staff, and meeting rooms. The Community Services staff primarily conduct home visits to provide at-home older adult care services which facilitate older residents remaining within their homes, with staff returning to the office intermittently throughout the day. The front desk staff provide campus wayfinding, information, and referrals. The Community Services program also offers health insurance enrollments and Healthy Minds mental health screenings (with appointments generally between 9:00 a.m. and 4:00 p.m.). The Community Service meeting rooms are generally used for:

- Internal Services (all day);
- Juvenile Diversion Meetings (generally after school between 2:00 p.m. and 7:00 p.m.); and
- Core Support Groups (e.g., which generally meets at 9:30 a.m. and 1:30 p.m.).

The Community Services program operates between 9:00 a.m. and 5:00 p.m. on Mondays through Fridays and is closed on the weekends.

The Community Services program is working with the Los Angeles County Department of Public Health, City of Redondo Beach, and Providence Little Company of Mary Medical Institute to support COVID-19 testing efforts. BCHD currently provides up to 500 free COVID-19 tests per day in the northernmost surface parking lot on the campus. This testing program is available to all area residents from cities throughout the South Bay that seek it. BCHD is also investigating potential opportunities to administer vaccines to the surrounding community.

2.2.6.2 Center for Health and Fitness

The CHF, which is located in the Beach Cities Health Center, provides programs and services, such as yoga and pilates classes, group exercise, personal and small group training, and weight management and nutrition expertise. The CHF also provides programs designed specifically for the needs of older adults, including senior fitness, senior yoga and pilates, and SilverSneakers and Silver & Fit memberships. The CHF is a medically-certified facility with trained medical exercise specialists to assist those with particular needs. The CHF generates the highest visitation and parking demand of all of the BCHD's programs and other tenants, with peak visitation generally occurring between 8:00 a.m. and 12:30 p.m., particularly on Mondays, Tuesdays, and Fridays. In 2018, average visitation at the CHF was approximately 45 guests per half hour. The two busiest months of the year were February and March. In response to COVID-19 public health guidelines, the CHF is currently operating at limited capacity on the paved outdoor areas on the campus.

2.2.6.3 Beach Cities Child Development Center

The Beach Cities Child Development Center enrolls children 18 months to 6 years at two locations in Redondo Beach: 850 Inglewood Avenue and 514 North Prospect Avenue at the Beach Cities Health Center. The preschool serves the early childhood educational needs of children in Redondo Beach, Hermosa Beach, Manhattan Beach, Torrance, Lawndale, Hawthorne and other South Bay communities. Both preschools include classrooms and outdoor playgrounds, surrounded by trees and grassy areas that provide students outdoor play and adventure time daily.

2.2.6.4 Beach Cities Partnership for Youth

BCHD is one of more than 100 local partners in the Beach Cities Partnership for Youth. BCHD partners with the Redondo Beach Unified School District (RBUSD), Hermosa Beach City School District (HBCSD), and Manhattan Beach Unified School District (MBUSD) to deliver programs that measurably improve the health and well-being of students and families and reduce substance use. While physical health in the Beach Cities continues to improve, there is a growing need in the student population to address mental health and well-being. The Beach Cities Partnership for

2.0 PROJECT DESCRIPTION

use. While physical health in the Beach Cities continues to improve, there is a growing need in the student population to address mental health and well-being. The Beach Cities Partnership for Youth is comprised of representatives from the following sectors: youth; parents; businesses; media; schools; youth-serving organizations; law enforcement; civic and volunteer groups; health care professionals; State, local, or tribal agencies; other organizations involved in reducing substance abuse; and religious or fraternal organizations.

2.2.6.5 LiveWell Kids

The LiveWell Kids program was originally created in response to a high rate of obesity at the time – 20 percent in 2007 – among elementary school students in Redondo Beach. As part of the LiveWell Kids program, BCHD supports, maintains, and delivers lessons in the gardens of all Redondo Beach elementary schools and Hermosa View Elementary School. Students participate in hands-on gardening lessons about planting, composting, harvesting and mindful eating. These lessons are primarily conducted at the schools; however, BCHD currently maintains an on-site Demonstration Garden in the Beach Cities Health Center as part of the program.

2.2.6.6 Blue Zones Project

The Blue Zones Project by Healthways, in partnership with BCHD, is a community-wide approach to creating healthier and more productive citizens. The Blue Zones Project uses permanent, evidence-based environmental and policy changes to motivate residents to adopt and maintain healthier lifestyles. The Blue Zones Project participates with restaurants and grocery stores throughout the Beach Cities that prepare food in accordance with the Blue Zones Food Guidelines in order to give customers more options to make healthier choices.

2.3 EXISTING TENANTS

In addition to the BCHD programs, the campus provides leased space for a variety of other tenants.

Tenants within the Beach Cities Advanced Imaging Building (510 North Prospect Avenue) include private medical practitioners providing the following outpatient medical services:

- Radiology
- Orthopedic
- Obstetrics/Gynecology
- Oncology/Urology
- Hematology/Medical Oncology
- Infertility/Reproductive Endocrinology
- Chiropractic
- Acupuncture/Massage Therapy
- Dermatology
- Internal Medicine/Pulmonary Disease
- Laboratory
- Pain Management
- Oral and Maxillofacial Surgery

Tenants within the Beach Cities Health District (514 North Prospect Avenue) include:

- SSL Landlord, LLC, which operates the Silverado Beach Cities Memory Care Community providing 60 double-occupancy Memory Care units. Silverado provides specialized care for people living with Alzheimer’s and other forms of dementia.
- Beach District Survey Center, L.P.
- Regents of the University of California
- California State University Dominguez Hills
- Cancer Care Associates Medical Group, Inc.
- SafetyBeltSafe USA
- Cancer Care Associates Medical Group, Inc.
- Prader-Willi California Foundation
- Lisa Graziano, LMFT
- USRC Redondo, LLC

The Providence Little Company of Mary Medical Institute Building (520 North Prospect Avenue) provides the following outpatient medical services:

- | | |
|---------------------------|-----------------------|
| • Physical Therapy | • Infectious Diseases |
| • Urgent Care | • Cardiology |
| • Pharmacy | • Dermatology |
| • Cardiovascular/Diabetes | • Gastroenterology |
| • Gynecology | • Laboratory |
| • Ophthalmology | • Neurology |

2.4 PROJECT OBJECTIVES

CEQA Guidelines Section 15124(b) (14 California Code of Regulations [CCR] Section 15000 *et seq.*) requires the description of the project in the Environmental Impact Report (EIR) to include “[a] statement of objectives sought by the proposed project.” As further stated in CEQA Guidelines Section 15124(b), a clear statement of objectives will help the lead agency develop a reasonable range of alternatives for consideration in the EIR and aid decision-makers in preparing findings or a statement of overriding considerations, if necessary.

2.4.1 BCHD Mission

BCHD is a California Healthcare District focused on serving the Beach Cities, including Redondo Beach, Manhattan Beach, and Hermosa Beach; however, many services are available to the general public and not restricted to residents within the Beach Cities. As described in Section 2.2.6,

Existing BCHD Programs, BCHD offers a range of evidence-based health and wellness programs to promote health and well-being across the lifespan of its service population. Its mission is to enhance community health through partnerships, programs, and services. BCHD directly serves a population of more than 123,000 people within Redondo Beach, Hermosa Beach and Manhattan Beach, as well as tens of thousands for other South Bay communities.

In 2005, BCHD created a data-driven strategic planning process to prioritize funding and program implementation. The strategic plan calls for a community needs assessment and the cultivation of strategic partnerships to enable BCHD to address critical health needs for its service population. The Strategic Plan established these priorities:

- Provide all residents with enhanced health services of demonstrated effectiveness ranging from prevention and education to intervention.
- Improve the capacity of the BCHD and its partners to assess and respond to individual and environmental factors that affect community health.
- Further BCHD standing as a trusted and valued community health resource.

2.4.2 Project Background

As described in Section 2.1, *Introduction* and Section 2.2.3, *Existing Project Site* a seismic evaluation was conducted by Nabih Youssef Associates in March 2018. The evaluation found seismic-related structural deficiencies in the north tower and south tower of the Beach Cities Health Center and the attached maintenance building (514 North Prospect Avenue) and to a lesser extent the Beach Cities Advanced Imaging Building (510 North Prospect Avenue). These buildings were designed and constructed in conformance with building code requirements at the time of construction; however, the building code requirements have since evolved based on research, best practices, and experience from previous earthquakes. As an outpatient medical campus, BCHD is not required to upgrade the Beach Cities Health Center or other buildings on the campus. For example, the Alfred E. Alquist Hospital Facilities Seismic Safety Act, which was amended under Senate Bill (SB) 1953 (Chapter 740, Statutes of 1994, Seismic Mandate) does not apply to the buildings on the campus. However, recognizing that the structures pose a potential public safety hazard, the BCHD Board of Directors prioritized elimination of seismic-related hazard.

The Beach Cities Health Center has been a significant source of revenue to BCHD through long-term leases to tenants who provide medical and health-related services that complement BCHD's mission. Revenues from the long-term tenant leases support BCHD programs and services. However, BCHD's ability to attract tenants has diminished in recent years, in part because the

specialized nature of former South Bay Hospital Building and the two medical office buildings, which cannot be easily renovated to conform to tenant needs. Additionally, because of its age, the Beach Cities Health Center is a source of rapidly escalating building maintenance costs, independent of and in addition to the cost necessary to address its seismic-related structural deficiencies. The combined cost of seismic retrofit and renovation would render such a dual undertaking economically infeasible.

The proposed BCHD Healthy Living Campus Master Plan is driven by several needs. The plan was conceived to resolve the potential safety hazard and economic hardship posed by the aging facilities on-campus while also continuing to provide health and wellness services to the community. In addition to these economic drivers, the proposed BCHD Healthy Living Campus Master Plan is driven by programmatic needs for facilities that can accommodate the innovative and constantly evolving programs necessary to serve the future needs of the community. BCHD's continued role as a leading-edge community health care provider requires flexible, multi-use spaces (e.g., meeting rooms and functional open space for workshops, training sessions and events) as well as specialized use spaces (e.g., CHF, Demonstration Kitchen, Blue Zones café) driven by emerging health service practices and technologies.

2.4.3 Project Objectives

BCHD developed three major “*Project Pillars*,” which were presented to the Board of Directors during a public meeting on June 17, 2020. The Project Objectives are based on these three Project Pillars:

Health

- Build a center of excellence focusing on wellness, prevention, and research.
- Leverage the campus to expand community health programs and services.

Livability

- Focus on emerging technologies, innovation, and accessibility.
- Create an intergenerational hub of well-being, using Blue Zones Project principles.

Community

- Actively engage the community and pursue partnerships.
- Grow a continuum of programs, services, and facilities to help older adults age in their community.

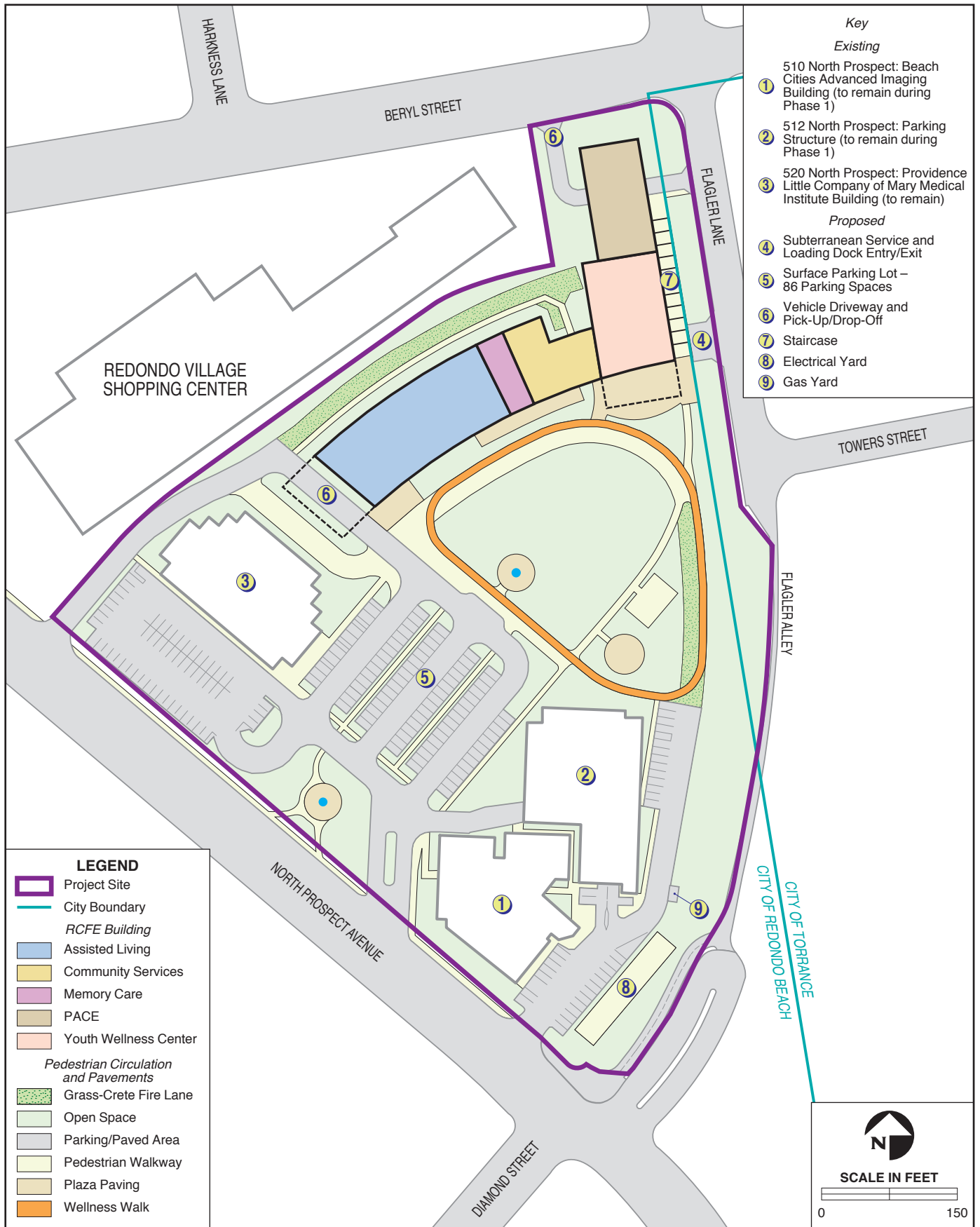
Based on these Project Pillars, BCHD developed six Project Objectives:

- Eliminate seismic safety and other hazards of the former South Bay Hospital Building (514 North Prospect Avenue).
- Generate sufficient revenue through mission-derived services to replace revenues that will be lost from discontinued use of the former South Bay Hospital Building and support the current level of programs and services.
- Provide sufficient public open space to accommodate programs that meet community health needs.
- Address the growing need for assisted living with on-site facilities designed to be integrated with the broader community through intergenerational programs and shared gathering spaces.
- Redevelop the Project site to create a modern campus with public open space and facilities designed to meet the future health needs of residents, with meeting spaces for public gatherings and interactive education.
- Generate sufficient revenue through mission-derived services and facilities to address growing future community health needs.

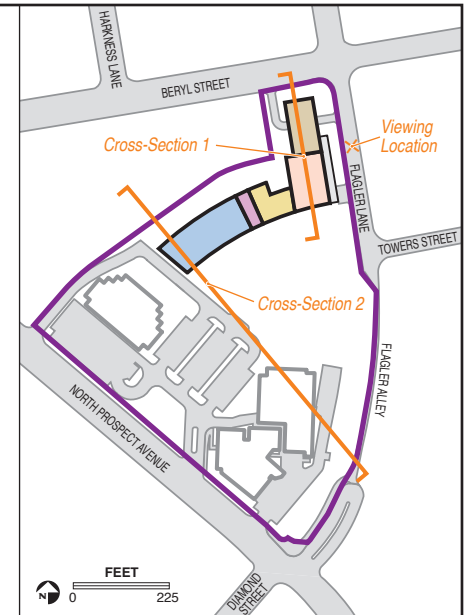
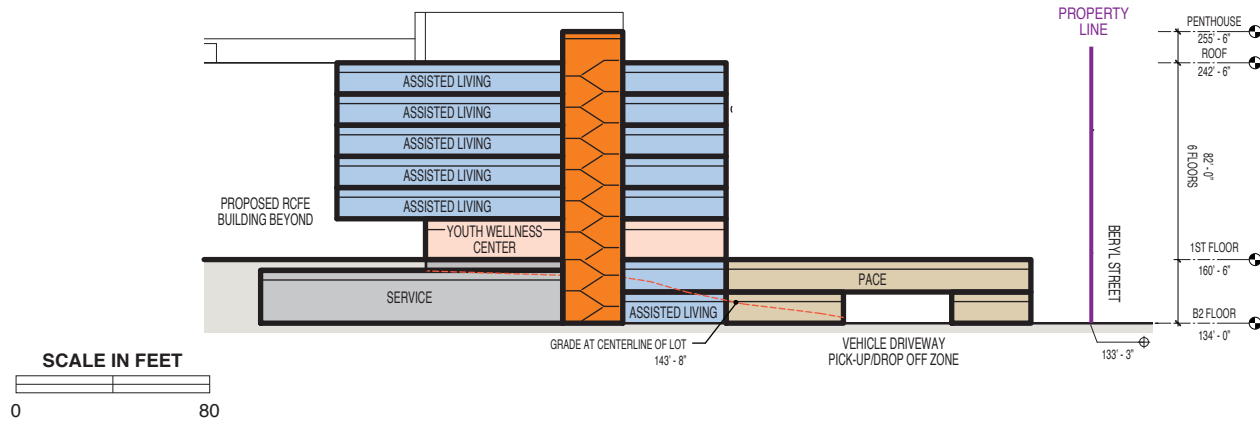
The underlying purpose of the proposed BCHD Healthy Living Campus Master Plan is to solve the current seismic issues associated with the former South Bay Hospital Building and establish a center of excellence for community health. Implementation of the proposed Project is intended to meet the six objectives described above and therefore achieve the underlying purpose of the proposed Project.

2.5 PROPOSED BCHD HEALTHY LIVING CAMPUS MASTER PLAN

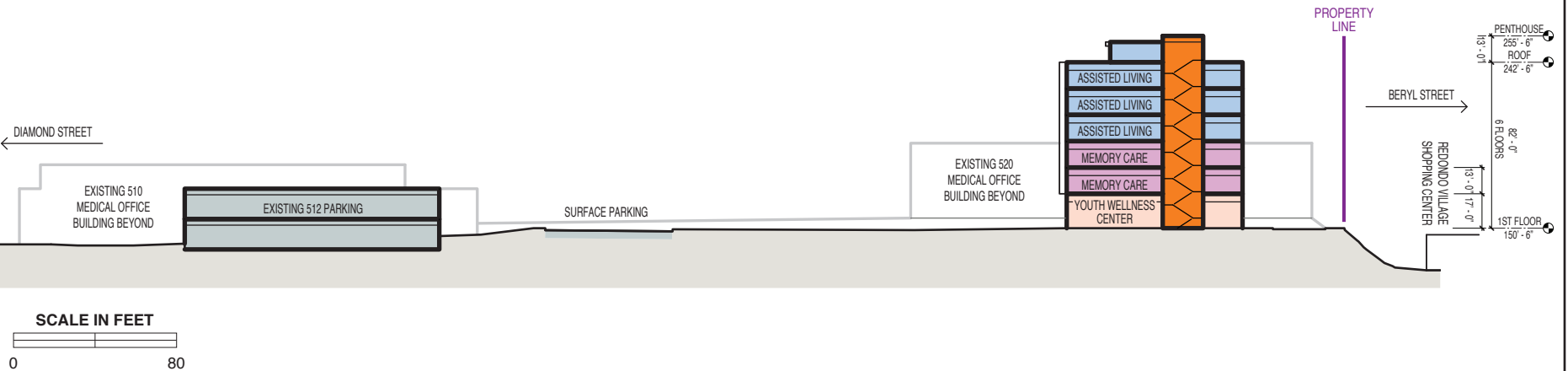
Development under the proposed BCHD Healthy Living Campus Master Plan would occur over two phases, with Phase 1 occurring over 29 months and Phase 2 over 28 months, as described in further detail below. BCHD has developed a detailed preliminary site development plan for Phase 1, which is evaluated in this EIR at a project level of detail. Additionally, BCHD has developed a more general long range development program for Phase 2 based upon the best available planning information. As previously described, this development program has been evaluated programmatically in that construction impacts have been evaluated using a maximum area of disturbance and a maximum duration of construction activities. Operational impacts have also been evaluated programmatically in that the analysis addresses maximum building space allocations.



Cross-Section 1 (View from Flagler Lane)



Cross-Section 2 (View from Flagler Lane)



2.5.1 Phase 1 Preliminary Site Development Plan

Phase 1 of the proposed BCHD Healthy Living Campus Master Plan would include the implementation of a detailed preliminary site development plan involving the proposed construction of the RCFE Building, the demolition of the existing Beach Cities Health Center and the attached maintenance building, and the development of open space and a surface parking lot.

Construction activities under Phase 1 would begin with the demolition of the existing northern surface parking lot and the associated perimeter circulation road located at the northern edge of the Project site. The proposed RCFE Building would be constructed within this footprint, and would include 157 Assisted Living units, 60 Memory Care units (replacing the existing Silverado Beach Cities Memory Care Community located within Beach Cities Health Center), 14,000-sf programmed for PACE, 6,270-sf programmed for Community Services, and a 9,100-sf Youth Wellness Center. The RCFE Building would include a new one-way driveway and pick-up/drop-off zone located on the vacant Flagler Lot as well as a new subterranean service area and loading dock entry/exit. The RCFE Building would reach a maximum height of 103 feet (including the rooftop cooling tower) above the campus ground level and 133.5 feet above the vacant Flagler Lot below.

Table 2-2. Phase 1 Preliminary Site Development Plan

Use	Units/Rooms	Floor Area (sf)
Assisted Living	157 units	203,700
Floor B2		5,750
Floor B1		5,750
Floor 1		17,500
Floor 2		16,200
Floor 3		25,300
Floor 4		44,400
Floor 5		44,400
Floor 6		44,400
Memory Care		50,000
Floor 1		2,750
Floor 2		28,150
Floor 3		19,100
PACE		14,000
Community Services (Floor 1)		6,270
Youth Wellness Center (Floor 1)		9,100
Parking	86 new parking spaces (including accessible parking spaces and EV charging stations)	40,725
Open Space		114,830

The Beach Cities Health Center would remain in place for the duration of construction of the proposed RCFE Building to allow most of BCHD's existing programs to continue. However, prior to the beginning of construction, the CHF would be relocated to an off-site location. (The CHF would be relocated back to the campus as a part of Phase 2 of development; see Section 2.5.2, *Phase 2 Development Program*). Because the CHF has the largest parking demand of the existing uses at the Beach Cities Health Center, the proposed relocation of the CHF would alleviate parking constraints associated with demolition of the northern surface parking lot at the beginning of Phase 1. Additionally, the existing Demonstration Garden would be moved from the BCHD campus to a local school campus during the development of the RCFE Building.

Following the construction of the proposed RCFE Building, the Community Services program and 60 Memory Care units and facilities associated with the Silverado Beach Cities Memory Care Community, would be relocated from the Beach Cities Health Center to the RCFE Building. Demolition of the existing 5-story, 158,000-sf Beach Cities Health Center and the attached 3,200-sf maintenance building would occur toward the end of Phase 1 following the relocation of these uses. Following the demolition of the Beach Cities Health Center and the attached maintenance building as well as the demolition and backfilling of the subterranean levels, a 40,725-sf landscaped surface parking lot would be constructed providing 86 new parking spaces (including accessible parking spaces and EV charging stations) (see Section 2.5.1.3, *Proposed Access, Circulation, and Parking*). The existing Beach Cities Advanced Imaging Building (510 North Prospect Avenue), associated parking structure (512 North Prospect Avenue), Providence Little Company of Mary Medical Institute Building (520 North Prospect Avenue), and associated surface parking lot and subterranean parking garage would remain in place on the campus (refer to Figure 2-5).

Phase 1 would include landscaping surrounding the RCFE Building as well as a large lawn in the interior of the campus that would serve as an open space for both the campus and the surrounding community. Additionally, a new electric service would be developed in conjunction with Southern California Edison (SCE) – including the development of a new on-site distribution system – that would replace the existing electrical service at the Project site (see Section 2.5.1.4, *Utilities and Services*).

2.5.1.1 Proposed Uses

Assisted Living

The proposed RCFE Building would include an Assisted Living program with 157 private or semi-private apartment-style units. The Assisted Living program would also provide a continuum of

long-term care services including a combination of housing, personal care services, and health care specific to individuals who need assistance with normal daily activities (e.g., meal preparation, medication management, etc.).

The 157 Assisted Living units, which would be operated by a partner company specializing in administering Assisted Living programs, would occupy Floors 1 through 6 of the proposed RCFE Building. These units would consist of 37 studios, 70 one-bedroom units, 30 one-bedroom units with dens, and 20 two-bedroom units (see Table 2-3). The 157 units would serve approximately 177 residents. In addition to the Assisted Living units, approximately 35 percent of the floor area dedicated to Assisted Living would be programmed as non-living space. This would include spaces such as a front lobby and reception area as well as a main kitchen and dining hall (which would double as activity space) on the Floor 1. Smaller kitchen(s) for meal preparation by Assisted Living residents, small cafés and/or private dining rooms would be provided throughout Floors 2 through 6. The Assisted Living space would also include nursing stations, smaller visiting spaces, activity spaces, and laundry facilities on each floor of the building. The precise Assisted Living unit layout and non-living space layout would be developed by BCHD in consultation with the partner company.

Table 2-3. Assisted Living Apartment Units

Use	Units	Floor Area (sf)
Studio Unit	37	500
Single-Bedroom Unit	70	650
Single-Bedroom + Den Unit	30	750
Two-Bedroom Units	20	925

Memory Care

The proposed Project would replace the 60 double-occupancy Memory Care units associated with Silverado Beach Cities Memory Care Community (located within the existing Beach Cities Health Center) within the proposed RCFE Building. As with the existing Silverado Beach Cities Memory Care Community these 60 double-occupancy units would serve a maximum of 120 residents. Each unit would be approximately 425 sf and would include beds, dressers, and other furniture, and attached restrooms. The Memory Care program would include its own lobby and reception area on Floor 1, separate from the lobby and reception area associated with the Assisted Living program. The lobby entrance would front the interior of the campus and would include a front desk, restrooms, guest elevators, and a staircase to the upper floors. The Memory Care program would have similar non-living space requirements as those described for the Assisted Living

program. However, rather than having a main dining hall and activity spaces, each floor of the Memory Care program would be organized as its own “*neighborhood*” so that residents would not need to travel between floors. Each floor would provide its own dining hall, visiting rooms, indoor activities spaces, and nursing station.

PACE

PACE is a Medicare and Medicaid program that provides comprehensive medical and social services older adults (i.e., age 55 and older with an average age of 76). PACE services would be primarily provided on-site at adult day health center, which would include an interdisciplinary team of health professionals (e.g., primary care providers, registered nurses, dietitians, physical therapists, occupational therapists, recreation therapist, home care coordinator, personal care attendant, driver, etc.) coordinating preventive, primary, acute, and long-term care services. PACE services would include meals, nutritional counseling, dentistry, primary care (including doctor and nursing services), laboratory/X-ray services, emergency services, hospital care, occupational therapy, recreational therapy, physical therapy, prescription drugs, social services, social work counseling, and transportation. For most participants, PACE services would enable them to remain in the community rather than receive care in a nursing home or other elder care facility.

The proposed PACE services would be a new program on the BCHD campus. The proposed Project RCFE Building would dedicate approximately 14,000 sf of floor area for PACE, to be developed in consultation with and operated by a partner company specializing in PACE services. Similar to the Assisted Living and Memory Care programs, the floor area for PACE would include a lobby and reception area, food preparation area, and dining hall. The floor area dedicated for PACE would also include a nurse station, examination rooms, a small weight room, assisted changing room, and assisted unisex restrooms. Small and medium size meeting/multi-purpose rooms would be provided in support of PACE. The Care Managers would also have office space with a staff breakroom and restrooms.

This program would implement the drop-off and/or van transportation model, with participants coming in the morning and staying throughout the day. PACE would likely require one or two vans, which may also be shared by the Assisted Living and Memory Care programs. PACE would also make use of Los Angeles County Access and/or WAVE shuttles to provide transportation for participants.

Community Services

The existing Community Services program in the Beach Cities Health Center would be relocated to the proposed RCFE Building following the completion of construction activities. The Community Services program would occupy approximately 6,270 sf of the RCFE Building and would provide all of the same existing social service programs, including food security, housing security, safety in the home, and socialization (refer to Section 2.2.5, *Existing BCHD Programs*). Similar to the existing Community Services space within the Beach Cities Health Center, the new space would include a 1,000-sf lobby and front desk area, 408 sf of administrative offices, and 695 sf of open office area. A staff breakroom and restrooms would also be provided. Community Services would also include two meeting rooms. The proposed meeting rooms would include a 1,000-sf BCHD Board of Directors meeting room with an attached 120-sf storage space and another 670-sf meeting room to accommodate the smaller core support group meetings currently hosted at Beach Cities Health Center (refer to Section 2.2.5, *Existing BCHD Programs*).

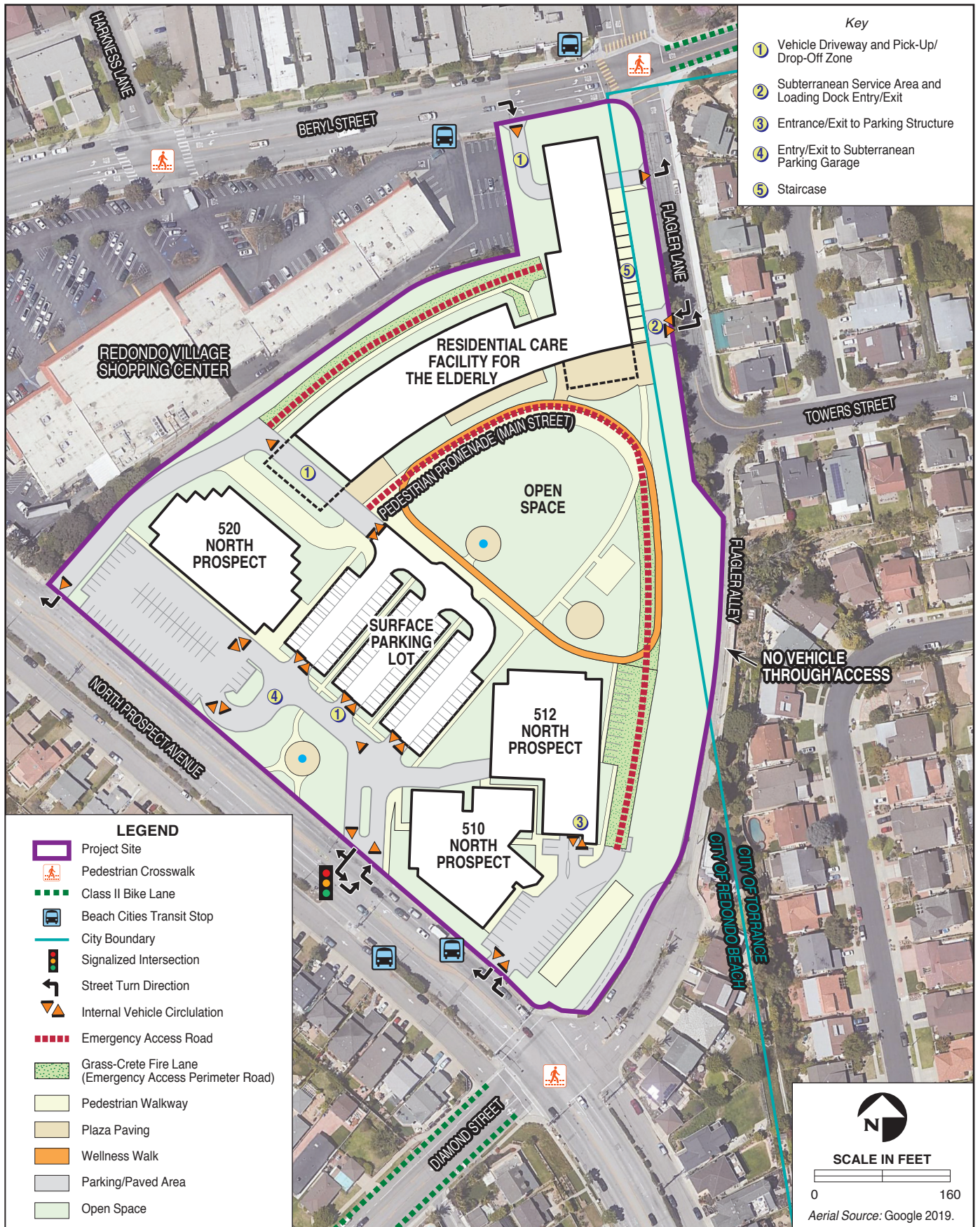
Youth Wellness Center

BCHD recently received a grant to design and establish a new Youth Wellness Center to provide young adults (i.e., ages 18-25) with to access social services and life skills, job skills, mental health, sexual health services, etc. The Youth Wellness Center would also provide space for an after-school (e.g., from 2:00 p.m. onward) behavioral and health program for school-aged children (i.e., ages 12-18). The Youth Wellness Center would occupy approximately 9,100 sf in the RCFE Building and would include office space, medium-sized meeting rooms, kitchens, etc. As the Youth Wellness Center is intended for young adults and children, who would walk to, bike to, or be dropped-off at campus.

Open Space

As described in Section 2.2, *Existing Project Site Characteristics*, the Project site is almost completely developed with impervious surfaces associated with existing building footprints and surface parking lots. Open space is generally limited to landscaping bordering the buildings as well as the hillside along the eastern edge of the campus. The proposed Project would substantially expand open space, including 114,830 sf of programmable open space within the interior of the Project site. The central lawn would be sized to accommodate a variety of outdoor community events such as movie nights or group fitness activities (refer to Figure 2-7 and Figure 2-8).





A tree-lined pedestrian promenade (also referred to as Main Street) would extend from the entry plaza around the perimeter of the central lawn to the eastern border of the campus. The pedestrian promenade would be 26 feet wide and lined with benches shaded by tree canopies. This promenade could support outdoor farmers' markets and health fair expositions. The pedestrian promenade would overlap with Wellness Walk, a distinct loop with distance markers, signage, and fitness stations.

Perimeter green space and landscaping would be intended to soften the campus interface and provide connections with the surrounding uses. The perimeter of the campus would be planted with a mix of grasses, shrubs, ground cover, and shade trees that are adapted to the climate of Southern California. The western border (along North Prospect Avenue) and eastern border (along Flagler Alley, Flagler Lane, and Diamond Street) of the campus would be lined with intermittent large shade canopy trees and smaller shade trees to provide landscape screening. Similarly, the campus's northern border would be lined with shade and flowering ornamental trees to screen views from the Redondo Village Shopping Center.

BCHD's existing Demonstration Garden would be upgraded and relocated to the central open space to encourage interactions with campus residents, visitors, and the wider community. The proposed Demonstration Garden would feature demonstration vegetable garden plots, an orchard with citrus and other fruit trees, and a garden shed. Outdoor classroom space and a compost demonstration area would also be provided to support BCHD's LiveWell Kids program (refer to Section 2.2.5, *Existing BCHD Programs*). The Demonstration Garden would be surrounded by 5-foot-tall fencing for security.

2.5.1.2 Project Architecture and Design

The conceptual architectural and landscape plan includes the development of a curved linear, RCFE Building that follows the perimeter of the Project site along and overlooking the adjacent Redondo Village Shopping Center and Beryl Street. As described further in Section 3.1, *Aesthetics*, the proposed RCFE Building design includes exterior façades with simple forms constructed using white concrete floor slabs infilled with painted panels and glass, and painted privacy sunscreens on white concrete balconies with glass handrails. The ground floor of the RCFE Building would be developed on concrete columns with predominantly glass walls allowing public views of and pedestrian passage to active green spaces located within the central campus area of the Project site.

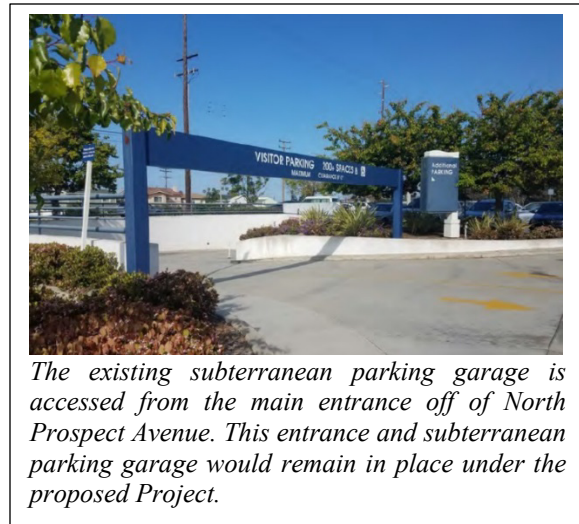
The proposed RCFE Building would have a maximum height of 103 feet (including the rooftop cooling tower) above the campus ground level and 133.5 feet above the vacant Flagler Lot below (refer to Figure 2-6). The proposed RCFE Building would be subject to Redondo Beach Planning

Commission Design Review(s) in compliance with the CF zoning designation for the Project site as established in RBMC Section 10-2.1116 and TMC Section 13.9.7. The first floor of the RCFE Building that would overhang the driveway and pick-up/drop-off zone on the vacant Flagler Lot would not exceed the designated 30-foot maximum height as allowed in C-2 zones by the RBMC Section 10-2.625.

2.5.1.3 Proposed Access, Circulation, and Parking

Project Site Access and Circulation

The primary vehicle entry/exit would continue to be provided from the main entrance and the two secondary entrances along North Prospect Avenue (see Figure 2-8). The central driveway would continue to operate as the main entrance to the Project site and would provide access to the proposed 40,725-sf landscaped surface parking lot as well as a vehicle pick-up/drop-off at the western end of the proposed RCFE Building. The southern driveway to the southeast of the main entrance would continue to provide access to the existing parking structure (512 North Prospect Avenue).



The existing subterranean parking garage is accessed from the main entrance off of North Prospect Avenue. This entrance and subterranean parking garage would remain in place under the proposed Project.

However, the existing perimeter road would be converted to a pedestrian promenade and would no longer provide vehicle access around the edge of the campus, except in the case of emergencies.

The vacant Flagler Lot would be developed with a new one-way driveway accessible via a right-turn along eastbound Beryl Street (see Figure 2-8). The driveway, which would provide one 12-foot-wide lane and would be approximately 150 feet long, would support a pick-up/drop-off zone for Assisted Living and Memory Care residents as well as PACE participants and other visitors to the campus. However, unlike the entrances from North Prospect Avenue, this driveway would not provide access to long-term parking on the campus and as such, would not be a primary entrance. The driveway would provide a left-turn-only exit onto northbound Flagler Lane, immediately south of Beryl Street.

Additionally, a new service area and loading dock entry/exit would be provided off of Flagler Lane, approximately 150 feet south of Beryl Street. This service entrance would be limited to service vehicles and delivery vehicles only and would not be used by staff, residents, participants,

or other visitors to the campus. Service vehicles would enter by taking a right off of Flagler Lane and exit taking a left turn onto northbound Flagler Lane (see Figure 2-8).

Parking

Phase 1 of the proposed Project would develop a 40,725-sf landscaped surface parking lot providing 86 parking spaces (including accessible parking spaces and EV charging stations) within the center of the campus. This parking lot would be accessible via the main vehicle entrance off of North Prospect Avenue (see Figure 2-8). The existing western surface parking lot and subterranean parking garage that front the Providence Little Company of Mary Medical Institute Building would remain in place.

Bicycle and Pedestrian Facilities

Bicycle facilities would also be provided for employees, residents, participants, and other visitors to the campus. Short-term bicycle parking would be provided at the main entrance off of North Prospect Avenue. Bicycle facilities would also include a bicycle repair station and shower and locker facilities.

Pedestrian access to the Project site would be available from North Prospect Avenue, Beryl Street, and Flagler Lane. Internally, the campus would be traversed by a series of publicly accessible pedestrian pathways ranging from 10- to 26-feet-wide. The proposed pedestrian promenade and a series of other pedestrian pathways would connect to one another to provide pedestrian access throughout the Project site. The pathways would provide direct public access to the RCFE Building, Beach Cities Advanced Imaging Building, and Providence Little Company of Mary Medical Institute Building. A new multi-tiered stairway adjacent to the PACE program would also rise approximately 30 feet from Flagler Lane to provide pedestrian access to the interior of the campus (see Figure 2-11).

Emergency Access

In the event of an emergency on the campus, the Project site could be accessed from the existing driveways along North Prospect Avenue, the proposed one-way vehicle driveway off of Beryl Street, and the proposed service area and loading dock entry/exit off of Flagler Lane. Similar to the existing perimeter road that borders the campus, the proposed 26-foot-wide pedestrian promenade would wrap around the campus and would provide emergency vehicle access. The pedestrian promenade would connect the existing southern and northern driveways and would provide direct access to the southern side of the RCFE Building. Secondary emergency access

would be provided to the north of the RCFE Building using “*grass-crete*” (i.e., permeable pavers with space for grass to grow).

Prior to operation, BCHD would coordinate with the Redondo Beach Fire Department (RBFD) and the Redondo Beach Police Department (RBPD) to prepare an Emergency Response Plan for the campus. Additionally, BCHD would utilize training procedures and an operational handbook that contains processes and procedures for BCHD staff to provide the first responder services (see Section 3.12, *Public Services*).

2.5.1.4 Utilities and Services

Existing electrical, natural gas, water, and sewer utilities that serve the site are located within the existing City of Redondo Beach right-of-way along North Prospect Avenue and Beryl Street (see Section 3.15, *Utilities and Service Systems*). These existing utilities would continue to be used for each of the new buildings constructed or modified as a part of the proposed Project. The proposed facilities would be tied into the existing points of connection in North Prospect Avenue and Beryl Street and it is unlikely that any substantial utility upsizing would be required. However, off-site trenching associated with the utility tie-ins would involve re-paving of the roadway as well as the reconstruction of sidewalks, curb and gutter, and landscaping as necessary.

A new electric service would be developed in conjunction with SCE – including the development of a new underground on-site distribution system – that would replace the existing electrical service for the Project site. The proposed Project design for the electrical distribution system includes a SCE Substation Yard, medium voltage distribution system, and generator yard, which would be located along the eastern perimeter of the Project site (refer to Figure 2-5 and Figure 2-7). Views of this utility area would be screened from residences to the east by large shade trees.

Water would be supplied by California Water Service from the existing 8-inch water main in North Prospect Avenue. The proposed Project would connect to California Water Service’s water supply system with new laterals installed within the Project site. The proposed fire suppression water system would be served by the existing 8-inch fire serves located at the northwest corner and southwest corner of the Project site. The existing campus has five on-site fire hydrants and two off-site fire hydrants located on the east side of North Prospect Avenue that could serve the Project site.

Sewer service would be provided by the existing 8-inch sewer main located at the intersection of North Prospect Avenue & Diamond Street. Wastewater from the RCFE Building would be directed

to the 8-inch gravity main along Beryl Street. The proposed Project would connect to this system through the construction of 8-inch sewer lines on the Project site.

Solid waste hauling services would also be provided by Athens Services. Trash and recycling collection facilities for residents, employees, and visitors would be provided within enclosures in the subterranean service and delivery zone. Trash trucks would access the Project site via the proposed service area and loading dock entry/exit along Flagler Lane.

2.5.1.5 Sustainability Features

As required by the RBMC and TMC, all new buildings on the site would conform to the California Title 24 Building Energy Efficiency Standards (Part 6) CALGreen (Part 11). The design of the proposed RCFE Building would optimize passive design strategies, which use ambient energy sources (e.g., daylight, wind, etc.) to supplement electricity and natural gas to increase the energy efficiency. The proposed Project would incorporate the following sustainable design features:

- Photovoltaic solar panels occupying approximately 25-50 percent of the roof area;
- Solar hot water system to reduce energy use;
- Energy efficient heating, ventilation, and air conditioning (HVAC) systems;
- Operable windows for natural ventilation;
- High-performance building envelope – including thermal insulation;
- Controlled natural lighting and lighting systems designed with occupancy sensors and dimmers to minimize energy use;
- Water efficient equipment and plumbing infrastructure (e.g., sinks, toilets, etc.); and
- Interior materials with low volatile organic compound (VOC) content;
- Plant palette comprised of species adapted to the climate of Southern California;
- High efficiency irrigation system; and
- Pervious paving to promote on-site stormwater infiltration.

The proposed Project would also include sustainable transportation infrastructure, such as bicycle parking; employee shower and locker facilities; EV charging stations; designated parking for carpools and vanpools; and ride-share amenities to provide options to reduce internal-combustion vehicle usage for residents and visitors. The proposed Project would also implement a Transportation Demand Management (TDM) plan with trip reduction strategies to reduce single-occupancy vehicle trips to the Project site and overall traffic on the surrounding street network. The TDM plan would include transit and carpool incentives for employees (see Section 3.14, *Transportation*).

The proposed Project would also implement a program to encourage visitors to travel to the campus via active (e.g., walking, biking, etc.) or multi-modal transportation. BCHD would provide incentives to guests and employees for hybrid and/or electric car parking and provide a bicycle sharing program for access to the adjacent bicycle paths. Additionally, the Assisted Living, Memory Care, and PACE services would also share and use vans to transport several participants at once, which would reduce vehicle trips to the BCHD campus.

The proposed new buildings would meet the equivalent of Leadership in Energy and Environmental Design (LEED) Gold Certification. LEED is a national certification system developed by the U.S. Green Building Council (USGBC) to encourage the construction of energy and resource-efficient buildings that are healthy to live in. LEED certification is the nationally accepted benchmark for the design, construction, and operation of high-performance green buildings. The program promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

The proposed new buildings would also be WELL Building Certified. The WELL Building Standard is the premier standard for buildings, interior spaces and communities seeking to implement, validate and measure features that support and advance human health and wellness. WELL was developed by integrating scientific and medical research and literature on environmental health, behavioral factors, health outcomes and demographic risk factors that affect health with leading practices in building design, construction, and management.

2.5.1.6 Construction Activities

Construction activities associated with Phase 1 of the BCHD Healthy Living Campus Master Plan would occur over a period of 29 months, including the demolition of the existing northern surface parking lot, the proposed construction of the RCFE Building, the demolition of the existing Beach Cities Health Center and the attached maintenance building, and the development of open space and a surface parking lot.

The development application associated with Phase 1 of the proposed BCHD Healthy Living Campus Master Plan would include a comprehensive Construction Management Plan, to be submitted for review and approval by the Redondo Beach and Torrance Building & Safety Divisions, prior to the issuance of demolition, grading, or building permits. At a minimum, the phased Construction Management Plan would describe:

- Detailed construction schedule and timing of activities;

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- Designated construction entrance(s) at the Project site;
- Temporary improvements (e.g., re-striping, etc.);
- Haul routes and queuing areas to be used during demolition, soil excavation and export, materials delivery, concrete truck deliveries;
- City-approved plans for re-routing vehicles, bicyclists, and pedestrians as well as required signage and/or construction flaggers;
- Construction equipment and materials laydown area(s) and other staging area(s); and,
- On- and/or off-site construction worker parking area(s).

BCHD has prepared a preliminary Construction Management Plan summarized below; however, as is typical for major construction projects, some details regarding construction activities for the proposed Project are not yet finalized and/or approved by the City of Redondo Beach and the City of Torrance (see Section 3.14, *Transportation*).

Construction Hours

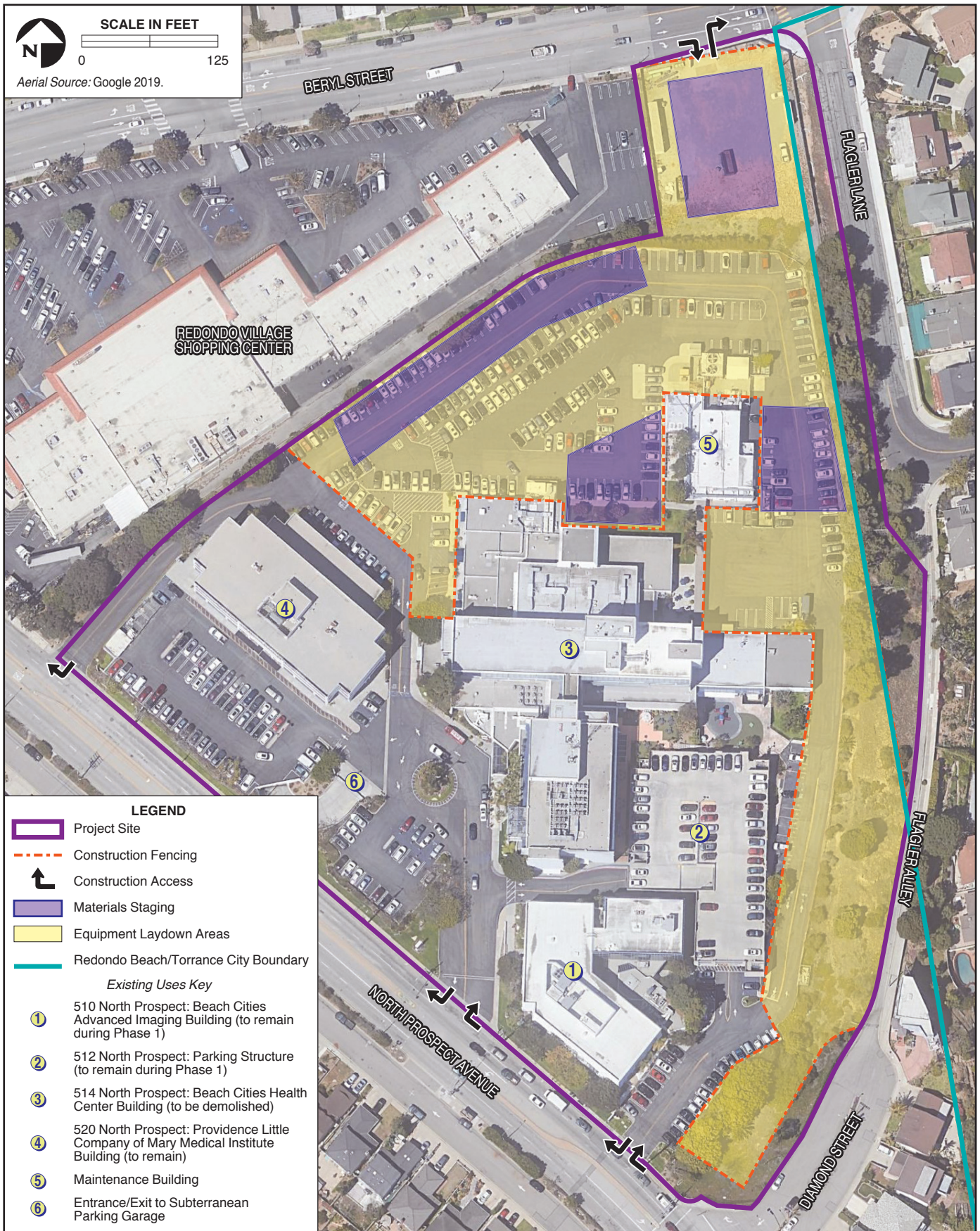
BCHD has proposed the following construction hours for the proposed Project, consistent with RBMC Section 4-24.503 and TMC Section 6-46.3.1:

- 7:30 a.m. to 6:00 p.m. Monday through Friday; and
- 9:00 a.m. to 5:00 p.m. Saturday.

Construction Staging and Haul Routes

All construction activities would be staged within secured construction areas within or adjacent to the Project site. The primary construction staging areas for equipment and materials would be the vacant Flagler Lot and the existing northern surface parking lot. However, the staging areas would likely move between construction phases depending on the area available.

Construction trucks would access the site from one of the existing driveways along North Prospect Avenue. Haul trucks would exit the Interstate (I-) 405 freeway on 190th Street or Hawthorne Avenue to 190th Street and reach the site using Del Amo Street to North Prospect Avenue. Construction entry to the Project site would be provided along North Prospect Avenue where construction flaggers would be stationed to direct construction traffic and maintain public safety. Additionally, emergency services vehicle access points would be maintained at North Prospect Avenue and Beryl Street. Fire lanes would be maintained at all times during construction work. The RBDP and RBFD would also have access to the Project site 24 hours per day via fence-mounted lockboxes to open gates securing the Project site.





Excavation and Grading

Phase 1 asphalt demolition, excavation, grading, and utility work would occur over a 2-month period beginning with the demolition and removal of the existing northern surface parking lot and associated perimeter circulation road located at the northern edge of the Project site. Subsequent construction of the proposed RCFE Building would begin with a 26-foot-deep excavation for the subterranean service area and loading dock. This excavation work would require temporary shoring involving the use of auger drilled steel soldier piles (i.e., large plates of steel retaining structures) installed into the ground followed by the installation of wood lagging to support the sidewalls of the excavation as it progresses. The foundation of the proposed RCFE Building has not yet been designed but would likely consist of large concrete mat foundations. Driven or drilled foundation piles would not be required based on the preliminary geology and soils analysis (see Section 3.6, *Geology and Soils*). Grading across the remainder of the Project site would be limited to the redistribution of soils on-site to level the central area of the campus. Utility realignments and associated trenching would also occur during excavation of the subterranean building level and service area and loading dock.

Asphalt would be exported from the Project site in approximately 575 haul truck trips. Although excavated soil would be re-used on-site to the maximum extent feasible (i.e., raising grade elevation, backfilling retaining walls, etc.), export of substantial amounts of fill would likely also be required. There is also the potential requirement for hazardous soils remediation during excavation and grading for Phase 1 development (see Section 3.8, *Hazards and Hazardous Materials*). An estimated 20,000 cubic yards (cy) of soil would be excavated and exported from the Project site involving up to 1,250 haul truck trips over a 1-month period. This average soil export rate may be increased or decreased depending on availability of haul trucks during the construction period as well as the rate of shoring installation. Excavation and hauling of earth would comply with South Coast Air Quality Management District (SCAQMD) rules for the control of hauling impacts, including dust and diesel emissions.

Excavation and utility work would be performed using the following equipment:

- Track-crane-mounted vertical drilling rig;
- Track-mounted auger rig for tiebacks;
- Medium-sized track bulldozer;
- All-terrain rubber tire forklift;
- Small rubber-tire backhoes;
- Rubber-tire front-end loader;

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- Track-mounted excavators;
- Dump trucks;
- Concrete truck/grout pump for soldier piles, caissons, and tiebacks;
- Rubber-tire rough-terrain hydraulic crane; and
- Miscellaneous small tools, compressors, mixers, generators, portable welding machines, and light duty pickup trucks.

Construction

Phase 1 would include the construction of the proposed RCFE Building, which would involve 292,170 sf of development. Building construction is estimated to require approximately 24 months, including the following overlapping construction elements:

- Exterior hardscape improvements would be constructed over a 7-month period and would involve 600 cy of concrete delivered to the Project site in 75 concrete truck trips.
- The mat foundation and concrete structure would be constructed over a 5-month period and would involve 9,300 cy of concrete delivered to the Project site in 1,162 concrete truck trips.
- Wood framing would be constructed over a 6-month period.
- Exterior sheathing and roofing would be constructed over a 9-month period.
- Mechanical, electrical, and plumbing work would be completed over an 8-month period.
- Interior and exterior building finishes would be completed over a 9-months period.

All construction activities would be staged within secured construction areas on-site. However, these staging areas would be moved depending on the specific construction activities. Construction activities may require use of the following types of equipment:

- Tower cranes;
- Rubber-tired hydraulic cranes as required for specific lifts;
- All-terrain rubber-tired forklift and material-handling equipment;
- Bulldozer;
- Front-end loader;
- Concrete trucks and hydraulic boom pumps during foundation construction;
- Haul trucks for material deliveries (daily);
- Office trailers and storage containers;
- Light trucks; and
- Miscellaneous small tools, compressors, mixers, generators, and portable welding machines.

Demolition

Following the construction of the RCFE Building, relocation of existing uses from the Beach Cities Health Center would occur over a 1-month period. The existing 158,000-sf Beach Cities Health Center would subsequently be demolished toward the end of Phase 1 of construction. Demolition activities would generate approximately 32,000 cy of demolition debris – including structural steel, wood, glass, flooring, and utility material such as pipes and cables – which would be exported from the Project site in approximately 2,000 haul truck trips. Following the completion of demolition activities, the existing basement would be filled with approximately 14,000 cy of soil imported to the Project site in 875 haul truck trips over a period of 1 month.

Demolition would require the use of typical construction equipment, including an excavator, bulldozers, backhoes, and excavators to break up and remove existing asphalt, concrete, and building materials. A high-reach excavator would be used along with a variety of attachments (e.g., shears, crushers, and hydraulic hammers) to dismantle the structure to avoid flying debris and minimize dust and noise. Haul trucks would be used to export large amounts of debris to a mixed construction and demolition debris recycling facility approved by the City of Redondo Beach pursuant to a Construction & Demolition Waste Management Plan. Where needed, any existing hazardous materials found during the demolished buildings (i.e., asbestos, lead-based paints, or soil contamination; see Section 3.8, *Hazards and Hazardous Materials*) would be properly handled and disposed of in accordance with regulatory requirements.

2.5.2 Phase 2 Development Program

As previously described, the long range development program under Phase 2 would include the development of space for a Wellness Pavilion, an Aquatics Center, and a new CHF, which would be relocated back on-campus. Additionally, Phase 2 would include the construction of a parking structure with up to 2 subterranean levels and up to 8.5 above ground levels. However, the ultimate location and size of the facilities necessary to support these uses have not yet been finalized. Due to uncertainties in future health and wellness programming, trade-offs associated with site planning and design (see Table 2-4), and financing considerations, Phase 2 can only be programmatically described at this time. It is anticipated that final selection of a detailed site development plan for Phase 2 would be based on the considerations discussed in Section 2.5.2.2, *Physical Design Considerations and Priority-based Budgeting*, but would not occur until after the completion of Phase 1. Final design and construction of Phase 2 would not begin until 2029, approximately 5 years after the completion of Phase 1. As described in Section 2.5.2.4, *Construction Activities* construction associated with Phase 2 would last for a period of 28 months.

2.5.2.1 Proposed Uses

Wellness Pavilion

The Phase 2 development program would include up to 37,150-sf of space for a proposed Wellness Pavilion. The proposed Wellness Pavilion would provide office and administrative space for BCHD executive, finance, and human resources staff, which currently work off-site at 1200 Del Amo Office. Additionally, the proposed Wellness Pavilion would include a presentation hall with space with partitions to divide the space into smaller units. Flexible community meeting rooms would be provided and would serve as lecture and media rooms for support ground and educational groups. Research space would be provided to support quiet learning. The Wellness Pavilion would also include a Blue Zone café with a Demonstration Kitchen for healthy cooking classes.

Aquatics Center

Up to 31,300-sf of space would be provided for a proposed Aquatics Center within 24,000 sf of indoor areas and 7,300 sf of outdoor areas. The proposed Aquatics Center would include pools, dressing rooms with lockers, restrooms, and showers, and small meeting/multi-purpose rooms that could serve as party rooms (e.g., birthday parties). The indoor portion of the Aquatics Center could feature a leisure pool for adult and child swimming lessons, water aerobics classes, etc. The Aquatic Center could also include an indoor heated therapy pool that could be used by CHF members and could support programming for PACE participants and Assisted Living (e.g., aquatic aerobics). The outdoor portion of the Aquatics Center could include an outdoor pool that would be designed for fitness activities such as lap swimming, aquatic fitness classes, but could also provide other play features (e.g., slide, river current, vortex, splash pad, etc.).

Center for Health and Fitness

Phase 2 would relocate the CHF back onto the campus into a new 20,000-sf space, which would provide the same community fitness classes as the existing CHF, including yoga, pilates, personal and small group training, aerobics, circuit training, bootcamp, and older adult (i.e., age 65 and older) classes. As described for the Aquatics Center, the CHF would include programming for Assisted Living and Memory Care residents as well as PACE participants.

The new CHF would include a reception lobby with a seating area for guests to check-in and sign-up for the community gym. The community gym area would be comprised of distinctive areas for free weights and weight machines, treadmills, elliptical machines, stationary bikes, upright/recumbent steppers, other machines, and stretching. Outside of the community gym area,

separate group exercise areas would be provided, including a cycling studio and a separate fitness room for yoga, pilates, and other group fitness classes.

The proposed CHF would incorporate use of the open space developed under Phase 1. For example, outdoor activities could include a Free Fitness Program (e.g., outdoor Zumba classes for up to 200 people).

Parking Structure

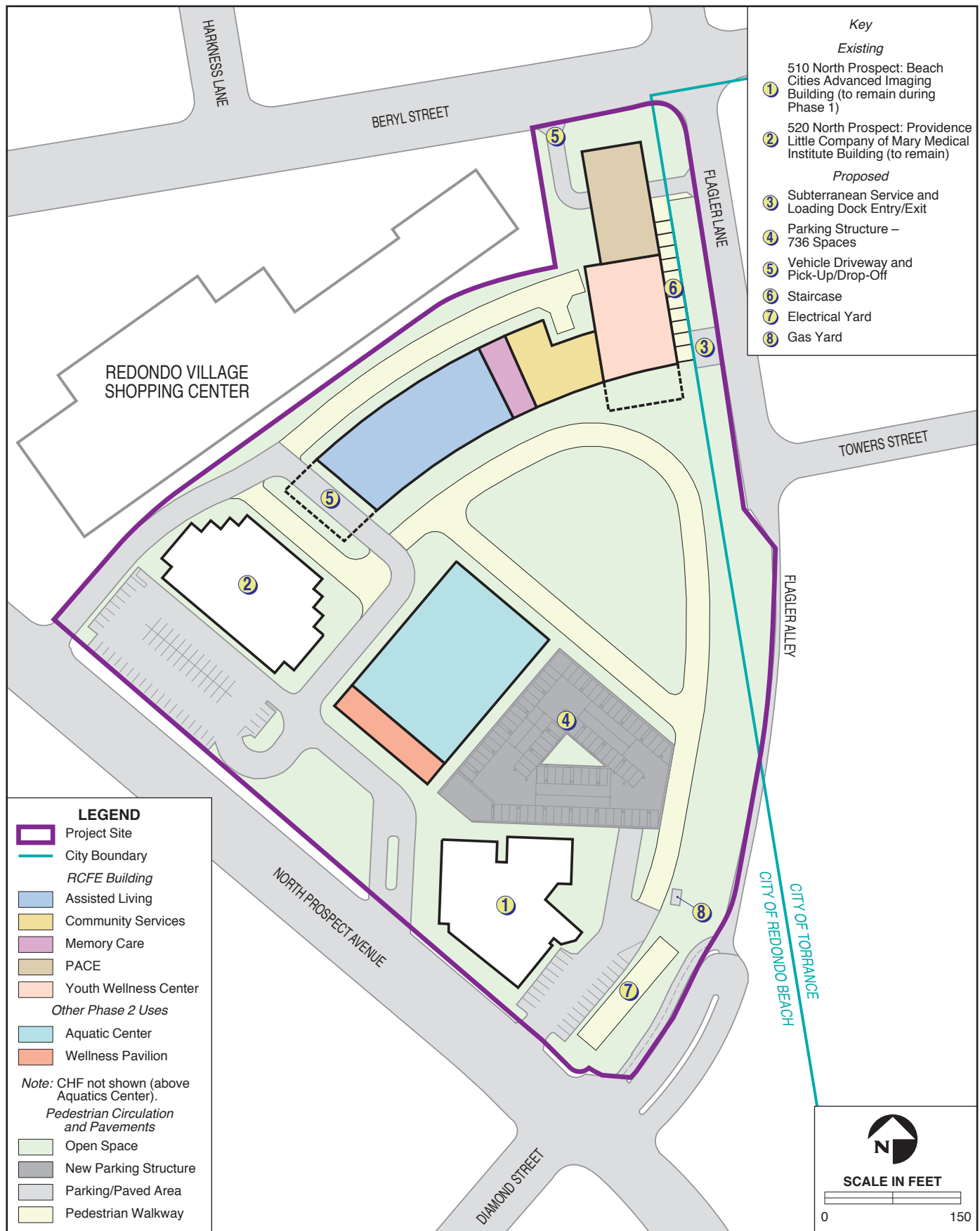
Phase 2 would involve construction of a parking structure including up to 292,500-sf of parking providing up to 736 parking spaces (including accessible parking spaces and EV charging stations). The need for this new parking structure would be driven by the addition of the Aquatics Center and the relocation of the CHF back onto the campus. Access to this new parking structure would be provided off of North Prospect Avenue.

2.5.2.2 Physical Design Considerations and Priority-based Budgeting

The ultimate design and location of these uses on the campus would be subject to refinement based on the following considerations:

- Bulk, scale, and size of the proposed parking structure;
- Bulk, scale, size, and complexity of the proposed Wellness Pavilion, Aquatics Center, and CHF;
- Viability of a new Medical Office Building instead of renovating the Beach Cities Advanced Imaging Building;
- Size and Functionality of the open space;
- Orientation of the proposed building(s) relative to the open space;
- Orientation of the open space toward the campus's main entrance; and
- On-site circulation including site access and drop-off.

Additionally, the specific programs supported in the Phase 2 building space would be based on BCHD's ongoing strategic planning process, which occurs over 3-year intervals. This strategic planning process involves the collection and analysis of data on emergent community health needs and concludes with the selection of health priorities for the Beach Cities. BCHD has begun data collection for the next Community Health Report which will cover 2022-2025. BCHD will continually review this data to track changes in community needs over time and adjust programming accordingly.



2.5.2.3 Example Site Plan Scenarios

As previously described, due to uncertainties in future health and wellness programming, trade-offs associated with site planning and design, and financing considerations, the configuration of physical development under Phase 2 could assume one of several possible site plans. The EIR depicts three example site plan scenarios for the Phase 2 development program to illustrate the possible range of physical development. However, the EIR analyzes operational impacts for the Phase 2 development using conservative assumptions. For example, the trip generation during Phase 2 is dependent of the maximum square footage described for each use. Additionally, the EIR analyzes potential construction-related impacts (e.g., ground disturbance) and aesthetics impacts (e.g., building height) using conservative assumptions related to maximum building footprints and maximum building heights. The ultimate site development plan developed for Phase 2 would fit within this maximum building envelope.

Phase 2 – Example A: Original June 2020 Phase 2 Development

This example site plan scenario was presented to the BCHD Board of Directors on June 17, 2020 as part of an effort to revise the original 2019 Master Plan to address community concerns regarding the total area of development and the total duration of construction activities (refer to Section 1.6, *Project Background*).

This example site plan scenario would include the development of a 4-story Community Health and Wellness Center, rising to a total height of 85 (including rooftop projections) above the campus ground level, which would include a Wellness Pavilion, an Aquatics Center, and a new CHF (refer to Figure 2-11). The proposed Wellness Pavilion would be located on Floors 1 through 4 of the proposed Community Health and Wellness Center. The visitor welcome center, located on Floor 1 of the building, would include an atrium/lobby with a front desk, restrooms, elevators, and a staircase to the upper floors of the building. The visitor welcome center would also include an entrance to the Aquatics Center, which would be located on the ground floor and open out toward the interior of the campus. The CHF would be located on the Floor 2 above a portion of the Aquatics Center and would share men's and women's public dressing rooms with lockers, restrooms, and showers. The existing parking structure located at 512 North Prospect Avenue would be demolished to provide space for the Community Health and Wellness Center and a new parking structure. The proposed parking structure would occupy a footprint of 32,500-sf, providing 736 parking spaces (including accessible parking spaces and EV charging stations) over 2 subterranean levels and 8.5 above ground levels, rising to a height of 76 feet above the campus

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ground level. Access to this new parking structure would be via the secondary entrance from the southern driveway off of North Prospect Avenue.

Phase 2 – Example B: Phase 2 Building with Automated Parking

The Community Health and Wellness Center under this example site plan would be similar to that described for the Example A site plan scenario with a combined Wellness Pavilion, Aquatics Center, and CHF. Additionally, under this example site plan scenario the existing parking structure located at 512 North Prospect Avenue would be demolished to provide space for the Community Health and Wellness Center and a new above ground parking structure (see Figure 2-12).

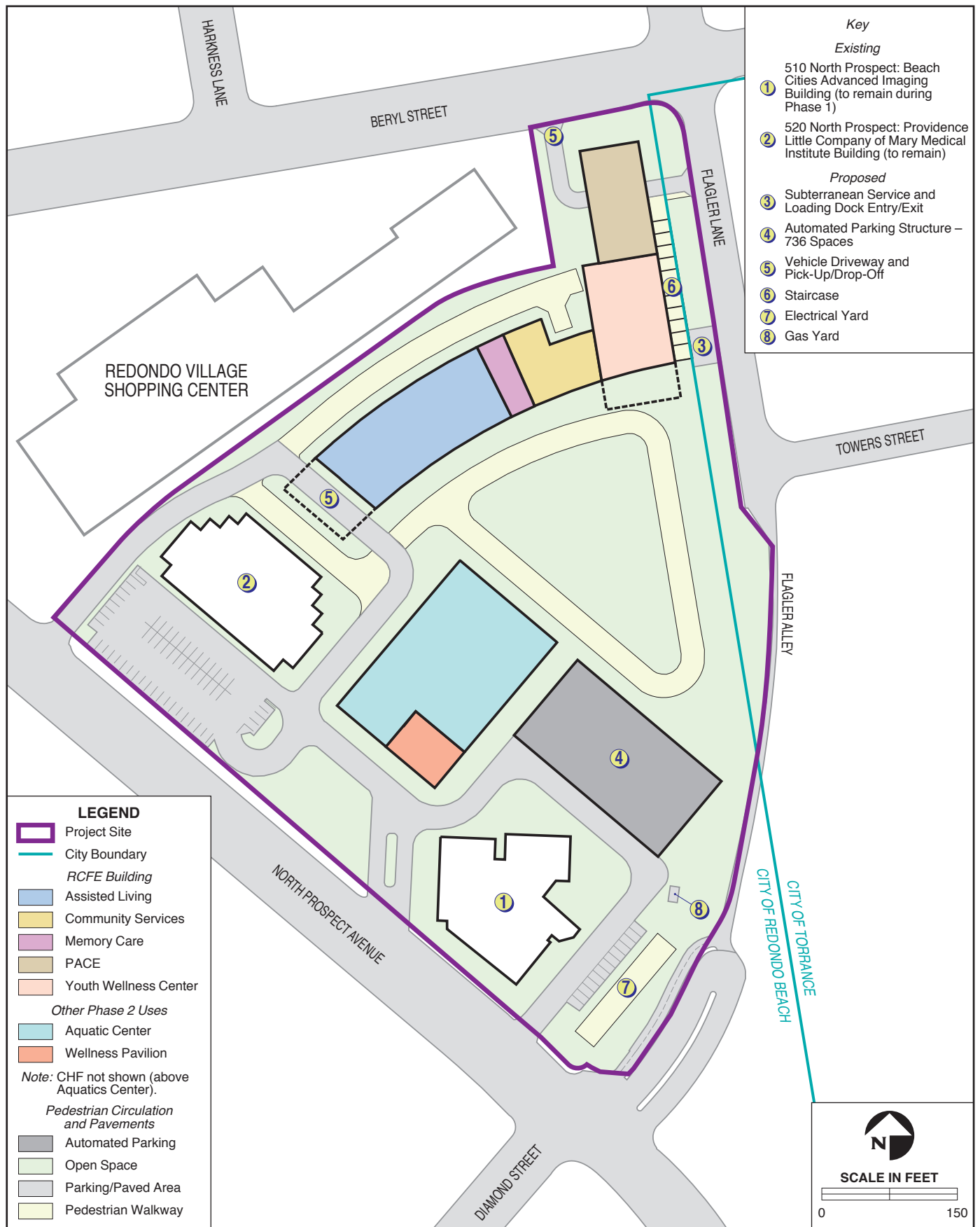


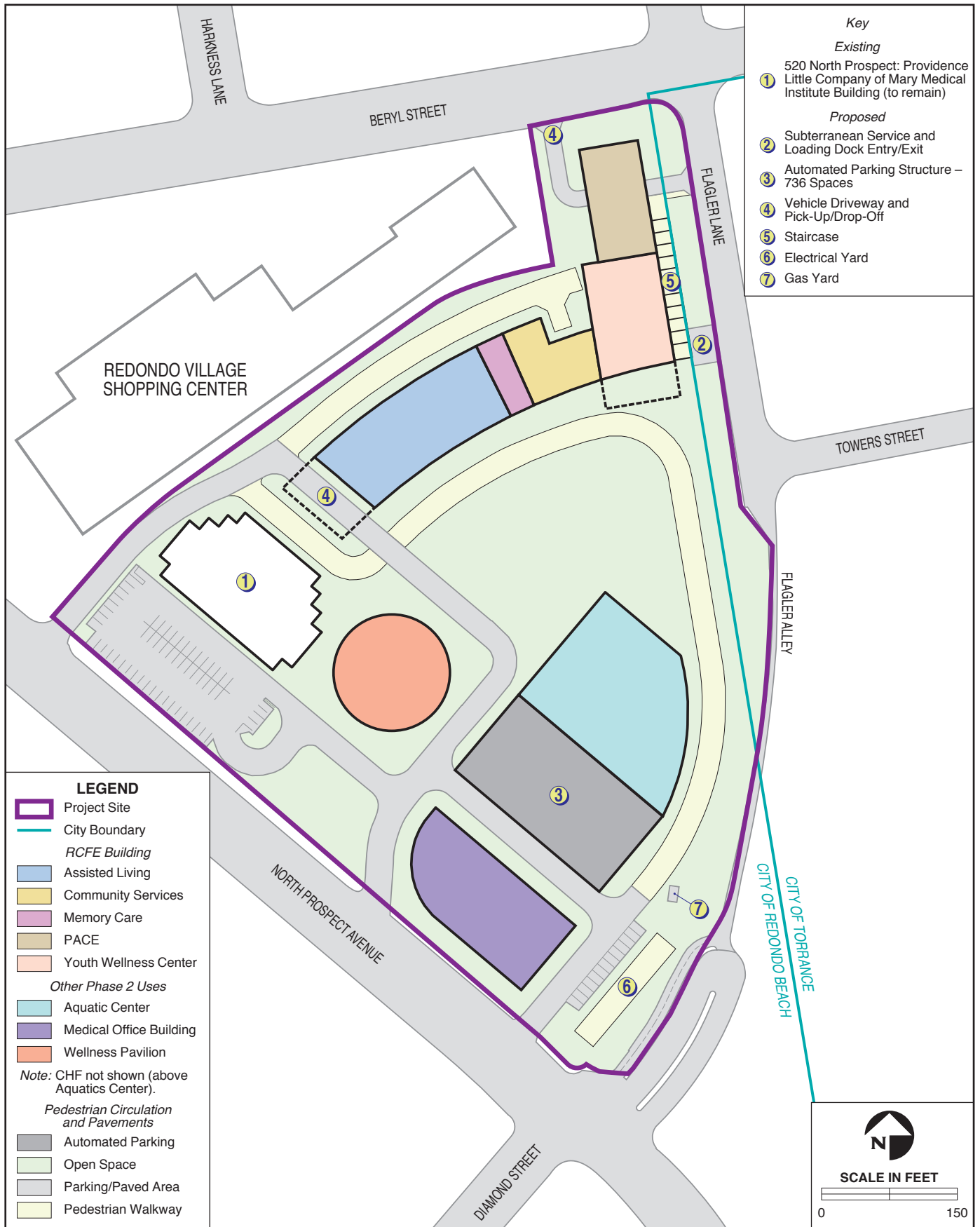
Automated parking involves the use of a mechanical system to stack vehicles, thereby maximizing efficiency and minimizing the space necessary to park the same number of vehicles as compared to a traditional parking structure with drive aisles.

However, the proposed parking structure would be automated (i.e., a mechanical system designed to stack vehicles and minimize the area and/or volume required for parking cars), allowing for a reduced building height and a reduced footprint that provides for more useable open space on the campus. The total footprint of the automated parking structure would be approximately 20,000-sf with parking provided over 1 subterranean level and 3 above ground levels, rising to a height of 71.5 feet above the campus ground level existing ground level and 101.5 feet above the vacant Flagler Lot below. Access to this new parking structure would be via the main signalized entrance as well as the secondary entrance from the southern driveway off of North Prospect Avenue.

Phase 2 – Example C: Rotated Phase 2 Building(s) with Automated Parking and a New Medical Office Building

This example site plan scenario would be the most intensive in terms of the maximum area of ground disturbance and would involve the demolition of the Beach Cities Advanced Imaging Building in addition to the Beach Cities Health Center as well as the parking structure located at 512 North Prospect Avenue, as described for the Example A and B site plan scenarios.





This example site plan scenario would begin with the demolition of the existing Beach Cities Advanced Imaging Building following the end of existing tenant leases in 2030. This 52,000-sf building would be demolished and redeveloped with a 3-story, 50,000-sf, purpose-built medical office building, which would rise to a height of 55 feet (including rooftop projections) (refer to Figure 2-13) above the campus ground level and 85 feet above the vacant Flagler Lot below.

The redevelopment of the medical office building at 510 North Prospect Avenue and the demolition of the parking structure at 512 North Prospect Avenue would provide space for a new building including the proposed Aquatics Center and CHF as well as the proposed automated parking structure (refer to Figure 2-13). The automated parking structure, which would occupy the south side of the new building would include 1 subterranean level and 3 above ground levels, rising to a height of 71.5 feet above the campus ground level and 101.5 feet above the vacant Flagler Lot below. The Aquatics Center would be located on the first floor with entrances provided from the automated parking structure as well as the interior open space constructed during Phase 1. The CHF would be located on the second floor above a portion of the Aquatics Center. This portion of the building would rise to a height of approximately 53 feet, approximately 83 feet above the vacant Flagler Lot below. Together the building – including the automated parking structure, Aquatics Center, and CHF – would occupy a total footprint of approximately 47,100 sf. As with the Example B site plan scenario, access to the parking structure would be via the main signalized entrance off of North Prospect Avenue as well as the secondary entrance from the southern driveway off of North Prospect Avenue.

This example site plan scenario would include the development of a circular-shaped, 3-story Wellness Pavilion, rising to a height of 68 feet, located centrally within the campus. The total footprint of the Wellness Pavilion would be approximately 12,380 sf. Entries to the Wellness Pavilion would be provided from the interior open space constructed during Phase 1.

Table 2-4. Trade-offs with Example Site Plan Scenarios

Design Considerations	Example A	Example B	Example C	Trade-offs Associated with Example Site Plans
Building Space Program	✓	✓	✓	Each of the example site plan scenarios provides health and wellness amenities including the Wellness Pavilion, Aquatics Center, and CHF. The Example A site plan scenario would allow the open space related to the Aquatics Center and CHF to be distinct and separately programmable from the main open space.
Phase and Schedule Duration	✓	✓		Each of the example site plan scenarios requires the demolition of the existing parking structure located at 512 North Prospect Avenue. The Example C site plan scenario would require delaying the proposed Phase 2 construction activities until after 2030, to allow the existing lease of the Beach Cities Advanced Imaging Building to expire prior to demolition.
Building Footprint and Site Coverage	✓	✓	✓	The Example C site plan scenario has the largest building footprint as a result of separating the Wellness Pavilion from the Aquatics Center and the CHF; however, the Example C site plan scenario also reduces the overall site coverage by demolishing the Beach Cities Advanced Imaging Building.
Open Space	✓	✓	✓	The Example C site plan scenario consolidates the building footprints mostly to the southeast, thereby expanding the campus open space as compared to Example A and B site plan scenarios.
Community Connectivity, Site Zones, and Views			✓	Each example site plan scenario provides views from the open space to the east; however, the Example C site plan scenario provides the best public visibility to the campus open space.
Site Circulation	✓	✓	✓	Each of the example site plan scenarios provide similar access including a new one-way driveway and pick-up/drop-off zone that exits onto Flagler Lane as well as a new service area and loading dock entry/existing along Flagler Lane.
Parking		✓	✓	The Example A site plan scenario has the tallest parking structure, which is relatively inefficient due to its shape. Example B and C site plan scenarios use a smaller, more efficient automated parking structure.
Building Height and Complexity			✓	The Example A site plan scenario consolidates the Wellness Pavilion, Aquatics Center, and CHF into one building. However, Example C site plan scenario has lower building heights than the Example A and B site plan scenarios.
Development Volume			✓	The Example C site plan scenario has a lower development volume than the Example A and B site plan scenario and a more compact southeast site zone with more campus open space.
Architectural Character			✓	The Example C site plan scenario separates the Wellness Pavilion from the Aquatics Center and CHF. This example site plan scenario allows each building to more appropriately designed for the site and the required programming

Table 2-4. Trade-offs with Example Site Plan Scenarios (Continued)

Design Considerations	Example A	Example B	Example C	Trade-offs Associated with Example Site Plans
Sustainability and Wellness	✓	✓	✓	Each development site plan scenario is similar in offering sustainable design features. The Example C site plan scenario offers the best opportunity for natural ventilation and daylight.
Cost				The Example B and C site plan scenarios include the cost of an automated parking structure. Additionally, the Example C site plan scenario includes the cost of a new medical office building.

2.5.2.4 Construction Activities

Given that a preliminary site development plan has not been finalized for Phase 2, the development program under Phase 2 has been evaluated programmatically. As previously described, the EIR analyzes potential construction-related impacts (e.g., ground disturbance) using conservative assumptions related to maximum building footprints and maximum building heights from each of the example site plan scenarios described above:

- Conservative disturbance footprint of 215,000 sf (4.94 acres);
- Demolition of Parking Structure (512 North Prospect Avenue);
- Demolition of Beach Cities Advanced Imaging Building (510 North Prospect Avenue);
- Development of 138,450 sf in total building area; and
- Development of a parking structure including 292,500 sf with up to 2 subterranean levels and up to 8.5 above ground levels providing 736 parking spaces (including accessible parking spaces and EV charging stations).

The ultimate site development plan developed for Phase 2 would fit within this maximum building envelope. These construction activities associated with Phase 2 of the BCHD Healthy Living Campus Master Plan would occur over a period of 28 months.

As described for Phase 1, the development application for Phase 2 submitted to the City of Redondo Beach would include a comprehensive Construction Management Plan, to be submitted for review and approval by the Redondo Beach and Torrance Building & Safety Divisions prior to the issuance of demolition, grading, or building permits. Approvals from the City of Torrance may also be required for new improvements required within the City of Torrance right-of-way (e.g., utility infrastructure improvements as well as the proposed curb cut, grading and the construction of retaining walls for the service area and loading dock entry/exit). BCHD would work within standard construction hours consistent with RBMC Section 4-24.503 and TMC Section 6-46.3.1.

2.0 PROJECT DESCRIPTION

All construction activities would be staged within secured construction areas within or adjacent to the Project site. Construction trucks would access the site from one of the existing driveways along North Prospect Avenue. Haul trucks would exit the I-405 freeway on 190th Street or Hawthorne Avenue to 190th Street and reach the site using Del Amo Street to North Prospect Avenue. Residential streets would be avoided to the maximum extent feasible. Construction entry to the Project site would be provided along North Prospect Avenue where construction flaggers would be stationed to direct construction traffic and maintain public safety. Additionally, emergency services vehicle access points would be maintained at North Prospect Avenue and Beryl Street. Fire lanes would be maintained at all times during construction work. The RBPD and RBFD would also have access to the Project site 24 hours per day via fence-mounted lockboxes to open gates securing the Project site.

Demolition, Excavation, and Grading

Demolition activities under Phase 2 would begin with the demolition of the existing parking structure located at 512 North Prospect Avenue and demolition of the Beach Cities Advanced Imaging Building. The demolition of the existing parking structure would occur over a 1-month period involving the export of 7,000 cy of demolition debris. The demolition of the Beach Cities Advanced Imaging Building would occur over a 3-month period and would involve the export of 8,550 cy of demolition debris. Demolition debris would be exported off-site in 972 heavy truck trips. Excavation and utilities work would occur over a 1-month period and would involve the export of 11,000 cy of soil in 688 heavy truck trips. Demolition, excavation, and grading activities for Phase 2 development would require use of similar types of equipment as described for Phase 1. Excavation and hauling of earth would comply with SCAQMD rules for the control of hauling impacts, including dust and diesel emissions.

Construction

Phase 2 of construction would include up to 138,450 sf in total building area and an above-ground parking structure of up to 292,500. The building(s) and parking structure would be constructed using similar materials as described for Phase 1. However, the building(s) would likely be framed using structural steel and metal deck, unlike the RCFE Building, which would be framed with wood and/or concrete.

- Construction of the new medical office building would occur over a 6-month period and would involve 2,050 cy of concrete delivered to the Project site in 257 concrete truck trips as well as 400 tons of steel delivered in 20 truck trips.

- Construction of the Wellness Pavilion would occur over a 6-month period and would involve 1,523 cy delivered to the Project site in 184 concrete truck trips and 300 tons of steel delivered in 15 truck trips.
- Construction of the Aquatics Center and CHF would occur over a 7-month period and would involve 2,290 cy of concrete delivered to the Project site in 280 concrete truck trips as well as 350 tons of steel delivered in 18 truck trips.
- Construction of the parking structure would occur over a 12-month period and would involve 11,000 cy of concrete delivered to the Project site in 1,375 concrete truck trips.

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3.0 ENVIRONMENTAL IMPACT ANALYSIS AND MITIGATION MEASURES

3.0.1 Introduction

This section of the Environmental Impact Report (EIR) describes the potentially significant environmental impacts of the proposed Beach Cities Health District (BCHD) Healthy Living Campus Master Plan (Project). The EIR addresses potential environmental impacts that could result from both construction and operation of the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program (refer to Section 2.0, *Project Description*). The discussion of each environmental topic area analyzed within the EIR (refer to Section 1.7, *Scope of the EIR*) is subdivided into the following subsections: *Environmental Setting*, *Regulatory Framework*, *Impact Assessment and Methodology*, and *Project Impacts and Mitigation Measures*, and *Cumulative Impacts*.

Impact Assessment Guidelines and Impact Classification

The California Environmental Quality Act (CEQA) requires an EIR analysis to “*identify and focus on the significant environmental effects of a proposed project*” (CEQA Guidelines 15126.2[a] and Public Resources Code Section 21000[a]). CEQA Guidelines Section 15382 defines “*significant effect on the environment*” as “*a substantial, or potentially substantial, adverse change in any of the physical conditions within the topic area affected by the project. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.*” Accordingly, the EIR analyzes the potential “*physical*” adverse effects of a project. CEQA Guidelines Section 15360 defines “*environment*” as the physical conditions that exist within the area that would be affected by a project including, but not limited to, land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. The environment includes both natural and human-made conditions.

For each environmental topic area, the thresholds for determining the significance of potential impacts are identified based on Appendix G of the CEQA Guidelines, along with descriptions of methodologies used for conducting the impact analysis. For some environmental topic areas, such as air quality, greenhouse gas (GHG) emissions, noise, and transportation, the analyses of impacts are quantitative in nature and involve the comparison of potential impacts against numerical thresholds. For other environmental topic areas, such as land use and planning, the analyses of impacts are inherently more qualitative, involving the consideration of a variety of factors, such as adopted policies and regulations.

Impacts associated with the proposed Project have been classified as direct or indirect and short-term or long-term. Direct effects are caused by the implementation of the proposed Project and occur at the same time and within the same regional as the proposed Project. Indirect effects are also reasonably foreseeable outcomes of the proposed Project, but occur farther from the Project site or later in time. Short-term impacts occur during or for a short time after implementation of a project, such as during or immediately after construction. For example, noise impacts from construction activities would be considered a short-term effect. By contrast, long-term effects occur for an extended period after implementation of a project. Operational noise during facility operations would be a long-term impact, because it would last for as long as the facility is in operation.

For the purposes of compliance with CEQA, a determination has been made regarding the significance of each adverse impact identified for the proposed Project. Thresholds of significance, the basis for which is set forth in CEQA Guidelines Section 15064.7, are identified for each environmental topic area in the *Impact Assessment and Methodology* section. These thresholds enable BCHD, as the Lead Agency, to determine the significance of each impact. In addition, the determination of an impact's significance may be derived from standards set by relevant Federal, State, and local agencies; knowledge of the effects of similar past projects; professional judgment; and plans and policies adopted by governmental agencies. If a potentially significant impact is identified, feasible mitigation measure(s) are required to avoid or minimize the impact to the extent feasible.

The EIR impact discussions classify impact significance levels as:

- **Significant and Unavoidable** – a significant impact to the environment that remains significant even after mitigation measures are applied;
- **Less Than Significant with Mitigation** – a significant impact to the environment that can be avoided or reduced to a less than significant level with mitigation;
- **Less Than Significant** – a potential impact that would not meet or exceed the identified thresholds of significance for the environmental topic area; and
- **No Impact/Beneficial Impact** – no impact would occur for the environmental topic area or a beneficial effect would result.

Determinations of significance levels in the EIR are made based on the thresholds of significance and the applicable provisions of CEQA and the CEQA Guidelines for each environmental topic area.

Mitigation Measures and Monitoring

Pursuant to CEQA Guidelines Section 15126.4, where potentially significant adverse environmental impacts have been identified in the EIR, feasible mitigation measures that would avoid or minimize the severity of those impacts must also be identified and implemented.

CEQA Guidelines Section 15370 define mitigation as:

- (a) Avoiding the impact altogether by not taking a certain action or parts of an action;
- (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- (e) Compensating for the impact by replacing or providing substitute resources or environments.

“Feasible” is defined as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” A Lead Agency must adopt mitigation measures unless findings can be made that mitigation would be infeasible or within the jurisdiction of another agency (*City of Marina v. Board of Trustees of the California State University* [2006] 39 Cal.4th 341). Mitigation measures must be fully enforceable. For public projects, in this case the proposed Healthy Living Campus Master Plan, the mitigation measures will be adopted into the plan and the project design as required by CEQA Guidelines 15126.4(a)(2).

The mitigation measures are identified as part of the analysis of each impact topic in Sections 3.1 through 3.15 of this EIR. CEQA requires that implementation of adopted mitigation measures or any revisions made to the project by the Lead Agency to mitigate or avoid significant environmental effects be monitored for compliance. Accordingly, CEQA Guidelines Section 15097 require that the Lead Agency adopt a Mitigation Monitoring and Reporting Program (MMRP) for adopted mitigation measures and project revisions. The CEQA Guidelines provide that *“...until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the [MMRP].”* An MMRP will be provided in Section 11.0, *Mitigation Monitoring and Reporting Program* following public review of the Draft EIR as part of the Final EIR.

3.0.2 Cumulative Impacts

CEQA Guidelines Section 15130(a) states that an EIR shall “*discuss the cumulative impacts of a project when the project’s incremental effect is cumulatively considerable.*” In this context, “*cumulatively considerable*” means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and/or the effects of probable future projects (as defined by CEQA Guidelines Section 15130). The CEQA Guidelines define cumulative impacts as “*two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts.*” CEQA Guidelines Section 15355 further state that the individual effects can be a result of various changes related to a single project or the collective change involved in a number of other closely related past, present, and reasonably foreseeable future projects. However, as described in CEQA Guidelines Section 15064(h)(4) it should be noted that “[t]he mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project’s incremental effects are cumulatively considerable.”

Therefore, the cumulative impact analyses in an EIR focuses on whether the impacts of a project are cumulatively considerable within the context of impacts caused by other past, present, or future projects. The determination of whether an impact is cumulatively considerable takes into consideration the severity and likelihood of the impact as well as the magnitude of the project’s contribution to the cumulative impact. In some circumstances, even a minor project effect can make a substantial contribution to a cumulative impact, meaning that as a cumulative impact becomes more acute, even a small individual contribution to that impact can be considered cumulatively considerable. Cumulative impact discussions for each environmental topic area are provided in each of the respective EIR sections.

The CEQA Guidelines allow for the use of two different methods to determine the scope of projects for the cumulative impact analysis:

- **List Method** – A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency (CEQA Guidelines Section 15130).
- **Planning Document Method** – A summary of projections contained in an adopted General Plan or related planning document, or in a prior environmental document, which has been adopted or certified, and which described or evaluated regional or area-wide conditions contributing to the cumulative impact (CEQA Guidelines Section 15130).

This EIR examines cumulative effects using the List Method. Tables 3.0-1, 3.0-2, 3.0-3, and 3.0-4 include lists of pending, approved, and recently completed projects within cities of Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach within 3 miles of the Project site. These projects, due to their proximity, are considered for their potential to result in construction and/or operational impacts that could overlap with the direct and indirect impacts associated with the proposed Project. The tables below do not include projects that are limited to the adjustment of property lines (e.g., lot line, adjustments, subdivisions, etc.) or other evaluations or assessment-type projects that do not include construction activities or physical alterations to existing facilities. These types of projects would not contribute to cumulative impacts to the surrounding environment as evaluated in this EIR. The approximate locations of projects that are in the immediate vicinity of the proposed Project are shown in Figure 3.0-1.

Cumulative impacts evaluated in this EIR would likely represent a “worst-case” scenario for the following reasons:

- Not all of the related projects described in Tables 3.0-1, 3.0-2, 3.0-3, and 3.0-4 will be approved and built. It is also possible that related projects will not be constructed or opened until after the proposed Project has been built;
- Related projects would likely be, or have been, subject to unspecified mitigation measures, which would reduce potential environmental impacts.

Regional issues regarding the supply of water and treatment of wastewater also take into account regional projections, such as those provided by the Southern California Association of Governments (SCAG) in the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The cumulative analyses for air quality, GHG emissions, geology and soils, hydrology and water quality, and energy also account for cumulative development throughout the full extent of the Redondo Beach, Torrance, other neighboring cities, and beyond.

Redondo Beach

A list of all pending, approved, and recently completed projects in Redondo Beach within 3 miles of the Project site is included in Table 3.0-1. Current projects in Redondo Beach are defined as projects that are in an active planning stage, under construction, or recently completed. The cumulative list provided in Table 3.0-1 is based on the current and planned projects listed on the Redondo Beach Public Works Department website and the Redondo’s Beach 5-Year Capital Improvement Program (CIP).

Table 3.0-1. Planned, Pending, Approved and Recently Completed Public Works Projects in Redondo Beach

Map Key	Project Name	Project Type	Address	Description	Status
<i>Public Works Projects</i>					
1	2016-2017 Sewer Rehabilitation Project	Infrastructure	Multiple locations in the City of Redondo Beach	Upgrades involving rehabilitation and replacement of the City's underground sanitary sewer conveyance system.	Completed
2	2017 Pier Parking Structure	Infrastructure	100 W Torrance Blvd	6,000-sf of concrete repairs to the south pier parking structure	Completed
3	Public Facilities and Storage Lot Improvements	Infrastructure	1513 Beryl St / 546 N Gertruda Ave	Remove and replace asphalt concrete and installation of permeable pavement material	Completed
4	Palos Verdes Southbound Right-Turn Lane	Infrastructure	Palos Verdes Blvd and S PCH	Construct a new right-turn lane	Completed
5	Residential Street Rehabilitation Phase 12	Infrastructure	Downtown Redondo Beach	Final phase of a 17-year cycle to rehabilitate City residential streets over an approximately 1,800-sf area	Completed
6	Aviation Blvd Northbound Right-Turn Lane	Infrastructure	Aviation Blvd and Artesia Blvd	Construct a new right-turn lane	Pending
<i>5-Year CIP Projects</i>					
7	Inglewood Ave Resurfacing	Infrastructure	Inglewood Ave between 190th St and Grant Ave	Resurface asphalt roadway	Completed
8	Rindge Sewer Pump Station Construction	Infrastructure	Rindge Ln at Ripley Ave	Replace pumping station	Completed
9	Flagler Lane Resurfacing	Infrastructure	Flagler Ln between Beryl St and 190th St / Anita St	Resurface asphalt roadway	Completed
10	Pier Parking Structure Repairs and Railing Rehabilitation	Infrastructure	123 International Boardwalk	Repair parking structure	Completed

Table 3.0-1. Planned, Pending, Approved and Recently Completed Public Works Projects in Redondo Beach (Continued)

Map Key	Project Name	Project Type	Address	Description	Status
11	PCH Northbound Right-Turn Lane at Torrance Blvd	Infrastructure	Northbound Lane S PCH at Eastbound Ln Torrance Blvd	Removal of sidewalk on PCH. And construction of a right-turn lane from PCH northbound to Torrance Blvd eastbound. Reconstruct catch basins, bus pad, sidewalk, curb and gutter, and traffic signal improvements	Completed
12	PCH Pavement Rehabilitation	Infrastructure	All of PCH within Redondo Beach	Resurface asphalt roadway	Completed
13	Beryl St Drainage & Street Improvements	Infrastructure	Beryl St (N Prospect Ave to Flagler Ln)	Construct street and drainage improvements. The design of the project would incorporate Living Street Design principles.	Construction scheduled for FY 2020-2021
14	Anita / Herondo and PCH West Bound Right-Turn Lane	Infrastructure	Anita / Herondo St and PCH	Extend the west bound dual left-turn lane from the existing 175 feet to 310 feet and extend the west bound right turn lane to approximately 510 feet	Construction scheduled for FY 2020-2021
15	Dominguez Park Dog Park Improvements	Public Facilities	200 Flagler Ln	Repair and replace site amenities including benches, fencing, and landscaping	Proposed for FY 2020-2021
16	Dominguez Park Play Equipment, Landscape & Walkways	Public Facilities	200 Flagler Ln	Replace deteriorated play equipment and rubber surfacing and upgrade adjacent landscape and walkways	Proposed for FY 2020-2021
17	Rindge Lane Resurfacing	Infrastructure	Rindge Ln (190th St to Artesia Blvd)	Resurface and rehabilitate Rindge Lane and repair and replace ramps, curbs and gutters as necessary	Construction scheduled for FY 2023-2024
18	Police Department Shooting Range Upgrade	Infrastructure	19160 N Beryl St	Install a modular shooting range at the site of the current police shooting range	Design phase to occur in Fall 2020
19	Alta Vista Sewer Pump Station	Infrastructure	Alta Vista Park	Replace two deficient and damaged pump houses with one pump station	Construction scheduled for FY 2020-2021
20	Morgan Sewer Pump Station	Infrastructure	Morgan Ln between Goodman Ave and Reynolds Ln	Replace a deficient pump station	Design phase to occur in FY 2020-2021

Table 3.0-1. Planned, Pending, Approved and Recently Completed Public Works Projects in Redondo Beach (Continued)

Map Key	Project Name	Project Type	Address	Description	Status
21	Portofino Way Sewer Pump Station	Infrastructure	Portofino Way	Replace a deficient pump station	Construction schedules for FY 2020-2021
22	Yacht Club Way Sewer Pump Station	Infrastructure	Yacht Club Way near Yacht Club Way and Hopkins Way intersection	Replace deficient pump station	Construction scheduled for FY 2020-2021
23	Manhattan Beach Blvd Resurfacing – Aviation Blvd to Inglewood Ave	Infrastructure	Manhattan Beach Blvd from Aviation Blvd to Inglewood Ave	This project will resurface Manhattan Beach Blvd from Aviation Blvd to Inglewood Ave	Construction scheduled for spring 2021
24	North Redondo Beach Bikeway Extension – Felton Ln to Inglewood Ave	Infrastructure	North Redondo Beach Bikeway from Felton Ln to Inglewood Ave	Extend North Redondo Beach Bikeway from Felton Ln to Inglewood Ave and continue the implementation of the City's Bicycle Transportation Plan	Construction planned for 2021
25	North Redondo Beach Bikeway Extension – Inglewood Ave Design	Infrastructure	North Redondo Beach Bikeway from Inglewood Ave to Ripley Ave	Extend North Redondo Beach Bikeway from the end of its planned extension southward along Inglewood Ave to Ripley Ave	Design phase to occur in FY 2020-2021
26	Torrance Blvd Resurfacing	Infrastructure	Torrance Blvd from PCH to Prospect Ave	Resurface Torrance Blvd	Construction scheduled for FY 2020-2021
27	Basin 3 Seawall Improvements	Infrastructure	Basin 3	Provide critical repairs to areas of the Basin 3 seawall	Construction planned for FY 2022-2023
28	Basin 3 Slip Replacement	Infrastructure	Basin 3	Replace slips of Basin 3 to preserve functionality	Construction planned for FY 2022-2023
29	Harbor Dredging	Infrastructure	King Harbor	Dredge King Harbor to sustain navigation functionality	Dredging to occur in 2022
30	Harbor Railing Replacement	Infrastructure	King Harbor	Replace approximately 2 miles of railing around the harbor	Installation to occur in FY 2020-2021
31	Pier Deck & Piling Structure Repairs	Infrastructure	Redondo Beach Pier	Repair pier decking and pilings	N/A
32	Pier Parking Structure Critical Repairs & Railing Rehabilitation	Infrastructure	Redondo Beach Pier	Structural repairs to pier railing and pier parking structure	Construction to occur in Fall 2021

Table 3.0-1. Planned, Pending, Approved and Recently Completed Public Works Projects in Redondo Beach (Continued)

Map Key	Project Name	Project Type	Address	Description	Status
33	Pier Restroom Improvements	Public Facilities	Basin 3	Remodel existing men's and women's restroom	Construction to occur in FY 2020-2021
34	Relocation of Boat Launch	Infrastructure	Seaside Lagoon	Installation of a recreational boat launch facility within King Harbor	Construction to occur in FY 2021-2022
35	Sea Level Rise Improvements	Infrastructure	King Harbor	Increase height of existing concrete seawalls and breakwaters, and make other facility improvements	Construction to occur in FY 2022-2023
36	Sport Fishing Pier Demolition and Reconstruction	Infrastructure	Sport fishing pier located between Basin 2 and 3	Demolition and reconstruction of the sport fishing pier structure	Construction to occur in FY 2022-2023
37	Aviation Park Play Equipment	Public Facilities	Aviation Park	Replace deteriorated picnic area amenities, play equipment, and rubber surfacing	Construction to occur in FY 2022-2023
38	General Eaton B Parkette Improvements	Public Facilities	General B Parkette Improvements	Replace landscaping and play equipment at General Eaton B Parkette	Design phase to occur in FY 2021-2022
39	Massena Parkette Playground Equipment	Public Facilities	Massena Parkette	Replace play equipment	Construction to occur in FY 2022-2023
40	Play Surface Replacement at Anderson Park & Perry Park	Public Facilities	Anderson Park and Perry Park	Replace rubber surfacing	Construction to occur in FY 2020-2021
41	City Hall and Police Department Window and Storefront Improvements	Public Service	415 Diamond St	Replace windows and other amenities at Redondo Beach City Hall	Construction to occur in FY 2023-2024
42	Redondo Beach Performing Arts Center Replacement of Electronic Message Board	Public Facilities	1935 Manhattan Beach Blvd	Replacement of the electronic components of the message board sign	Estimated to occur in Winter 2021
43	Broadcast Facility/City Council Chamber Upgrades	Public Facilities	415 Diamond St	Upgrade City Council Chambers facility and equipment to enhance television broadcasting opportunities	Construction to occur in FY 2020-2021

Table 3.0-1. Planned, Pending, Approved and Recently Completed Public Works Projects in Redondo Beach (Continued)

Map Key	Project Name	Project Type	Address	Description	Status
44	Transit Fleet Operations Center	Public Facilities	1953 Kingsdale Ave	Maintenance and Facility upgrades to the transit fleet operations center	Construction to occur in Spring 2021
<i>Planning Projects</i>					
45	-	Residential	2008 Farrell Ave	Addition and remodel of Condominium development	Approved
46	-	Residential	1908 Bataan Rd	2-unit residential condominium development	Approved
47	-	Residential	2117 Voorhees Ave	2-unit residential condominium development	Approved
48	-	Residential	2216 Gates Ave	2-unit residential condominium development	Approved
49	-	Residential	2003 Gates Ave	2-unit residential condominium development	Approved
50	-	Residential	2306 Aviation Blvd	3-unit residential condominium development	Approved
51	-	Commercial	221 Ave I	Operation of 2,000-sf restaurant	Approved
52	-	Commercial	2761 190th St	Installation of a monument sign for a church	Approved
53	-	Commercial	601-607 North PCH	Expansion of an existing restaurant over 2,000-sf in size	Approved
54	-	Commercial	1806 Artesia Blvd	Interior reconfiguration of existing music school	Approved
55	-	Commercial	800 South PCH	Expansion of an existing restaurant into an adjacent tenant space	Approved
56	-	Residential	2101 Rockefeller Ln	2-unit residential condominium development	Approved
57	-	Residential	2002 Ruhland Ave	2-unit residential condominium development	Approved
58	-	Commercial	2321 Hawthorne Blvd	Construction of new commercial building to operate as a coffee shop with drive-up service	Approved
59	-	Residential	217 South Prospect Ave	5-unit residential condominium development	Approved
60	-	Residential	2608 Huntington Ln	2-unit residential condominium development	Approved

Table 3.0-1. Planned, Pending, Approved and Recently Completed Public Works Projects in Redondo Beach (Continued)

Map Key	Project Name	Project Type	Address	Description	Status
61	-	Residential	190th St and Fisk Ln	36-unit residential condominium over 2.37 acres	Approved
62	-	Residential	1010 Emerald St	Construction of a new single-family dwelling with an existing single-car detached garage and nonconforming driveway and reduce side yard setbacks on property	Approved
63	-	Residential	2520 Curtis Ave	2-unit residential condominium development	Approved
64	-	Residential	2736 Spreckels Ln	Addition to an existing single-family residence connecting to the detached garage on the property	Approved
65	-	Residential	2314 Huntington Ln	2-unit residential condominium development	Approved
66	-	Residential	1705 Belmont Ln	2-unit residential condominium development	Pending
67	-	Residential	519 N Irena Ave	2-unit residential condominium development	Pending
68		Residential	2216 Bataan Rd	2-unit residential condominium development	Pending
69		Residential	1710 Clark Ln	2-unit residential condominium development	Pending
70		Residential	2623 Voorhees Ave	2-unit residential condominium development	Pending
71		Commercial	1900 South PCH #103	Operation of a tutoring center within an existing commercial building	Pending
72		Residential	2317 Vanderbilt Ln	3-unit residential condominium development	Pending
73		Residential	2217 Dufour Ave	2-unit residential condominium development	Pending
74		Residential	2304 Harriman Ln	2-unit residential condominium development	Pending

Note: Project locations depicted in Figure 3.0-1 are highlighted in blue within Table 3.0-1 and are located near the Project site.
Source: City of Redondo Beach 2020a, 2020b, 2020c, 2020d

The 5-Year CIP is a multi-year planning and budget document that describes proposed infrastructure and facility improvements which frequently take several years to fund, design, and build. This City-wide cumulative list is primarily utilized for assessment of construction-related cumulative impacts (e.g., noise and construction-related traffic and access) and for more regional issues that extend beyond the immediate vicinity such as air quality and GHG emissions. Projects listed in the 5-Year CIP include both site-specific projects and projects that would be implemented City-wide or across multiple locations within the City. The 5-Year CIP is divided into a proposed Fiscal Year (FY) 2020-2021 CIP and a funding plan for FY 2024-2025. The FY 2020-2021 CIP places emphasis on the City-wide rehabilitation of existing street, sewer, park, and public facility infrastructure. Most of the City's capital funding is allocated to various City-wide street improvement projects. The sewer projects recommended for funding include City-wide continuation of the Sanitary Sewer Facilities Rehabilitation Project. Funded drainage projects include ongoing municipal stormwater quality permit obligations, such as meeting the contractual requirements of the recently adopted Enhanced Watershed Management Program, implementation of the City-wide Drainage Improvement Project, Green Street Improvements, Santa Monica Bay Near/Offshore Debris Total Maximum Daily Load projects. Additionally, funding for the reconstruction of antiquated storm drainpipes is proposed in FY 2020-2021. City-wide street improvements included in the 5-Year CIP include implementation of the Redondo Beach Bicycle Transportation Plan, curb ramp improvements, slurry seal program, sidewalk, curb, and gutter maintenance, residential street rehabilitation, sidewalk improvements and repairs, traffic calming improvements, and upgrades to the traffic signal communications and network system. City-wide Public Facility Projects include additional grant funding for transit fleet improvements, lighting replacements along park walkways, an assessment of City-wide parkette retaining wall integrity, an assessment of Community Services Department Relocation, and senior center heating, ventilation, and air conditioning (HVAC) improvements. While capital improvement projects would not result in long-term development, depending on their timing, these projects could contribute to temporary, construction related air emissions, noise, and traffic that could affect the surrounding communities. Additionally, depending on timing, these projects may also affect access to the Project site (e.g., road re-surfacing resulting in temporary closure or detours).

Torrance

A list of all pending, approved, and recently completed projects in Redondo Beach within 3 miles of the Project site is included in Table 3.0-2. In addition to site-specific CIP projects, the City of Torrance has also included funding for CIP projects that would be implemented City-wide such as annual residential and arterial pavement improvements, sidewalk improvements and repairs, traffic signal upgrades installation of new Low Impact Development (LID) amenities, installation of catch basin filters within basins in the Dominguez Channel, installation of new street lights and an underground serviced street lighting system, miscellaneous water main replacements, miscellaneous sewer main improvements, upgrades to the Torrance Supervisory Control and Data Acquisition, update to the Torrance Sewer System Master Plan, and expansions to the Torrance stormwater basin system. While capital improvement projects would not result in long-term development, depending on their timing, these projects could contribute to temporary, construction related air emissions, noise, and traffic that could affect the surrounding communities. Additionally, depending on timing, these projects may also affect access to the Project site (e.g., road re-surfacing resulting in temporary closure or detours).

Hermosa Beach

A list of all pending, approved, and recently completed projects in Hermosa Beach within 3 miles of the Project site is included in Table 3.0-3. In addition to site-specific CIP projects, the City of Hermosa Beach has also included funding for CIP projects that would be implemented City-wide or at multiple locations within the City. City-wide CIP projects include annual street improvements, street improvements at various locations, annual striping improvements, storm drain improvements, sewer improvements, and accessibility improvements. The CIP also includes programmatic and assessment projects. Such assessment projects include the Hermosa Avenue Greenwich Village street realignment assessment, a City-wide sea level rise risk assessment, a City-wide park master plan, a greenbelt accessible path assessment, a library community project assessment, and a community theater needs assessment, and a parking structure structural assessment. Assessment, evaluation, or programmatic based CIP projects were not included in Table 3.0-3. Due to the nature of these assessments, no construction activities or other physical alterations to existing conditions would occur and therefore potential impacts associated with these projects would not contribute to cumulative impacts.

Table 3.0-2. Planned, Pending, Approved, and Recently Completed Projects in Torrance

Map Key	Project Name	Project Type	Address	Description	Status
Major Projects					
75	-	Housing, commercial, and infrastructure	Carson St and Del Amo Circle Dr	Mixed use development of a senior housing village, an executive stay hotel, and parking structure	Completed
76	-	Residential	6160 PCH	New 5-unit, 2-story, multiple family residential building with lower level parking	Completed
77	-	Commercial	23332 Hawthorne Blvd	36,000-sf commercial building and division of a lot	Completed
78	-	Day care	21321 Hawthorne Blvd	Construction of a new daycare facility in conjunction with at previously approved precision plan	Completed
79	-	Residential Community	20411 Earl St	Zone change in conjunction with construction of a 25-multiple family residential community	Approved
80	-	Senior Living Apartments, commercial and parking structure	Northeast corner of Carson St and Del Amo Circle Dr	Mixed-use development composed of a senior housing village, an executive stay hotel, and a parking structure	Approved
81	-	Medical Office	20528 Hawthorne Blvd	Redevelop a property as 3-story medical office	Approved
82	-	Commercial	20020 Hawthorne Blvd	Construct a new drive-through restaurant within existing shopping center	Approved
83	-	Commercial	23000 Hawthorne Blvd	Demolition of an existing retail store and construction of a 3,600-sf drive through restaurant	Approved
84	-	Industrial	West side of Prairie Ave approximately 520 feet south of 190th St	Develop a 430,000-sf industrial/warehouse complex	Approved
Capital Improvement Projects					
85	Miscellaneous Water Main Improvements	Infrastructure	Artesia Blvd between the railroad and Prairie Ave	Replace water lines	Under Construction

Table 3.0-2. Planned, Pending, Approved, and Recently Completed Projects in Torrance (Continued)

Map Key	Project Name	Project Type	Address	Description	Status
86	North Torrance Well Field Project, Phase III	Infrastructure	McMaster Park	Construction for new water infrastructure	Under Construction
87	Torrance Transit Park and Ride Regional Terminal	Infrastructure	465 Crenshaw Blvd	Construct a new transit terminal over a 5-acre parcel	Under Construction
88	PCH at Hawthorne Blvd Intersection Improvement Project	Infrastructure	Hawthorne Blvd and PCH	Provide three through lanes, dual left turn lanes, and dedicated right-turn lanes in all four directions	Pending
89	Sepulveda Blvd Rehabilitation	Infrastructure	Sepulveda Blvd from Hawthorne Blvd to Western Ave	Pavement rehabilitation	Pending
90	Yukon Ave Pump Station	Infrastructure	Yukon Ave where it crosses I-405	Replace pump station	Pending
91	182nd St / Crenshaw Blvd Operation Improvements	Infrastructure	I-405 at Crenshaw Blvd and 182nd St	Improve I-405 mainline and off ramps	Under Design
92	Anza Ave Rehabilitation	Infrastructure	Anza Ave between Sepulveda Blvd and Del Amo Blvd	Construct roadway improvements including pavement, curb, gutter, and sidewalk improvements	Under Design
93	Del Amo 5 Relief Sewer	Infrastructure	Hawthorne Blvd between Sepulveda Blvd and Carson St	Upsize existing sewer main	Under Design
94	Del Amo Storm Drain Channel	Infrastructure	South side of Del Amo Blvd and 600 feet east of Van Ness Ave	Construct reinforced concrete box storm drain system	Under Design
95	Prairie Ave Bridge Rehabilitation	Infrastructure	Prairie Ave and railroad	Rehabilitate existing bridge	Under Design

Note: Project locations depicted in Figure 3.0-1 are highlighted in blue within Table 3.0-2 and are located near the Project site.
Sources: City of Torrance 2020a, 2020b.

Table 3.0-3. Planned, Pending, Approved, and Recently Completed Projects in Hermosa Beach

Map Key	Project Name	Project Type	Address	Description	Status
96	Transpacific Submarine Fiber Optic Cable Systems 2016-2017	Communications Infrastructure	25th St and Neptune Ave	Submarine cables connecting communications between the U.S. and Southeast Asia	Completed
97	Skechers Design Center and Offices	Office Buildings	2851, 2901, 3001, and 3125 PCH; 305, 309, and 317 S Sepulveda Blvd; 1050 Duncan Ave; 330 S Sepulveda Blvd	120,000-sf design center and executive offices	Under Construction
98	Hope Chapel / Lazy Acres Supermarket	Mixed-Use	2420 PCH	30,000-sf natural and organic food supermarket	Completed
99	70 Tenth St Motel Development	Commercial	70 10th St	Development of a 4,500-sf, six-unit commercial motel	Approved
100	RTI Transpacific Fiber-Optic Cables	Communications Infrastructure	6th St (Option A) or 10th St (Option B) between Hermosa Ave and Manhattan Ave	Install a cable landing site to connect with an existing power feed equipment facility	On Hold
102	Strand and Pier Hotel	Restaurant, retail, and hotel	11, 19, and 21-25 Pier Ave; 1250, 1272, & 1284 The Strand; and 20, 30, & 32 13th St	Construction of a 155,000-sf mixed-use hotel building	On Hold
103	Fire Station 100 Construction	Public Service	540 Pier Ave	Remodel and renovate existing fire station	Completed
104	Parking Lot D (CIP 682)	Parking lot	Manhattan Ave and 14th St	Redevelop a public parking lot	Pending
105	Clark Building Renovations	Public Facilities	861 Valley Dr	Renovate the existing Clark Building	Under Design
106	City Yard Project (CIP 615)	Public Facilities	555 6th St	Construction of a new City Yard	Pending
107	Parking Lot A (CIP 695)	Infrastructure	1101 Hermosa Ave	Improve existing parking lot and upgrade to meet ADA standards	Under Design

Table 3.0-3. Planned, Pending, Approved, and Recently Completed Projects in Hermosa Beach (Continued)

Map Key	Project Name	Project Type	Address	Description	Status
08	Downtown Hermosa Beach Temporary Lane Configuration	Public Facilities	Hermosa Ave between 8th St and 14th St and Pier Ave between Hermosa Ave and Valley Dr	Temporary closure of driving lanes to facilitate more outdoor dining and retail areas, addition of Class 2 bike lanes and ADA-accessible parking spots, to provide outdoor dining or shopping space during the COVID-19 pandemic	Approved
109	Hermosa Ave Sewer Lining project	Infrastructure	Intersection of 6th St and Hermosa Ave	Sewer improvements	Project Closeout
110	Hermosa Ave “Green Street” Project (CIP 164)	Infrastructure	Hermosa Ave between Herondo St and 4th St (possible extension to 6th St)	Implement Low Impact Development (LID) and green infrastructure on Hermosa Ave from 4th St to Herondo Ave, which will include a variety of green street design element	Under Design
111	10th St and Ardmore Repaving Project	Infrastructure	Intersection of 10th St and Ardmore	Repavement of roadway	N/A
112	Concrete Bus Pad Landings	Infrastructure	Hermosa Ave	N/A	N/A
113	Crosswalk restriping and Install Flashing Beacons	Infrastructure	Hermosa Ave (at 4th, 6th, 19th, 24th, and 25th St intersections) and at Herondo St and Monterey Blvd and the crossing in front of Clark Building on Valley Dr	Implement rectangular rapid flashing beacons and other measures at several uncontrolled pedestrian crossings	Under Design
114	Pacific Coast Highway Traffic	Infrastructure	Aviation Blvd / 10th St and PCH; Pier Ave / 14th St and PCH	Sidewalk repairs, ADA compliant curb ramps,	Underway

Table 3.0-3. Planned, Pending, Approved, and Recently Completed Projects in Hermosa Beach (Continued)

Map Key	Project Name	Project Type	Address	Description	Status
	Improvements (CIP 112-160)			additional crosswalk striping, and traffic signal modification	
115	Traffic Safety Demonstration Project	Infrastructure	Prospect Ave	Evaluation of existing traffic safety concerns along Prospect Ave and test and evaluate traffic calming and bicycle enhancements proposed the City's Bicycle Master Plan and the Safe Routes to School Program	Under Development
116	Strand Bikeway and Walkway Improvements at 35th St (CIP 188)	Infrastructure	The Strand at 35th St	Improve bikepaths and walkway at the Strand at 35th St	Under Design
117	Prospect Ave Curb Ramps (CIP 601 and 698)	Infrastructure	Prospect Ave	improvements and relocation of sidewalks, curb ramps and obstructions along Prospect Ave in order to comply with the ADA	Under Design
118	Municipal Pier Structural Assessment and Repairs (CIP 660 629)	Infrastructure	Hermosa Beach pier	Electrical repairs and repairs of the municipal pier structural elements including the piles, pile caps, deck and the lifeguard storage room	Pending
119	Emergency Operation Center Renovations (CIP 684)	Public Facilities	N/A	Improvements to the City's Emergency Operation Center	Under Design
120	Street Beach Restroom	Public Facilities	14th St	Construct a new beach restroom	Under Design

Table 3.0-3. Planned, Pending, Approved, and Recently Completed Projects in Hermosa Beach (Continued)

Map Key	Project Name	Project Type	Address	Description	Status
	Construction (CIP 692)			facility along 14th St	
121	Police Station Improvements (CIP 696)	Public Facilities	540 Pier Ave	Improve security measures, restrooms, report writing room, evidence and property room at existing police station	Pending
122	City Parks Restrooms and Renovations (CIP 669)	Public Facilities	1102 6th St; 1870 Prospect Ave; 425 Valley Dr; 861 Valley Dr	Construct new and improve existing park bathrooms	Pending
123	Council Chambers Audiovisual Improvements (CIP 672)	Public Facilities	Council Chambers	Replace audio visual equipment in the Council Chambers	Pending

Note: Project locations depicted in Figure 3.0-1 are highlighted in blue within Table 3.0-4 and are located near the Project site. The Skechers Design Center and Offices Project is located across three sites, the latter two of which are located in the City of Manhattan Beach.

Sources: City of Hermosa Beach 2020a, 2020b, 2020c, 2020d, 2020e, 2020f.

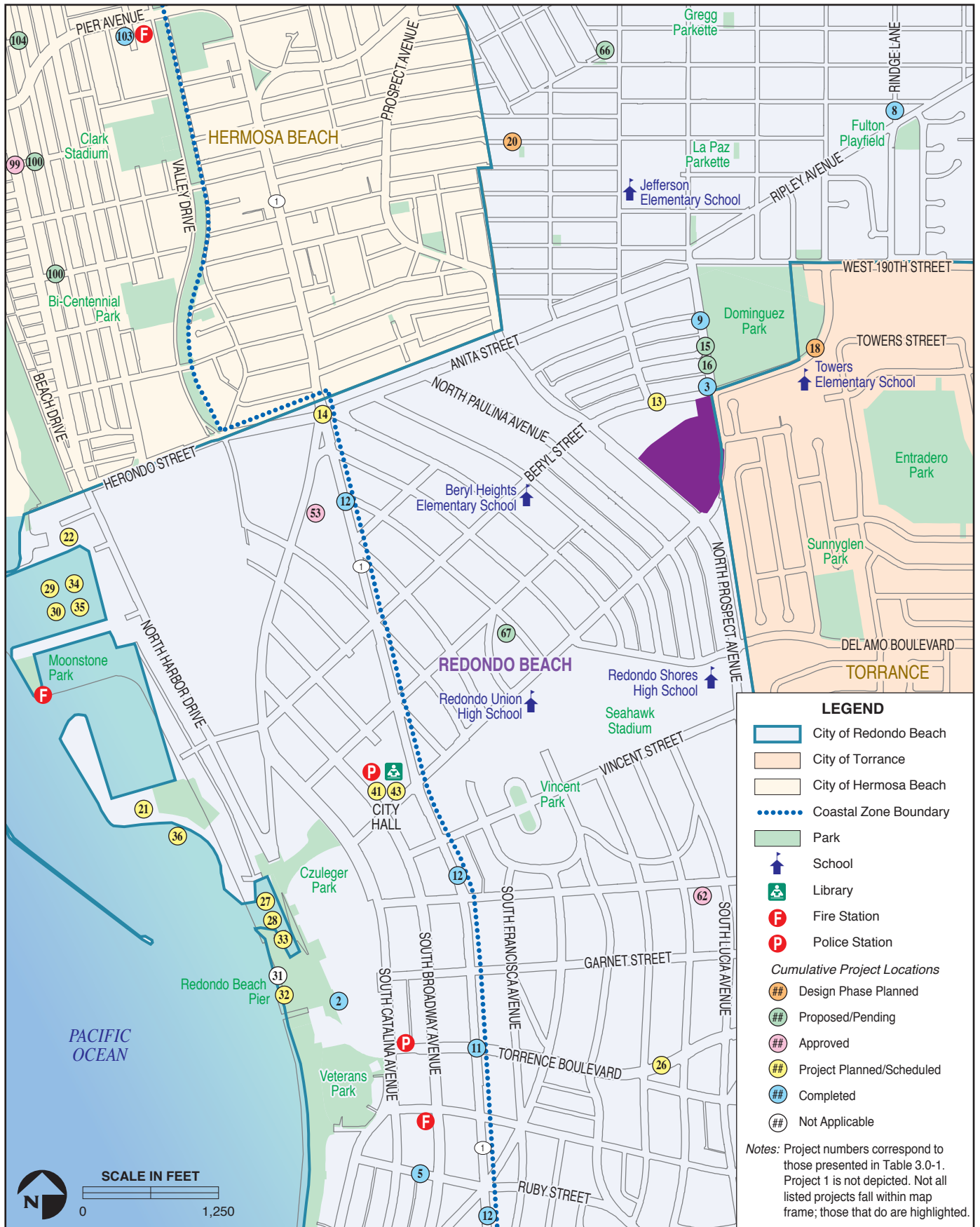
Manhattan Beach

A list of pending, approved, recently constructed, and projects in Manhattan Beach within 3 miles of the Project site is included in Table 3.0-4. In addition to these projects the City have has adopted a number of ordinances (e.g., Ordinance No. 19-0007, amending the Manhattan Beach Municipal Code to strengthen the ban of short-term rentals, without exception). However, no construction would occur directly as a result of these ordinances and therefore potential impacts would not contribute to cumulative impacts associated with the proposed Project.

Table 3.0-4. Planned, Pending, Approved, and Recently Completed Projects in Manhattan Beach

Map Key	Project Name	Project Type	Address	Description	Status
Archived Projects					
124	Gelson's Market	Mixed-Use Commercial Building	707 and 801 N Sepulveda Blvd	Redevelopment of a vacant automotive dealership/repair facility at 707 N Sepulveda Blvd into a food and beverage market with a secondary commercial building	Completed
Discretionary Projects Under Review					
125	-	Residential	116 16 th St	2,140-sf residence on 2,700-sf lot	Approved
CEQA Notices					
126	-	Restaurant	1142 and 1144 Manhattan Ave	Use Permit Amendment to expand the floor space of the existing Manhattan Beach Post into the adjacent space	Approved
127	-	Commercial Building	1100 N Sepulveda Blvd	Master Use Permit to construct a new 4,920-sf commercial building with a personal improvement service and a restaurant	Approved
128	-	Commercial Building	1120 N Sepulveda Blvd	Master Use Permit to construct a new 4,650-sf commercial building with a credit union and a restaurant	Approved
129	-	Mixed-Use Hotel and Residential	325 12 th Place	Use permit for a mixed-use development consisting of a one-room hotel facilities on the first floor while maintaining the second floor as a residential use	Approved

Note: Project locations depicted in Figure 3.0-1 are highlighted in blue within Table 3.0-4 and are located near the Project site.
Source: City of Manhattan Beach 2020.



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3.1 AESTHETICS AND VISUAL RESOURCES

This section of the Environmental Impact Report (EIR) discusses the potential environmental effects of the proposed Beach Cities Health District (BCHD) Healthy Living Campus Master Plan (Project) on aesthetics and visual resources as defined by the California Environmental Quality Act (CEQA), but with consideration of the regulations, policies, and design guidelines of the City of Redondo Beach and City of Torrance. This analysis includes an assessment of photosimulations independently prepared for the EIR by VIZf/x, architects and visual simulation specialists, for the Phase 1 preliminary site development plan as well as representative views provided by Paul Murdoch Architects for the more general Phase 2 development program. These photosimulations and representative views were reviewed in the context of the development standards under the Redondo Beach and Torrance General Plans and municipal codes. Additionally, based on the comments received during the 30-day public scoping period, this discussion also includes an analysis of potential impacts related to shading of adjacent shadow-sensitive uses. A shade and shadow study was prepared to determine the extent and duration of shading given the height of the proposed buildings in the context of the surrounding topography and low-rise development (see Appendix M). Under CEQA, aesthetic impacts are qualitative in nature, and generally occur where physical change would conflict with adopted development standards and would substantially degrade the visual character or quality of public views of the site and its surroundings.

3.1.1 Environmental Setting

Definitions of Visual Resources

Most communities identify scenic resources as important assets through designation of scenic vistas or significant visual resources in the General Plan; however, specific valued scenic resources vary by community or the particular urban or rural context. For example, in an urban setting, scenic resources can be unique or architecturally recognized buildings as well as important features that contribute to community character and identity, such as street trees, plazas, parks, open space, and public art.

The natural environment plays an important role in defining the visual setting, even for an urban community. In such cases, regionally recognized natural features may contribute to an urban community's aesthetic character and visual quality, including but not limited to:

- Mountain peaks or ridgelines;
- Oceans or other water bodies;
- Beaches and dunes;

- Bluffs or cliff faces;
- Large expanses of open sky open or green spaces of scenic value; and
- Unique geologic features or formations.

In an urban context, view corridors often extend along city streets and may include foreground views of street trees, architecturally notable structures, and the urban streetscape backed by more distant views of the ocean or mountains.

Visual Resources within the Vicinity of the Project Site

Redondo Beach has a wide range of visual resources including views of the Pacific Ocean and wide sandy beaches along the coast, views of the Palos Verdes hills to the south, views of the San Gabriel Mountains to the east, and panoramic views of the South Bay and inland region from highpoints within the City. The Redondo Beach General Plan Parks and Recreation Element calls for the preservation and enhancement of unique and valuable community resources including significant scenic and visual resources (see Policy 8.2a.8 in Table 3.1-2), but does not identify any



Hopkins Regional Park, which is located approximately 2 miles south of the BCHD campus, is a 11-acre park that includes natural vegetation, streams, campground, and day use facilities. The park provides scenic panoramic views of the Palos Verdes hills to the south.

specific scenic vistas or scenic view corridors within the City. However, areas with scenic qualities (e.g., distant scenic views of the ocean or mountains) in Redondo Beach include King Harbor, the Redondo Beach Pier, Hopkins Wilderness Park, and other high points of the City that provide wide-ranging panoramic views.

The rolling topography of Torrance creates many scenic vistas throughout the City. The distant San Gabriel Mountains are visible from the hillsides along the City's western and southern boundaries. Additionally, the hillsides of the Riviera neighborhood provide expansive views of the Pacific Ocean. The Torrance General Plan Community Resource Element has designated scenic view corridors along Torrance Boulevard between Madrona Avenue and Western Avenue, along Engracia Avenue and Marcelina Avenue, and further south within the Palos Verdes hills.

The Project site is located approximately 1 mile east of the Pacific Ocean, along the border of Redondo Beach to the west and Torrance to the east. The rolling topography and the low-rise development immediately adjacent to the Project site block distant views of the ocean from this

location; however, distant views of the Palos Verdes hills are available from some portions of the site to the south. The Project site is bounded by North Prospect Avenue to the southwest, Diamond Street to the southeast, Flagler Lane and Flagler Alley to the east, and Beryl Street and existing commercial development to the north. The close-up views of urban and suburban development provided along these roadways are described in detail below:

North Prospect Avenue

North Prospect Avenue is a north-south street with four vehicle lanes separated by a raised center median. The sidewalk along the eastern side of the street is approximately 8 feet wide and is interrupted by wooden utility poles and overhead utilities as well as streetlights. There is a small frontage road along the west side of the street providing access to the 1- to 2-story single-family homes between Diamond Street to the south and Beryl Street to the north. This frontage road is separated from North Prospect Avenue by a large 6- to 8-foot-tall hedge, which obscures views of the BCHD campus. A similar frontage road is located on the eastern side of the street, between Diamond Street and Del Amo to the south. The residences along North Prospect Avenue include a variety of architectural styles (e.g., American craftsmen, ranch-style, modern, and colonial), but are generally less than 2 stories tall. The only exception in the immediate vicinity of the campus is the four-story multi-family residence on the corner of North Prospect Avenue and Beryl Street and the BCHD campus itself. Views from North Prospect Avenue generally include a rolling topography with low-rise development, landscaped trees and shrubbery, and open sky.



Immediately across from the BCHD campus, single family residential homes are set back from North Prospect Avenue along a small frontage road separated by a 6- to 8-foot-tall hedge.



Beryl Street is most narrow along its border with the Dominguez Park. This portion of Beryl Street provides two vehicle lanes, Class II (i.e., striped) bicycle lanes, and sidewalks interspersed with mature trees.

Beryl Street

Beryl Street is a four-lane road that runs north-south from its northern terminus at 190th Street and then east-west along the eastern and southern borders of Dominguez Park before turning northeast-southwest at North Prospect Avenue until its southern terminus at North Harbor Drive. Beryl Street runs in an east-west direction adjacent to the Redondo Village Shopping Center and the vacant Flagler Lot. Beryl Street provides two eastbound lanes, one westbound lane, and a center turn lane for vehicles entering and exiting the Redondo Village Shopping Center. East of Flagler Lane, Beryl Street provides two vehicle lanes and narrower, approximately 6-foot-wide pedestrian sidewalks along both sides of the street from Flagler Lane to 190th Street. On the north side of the road along the southern boundary of Dominguez Park, Beryl Street supports bronze loquat trees (*Eriobotrya deflexa*). Utility lines also border the north side of the street. West of Flagler Lane, there are no bicycle lanes along either side of Beryl Street. Various street trees line both sides of the roadway, including bronze loquat trees, Indian laurel fig trees (*Ficus macrocarpa*), and Saint Mary magnolias (*Magnolia grandiflora*). Beryl Street supports a variety of single-family and multi-family residential, commercial (e.g., Redondo Village Shopping Center, Redondo Shores Shopping Center), and public institutional uses (e.g., Dominguez Park, Towers Elementary School). Beryl Street provides views of the developed hilly landscape and open sky. Views of the marina are present where Beryl Street becomes Portofino Way at its intersection with Harbor Drive; however, the marina is not visible within the immediate vicinity of the Project site.

Flagler Lane

To the northeast, the Project site is bounded by Flagler Lane, a two-lane road that widens from 26 feet to approximately 62 feet along the western border of Dominguez Park between Anita Street and Beryl Street to provide a center left-turn lane and on-street parking. Flagler Lane includes approximately 8-foot-wide pedestrian sidewalks. It supports mostly low-density multi-family residential uses with few public institutional uses (e.g., Dominguez Park, Jefferson Elementary School) and a commercial plant nursery at the southeast corner of Flagler Lane and 190th Street. These buildings vary in scale, ranging from 1 to 4 stories. Adjacent to the north of the Project site,

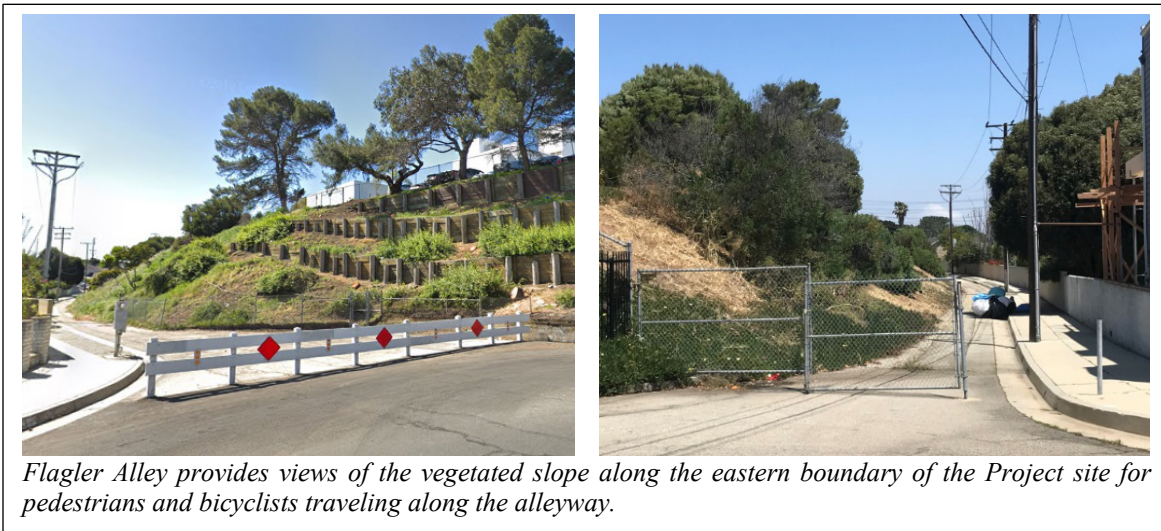


Flagler Lane follows the hilly topography in the area. The intersection of 190th Street & Flagler Lane provides distant wide-ranging panoramic views of the BCHD campus against the backdrop of the Palos Verdes hills.

Flagler Lane supports medium-density multi-family residential buildings to the west and Dominguez Park to the east. Within Dominguez Park are two historic structures: the Morrell House listed in the National Register of Historic Places (NRHP), and the Queen Anne House locally designated by the City of Redondo Beach (see Section 3.4, *Cultural Resources and Tribal Cultural Resources*). Large electrical towers and power lines run east-west across Flagler Lane, immediately south of 190th Street. Other views along Flagler Lane include developed rolling hills and the open sky above.

Flagler Alley

Flagler Alley is an approximately 15-foot-wide and 500-foot-long public alleyway that provides two-way northbound-southbound connectivity between Flagler Alley to the north and Diamond Street to the south. Flagler Alley is closed off to vehicular travel by an existing wooden post roadblock at the southern terminus of Flagler Lane and a chain-link fence at the northern terminus of Diamond Street. No formal pedestrian or bicycle facilities exist along Flagler Alley; however, this alleyway is generally used by pedestrians and bicyclists traveling to and from Dominguez Park and Towers Elementary School. Views are channelized along the alleyway. A steep slope supported by low-lying vegetation, trees, and wooden supporting walls creates a barrier between the alley and the eastern perimeter of the campus. A concrete wall separates the alley from the backyards of the single-family residences to the east in Torrance. Wooden utility poles and electrical lines extend along the pedestrian sidewalk on the eastern side of the alley. Views of the open sky are generally limited due to the steep slope and hillside vegetation. No lighting is provided along the alleyway.



Diamond Street

To the southeast, the Project site is bounded by Diamond Street, a three-lane roadway with one lane in each direction and a center left-turn lane. Diamond Street includes approximately 5-foot-wide pedestrian sidewalks lined with mature eucalyptus (*Eucalyptus* spp.) and palm trees. Diamond Street supports single-family residential, low-density multi-family residential, and several schools, including the Redondo Beach Learning Academy, Redondo Union High School, and Redondo Beach High School. Due to the rolling topography and large street trees, intermittent views of the open sky and Pacific Ocean are visible from Diamond Street.



The Pacific Ocean is partially visible from segments of Diamond Street (west of North Prospect Avenue), which varies in elevation.

In summary, the visual character in the vicinity of the Project site is dominated by single-family and multi-family residential buildings, scattered with schools, parks, neighborhood-serving commercial uses (e.g., restaurants, grocery stores, etc.), and surface parking lots. Taller buildings near the Project include 4-story multi-family residential buildings between Beryl Street and Agate Street. These structures generally extend up to 52 feet in height. Additionally, street trees along Beryl Street and Flagler Lane/Flagler Alley and the developed hilly topography add to the visual character of the vicinity and can partially obstruct views of the Project site from the residential units in these surrounding neighborhoods.



The pedestrian environment in the Project vicinity is characterized by relatively narrow (i.e., 5 to 8 feet wide) pedestrian sidewalks that are interrupted by wooden utility poles, pedestrian crosswalks at intersection, and the pedestrian- and bicycle-only Flagler Alley immediately east of the Project site.

Sidewalks on North Prospect Avenue, Beryl Street, Flagler Lane, Flagler Alley, and Diamond Street bordering the Project site range between 5 to 8 feet wide and generally provide adequate unobstructed passage for pedestrians. Beryl Street supports intermittent street trees, including bronze loquat trees, Indian laurel fig trees, and Saint Mary magnolias, up to 20 feet tall. Large mature trees line Flagler Lane and Flagler Alley along the Project site frontage, with average heights of approximately 20 to 25 feet. In the vicinity of the proposed Project, parallel parking is allowed on both sides of Beryl Street and the east side of Flagler Lane and Diamond Street. These on-street parking spaces create buffers between vehicular traffic and pedestrians using sidewalks on these streets, contributing to a comfortable pedestrian environment.

Project Site

The Project site has approximately 765 feet of frontage along North Prospect Avenue, 150 feet of frontage along Beryl Street, 450 feet of frontage along Flagler Lane, 500 feet of frontage along Flagler Alley, and 230 feet of frontage along Diamond Street. The Project site is currently occupied by 1- to 5-story buildings and surface parking lots. Existing development includes the Beach Cities Health Center and an attached maintenance building located at 514 North Prospect Avenue, two medical office buildings located at 510 and 520 North Prospect Avenue, and a parking structure with 3 above ground levels located at 512 North Prospect Avenue (refer to Figure 2-3). The Beach Cities Health Center and two medical offices face North Prospect Avenue, and are accessed from three driveways – a central driveway and two secondary driveways along North Prospect Avenue. A subterranean parking structure is also located below the western portion of the campus with an entrance near the central driveway off of North Prospect Avenue. The buildings on the Project site are similar in terms of architectural design, colors, style, and landscaping, with the exception of the above ground parking structure. For example, the external façades of the Beach Cities Health Center and medical office buildings are finished in white paint with black/blue-tinted windows that form horizontal stripes across the building façades. The North Prospect Avenue frontage is lined with landscaped grass, short shrubs, and hedges interspersed with mature trees.

The Providence Little Company of Mary Medical Institute Building (520 North Prospect Avenue) is the northernmost building on campus, which is set back approximately 120 feet from the pedestrian sidewalk along North Prospect Avenue. The structure is an improved 3-story medical office building with a white façade and tinted black windows. A sign across the front of the building reads “Providence Little Company of Mary Medical Institute” in large blue letters. Above the first floor of the building, a blue “*Pharmacy*” sign and red “*Urgent Care*” sign are located on either side of the main entrance, which faces North Prospect Avenue. The building has

3.1 AESTHETICS AND VISUAL RESOURCES

approximately 200 feet of frontage along North Prospect Avenue and is landscaped with trees along the north and west sides of the building facing the interior of the campus.

The Beach Cities Health Center (514 North Prospect Avenue) is set back approximately 130 feet from the pedestrian sidewalk on North Prospect Avenue near the central driveway. The 5-story structure and associated maintenance building are both finished with white paint. Tinted black/blue windows create horizontal stripes across the building façade. The south tower of the building includes balconies that face North Prospect Avenue to the west. Palm trees of varying heights border this portion of the building. The fourth and uppermost floor of the south tower includes a trellis and outdoor patio that also faces North Prospect Avenue to the west. Atop the south tower, a metal parapet structure (i.e., elevator shaft) reaches up to a height of 76 feet above the existing campus ground level. The main entrance to the Beach Cities Health Center is covered by a tinted glass arched walkway. Large signs that read “Beach Cities Health Center” and “Silverado” run across the western façade of the building. Manicured grass and mature trees intermittently border the remainder of the building.

The Beach Cities Advanced Imaging Building (510 North Prospect Avenue), located adjacent and immediately south of the Beach Cities Health Center, is the nearest campus building to North Prospect Avenue with a setback of approximately 25 feet from the pedestrian sidewalk. The Beach Cities Advanced Imaging Building is a V-shaped building with an interior paved courtyard. Similar to the Providence Little Company of Mary Medical Institute Building and Beach Cities Health Center, the 3-story building is also painted white with black/blue-tinted windows that extend horizontally across the building façade. The portion of the building that faces the interior of the campus (i.e., not visible from North Prospect Avenue) is entirely covered with black tinted windows. Manicured grass and mature trees border western, southern, and eastern sides of the building fronting North Prospect Avenue.



The white façade with tinted black windows of the Beach Cities Health Center and other medical use buildings on the BCHD campus are distinctive feature unique to the BCHD campus.

The above ground parking structure (512 North Prospect) is attached to the north side of the Beach Cities Advanced Imaging Building and is located immediately east of the Beach Cities Health Center south tower and south of the north tower. The parking structure has three above ground levels and, which are supported by vertical columns of tan concrete bricks and blue horizontal metal railings. The sides of the structure provide screening for vehicle headlights, but are otherwise open to the outside.



The above ground parking structure is the only building on the BCHD campus that is not finished in white paint.

As described in further detail below, the existing topography of the campus as well as the height, style, and color of the existing buildings on the campus, make it visually distinct from the surrounding low-rise suburban development. The former South Bay Hospital was originally constructed in 1958 and as such, this visual distinction has been present for over 60 years throughout the development of residential uses over the years.

Existing Public Views of the Project Site

Public views of the Project site are generally confined to those available from immediately adjacent streets, sidewalks, and Dominguez Park. Views from streets even one block away are obscured by intervening structures. For example, views from Sunnyglen Park are completely blocked by intervening 1- to 2-story single family residences and neighborhood serving commercial development. Views of the existing buildings and surface parking lots on-site from North Prospect Avenue, Beryl Street, Dominguez Park, Flagler Lane, and Diamond Street are generally uninterrupted and only sometimes partially obscured by street trees, other landscaping, utility infrastructure (e.g., wooden poles and electrical lines), and traveling cars.

Views of the Project site from public areas include Dominguez Park, North Prospect Avenue, Beryl Street, Flagler Lane, Flagler Alley, Diamond Street, and the residential neighborhood to the east of the site in Torrance (e.g., Towers Street, Tomlee Avenue, etc.) (see Figure 3.1-1). The 765 feet of frontage along North Prospect Avenue offers the most complete and extensive views of the Project site between the north driveway looking south and Diamond Street looking north. The Beryl Street and Flagler Lane frontages also provide views across the Project site by motorists, bicyclists, and pedestrians. The Project site is partially visible from two historic buildings (i.e., the Morrell House and the Queen Anne House) at Dominguez Park, along Flagler Lane. The Hibbard House at 328 North Gertruda Avenue and a house at 820 Beryl Street are historic architectural



The Project site is visible from several points along Flagler Lane including from its intersection with 190th Street (left) and from Dominguez Park (right) directly northeast of the Project site.

resources located approximately 0.43 miles and 0.23 miles from the Project site, respectively (see Section 3.4, *Cultural Resources and Tribal Cultural Resources*); however, the Project site is not visible from these landmarks.

Views of the Project site from identified representative views, which were selected in coordination with the City of Redondo Beach, are further described below. The locations of these representative views are shown in Figure 3.1-1.



wood.

Representative View Locations

**FIGURE
3.1-1**

Representative View 1: Tomlee Avenue (Facing West)

This represents a west-facing view of the Project site from the residential neighborhood within Torrance. This specific viewpoint is located approximately 230 feet to the east of the BCHD campus along Tomlee Avenue. Several of the 1- and 2-story single family homes along Tomlee Avenue abut an approximately 8- to 10-foot-tall concrete wall that forms Flagler Alley to the west. Views of the Project site from the public realm in this location are limited due to the intervening single-family homes and associated landscaping in the foreground and the eastern slope of the BCHD campus. The upper levels and rooftop projections of the North Tower and South Tower of the Beach Cities Health Center are visible from this location. Open sky is visible above the rooftop of the single-family residences and Beach Cities Health Center.



Representative View 2: Flagler Lane & Towers Street Intersection (Facing West)

Similar to Representative View 1, this view also represents a west-facing view of the Project site from the intersection of Flagler Lane and Towers Street within the single-family residential neighborhood to the east of the BCHD campus in Torrance. This view was selected because it represents the view of the steep grade, retaining walls, and landscaped vegetation along the eastern border of the Project site, which is visible to motorists, bicycles, and pedestrians exiting the neighborhood onto Flagler Lane and Beryl Street. Given the central location of the Beach Cities Health Center and the two medical offices, none of the existing buildings on the campus are visible from this location. The only visible buildings are residential development along Beryl Street, including the 4-story multi-family residential building located at the intersection of Beryl Street & Flagler Lane along the north (i.e., right) side of the view. Views of the open sky above the steep



Representative View 2: Flagler Lane & Towers Street Intersection (Facing West)

slope are interrupted by tall trees on the hillside and a couple of lamp posts providing security lighting in the adjacent BCHD surface parking lot. At the bottom of the vegetated slope is a chain link fence and a concrete brick retaining wall along the west side of Flagler Lane. A streetlight illuminates the intersection of Flagler Lane & Beryl Street on the east (i.e., right) side of this view. Additionally, the street sign for the Flagler Lane & Towers Street intersection as well as a “No Parking” sign are also visible in the foreground.

Representative View 3: Flagler Lane & Beryl Street Intersection (Facing Southwest)

This represents a southwest-facing view of the Project site as seen by motorists, bicyclists, and pedestrians along Beryl Street at its intersection with Flagler Lane. This location affords a view of the vacant Flagler Lot in the foreground, which is bordered by a black wrought iron fence along the western, northern, and eastern borders of the lot. The northern portion of the lot is covered with gravel and is level with Beryl Street; however, the southern portion of the lot supports grass and weedy vegetation and slopes up by approximately 30 feet to the elevation of the BCHD campus. The southern perimeter of the vacant Flagler Lot, which borders the northern surface parking lot on campus, is lined with bushy trees that block views of the parked cars and lower levels of the Beach Cities Health Center and Providence Little Company of Mary Medical Institute Building. Views of the Beach Cities Health Center are also partially blocked by landscaped trees surrounding the building. However, the upper levels of the Beach Cities Health Center and Providence Little Company of Mary Medical Institute Building are visible in the background from this location. The



Representative View 3: Flagler Lane & Beryl Street Intersection (Facing Southwest)

eastern façade of Redondo Village Shopping Center and associated surface parking lot can be seen along the west (i.e., right) side of this view. Flagler Lane and the vegetated slope along the eastern border of the Project site can be seen along the eastern (i.e., left) side of this view. Views of the Project site, including the BCHD campus and the vacant Flagler Lot, are interrupted by electrical lines, wooden utility poles, the green security lights within the commercial parking lot, and the traffic signal light at the southwest corner of the Flagler Lane & Beryl Street intersection.

Representative View 4: Beryl Street & Harkness Lane Intersection (Facing South)

This view represents a south-facing view of the surface parking lot and commercial uses at the Redondo Village Shopping Center, with the Beach Cities Health Center and Providence Little Company of Mary Medical Institute Building visible in the background due to the higher elevation of the campus. This view is located at the intersection of Beryl Street & Harkness Lane, approximately 290 feet north of the Project site. The roadway and pedestrian crosswalks at the intersection are visible in the foreground. The mid-ground provides views of the commercial uses at the Redondo Village Shopping Center, including a Vons grocery store, and associated surface parking lot, which is full of parked cars as is typical during the daytime and evening hours. Views of the shopping center and parking lot are interrupted by streetlights along the southern sidewalk of Beryl Street. The commercial shopping center is a 1-story structure covered with tan bricks and concrete and an orange tile roof. Large windows and colorful signs make up the front façade of many of the commercial uses within the shopping center. The parking lot is interspersed with green



Representative View 4: Beryl Street & Harkness Lane Intersection (Facing South)

security lights. Street trees up to 25 feet in height are interspersed within the vegetated medians throughout the parking lot.

Representative View 5: North Prospect Avenue and Central Driveway Intersection (Facing Northeast)

This location provides a northeast-facing view of the Project site from North Prospect Avenue at its intersection with the central driveway into the campus. The Beach Cities Health Center, Beach Cities Advanced Imaging Building, and the Providence Little Company of Mary Medical Institute Building are visible across this view. Views of the buildings are partially obstructed by the landscaped trees. Along the foreground of the view, the roadway intersection is visible with one pedestrian crosswalk across North Prospect Avenue. Traffic signal and streetlights are visible at the corners of this intersection along the Project site boundary. Wooden utility poles on the pedestrian sidewalk of North Prospect Avenue support power lines that run above the east side of



Representative View 5: North Prospect Avenue and Central Driveway Intersection (Facing Northeast)

the street. Views of the open sky are limited from this view due to the height of the existing buildings, large trees, streetlights, and overhead powerlines.

Representative View 6: Flagler Lane & 190th Street Intersection (Facing South)

This view represents a south-facing view of the Project site from the intersection of Flagler Lane and 190th Street. Although this view is located approximately 1,155 feet north of the Project site with intervening structures and vegetation, this location affords a distant, relatively unobstructed view of the Beach Cities Health Center and Providence Little Company of Mary Medical Institute Building. This is due in part to the elevation of the viewing location as well as the elevation of the BCHD campus and the height of the existing buildings on the campus. The majority of the distinctive white campus buildings with black/blue tinted windows are visible below the ridgeline of the Palos Verdes hills in the background. The Palos Verdes hills are visible, uninterrupted across nearly the entire field of vision. Additionally, blue sky is visible above the Palos Verdes ridgeline, but is interrupted by several power lines crossing east-west immediately south of the view. Flagler Lane is visible in the foreground with cars parked parallel along the west side of the street and diagonally along the east side of the street. At the southwest corner of the Beryl Street and 190th Street intersection, a commercial plant nursery provides an abundance of green vegetation on the west (i.e., right) side of the foreground. Additionally, one electrical line runs north-south along the west side of Flagler Lane. The eastern (i.e., left) side of the view is framed with a chain-link fence on the east side of Flagler Lane, as well as green trees and other vegetation.



Representative View 6: Flagler Lane & 190th Street Intersection (Facing South)

Light and Glare

Light impacts occur during the evening and nighttime hours and can have adverse effects if they affect views. Glare is largely a daytime phenomenon, occurring when sunlight is reflected off highly polished surfaces or objects (e.g., windows, windshields, etc.), light-colored surfaces, or by vehicle headlights on adjacent roadways. Excessive glare not only restricts visibility but can also increase the ambient heat reflectivity in each area.

The Project site is located in an area with nighttime lighting characteristic of urban and suburban settings, including interior building illumination, streetlights, exterior security lighting, and vehicle lights. Adjacent commercial and residential buildings include both indoor and outdoor illumination of façades, along with indoor illumination of windows, balconies, and exterior lighting fixtures. Indoor lighting is generally confined within the existing buildings and does not spill into the public realm. Outdoor lighting sources include exterior light fixtures, which range from small fixtures from nearby residences to illuminated signs for the Vons and Shell gas station north of the site. Streetlights illuminate the sidewalks along both sides of North Prospect Avenue, the south side of Beryl Street, the east side of Flagler Lane, and the raised center media on Diamond Street.

Sources of nighttime light on the Project site include the security lighting on-site located around the perimeter of the north and west surface parking lots as well as the above ground parking structure at 512 North Prospect Avenue. Direct light from vehicle headlights within the surface parking lots located on the Project site also create light sources at the Project site and surrounding uses. However, due to the Beach Cities Health Center's hours of operation (i.e., 9:00 a.m. to 5:00 p.m.) nighttime lighting from vehicles is limited at the Project site.

Potential sources of glare at the Project site include the windows and façades of light-colored structures on the Project site. For example, the Beach Cities Health Center, Beach Cities Advanced Imaging Building, and Providence Little Company of Mary Medical Institute Building generate glare at certain viewing locations due to reflective glass surfaces on all sides of the buildings.

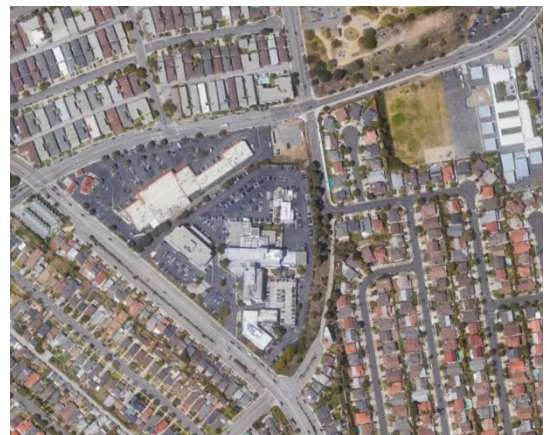
Land uses that are typically sensitive to excess light and glare include residential uses, parks, senior housing, and other types of uses where excessive light and glare may disrupt sleep or other activities. In addition, light and glare may interfere with the vision of drivers. Existing light-sensitive receptors in the area include nearby residences, including single-family residences along North Prospect Avenue, Flagler Lane, Flagler Alley, and Diamond Street, and multi-family residences along Beryl Street. Dominguez Park to the northeast of the Project site could also be considered a sensitive receptor to light and glare generated from the Project site.

Shadow-Sensitive Uses in Project Vicinity

Uses may be considered sensitive to shade and shadow effects if they require or are otherwise dependent on sunlight for regular function, comfort, or commerce. Land uses and operations sensitive to the effects of shading include, but are not necessarily limited to, residential, recreational, and institutional (e.g., schools, nursing homes, etc.), as well as some public outdoor spaces, such as parks, restaurants with outdoor seating areas, plant nurseries, and existing solar collectors. The consequences of shadows on land uses may be positive, including cooling effects during warm weather, or negative, such as shading of exterior patios, the loss of natural light access, solar access energy generation purposes, or the loss of warming influences during cool weather. While some incidental shading on shadow-sensitive uses is commonly acceptable to provide relief from the sun, shading that occurs over extended periods of time can be considered a detriment.



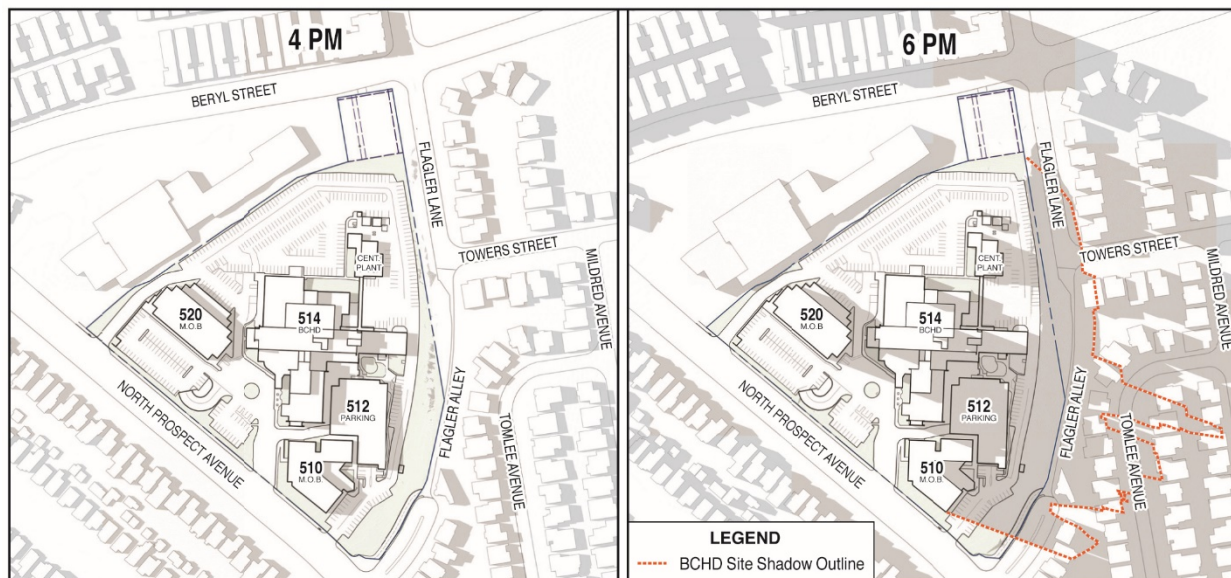
The Beach Cities Advanced Imaging Building is a source of illumination and glare due to the reflectivity of its glassy façade; however, this portion of the building faces the interior of the Project site and is not directly visible from North Prospect Avenue or Diamond Street below.



The Project site is surrounded by shadow-sensitive residential uses, such as the residences immediately east of the Project site and Towers Elementary School within West Torrance.

The proposed Project site is located near several shadow-sensitive uses, including the adjacent single- and multi-family residences along North Prospect Avenue, Beryl Street, Flagler Lane, Tomlee Avenue, and Diamond Street. These residential uses feature windows and balconies allowing natural lighting of indoor living spaces and private individual outdoor living spaces. Dominguez Park located adjacent to and northeast of the Project site, and Towers Elementary School, located approximately 300 feet east of the Project site, are also considered shadow-sensitive uses. The nearest solar collectors to the Project site are the small solar panels atop a few residences in the Redondo Beach neighborhood to the southwest, approximately 475 feet from the Project site. No existing solar collectors are located within the immediate vicinity of the Project site.

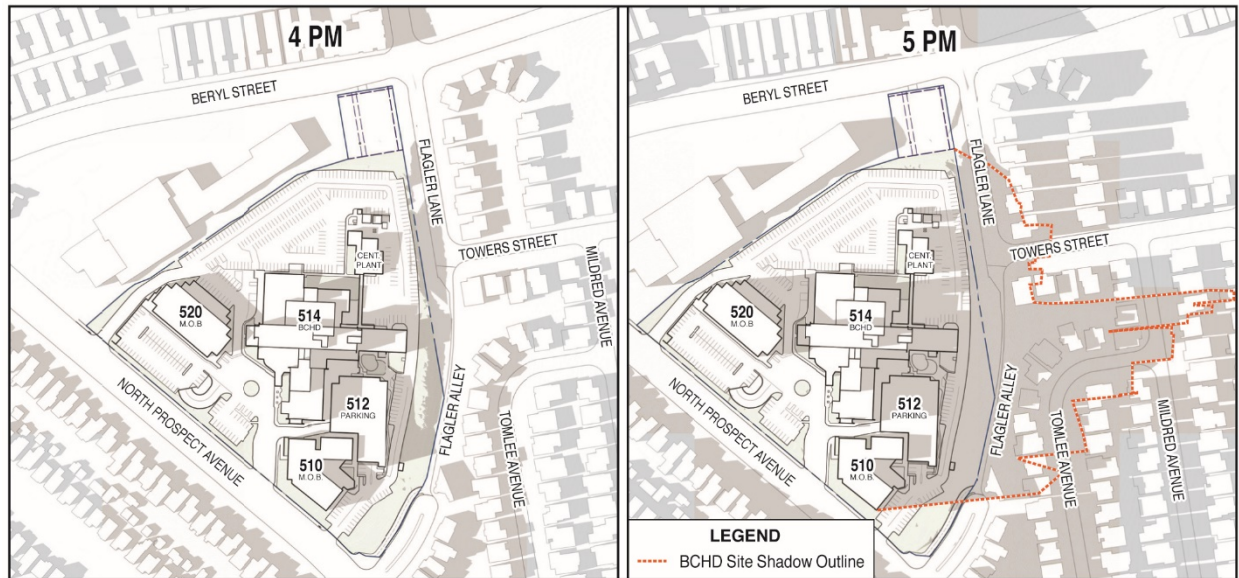
As depicted in the shade and shadow study prepared for the proposed Project (see Appendix M), the 5-story Beach Cities Health Center, which is the tallest building on campus, casts the greatest amount of shade on the shadow-sensitive residences to the east and north of the Project site. This shading primarily occurs in the evenings (i.e., after 6:00 p.m. in the Summer, after 5:00 p.m. in the Fall, and after 4:00 p.m. in the Winter) and generally affects the rows of single-family residences nearest the Project site. The shadows are longest during the Winter during which time the Beach Cities Health Center also casts shade over Towers Elementary; however, this shading occurs at 4:00 p.m. or later, after the students are dismissed from class. Additionally, the sun sets near 5:00 p.m. during the Winter making the total duration of the maximum shading less than 1 hour.



wood.

Existing Summer Solstice

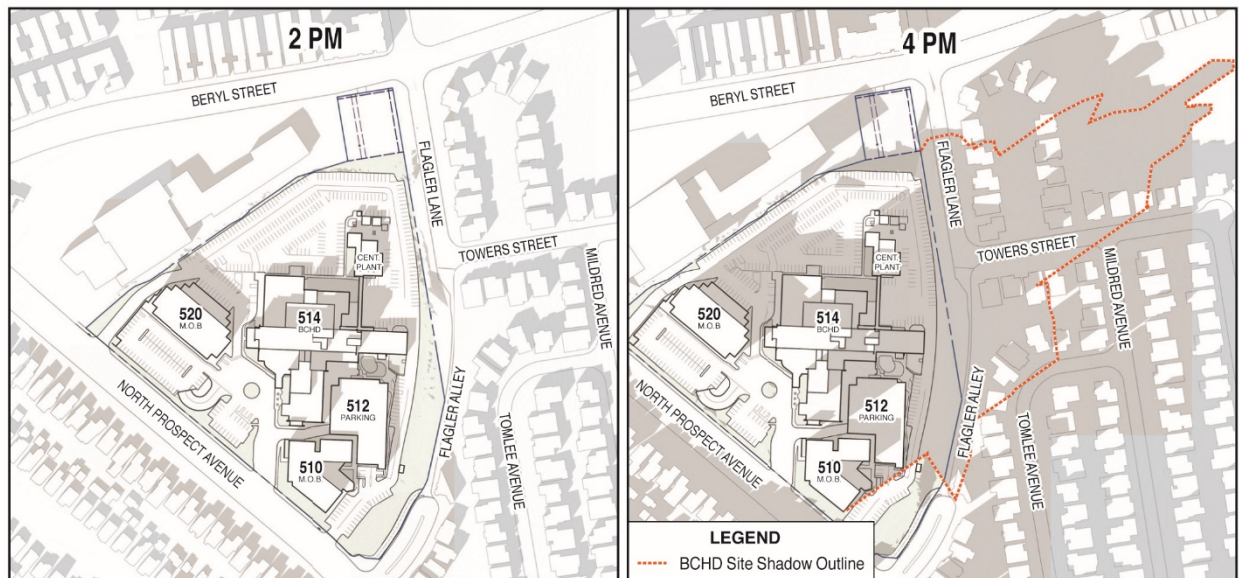
**FIGURE
3.1-2**



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Existing Fall Equinox

**FIGURE
3.1-3**



wood.

Existing Winter Solstice

**FIGURE
3.1-4**

3.1.2 Regulatory Setting

State Policies and Regulations

Caltrans Scenic Highway Program

The California Department of Transportation (Caltrans) defines a scenic highway as any freeway, highway, road, or other public rights-of-way that traverses an area of exceptional scenic quality. Suitability for designation as a State Scenic Highway is based on vividness, intactness, and unity. The Pacific Coast Highway, located approximately 0.5 miles to the west of the Project site, is eligible for State Scenic Highway designation; however, it is not currently designated as scenic by the State (Caltrans 2019).

City of Redondo Beach Local Policies and Regulations

Redondo Beach General Plan Land Use Element

The portion of the Project site within Redondo Beach is designated P (Public or Institutional) land use within the Redondo Beach General Plan (City of Redondo Beach 2008). Because this designation allows a variety of land use types with a variety of characteristics, the Redondo Beach General Plan Land Use Element does not establish specific development standards for Public or Institutional land uses. Rather the Land Use Element defers establishment of specific development standards for the Public/Institutional designation to the Conditional Use Permit (CUP) process in the Redondo Beach Zoning Ordinance (Redondo Beach Municipal Code [RBMC] Section 10-2.100; see *Redondo Beach Zoning Ordinance* below). However, goals and policies within the Land Use Element relate to aesthetics, visual character, and visual quality. The most pertinent goals and policies are provided below, and consistency with these goals and policies is analyzed in Section 3.10, *Land Use and Planning*.

Goal 1N: Ensure a high quality of the City's built environment, architecture, landscape, and public open spaces and sidewalks.

Policy 1.46.4 Establish standards for the City and coordinate with other public agencies to ensure that public buildings and sites are designed to be compatible in scale, mass, character, and architecture with the existing buildings and pertinent design characteristics prescribed by this Plan for the district or neighborhood in which they are located.

- Policy 1.46.5 Require, where the City has jurisdiction, that public sites be designed to incorporate landscaped setbacks, walls, and other appropriate elements to mitigate operational and visual impacts on adjacent land uses.
- Policy 1.53.6 Require that on-site parking structures be designed as an integrated component of the building's architectural design character; including the incorporation of elements which continue and reinforce the architectural design of the primary structure and convey the visual “sense” of an occupied building (use of windows, arcades, overhangs, entries, recessed walkways, spandrels, articulated columns and rooflines, and other elements).
- Policy 1.53.10 Require that all building facades visible from public streets and abutting properties be designed to continue the architectural character established for the street facing elevations.
- Policy 1.53.11 Require that air conditioning and other mechanical equipment located on the rooftop of a structure be visually screened from public viewing areas and adjacent residential properties.

Redondo Beach General Plan Parks and Recreation Element

The Redondo Beach General Plan Parks and Recreation Element sets forth policies and implementation measures to enhance the unique characteristics of the City and its coastline. Such policies support ongoing maintenance and facilitate expansion and improvement of parkland, recreational facilities, and programs.

- Policy 8.2a.8 Preserve and enhance unique and valuable community resources as part of the planning and development of parks and recreation areas. Such resources include significant scenic and visual resources; cultural/historic resources; and natural resources such as water features, wildlife habitats, and native vegetation.

Redondo Beach Zoning Ordinance

The Redondo Beach Zoning and Land Use Code (RBMC Section 10-2.100 through Section 10-2.2520) sets forth specific design guidelines, height limits, building density, building design and landscaping standards, architectural features, sign regulations, and open space and setback requirements. The official districting map for the Zoning and Land Use Code designates the Project

site as being zoned as Community Facility (P-CF). The Redondo Beach Zoning and Land Use Code does not include specific development standards for buildings within the P-CF zoning district. Rather, the ordinance establishes that development standards for the Floor Area Ratio (FAR), building height, number of stories, and building setbacks shall be determined subject to Planning Commission Design Review.

As required by RBMC Section 10-2.2502, Redondo Beach Planning Commission Design Review is required for all new construction, additions, or remodel of an existing building in all zones except Waterfront (W) and Catalina Corridor (CC). As required by the Planning Commission Design Review, projects within the City would be required to meet the City's standards regarding site design and architecture. As stated, the purpose of the Planning Commission Design Review is *"to ensure compatibility, originality, variety, and innovation in the architecture, design, landscaping, and site planning of developments in the community. The provisions of this section will serve to protect property values, prevent the blight and deterioration of neighborhoods, promote sound land use, encourage design excellence, and protect the overall health, safety, and welfare of the City."*

Redondo Beach Municipal Code

RBMC Section 10-2.622 includes maximum height limits along with other development standards for the C-2 zone designation that applies to the vacant Flagler Lot. Development standards in the C-2 zone allow for a baseline maximum building height of 30 feet. Development standards in the C-2 zone also require that the maximum density or intensity of development adheres to a FAR of 0.5.

The RBMC does not specify building heights or FARs for development standards of P-CF zoned parcels, such as the existing BCHD campus. However, any proposed facilities on P-CF zoned parcels are subject to review and approval by the Redondo Beach Planning Commission (RBMC Section 10-2.1116).

Other sections of the RBMC address the views of construction and parking lot light:

Section 9-1.16: Every holder of a building permit or demolition permit shall completely enclose by fencing the construction site which is the subject of the permit prior to the start of demolition or construction, provided, however, the Chief Building Officer or his or her designee may waive this requirement whenever the terrain, size of the lot, location of neighboring lots, scope of construction or demolition or one or more other factors make it infeasible

or unnecessary to completely enclose the construction site by fencing. Any waiver of this provision shall be in writing.

Section 10-5.1530: Mechanical equipment and utilities, with the exception of solar heating panels, shall be architecturally screened from view. Roof-top mechanical equipment and appurtenances to be used in the operation or maintenance of a building shall be installed so as not to be visible from any point at or below the roof level of the subject building. This requirement shall apply in construction of new buildings, and in any alteration of mechanical systems of existing buildings that results in significant changes in such roof-top equipment and appurtenances. The features so regulated shall in all cases be either enclosed by outer building walls or parapets, or grouped and screened in a manner architecturally compatible with the building. Minor features not exceeding one foot in height shall be exempted from this regulation, except that such minor features shall be of a color that minimizes glare and blends in with the building.

Section 10-5.1706(c)(10)(c): For new developments with parking areas with three (3) or more parking spaces “The light source shall not be visible from the street or surrounding residential properties and the lighting shall be reflected away from adjacent residential premises.”

In addition, tree protection and maintenance measures are provided in RBMC Section 10-5.1900, which constitutes Redondo Beach’s Landscaping Regulations:

Section 10-5.1900(b)(2)(g): Turf (grass) area (excluding parkways between the public sidewalk and street) shall not exceed twenty (20%) percent of the total landscape area for nonresidential developments, except that higher percentages may be permitted when turf is an essential part of the development such as for playing fields for schools or parks, or integral to the design of the project as determined through the applicable design review procedures.

Section 10-5.1900(c)(3)(f): Street tree species, size, spacing, and planting standards shall be subject to approval of the Superintendent of Parks. The Superintendent of Parks shall select street trees taking into consideration the following criteria: that the selected tree as proposed to be located will not harm public sidewalks, streets, and infrastructure; that the tree is consistent with water conservation objectives; that the tree requires low maintenance and no

pesticides; that the tree will enhance the visual character and identity of City streets; and that the tree complements appropriate existing street trees. Appropriate street trees include, but are not necessarily limited to, trees included in the City of Redondo Beach List of Recommended Trees and Water Conserving Plants. No existing street tree shall be removed without the approval of the City.

City of Torrance Local Plans and Regulations

Torrance General Plan Land Use Element

The eastern portion of the Project site is located within the City of Torrance right-of-way that extends approximately 26-feet from the edge of the paved Flagler Lane. Many goals and policies within the Torrance General Plan Land Use Element relate to aesthetics, visual character, and visual quality (City of Torrance 2005). The most pertinent goals and policies are provided below. Consistency with these goals and policies is analyzed in Section 3.10, *Land Use and Planning*.

- Policy LU.2.1 Require that new development be visually and functionally compatible with existing residential neighborhoods and industrial and commercial areas.
- Policy LU.2.2 Encourage the transition of incompatible, ineffective, and/or undesirable land uses to land uses that are compatible and consistent with the character of existing neighborhoods.
- Policy LU.3.1 Require new development to be consistent in scale, mass and character with structures in the surrounding area. For distinct neighborhoods and districts, consider developing design guidelines that suit their unique characteristics. Create guidelines that offer a wide spectrum of choices and that respect the right to develop within the context of existing regulations.
- Policy LU.5.1 Require that new residential development be visually and functionally consistent in scale, mass, and character with structures in the surrounding neighborhood. Encourage residential development that enhances the visual character, quality, and uniqueness of the City's neighborhoods and districts.

Torrance General Plan Community Resources Element

The Torrance Community Resources Element combines three elements that were included as separate elements in the previous Torrance General Plan: the Conservation, Open Space, and Parks and Recreation Elements, which have similar threads, such as the provision and conservation of community and natural resources. The Torrance Community Resources Element sets forth goals, objectives and policies that build on current recreation, social services, and resource conservation programs. Policies focus on the preservation and management of open space, providing parks, recreation, and community facilities for all residents, historic preservation, natural resource conservation, preservation of scenic resources, managing energy resources.

Policy CR.1.1 Continue to evaluate the environmental impact of public and private projects on properties that have significant open space value.

Policy CR.2.1 Require the provision of on-site open space in new developments.

Policy CR.3.4 Zone publicly and privately owned outdoor recreational open space in a manner that preserves such properties for open space use.

Policy CR.3.6 Require greater creativity and flexibility in the design of residential developments to encourage the provision of more usable on-site open space.

Objective CR.4: To preserve scenic vistas wherever possible.

Policy CR.4.2 Require that developers and property owners improve their properties by providing landscaping and similar aesthetic treatments along roadways.

Objective CR.19: To create and maintain open space as an aesthetic enhancement within the urban environment.

Policy CR.19.1 Make the preservation of scenic vistas an integral factor in land development decisions.

Objective CR.20: To minimize sources and adverse effects of light pollution.

Policy CR.20.1 Establish regulations for private lighting that minimize or eliminate light pollution, light trespass, and glare (obtrusive light).

Policy CR.20.2 Require that nonresidential uses adjacent or near residential neighborhoods provide shielding or other protections from outdoor lighting and lighted signage.

Torrance Municipal Code

The Torrance Municipal Code (TMC) addresses lighting:

Section 92.30.5: All lighting on the subject property shall be constructed in such a manner that glare shall be directed away from all surrounding residential land uses.

In addition, tree protection and maintenance measures are provided in Section 75.1.1 through 75.2.7, which constitutes Torrance's Tree Ordinance:

Section 75.1.5(a): No person may cut, trim, remove, prune, plant, injure or interfere with any tree upon any street, park, alley or public place of the City without first obtaining a permit from the Public Works Director. The permit will be valid for thirty (30) days.

Section 75.1.11: During the erection, repair, alteration or removal of any building, house or structure in the City, no person in charge of such work shall leave any tree, shrub or plant in any street, park, boulevard, alley or public place of the City in the vicinity of such building or structure without good and sufficient guards or protectors as shall prevent injury to such tree, shrub or plant arising out of or by reason of the erection, repair, alteration or removal.

Torrance Street Tree Master Plan

As described in Section 3.3, *Biological Resources*, the Torrance Street Tree Master Plan, adopted in April 2015, was created to enhance and preserve the City's trees by having a set list of recommended trees that would best fit each area of the City. The Torrance Street Tree Planting Matrix (2015) provides the following tree species recommendations for Beryl Street and Flagler Lane:

Beryl Street:

- Indian Laurel Fig (*Ficus microcarpa*)
- Saint Mary Magnolia (*Magnolia grandiflora*)
- Bronze Loquat (*Eriobotrya deflexa*)
- Toyon (*Heteromeles arbutifolia*)

Flagler Lane:

- Strawberry Tree (*Arbutus unedo*)
- Hong Kong Orchid Tree (*Bauhinia blakeana*)
- Chinese Fringe Tree (*Chionanthus retusus*)

3.1.3 Impact Assessment and Methodology

Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the 2020 CEQA Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on aesthetics if:

- a) The project would have a substantial adverse effect on a scenic vista;
- b) The project would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic highway;
- 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 a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?; and/or
- d) The project would create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The CEQA Guidelines do not provide thresholds with respect to shade and shadow impacts. Pursuant to CEQA Guidelines Section 15064 (b), the determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data. An iron-clad definition of a significant effect is not always possible because the significance of an activity may vary with the setting.

The CEQA Guidelines do not provide thresholds with respect to shade and shadow impacts. Neither the City of Redondo Beach nor the City of Torrance have adopted thresholds with respect to shade and shadow impacts. However, as set forth in the City of Los Angeles CEQA Thresholds Guide (2006), a project would normally be considered to have a significant shade and shadow impact if shadow-sensitive uses would be shaded by project-related structures for more than three hours between the hours of 9:00 a.m. and 3:00 p.m. Pacific Standard Time (between late October and early April), or for more than four hours between 9:00 a.m. and 5:00 p.m. Pacific Daylight Time (between early April and late October). For purposes of identifying shadow sensitive land

uses, the City of Los Angeles CEQA Thresholds Guidelines (2006), states that “*facilities and operations sensitive to the effects of shading include: routinely useable outdoor spaces associated with residential, recreational, or institutional (e.g., schools, convalescent homes) land uses; commercial uses such as pedestrian oriented outdoor spaces or restaurants with outdoor eating areas; nurseries; and existing solar collectors.*” These land uses are termed “*shadow-sensitive*” because sunlight is important to function, physical comfort of commerce.

CEQA case law has established that only public views, not private views, need be analyzed under CEQA. For example, in *Association for Protection etc. Values v. City of Ukiah* (1991) 2 Cal. App. 4th 720, the court determined that “*we must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general. As recognized by the court in Topanga Beach Renters Assn. v. Department of General Services* (1976) 58 Cal.App.3d 188, ‘[all] government activity has some direct or indirect adverse effect on some persons. The issue is not whether [the project] will adversely affect particular persons but whether [the project] will adversely affect the environment of persons in general.’” Similarly, in *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal. App.4th 477, the court upheld an EIR’s determination that impacts on public views would be significant, but impacts on private were not significant. Additionally, in 2018, Appendix G of the CEQA Guidelines was updated to clarifying that impacts to public (not private) views may be significant under CEQA. As such, effects on private views are not considered under CEQA (Public Resources Code [PRC] Section 21082.2).

A number of public scoping comments addressed the issue of privacy for adjacent residential areas. While CEQA requires an assessment of impacts to public views, the following discussion is provided for informational purposes in response to these comments. The existing campus, which was originally developed in 1958, currently provides views across the residential neighborhood to the east as a result of the existing topography (i.e., the campus ground level is approximately 30 feet higher than the ground level in the adjacent Torrance neighborhood). Many of the backyards in the first row of houses adjacent to the campus are visible from the fourth and uppermost floor of the Beach Cities Health Center under existing conditions. As described in Section 1.0, Introduction, the RCFE Building would be sited along the northern perimeter of the campus behind the Redondo Village Shopping Center. This siting



The Project site is located immediately adjacent to single family residents within the Torrance neighborhood to the east. The backyard of these residences – particularly the first row of houses – is visible from the existing BCHD building.

reduces the proposed building frontage along the eastern boarder of the campus adjacent to the Torrance residential neighborhood. While residential areas would still be visible from some areas of the BCHD campus after development of the proposed Project, the vertical and horizontal distance from the campus and its proposed buildings would be greater than 114 feet from the sixth and uppermost floor of the RCFE Building to the nearest offsite residences to the east and across Beryl Street to the north. The RCFE Building would provide wide-ranging views of the South Bay including Palos Verdes Peninsula and the Santa Monica Mountains Ocean, but it would not create direct sight lines into private interior living spaces of nearby residences due to the distance and high angle of the views.

Screened-Out Threshold(s):

- Threshold (b) (*Scenic Highways and Local Scenic Corridors*). There are no State-designated scenic corridors that may be affected by the proposed Project. The nearest designated scenic highway is the Mulholland Highway, located approximately 20 miles to the northwest (Caltrans 2019). The nearest eligible highway is a portion of Pacific Coast Highway located approximately 23 miles north of the Project site. Due to the distance of the Project site from these existing and eligible state scenic highways, the proposed Project would not affect any scenic resources such as trees, rock outcroppings, or historic buildings within a State scenic highway. Therefore, for the reasons stated above and as discussed in Section I, *Aesthetics* of the Initial Study (IS), this issue is not further analyzed in the EIR. Potential impacts related to landscaping are discussed in Impact VIS-2 and potential impacts associated with historic structures are discussed in Impact CUL-1.

Methodology

This analysis is based on multiple visual reconnaissance surveys of the Project site and the surrounding vicinity, which included extensive photography of existing visual resources (e.g., buildings, landscaping, and view corridors, etc.). The analysis addresses the relationship of the Project site to the surrounding community, and the existing local policy framework for protecting visual resources. Field notes and photographs of existing visual resources of the Project site and vicinity are used to support this analysis. This information was utilized to identify important visual resources present on the Project site and in the surrounding vicinity.

Scenic Resources and Visual Character

This analysis focuses on changes to public views and depends upon the sensitivity of the resource, viewing conditions (e.g., angle of view, distance, and primary viewing directions), and the degree of change and visual contrasts to surroundings. These could include substantially or entirely

obstructing scenic views or changes to other visual resources such that they may no longer appear characteristic of the Project site.

To evaluate potential changes to visual resources, representative views were identified with input from the City of Redondo Beach. Views were selected to provide representative locations from which the Project site would be seen from public streets, sidewalks, and recreational resources in the Project vicinity (refer to Section 3.1.1, *Environmental Setting*; Figure 3.1-1). Each representative view was photographed to establish the existing visual condition from the selected public location. Photosimulations of the Phase 1 preliminary site development plan 3D model were prepared from each representative view to provide a “before and after” representation for analysis. The representative analysis focuses on changes from existing conditions as they would be experienced by motorists, bicyclists, and pedestrians from the public realm.

The base photography and photosimulations at each representative viewing location were independently prepared by VIZf/x. VIZf/x used a Nikon d7100 camera with a 35-millimeter lens giving the closest approximation to the human eye. The source image is comprised of between 8 and 10 vertical renderings captured from a tripod and stitched together to create the source base image. Each rendering is 25 percent of what the actual 35-millimeter lens captures, which minimizes any curvature to the architecture and reduces distortion.

Given the programmatic nature of the Phase 2 development program under the proposed Project, the photosimulations of the proposed Project are limited to the Phase 1 preliminary site development plan. Potential effects on the visual character of the Project site and surrounding areas following implementation of the Phase 2 development plan are described qualitatively.

Consistency with Applicable Regulations and Policies Governing Scenic Quality

The analysis focuses on changes from existing conditions as they would be experienced by the public realm in the surrounding vicinity. As feasible, this assessment quantifies and/or qualitatively describes the potential changes to visual resources (i.e., change in building heights, setbacks, and distances) to determine if they constitute significant adverse impact (e.g., degradation of visual character).

A comprehensive analysis of policy consistency has also been prepared to describe the proposed Project in the context of the applicable goals and policies of the Redondo Beach General Plan Land Use Element and Parks and Recreation Element; Redondo Beach Residential Design Guidelines; and the Torrance General Plan Land Use Element and Community Resources Element. Based on a comparison of the proposed Project with these goals, policies and regulations, it was determined whether the proposed Project would conflict with the objectives of these regulations and plans. A

proposed Project that does not implement a particular policy or regulation, would not necessarily result in a conflict or an impact. Many of these programs must be implemented by the City of Redondo Beach and/or the City of Torrance over time, and over a broad area; therefore, the focus of the consistency analysis is to ensure that proposed development projects do not preclude the implementation of relevant plans and policies. Further, if a conflict is identified in association with the proposed Project, under CEQA the conflict would only equate to a significant impact if precluding implementation of a given policy or regulation would result in a reasonably foreseeable significant adverse physical effect on the environment.

Light and Glare

The analysis of light and glare reviews the new sources of light and glare that would be introduced under the proposed Project and determines whether this light and glare would substantially affect views. A key element in this assessment methodology involves consideration of the existing light and glare standards in the Redondo Beach Residential Design Guidelines, RBMC, and TMC.

Shade and Shadows

Shadow length and bearing are dependent on the location of a site, which determines the angle of the sun relative to the Project site. In the Los Angeles basin, the maximum shadow a building can cast is usually equivalent to three times its height during the Winter Solstice (City of Los Angeles 2006). The potential for off-site shadow effects is dependent on the length of shadows created by a building, and the distance between the building and the nearest shade-sensitive land uses.

Shade and shadow simulations were prepared for the proposed Project using a computer-generated 3D model to identify the height and bulk of proposed building elements, mapping the “footprint” (i.e., location, shape, and size) of the Project site, and then calculating and diagramming the shadows that would be cast by the building components during the most extreme, or conservative, conditions (see Appendix M).

The analysis simulates shadows for the Summer Solstice at 8:00 a.m., 10:00 a.m., 12:00 p.m., 2:00 p.m., and 6:00 p.m., for the Autumnal (Fall) Equinox at 8:00 a.m., 10:00 a.m., 12:00 p.m., 2:00 p.m., 4:00 p.m., and 5:00 p.m., and for the Winter Solstice at 8:00 a.m., 10:00 a.m., 12:00 p.m., 2:00 p.m., and 4:00 p.m. By modeling shadows for the Autumnal Equinox and the Summer and Winter Solstices, it is possible to see and analyze the worst and best-case scenarios of future shadow effects.

The maximum height of the proposed mixed-use buildings on the Project site would be up to 103 feet above ground level and 133.5 feet above the vacant Flagler Lot below. This height would cast

shadows on adjacent and vicinity buildings and public streets, including shadow-sensitive structures. Shadows created by the proposed Project are modeled for both Summer and Winter Solstices, which are the longest and shortest days of the year, respectively, as well as the Autumnal Equinox, of which the days and nights are of equal duration.

3.1.4 Project Impacts and Mitigation Measures

Impact Description (VIS-1)

a) *The project would have a substantial adverse effect on a scenic vista*

VIS-1 The proposed Residential Care for the Elderly Building included in the Phase 1 preliminary development plan would interrupt public view of the Palos Verdes hills from the highpoint at 190th Street and Flagler Lane. However, a reduction in the height of the building would reduce this impact to *less than significant with mitigation*.

Implementation of the Phase 1 preliminary site development program would result in the construction of a 6-story RCFE Building that would replace the existing 5-story Beach Cities Health Center and attached 1-story maintenance building. The proposed RCFE Building, which would be the tallest building included in the proposed Project, would rise to a maximum height of 103 feet (including the rooftop cooling tower) above the campus ground level and 133.5 feet above the vacant Flagler Lot below (refer to Figure 2-6). This would make the RCFE Building the third tallest building in the Beach Cities, and taller than all but three buildings in Torrance (refer to Table 3.1-1).

As previously described, the Redondo Beach General Plan does not identify any scenic vistas or any scenic view corridors within the City. Similarly, the Project site is not located within any of the scenic view corridors identified in the Torrance Community Resources Element (e.g., Torrance Boulevard). The rolling topography and the surrounding low-rise development ranging from 1 to 4 stories generally block distant views of the Project site; however, a distant view of the Project site is provided from Representative View 6, which remains primarily uninterrupted from intervening buildings and landscaped vegetation. Representative View 6 provides a wide-ranging panoramic view of Redondo Beach and the surrounding skyline including the Palos Verdes hills to the south. Although views of the Palos Verdes hills are not designated as a scenic vista by Redondo Beach or Torrance, the ridgeline has scenic qualities and is an important visual feature in the South Bay. For example, the City of Hermosa Beach has identified the long-range views of the Palos Verdes Peninsula as an important scenic vista in the Final EIR for PLANHermosa (State Clearinghouse [SCH] No. 2015081009).

Table 3.1-1. Buildings Within the Beach Cities and Torrance Over 70 Feet in Height

Building	Number of Stories	Building Height	Year Built
<i>Redondo Beach</i>			
Ocean Plaza	10	122	1974
Delphi Apartments	9	110	1973
Apartments at King Harbor	6	73	1973
230 South Catalina Avenue	6	73	1974
510-520 The Village	6	73	1980
140 The Village	6	73	1980
130 The Village	6	73	1980
120 The Village	6	73	1980
110 The Village	6	73	1980
200 South Catalina Avenue	6	73	1972
The Sand Castle	6	73	1971
<i>Manhattan Beach</i>			
Westdrift Manhattan Beach	7	85	1986
Manhattan Towers I	6	73	1985
Manhattan Towers II	6	73	1985
<i>Torrance</i>			
Golden West Tower	14	171	1973
DoubleTree Hotel Torrance	13	159	1974
California Bank & Trust Tower	13	159	1967
Computax Tower	8	98	1988
21535 Hawthorn Boulevard	8	98	1968
Lundquist Tower	7	85	2014
Torrance Memorial Hospital	7	85	1970
Commonwealth Plaza	6	73	1981
3400 Lomita Boulevard	6	73	1969

Notes: The tallest building within Hermosa Beach is the 4-story Commodore Condominiums at a height of 49 feet. No buildings exceed a height of 70 feet in this City.

Source: Emporis 2021.

KVL 6: Flagler Lane & 190th Street Intersection (Facing South)

Representative View 6: Distant views along 190th Street near its intersection with Flagler Lane are characterized by green mature street trees to the east (i.e., left) and the commercial nursery to the west (i.e., right) as well as existing white buildings at the BCHD campus against the backdrop of the Palos Verdes hills in the background. The ridgeline of the Palos Verdes hills is almost entirely uninterrupted from this view. The view is influenced by the open sky above the ridgeline, streaked with crossing powerlines in the foreground. The RCFE Building would not substantially reduce the open sky from this view, but would interrupt the ridgeline of the Palos Verdes hills. Source: VIZf/x 2021.



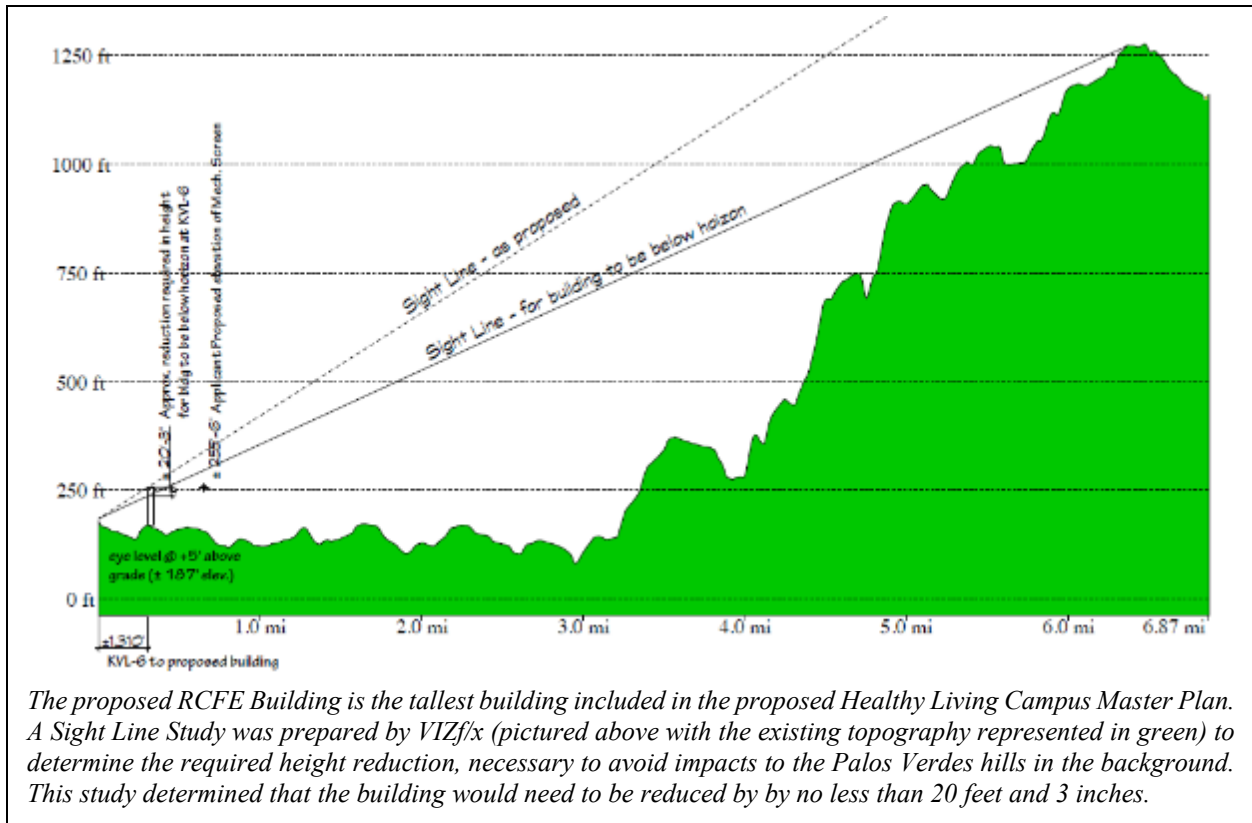
This distant view of the Palos Verdes hills is provided to vehicles, bicyclists, and pedestrians traveling in an east-west direction on 190th Street. Traveling westbound toward the Redondo Beach waterfront the Project site comes into view approximately 200 feet before the signalized intersection of 190th Street & Flagler Lane. Representative View 6 is taken from the signalized intersection where vehicles stop and have the longest opportunity to look to the south. From this location the eye is naturally drawn toward the wide-ranging panoramic view to the south given the surrounding development lining the street blocking the views in the other directions. The view becomes blocked again by low-rise development approximately 1,200 feet west of the intersection, when the road descends toward the waterfront. As such, vehicles traveling the speed limit of 35 miles per hour (mph) experience this view for approximately 30 seconds. Depending on traffic at the signalized intersection, the view could be available for slightly longer, but generally less than 1 minute.

As previously described, the existing views of the Project site from this location include the prominent 5-story Beach Cities Health Center and the 4-story Providence Little Company of Mary Medical Institute Building, with white building façades and dark tinted windows that form horizontal strips across the buildings. These buildings are visible against the backdrop of the Palos Verdes hills. Although the Project site is surrounded by a neighborhood of low-lying residential and commercial buildings, views of the surrounding buildings are limited from this view due to the mature street trees and other large canopy trees which obstruct views of the structures in the mid-ground. Foreground views include two travel lanes and one center left-turn lane along Flagler Lane, diagonally parked cars along the east side of Flagler Lane, and vegetation within the nursery on the west (i.e., right) side of the view. Powerlines also can be seen crossing the top of the view across the open sky.

The proposed 133.5-foot RCFE Building would be substantially taller and larger than the existing 1- to 5-story buildings on the existing BCHD campus and would rise above all other surrounding development in the vicinity. Additionally, the proposed RCFE Building would rise above the top of the Palos Verdes hills as viewed from Representative View 6 and would obscure a substantial portion of this scenic feature (e.g., approximately one third of the ridgeline).

Given the height of the proposed RCFE Building and its interruption of the Palos Verdes ridgeline as viewed from Representative View 6, implementation of the Phase 1 preliminary site development plan would substantially alter and degrade this important scenic view from 190th Street. Therefore, impacts to scenic views from development of the proposed 133.5-foot RCFE Building would be *potentially significant*.

According to a Sight Line Study prepared by VIZf/x, the RCFE Building would need to be reduced in height by 20 feet and 3 inches in order to remain below the ridgeline of the Palos Verdes hill from Representative View 6. With implementation of MM VIS-1, the proposed RCFE Building would be reduced to 82.75 feet above existing campus ground level and 113.25 feet above the vacant Flagler Lot below, and impacts would be *less than significant with mitigation*.



As described in Impact VIS-2, the Phase 2 development program would further change the visual character of the Project site through the proposed demolition of the existing parking structure and potentially the Beach Cities Advanced Imaging Building. The Phase 2 development program would result in the construction of a new building(s) ranging in height from 53 feet to 68 feet above ground level and a new parking structure, reaching a maximum height of 76 feet. However, given the height of the proposed development in Phase 2, it would not be visible behind the RCFE Building. Therefore, the Phase 2 development program would not affect the wide-ranging panoramic view of the Palos Verdes ridgeline from Representative View 6.

Mitigation Measure (MM)

MM VIS-1 Reduced RCFE Building Height. *The final design of the Phase 1 preliminary site development plan shall be revised to reduce the maximum height of the RCFE Building in order to avoid interruption of the ridgeline of the Palos Verdes hills as viewed from the intersection of 190th Street & Flagler Lane. This revision to the final design could include the removal of the uppermost stories of the building and/or recessing the building foundation further into the ground surface. The reduced building height shall be formalized on all final building plans and construction plans, as appropriate, prior to the issuance of any demolition, grading, or building permits by the Redondo Beach Building & Safety Division. City of Redondo Beach permit compliance staff shall observe and ensure compliance with these specifications during construction activities associated with the proposed Project.*

Residual Impacts

Based on the Sight Line Study prepared by VIZf/x, the implementation of MM VIS-1 would reduce the proposed height of the RCFE Building from 103 feet above the existing campus ground level (133.5 feet above the vacant Flagler Lot below) to approximately 82.75 feet above existing ground level (102.75 feet above the vacant Flagler Lot). With this reduction, the maximum height of the proposed RCFE Building would rise to just below the ridgeline of the Palos Verdes hills from 190th Street and Flagler Lane. Therefore, the wide-ranging panoramic views of the Palos Verdes ridgeline from Representative View 6 would remain uninterrupted, and this visual impact would be reduced to *less than significant*.

As described in MM VIS-1 the final design could include the removal of the uppermost stories of the building and/or recessing the building further into the campus. The removal of the uppermost stories of the building under MM VIS-1 would incrementally reduce the duration of construction activities associated with the RCFE Building. As such, the duration of criteria air pollutant emissions and the total amount of greenhouse gas (GHG) emissions would be reduced. Further, the severity of noise impacts described in Impact NOI-1 would also be reduced given that the total duration of construction above the feasible height of the required noise barriers (refer to MM NOI-1) would be substantially reduced. In contrast, if the building is further recessed into the ground, there could be an increase in the duration of air quality emissions and total GHG emissions associated with the required excavation activities. Additionally, there would be an increase in the number of haul trucks required to export soils from the Project site. However, the severity of noise impacts described in Impact NOI-1 would still be reduced given that the total duration of construction activities above the feasible height of the required noise barriers would be reduced. Nevertheless, Impact NOI-1 would remain *significant and unavoidable*.

Impact Description (VIS-2)

- b) *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?*

VIS-2 The proposed Project – including the Phase 1 preliminary development plan as well as the Phase 2 development program – would alter the visual character of the Project site and surrounding areas in Redondo Beach and Torrance. However, the proposed development would comply with the Redondo Beach General Plans and municipal codes and would not degrade the surrounding visual character. Therefore, impacts would be *less than significant*.

Phase 1 Preliminary Site Development Plan

Phase 1 of the proposed Project would include the construction of the 6-story RCFE Building and the demolition of the existing 5-story Beach Cities Health Center and the attached 1-story Maintenance Building located at 514 North Prospect Avenue.

The RCFE Building has been designed as a curvilinear building that follows the northern perimeter of the Project site overlooking the adjacent Redondo Village Shopping Center and Beryl Street below.¹ Neither the Redondo Beach General Plan Land Use Element nor the RBMC specify building heights, FARs, setbacks, or for development standards for parcels zoned as P-CF. However, the proposed Project would be subject to Redondo Beach Planning Commission Design Review in accordance with RBMC Section 10-2.1116. The portion of the RCFE Building that would overhang the proposed driveway and pick-up/drop-off zone on the vacant Flagler Lot would not exceed the 30-foot maximum height and 2 story maximum allowed in C-2 zones by RBMC Section 10-2.625 (refer to Section 3.1.2, *Regulatory Setting*). This portion of the proposed RCFE Building would exceed the 0.5 FAR requirement; however, Policy 1.2.4 of the Redondo Beach General Plan Land Use Element allows for the development of housing for senior citizens by permitting such housing to vary from the development standards in the zone in which it is located, subject to Planning Commission Design Review and issuance of a CUP.

The ground floor of the RCFE Building would be developed on concrete columns with predominantly glass walls providing public views of and pedestrian access to the proposed active green spaces located within the central campus. Phase 1 would also include ornamental

¹ The proposed RCFE Building would be curvilinear in that it would follow the curved line of the northern perimeter of the existing BCHD campus.

landscaping surrounding the RCFE Building as well as a large lawn in the interior of the campus that would serve as an open space for both the campus and the surrounding community. The western border (i.e., along North Prospect Avenue) and eastern border (i.e., along Flagler Alley, Flagler Lane, and Diamond Street) of the campus would be lined with large shade canopy trees and smaller shade trees to provide landscape screening and soften the views of the campus. Similarly, the campus's northern border would be lined with shade and flowering ornamental trees to soften the views from the Redondo Village Shopping Center (refer to Figure 2-9).

Changes to the visual character of the Project site and its surroundings depicted in Representative Views 1 through 5, are described in detail below, to assess the potential impacts on the visual character and visual qualities of the areas immediately adjacent to the Project site.

Representative View 1 – located on Tomlee Avenue west of its intersection with Mildred Avenue – represents obstructed views of the Project site from the residential neighborhood within Torrance adjacent to the east of the Project site. This view includes foreground views of the street, mid-ground view of the east-facing single-family residences along Tomlee Avenue, and background views of large, landscaped trees as well as the upper levels of the Beach Cities Health Center and the open sky above.

The implementation of the Phase 1 preliminary site development plan would include the demolition of the existing Beach Cities Health Center and the construction of the proposed RCFE Building, which would rise up to 103 feet above the campus ground level and 133.5 feet above the vacant Flagler Lot below. Similar to existing views of the Beach Cities Health Center from this location, views of the RCFE Building would be limited to the upper two stories of a portion of the building. The majority of the RCFE Building would be obstructed by the single-family residences and large trees in the foreground. Additionally, the vast majority of the open sky views above the single-family residences would remain. Therefore, the implementation of the Phase 1 preliminary site development plan would not substantially degrade the visual character or quality of the Project site and surrounding area when viewed from the public realm at this location.

Representative View 1: Tomlee Avenue (Facing West)



Representative View 1: The proposed RCFE Building would rise up to 103 feet above the existing campus ground level and 133.5 feet above the vacant Flagler Lot. Views of the proposed RCFE Building from Tomlee Avenue would be partially screened by mature landscaped trees surrounding the single-family residences as well as along the eastern perimeter of the Project site. However, the top two stories of the RCFE Building and the rooftop cooling tower would be visible from this location and would obscure a portion of the open sky above. Source: VIZf/x 2021.



Representative View 2 provides a view of the Project site from the northeast corner of Flagler Lane and Towers Street facing east toward the Project site. This view was selected because it represents the view of the steep grade, retaining walls, and landscaped vegetation along the eastern border of the Project site, which is visible to motorists, bicycles, and pedestrians exiting the neighborhood onto Flagler Lane and Beryl Street. The view is currently dominated by the existing retaining walls and vegetation that support the steep slope along the eastern perimeter of the Project site. Chain link fences line both the bottom and the top of the slope. Above the slope, the open sky is currently visible, but partially interrupted by large, landscaped trees. Given the central location of the Beach Cities Health Center and the two medical offices, none of the existing buildings on the campus are visible from this location. The only visible buildings are residential development along Beryl Street, including the 4-story multi-family residential building located at the intersection of Beryl Street & Flagler Lane along the north (i.e., right) side of the view.

The proposed RCFE Building would be visually prominent from this viewpoint, rising above the retaining walls and vegetation along eastern slope in the mid-ground. The proposed 6-story RCFE Building would be substantially taller and larger than the existing 1- to 5-story buildings currently on-site, as well as the adjacent 1- to 4-story buildings. The RCFE Building would reduce access to views of the open sky for motorists, bicyclists, and pedestrians traveling westbound Towers Street and turning on Flagler Lane. However, due to the location of the Project site along the northern perimeter of the campus, approximately half of the open sky view would remain. Further, the proposed ornamental landscaping surrounding the RCFE Building as well as along the eastern border of the campus would provide intermittent large shade canopy trees and smaller shade trees. The ornamental landscaping would partially screen and would soften views of the RCFE Building from this location, particularly for the lower floors of the building. Therefore, although the height and mass of the proposed RCFE Building would be greater than what currently exists and is visible on-site, implementation of the Phase 1 preliminary site development plan would not degrade the visual character or quality of the Project site and its surroundings when viewed from this location.

Representative View 2: Flagler Lane & Towers Street Intersection (Facing West)



Representative View 2: Views along Flagler Lane at Towers Street are characterized by the retaining walls and large mature trees that support the steep slope along the eastern perimeter of the campus. While the existing Project site is barely visible, the view along Flagler Lane is influenced by the open sky above the slope. The Project would substantially reduce access to open sky from this view, and would change the visual character of this view from the residences in this West Torrance neighborhood as well as travelers along Flagler Lane and Towers Street. Source: VIZf/x 2021.

Representative View 3: Flagler Lane & Beryl Street Intersection (Facing Southwest)

Representative View 3: Views of the Project site from this location are characterized by the vacant Flagler Lot in the foreground, which is currently covered with gravel and weedy vegetation and is leased as a staging area for construction equipment. The proposed RCFE Building would rise up to 133.5 feet above Flagler Lot and would be more visually prominent from this location given its location along the northern perimeter of the BCHD campus. Source: VIZf/x 2021.



Views of the Project site from this location are currently framed by wooden utility poles and powerlines as well as traffic signals and streetlights along Beryl Street in the foreground. The existing frontage along Beryl Street is characterized by gravel and weedy vegetation, construction staging equipment, and iron fencing along the western, northern, and eastern borders of Flagler Lot. This vacant lot is currently leased by BCHD for construction staging, and the visual character

is often dominated by construction vehicles and equipment. The BCHD campus is also framed by mature trees along the eastern and northern perimeters of the campus in the mid-ground. Views of the Beach Cities Health Center and Providence Little Company of Mary Medical Institute Building from this location are limited due to the existing landscaped trees. Above the Beach Cities Health Center and Providence Little Company of Mary Medical Institute Building, views of the open sky are interrupted by crossing powerlines.

Any development on the vacant Flagler Lot would be characterized as a change, given its undeveloped nature. The proposed Project would comply with the required building height prescribed in RBMC Section 10-2.622, and would provide visual interest with design elements that would add varied composition and texture to the proposed RCFE Building. For example, the curvilinear building would include exterior façades with simple forms constructed using white concrete floor slabs infilled with paneling, non-reflective glass, and painted privacy sunscreens on white concrete balconies. The ground floor of the RCFE Building would be developed on concrete columns with predominantly glass walls allowing public views of and pedestrian passage to active green spaces located within the central campus area of the Project site. The height of the first floor of the RCFE Building overhanging the proposed one-way driveway and pick-up/drop-off zone on the vacant Flagler Lot would create a stepback in the building façade in this area to soften the effect of the perceived building height from the pedestrian perspective at street level along Beryl Street.

The Phase 1 preliminary site development plan would enhance the street level character at the intersection of Beryl Street & Flagler Lane by providing shade and flowering ornamental street trees and a tiered staircase facing Beryl Street, which would lead to the central campus area of the Project site. While the Phase 1 preliminary site development plan would remove existing on-site landscaping, Phase 1 develop would include new ornamental landscaping surrounding the RCFE Building as well as along the frontages with Flagler Lane and Beryl Street to provide shade and visual benefits associated with the dense canopy and foliage. The proposed ornamental landscaping as well as public views of and pedestrian passage to active green spaces located within the central campus area of the Project site would activate and improve the pedestrian character of the Beryl Street public realm. Further, views of the landscaped open air dining terrace atop the first floor of the RCFE Building would create a more pedestrian friendly environment along Beryl Street by inviting visitors to the campus. Therefore, implementation of the Phase 1 preliminary site development plan would not substantially degrade the visual character or quality of the Project site and its surroundings when viewed from this location.

Representative View 4: Beryl Street & Harkness Lane Intersection (Facing South)



Representative View 4: Views along Beryl Street between North Prospect Avenue and Flagler Lane are characterized by the 2- to 4-story multi-family residential buildings to the north (not visible from Representative View 4) and the low-rise Redondo Village Shopping Center to the south (visible). Background views of the Project site and open sky are visible above the Redondo Village Shopping Center. The proposed Project would reduce access to open sky with development of the RCFE Building during implementation of the Phase 1 preliminary site development plan. Source: VIZf/x 2021.



Views from this location are dominated by Beryl Street in the foreground and the low-rise Redondo Village Shopping Center in the mid-ground. Views of Beryl Street from this location are characterized by the four travel lanes and wide pedestrian crosswalks as well as the large canopy trees adjacent to the pedestrian sidewalks on the south side of the street. The low-rise commercial buildings that comprise the Redondo Village Shopping Center are characterized by a tan exterior with large windows, colorful signs, and red tile roofing. The commercial buildings are partially obstructed by the large canopy street trees along Beryl Street as well as the tall trees within the vegetated medians in the surface parking lot of the shopping center. Views of the Project site from this location include the existing 5-story Beach Cities Health Center and the upper west corner of

the Providence Little Company of Mary Medical Institute Building along with the large trees that border the northern perimeter of the Project site.

Implementation of the Phase 1 preliminary site development plan would noticeably alter the existing views of the Project site from this location. The existing 5-story Beach Cities Health Center visible in the background would be replaced by views of the proposed 6-story, 133.5-foot-tall RCFE Building, with articulated façades and painted privacy sunscreens on white concrete balconies with handrails. Further, the proposed RCFE Building, which would be located along the northern perimeter of the Project site, would be positioned substantially closer to this location than the Beach Cities Health Center, which is located within the center of the campus. Given the location of the proposed RCFE Building along the northern perimeter of the Project site, the height, bulk, and scale of the proposed development would be greater than the existing development on campus. Therefore, the perceived height of the RCFE Building from the pedestrian perspective would be more pronounced from this location.

The proposed RCFE Building would obstruct views across the Project site and reduce access to open sky. However, the building would be partially screened by existing large canopy trees along Beryl Street. The proposed ornamental landscaping surrounding the RCFE Building would also provide screening to soften views of the Project site's frontage from this location and patrons of the Redondo Village Shopping Center. Therefore, while the height of the proposed RCFE Building would be greater than existing conditions, the Phase 1 preliminary site development plan would not substantially degrade the visual character or quality of the Project site and surrounding area when viewed from this location.

The view location of Representative View 5 is the signalized intersection of North Prospect Avenue and the central driveway into the Project site. In addition to representing the views seen by vehicles and pedestrians along North Prospect Avenue, this view also represents the view from the public realm on the south side of the street near the existing single-family residences. The Beach Cities Health Center, Beach Cities Advanced Imaging Building, and Providence Little Company of Mary Medical Institute Building are all visible in the mid-ground from this location. The mature canopy trees that surround the existing buildings on-site are a dominant visual feature from this location, providing shade and greenery and blocking some views of the existing Project site. Views of the open sky above are limited due to obstruction by the existing buildings on-site, traffic signals, and crossing powerlines. Implementation of the Phase 1 preliminary site plan would slightly alter existing views of the Project site from this location. Specifically, the frontage along North Prospect Avenue would change as the perimeter of the campus would be re-landscaped with a mix of grasses, shrubs, ground cover, and shade trees that are adapted to the climate of Southern

3.1 AESTHETICS AND VISUAL RESOURCES

California. The proposed intermittent large shade canopy trees and smaller shade trees would provide landscape screening to soften the campus interface.

Representative View 5: North Prospect Avenue and Central Driveway Intersection (Facing Northeast)



Representative View 5: Views of the proposed Project from North Prospect Avenue would be partially screened by large shade trees and ornamental trees. The proposed RCFE Building would change the visual character and views from this location. However, the landscaped trees would soften views of the building and given the RCFE Building's setback from North Prospect Avenue, the height, bulk, and scale of the building would be consistent with existing Beach Cities Health Center from this location. Source: VIZf/x 2021.



As previously described, the proposed RCFE Building would rise up to 103 feet above the existing ground level and 133.5 feet above the vacant Flagler Lot below. The RCFE Building, which would line the northern perimeter of the Project site, would be set further back from North Prospect Avenue than the existing Beach Cities Health Center, which is located within the center of the campus and visible in the mid-ground from this location. Given the setback of the proposed RCFE Building setback from North Prospect Avenue, the height, bulk, and scale of the building from this location would be consistent with the existing 5-story Beach Cities Health Center. Therefore,

although the RCFE Building would be taller than the existing Beach Cities Health Center, the perceived height of the RCFE Building from the pedestrian perspective would remain similar from this location.

Similar to the existing views of the Beach Cities Health Center, the RCFE Building would be visually prominent in the mid-ground from this location. The white concrete façade and tinted glass windows of the RCFE Building would be similar to the existing façade of the Beach Cities Health Center. The proposed perimeter landscaping would screen views of the RCFE Building as well as the Beach Cities Advanced Imaging Building and Providence Little Company of Mary Medical Institute Building.

Therefore, although the height and mass of the proposed RCFE Building would be greater than what currently exists on-site, the building would not be out of context with existing views of the Beach Cities Health Center from this location. Implementation of the Phase 1 preliminary site development plan would not substantially degrade the visual character or quality of the Project site and surrounding area when viewed from this location, and the proposed landscaping improvements along the North Prospect Avenue frontage would improve the visual character from this location and the Redondo Beach residential neighborhood to the west.

Phase 2 Development Program

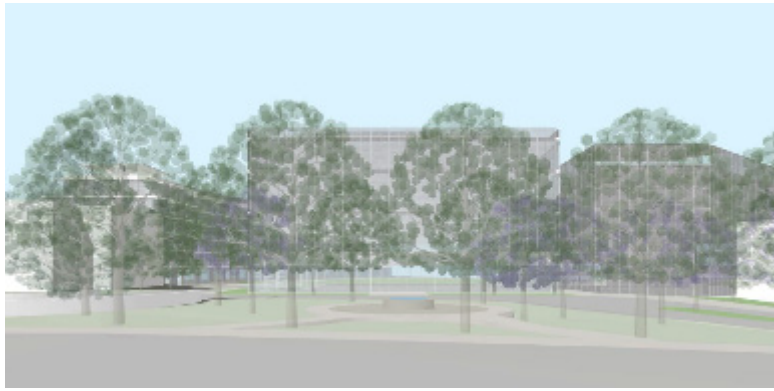
As described in Section 2.0, *Project Description*, the final design and construction of Phase 2 would not begin until 2029, approximately 5 years after the completion of Phase 1. As such, unlike the Phase 1 preliminary site development plan, the development program under Phase 2 of the proposed BCHD Healthy Living Campus Master Plan is less defined and the ultimate design would be dependent upon the community health and wellness needs and financing considerations at the time. Due to the uncertainties in the ultimate programming and site plan associated with the Phase 2 development program, the potential impacts to the visual character and quality of public views in Phase 2 are discussed programmatically.

Section 2.0, *Project Description* depicts three example site plan scenarios of the Phase 2 development program to illustrate the possible range of development. Representative views of these example site plans have been provided for illustrative purposes to help inform the program analysis.

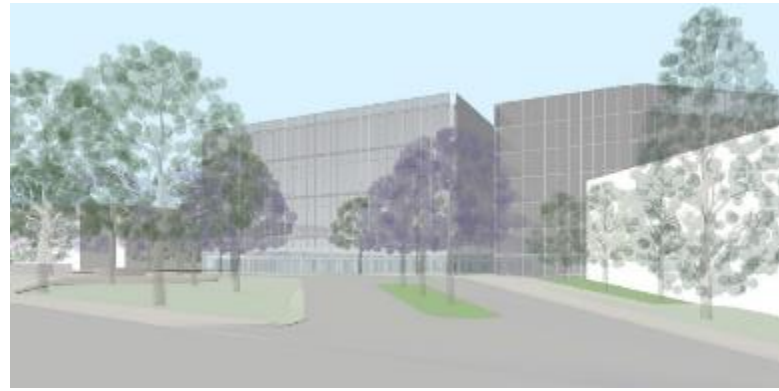
- **Phase 2 – Example A: Original June 2020 Phase 2 Development** – This example site plan scenario would include the development of a 4-story Community Health and Wellness Center, rising to a height of 81 feet (including rooftop projections) above the existing ground level (refer to Figure 2-11). The existing above ground parking structure located at

512 North Prospect Avenue would be demolished to provide space for the Community Health and Wellness Center and a new above ground parking structure. The proposed above ground parking structure would occupy a footprint of approximately 31,400-sf, including 2 subterranean levels and 8.5 above ground levels, rising to a height of 76 feet above the campus ground level.

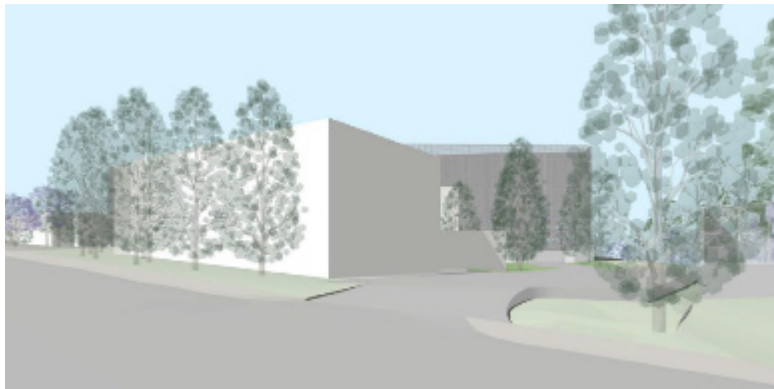
- **Phase 2 – Example B: Phase 2 Building with Automated Parking** – Similar to the Example A Site Plan Scenario, this example site plan scenario would include the demolition of the existing parking structure at 512 North Prospect Avenue to support development of a new building with combined Wellness Pavilion, Aquatics Center, and CHF uses as well as a new parking structure (refer to Figure 2-12). However, the proposed parking structure would be automated (i.e., a mechanical system designed to minimize the area and/or volume required for parking cars), allowing for a reduction in the height of the parking structure and more useable open space on the campus. The total footprint of the automated parking structure would be approximately 20,000-sf with parking provided over 1 subterranean level and 3 above ground levels, rising to a height of 61 feet above the existing campus ground level and 91 feet above the vacant Flagler Lot below.
- **Phase 2 – Example C: Rotated Phase 2 Building(s) with Automated Parking and a New Medical Office Building** – This example site plan scenario would demolish the Beach Cities Advanced Imaging Building and replace it with a new 3-story, 50,000-sf, purpose-built medical office building, which would rise to a height of 55 feet (including rooftop projections) above the campus ground level and 85 feet above the vacant Flagler Lot below. Following the demolition of the parking structure at 512 North Prospect Avenue, 41-foot-tall building would be constructed for the proposed Aquatics Center and CHF. The Wellness Pavilion would be constructed as a separate circular-shaped building located in the center of the campus rising to a height of 54 feet (refer to Figure 2-13). As with the Example B Site Plan Scenario the proposed automated parking structure in this example site plan scenario would rise to a height of 61 feet above the campus ground level.



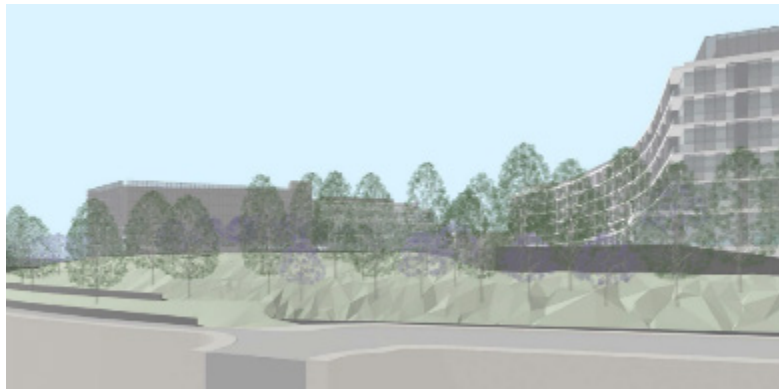
View of Central Driveway along North Prospect Avenue



View from Secondary Driveway on North Prospect Avenue

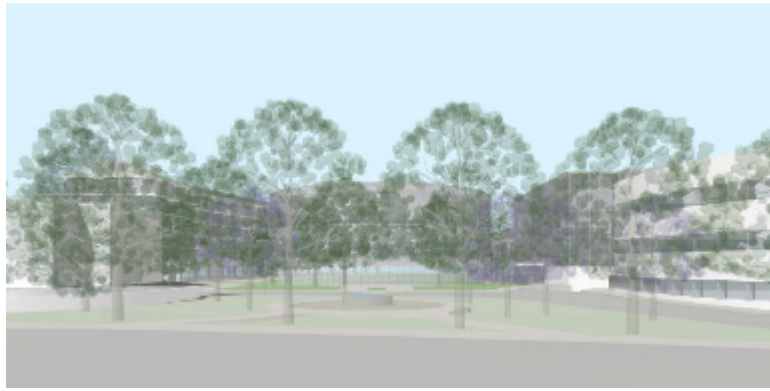


View from North Prospect Avenue & Diamond Street

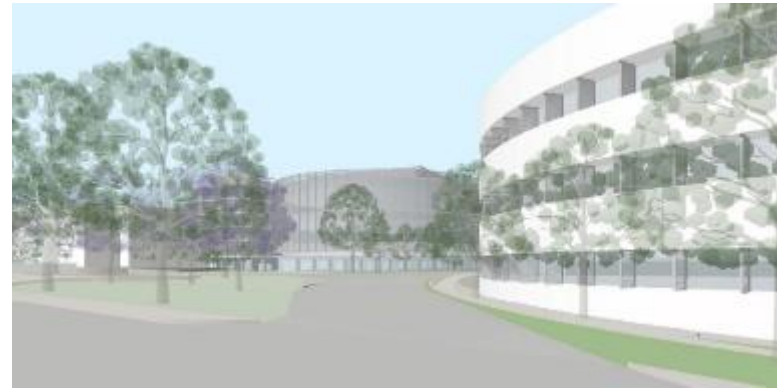


View from Flagler Lane & Towers Street

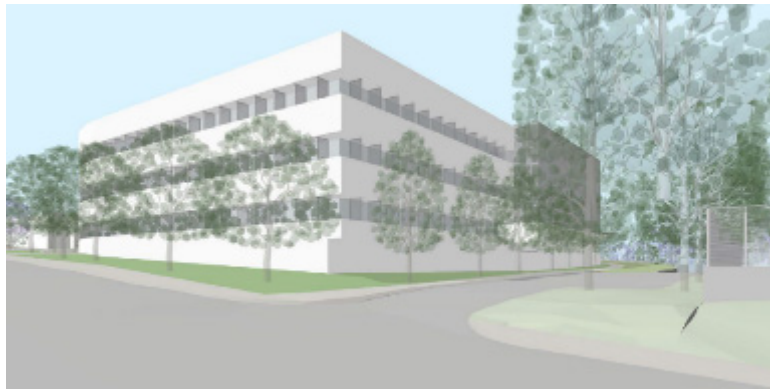
The Example A site plan scenario would include an approximately 81-foot-tall Community Health and Wellness Center and a 76-foot-tall parking structure that would be visible from North Prospect Avenue (top left). However, the building would be partially obscured by landscaping within the entry plaza. The Community Health and Wellness Center would also partially block views of the RCFE Building in the central area of the campus. Views from Flagler Lane & Towers Street would remain similar to those depicted for Phase 1 in Representative View 2; however, the 76-foot-tall parking structure would be visible along the eastern slope further to the south (i.e., bottom right). This parking structure would further obscure open sky when viewed from Flagler Lane and Flagler Alley. The Example B site plan scenario would provide similar views; however, the height of the proposed parking structure would be slightly reduced to a height of 61 feet above the existing campus ground level.



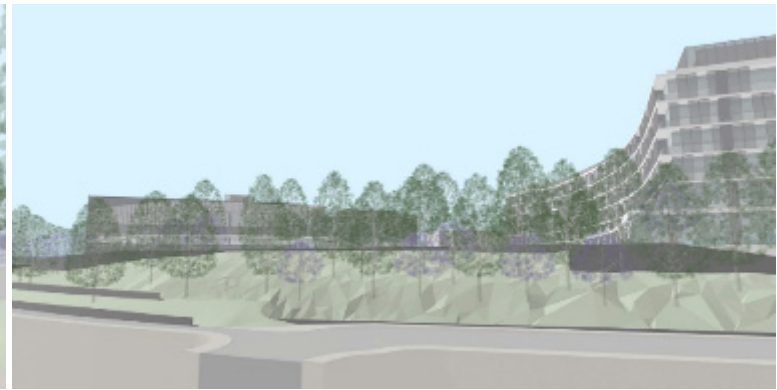
View of Central Driveway along North Prospect Avenue



View from Secondary Driveway on North Prospect Avenue



View from North Prospect Avenue & Diamond Street



View from Flagler Lane & Towers Street

The Example C Site Plan Scenario would include an 41-foot Aquatics Center and CHF as well as a 55-foot-tall medical office building. Additionally, this example site plan would include a 61-foot-tall automated parking structure. While the total area of disturbance would be greater as compared to the Example A Site Plan Scenario, the height of development under this example site plan would be reduced. Notably, the height of the parking structure would be approximately 15 feet lower than the parking structure in the Example A Site Plan Scenario.

The proposed Community Health and Wellness Center under the Example A and B Site Plan Scenarios would be located centrally within the campus and would rise to a height of 81 feet above the campus ground level. The height of the proposed parking structure under the Phase 2 development program would range from 3 above ground levels (61 feet) under the Example B and C Site Plan Scenarios to 8.5 above ground levels (81 feet) under the Example A Site Plan Scenario. These structures would not be visible from Representative View 3 (Flagler Lane & Beryl Street), Representative View 4 (Beryl Street & Harkness Lane), or Representative View 6 (Flagler Land & 190th Street) to the north. Views of the Phase 2 development would be blocked by the proposed RCFE Building that would be constructed during Phase 1.

The Phase 2 development – including the Wellness Pavilion, Aquatics Center, and CHF as well as the parking structure – would be primarily visible from Representative View 5, along North Prospect Avenue, where the Phase 2 development would replace the existing Beach Cities Health Center. Additionally, the development would be visible from the public realm (i.e., the street and the sidewalk) along Diamond Street. The proposed parking structure would also be visible from these vantage points. The Example A Site Plan Scenario would result in the greatest change with the Community Health and Wellness Center, reaching a height of 81 feet above the existing campus ground level, and the parking structure would reach a height of 76 feet above the existing campus ground level. In contrast the Example C Site Plan Scenario, which would also include the redevelopment of the Beach Cities Advanced Imaging Building, would result in a reduced scale of development with a maximum height of 61 feet above the existing campus ground level. Under either scenario these buildings would be viewed against a backdrop of the RCFE Building constructed during Phase 1 and would not substantially obscure views of the open sky above.

Each of the example site plan scenarios would involve the construction of a multi-level parking structure along the eastern perimeter of the Project site. This would result in a net increase in the overall height compared to the existing parking structure at 512 North Prospect Avenue, which currently provides 3 above ground levels. Under any of the example site plan scenarios the proposed parking structure would likely be visible from Representative View 1, located within the Torrance neighborhood to the east of the BCHD campus. However, at a maximum height of 81 feet, this parking structure would be more than 20 feet shorter than the proposed RCFE Building. As such, the parking structure would be just barely visible over the single-family houses and would not substantially obscure the view of the open sky above. If an automated parking structure were constructed as described for the Example B and Example C Site Plan Scenarios, the 61-foot-tall parking structure may be almost entirely obscured from view from Representative View 1. Therefore, while the parking structure would be visible from North Prospect Avenue, Diamond

Street, and along Flagler Alley, it would not be visually prominent from the public realm in the neighborhood to the east of the campus.

Summary of Impacts on Visual Character

The existing Beach Cities Health Center and medical office buildings on the Project site, which range in height from 1 to 5 stories, are prominent visual features from locations in the surrounding vicinity, which is surrounded by low-rise commercial and multi-family residences to the north, single family residences to the west, south, and east, and a public park to the northeast. The former South Bay Hospital was originally developed in 1958 and since that time has contributed to the overall character of the surrounding area. The distinct façades of the buildings, with their white concrete columns and blue/black tinted windows that form horizontal stripes across the buildings, provide a familiar sight for people in the surrounding area.

The development of the proposed RCFE Building and subsequent demolition of the Beach Cities Health Center would result in a change in the existing views across the site. Views of the Project site would not change substantially from locations where intervening structures would obstruct the RCFE Building, such as along Tomlee Avenue (Representative View 1). Additionally, development of the RCFE Building would not substantially alter views of the Project site from North Prospect Avenue (Representative View 5) due to the setback of the building from this location and proposed landscaping, which would partially obscure views of the interior of the campus. The proposed RCFE Building would be most visually prominent from Flagler Lane near Towers Street (Representative View 2) and Beryl Street (Representative View 3), and along Beryl Street in front of the Redondo Village Shopping Center (Representative View 4). From Representative Views 2, 3, and 4, the proposed RCFE Building would be substantially taller and would have substantially more massing than buildings in the vicinity, thereby reducing the view of open sky above. However, although the proposed RCFE Building would change the visual character of the Project site and surrounding areas from these locations, the Phase 1 preliminary site development plan would meet the development standards described in the Redondo Beach and Torrance General plans and municipal codes and would not degrade the visual character of the Project site and vicinity. The proposed Project includes many attributes that would improve the visual character of the Project site and surrounding vicinity. For example, the design of the proposed RCFE Building includes exterior façades with simple forms constructed using white concrete floor slabs infilled with painted panels and glass to provide visual interest. The ground floor of the RCFE Building would include predominantly glass walls to allow public views of active green spaces located within the interior of the campus. Additionally, the proposed perimeter green space and ornamental landscaping would be used to soften the campus interface and provide connections

with the surrounding uses along North Prospect Avenue, Beryl Street, Flagler Lane and Flagler Alley, and Diamond Street. The landscape plan would include a mix of grasses, shrubs, ground cover, and shade trees that are adapted to the climate of Southern California. Shade canopy trees and smaller shade trees would be used to screen direct views of the proposed RCFE Building façade from surrounding public views. Further, ornamental flowering street trees would be included along the Project site's North Prospect Avenue and Beryl Street frontages to activate and improve the pedestrian character of the public realm. Therefore, implementation of the Phase 1 preliminary site development plan would change, but not degrade, the visual character of the site from Representative View 1 through 5.

Although the Phase 2 development program is less defined, the example site plan scenarios would include construction of additional buildings on campus, which would be taller and would have more massing than existing buildings in the Project vicinity. Similar to the Phase 1 preliminary site development plan, none of the example site plans would substantially degrade the visual character of the Project site and vicinity from Representative Views 1 through 5.

Overall, changes in the quality of views through the site and surrounding areas would not be adversely affected as a result of implementation the proposed Project. Therefore, impacts to existing visual character and quality of the site and surrounding areas would be *less than significant*.

Consistency with City of Redondo Beach Policies

As previously described, the first floor of the proposed RCFE Building would overhang a proposed driveway and pick-up/drop-off zone on the vacant Flagler Lot. The portion of the building located on the vacant Flagler Lot would not exceed the designated 30-foot or 2-story maximum height allowed in C-2 zones by RBMC Section 10-2.625 (refer to Section 3.1.2, *Regulatory Setting*). This portion of the proposed RCFE Building would exceed the 0.5 FAR requirement. However, Policy 1.2.4 of the Redondo Beach General Plan Land Use Element allows for the development of housing for senior citizens by permitting such housing



The vacant Flagler Lot is zoned C-2 (Commercial) land use. Development standards in the C-2 zone allow for a maximum building height of 30 feet and require that the maximum density or intensity of development adheres to a FAR of 0.5.

to vary from the development standards in the zone in which it is located, subject to Planning Commission Design Review and issuance of a CUP (refer to Section 3.1.2, *Regulatory Setting*).

Additionally, this increase in development density on the vacant Flagler Lot would not result in a physical impact related to aesthetics given the backdrop of the proposed RCFE Building that would be constructed as a part of the proposed Phase 1 preliminary site development plan.

The RBMC does not specify building heights or FARs for development standards of P-CF zoned parcels, such as the existing BCHD campus. However, the proposed Project would be subject to review and approval by the Redondo Beach Planning Commission in accordance with RBMC Section 10-2.1116.

The proposed Project is compared to the applicable policies of the Redondo Beach General Plan Land Use Element and Parks and Recreation Element as well as the Residential Design Guidelines for Multi-Family Residential in Table 3.1-2. While the design guidelines apply only to buildings and structures in the R-2, R-3, R-3A, RMD, RH-1, RH-2, and RH-3 multiple-family residential zones, they are considered applicable to the 217 Assisted Living and Memory Care units proposed for the RCFE Building. As shown in Table 3.1-2, the proposed Project would be consistent with City-wide goals and policies regarding visual and physical permeability, pedestrian connectivity, building articulation, provision of open space, and other aesthetic objectives. Table 3.1-2 below was prepared by Wood Environment & Infrastructure Solutions, Inc. (Wood) land use planning staff based on description of the proposed Project provided in Section 2.0, *Project Description*. Final policy consistency would be determined as part of the Planning Commission Design Review and related discretionary decision-making processes. However, based upon this preliminary analysis, the proposed Project, with implementation of required mitigation measures identified in this EIR and required consistency with existing regulations, would be consistent with the Redondo Beach General Plan and Design Guidelines. Because the proposed Project would be consistent with applicable regulations that govern scenic quality, based on the thresholds of significance derived from Appendix G of the CEQA Guidelines impacts would be *less than significant*.

Table 3.1-2. Potential Conflict with the Redondo Beach General Plan Land Use Element and Parks and Recreation Element Policies

Policies	Discussion
<i>Land Use Element Policies</i>	
<p>Policy 1.46.4. Establish standards for the City and coordinate with other public agencies to ensure that public buildings and sites are designed to be compatible in scale, mass, character, and architecture with the existing buildings and pertinent design characteristics prescribed by this Plan for the district or neighborhood in which they are located.</p>	<p>No Conflict. The existing BCHD campus was originally developed as a former hospital building in 1958. The two medical office buildings (510 and 520 North Prospect Avenue) were added to the campus in 1976 and 1989, respectively. As such the existing BCHD campus is an established use and prominent feature in the area, rising to a height of 76 feet above the campus ground level and the surrounding low-rise development.</p> <p>The redevelopment of the BCHD campus would meet the zoning requirements for height in a parcel zoned for C-2. Additionally, the proposed Project would be subject to a Planning Commission Design Review consistent with the requirements for development in a parcel zoned for P-CF. While the proposed Project would increase the total height of development on the Project site, the proposed development under Phase 1 and Phase 2 would employ a variety of siting, planning, and architectural techniques to reduce visual bulk and create compatibility with surrounding low-rise development in the vicinity. For example, the proposed RCFE Building has been located on the northern perimeter of the Project site along the Redondo Village Shopping Center below. While the upper levels of the proposed RCFE Building would be visible from Beryl Street, this proposed orientation would reduce the bulk, mass, and scale of the development when viewed from the public realm in the Torrance neighborhood to the east and from the single-family residences along North Prospect Avenue to the west. Additionally, the location of the RCFE Building behind the Redondo Village Shopping Center would create a terraced effect with the building height decreasing from the campus to the Redondo Village Shopping Center and ultimately further down to the residential land uses on the north side of Beryl Street.</p> <p>The design of the proposed Project includes multiple buildings separated by a central lawn and landscaped pedestrian pathways to allow various access points throughout the Project site. The proposed buildings would be of varying heights and would provide open terraces to minimize the potential impacts associated from a pedestrian perspective. The Planning Commission Design Review would further refine the final design of Phase 1 and Phase 2 such that the development would be consistent with the objectives and policies in the Redondo Beach General Plan Land Use Element including Policy 1.46.4.</p>

Table 3.1-2. Potential Conflict with the Redondo Beach General Plan Land Use Element and Parks and Recreation Element Policies (Continued)

Policies	Discussion
<p>Policy 1.46.5. Require, where the City has jurisdiction, that public sites be designed to incorporate landscaped setbacks, walls, and other appropriate elements to mitigate operational and visual impacts on adjacent land uses.</p>	<p>No Conflict. As described for Policy 1.46.5, the proposed buildings would meet the setback requirements prescribed for development in a parcel zoned for C-2. Additionally, the proposed Project would be subject to a Planning Commission Design Review consist with requirements for development in a parcel zoned for P-CF. The proposed RCFE Building has been sited along the northern perimeter of the Project site behind the Redondo Village Shopping Center. This would create a terraced effect with the building height decreasing from the campus to the Redondo Village Shopping Center and ultimately further down to the residential land uses on the north side of Beryl Street. This proposed orientation would reduce the perceived bulk, mass, and scale of development when viewed from Beryl Street. Additionally, the location of the proposed RCFE Building along the northern perimeter of the Project site would reduce the visual impact on the adjacent land uses to the west along North Prospect Avenue and to the east in the Torrance neighborhood. The western border (along North Prospect Avenue) and eastern border (along Flagler Alley, Flagler Lane, and Diamond Street) of the campus would be lined with intermittent large shade canopy trees and smaller shade trees to provide landscape screening and soften the views of the campus (refer to Figure 2-9). Similarly, the northern border of the campus would be lined with shade and flowering ornamental trees to soften the views from the Redondo Village Shopping Center. The Planning Commission Design Review would further refine the final design of Phase 1 and Phase 2 such that the proposed development would be consistent with the objectives and policies in the Redondo Beach General Plan Land Use Element including Policy 1.46.5.</p>
<p>Policy 1.53.6. Require that on-site parking structures be designed as an integrated component of the building's architectural design character; including the incorporation of elements which continue and reinforce the architectural design of the primary structure and convey the visual "sense" of an occupied building (use of windows, arcades, overhangs, entries, recessed walkways, spandrels, articulated columns and rooflines, and other elements).</p>	<p>No Conflict. The proposed parking structure in the Phase 2 development program would be constructed with similar materials and would feature a similar contemporary design with modulated façades that would be consistent with the rest of the proposed development in Phase 1 and Phase 2. The design remains conceptual and specific colors, siding, windows, and overall materials are still being refined and would be subject to design review by the Redondo Beach Planning Commission. Therefore, the proposed Project would be consistent with the objectives and policies in the Redondo Beach General Plan Land Use Element including Policy 1.53.6</p>

Table 3.1-2. Potential Conflict with the Redondo Beach General Plan Land Use Element and Parks and Recreation Element Policies (Continued)

Policies	Discussion
Policy 1.53.10. Require that all building facades visible from public streets and abutting properties be designed to continue the architectural character established for the street facing elevations.	No Conflict. Refer to the discussion for Policy 1.46.5, Policy 1.46.6, and Policy 1.53.6.
Policy 1.53.11. Require that air conditioning and other mechanical equipment located on the rooftop of a structure be visually screened from public viewing areas and adjacent residential properties.	No Conflict. Mechanical equipment included in the proposed Project would be located on the rooftop of the proposed buildings and screened in compliance with RBMC Section 10-2.1530. The proposed mechanical equipment would be sited away from public streets and screened by proposed devices consistent with the architecture and color of the proposed buildings. Therefore, the proposed Project would be consistent with the objectives and policies in the Redondo Beach General Plan Land Use Element including Policy 1.53.11.
Parks and Recreation Element Policies	
Policy 8.2a.8. Preserve and enhance unique and valuable community resources as part of the planning and development of parks and recreation areas. Such resources include significant scenic and visual resources; cultural/historic resources; and natural resources such as water features, wildlife habitats, and native vegetation.	No Conflict. As described in the <i>Screened-out Thresholds</i> , no rock outcroppings or historic resources exist on the Project site. Further, as described in Section 3.3, <i>Biological Resources</i> , no native habitats exist within the campus. At least some of the existing landscaping could be protected in place. For example, the proposed Project would not remove the existing paperbark trees (<i>Melaleuca</i> spp.) and other landscaping along the North Prospect Avenue sidewalk. The proposed Project would remove portions of the existing landscaping during construction to facilitate demolition, excavation, and construction of the proposed Project. However, the proposed Project would also provide ground level and podium level landscaping to soften the views of the proposed development and enhance the visual character and pedestrian experience. While the proposed Project would change views of the Project site from the two locally designated historic structures within Dominguez Park, the proposed Project would not adversely affect the surrounding environment or any of the character defining features of the Morell House or Queen Anne House (see Section 3.4, <i>Cultural Resources and Tribal Cultural Resources</i>). No water features exist at or in the immediate vicinity of the Project site. Therefore, the proposed Project would be consistent with the objectives and policies in the Redondo Beach General Plan Parks and Recreation Element including Policy 8.2a.8.

Table 3.1-2. Potential Conflict with the Redondo Beach General Plan Land Use Element and Parks and Recreation Element Policies (Continued)

Policies	Discussion
<i>Residential Design Guidelines for Multi-Family Residential</i>	
Policy 1.B. Existing site amenities should be preserved and incorporated within new multi-family projects whenever feasible.	Consistent. The existing BCHD campus is landscaped with low-lying shrubs and grasses, such as Bermuda grass (<i>Cynodon dactylon</i>) and crab grass (<i>Digitaria</i> spp.), and a variety of trees, including paperbark trees, Mexican fan palms (<i>Washingtonia robusta</i>), and silver dollar eucalyptus (<i>Eucalyptus cinerea</i>) (see Section 3.3, <i>Biological Resources</i>). As previously described, landscaping within the Project site – including many of the trees along the eastern boundary of the Project site – would require removal to facilitate demolition, excavation, and construction of the proposed Project. However, the proposed Project would replace these trees with ground level and podium level landscaping to soften the views of the proposed development to enhance the visual character and pedestrian experience surrounding and within the Project site. The proposed Project would also landscape the vacant Flagler Lot, which is currently characterized by ruderal, weedy vegetation. Therefore, the proposed Project would be consistent with the objectives and policies in the Residential Design Guidelines for Multi-Family Residential.
Policy 1.C. Mature trees and similar natural amenities unique to the site should be preserved and incorporated into development proposals whenever possible.	
Policy 1.E. New landscaping should complement existing landscape materials, location, and massing on adjacent established developments where appropriate.	No Conflict. The proposed Project would landscape the Project site with a mix of drought-resistant grasses, shrubs, indigenous ground cover, and native shade trees consistent with the existing landscaping on-site and in the vicinity (refer to Figure 2-9). As such, the proposed Project would be consistent with the objectives and policies in the Residential Design Guidelines for Multi-Family Residential.
Policy 2.A. Appropriate building siting should be used to reduce the perception of bulk, maximize open space, increase pervious areas and provide community-gathering spaces.	No Conflict. The proposed Project considers sunlight patterns in its design to allow light and air to penetrate the interior spaces between the proposed buildings and sensitive uses in the vicinity. Shadow-sensitive uses, such as the single-family Torrance residences, Towers Elementary School, and Dominguez Park would be shaded beyond existing shadows cast by the existing buildings on the campus. However, these worst-scenario shadows would form in the evening hours (i.e., after 6:00 p.m. in the Summer, after 5:00 p.m. in the Fall, and after 4:00 p.m. in the Winter) and would not adversely affect shadow-sensitive uses in the vicinity of the Project site. See Impact VIS-3 for further discussion of potential impacts to shade and shadows as well as solar access. The proposed Project would be consistent with the objectives and policies in the Residential Design Guidelines for Multi-Family Residential.
Policy 2.B. Buildings should be generally oriented parallel to streets with varying setbacks to provide visual interest, vary shadow patterns, and reduce the appearance of bulk.	

Table 3.1-2. Potential Conflict with the Redondo Beach General Plan Land Use Element and Parks and Recreation Element Policies (Continued)

Policies	Discussion
Policy 2.D. Buildings should be oriented to take advantage of prevailing breezes and direction of the sun in order to provide natural lighting and ventilation for open spaces.	No Conflict. The proposed Project would develop active green open space in the interior of the campus. As described in Section 2.5.1.5, <i>Sustainability Features</i> , the proposed Project would increase operable windows to take advantage of ventilation. Additionally, the proposed Project would take advantage of opportunities for controlled natural lighting. The orientation of the proposed development would shelter the interior of the campus from the traffic and associated noise along North Prospect Avenue and Beryl Street. The proposed Project would be consistent with the objectives and policies in the Residential Design Guidelines for Multi-Family Residential.
Policy 3.B. The design and orientation of common open spaces should take advantage of available sunlight and should be sheltered from the noise and traffic of adjacent streets or other incompatible uses.	
Policy 3.D. Private open space (such as a side yard, patio, balcony, etc.) should be contiguous to the units they are serve and screened from public view.	No Conflict. The proposed RCFE Building would provide private outdoor space (i.e., small balconies) for Assisted Living and Memory Care residents. Trees and other vegetation along the boundaries of the campus would establish a clear delineation between the Project site and the surrounding development and would screen the lower levels of the proposed development from public view. The proposed Project would be consistent with the objectives and policies in the Residential Design Guidelines for Multi-Family Residential.
Policy 3.E. Boundaries between common and private open space should be clearly defined by elements such as low walls, fences, and/or landscaping.	
Policy 4.B. Pedestrian paths should be provided to link dwelling units with common open space areas, common open space areas, parking areas and the street. Curvilinear paths provide a more inviting and interesting experience and are generally preferred over long, straight alignments. Paths, which traverse common open space areas, are encouraged.	No Conflict. The proposed Project would create a more open and pedestrian-oriented environment at the Project site by developing open space in the interior of the campus, with a central lawn and pedestrian pathways connecting the mix of uses on-site, parking areas, and the public sidewalks. The pedestrian pathways would meander throughout the open space and would be landscaped to provide more visual interest. The pathways would be equipped with low-lying nighttime lighting for safety and provide shaded seating at regular intervals. Further, the wide sidewalks along the North Prospect Avenue and Beryl Street would remain unchanged under the proposed Project. The proposed Project would be consistent with the objectives and policies in the Residential Design Guidelines for Multi-Family Residential.
Policy 4.C. Pedestrian paths should be safe, visually attractive, and well defined by landscaping and lights. Use of decorative pavement is encouraged. At a minimum, decorative paving should be used to delineate crossings at circulation drives and parking aisles.	
Policy 5.D. Boxy and monotonous facades that lack a sense of human scale and large expanses of flat wall planes are strongly discouraged.	No Conflict. Refer to the discussion for Policy 1.46.5, Policy 1.46.6, and Policy 1.53.6.
Policy 5.E. Portions of upper floors should be set back in order to scale down facades that face the street, common open space, and adjacent residential structures. Upper story setbacks are recommended either as full length “stepbacks” or partial indentations for upper story balconies, decks, and/or aesthetic setbacks.	

Table 3.1-2. Potential Conflict with the Redondo Beach General Plan Land Use Element and Parks and Recreation Element Policies (Continued)

Policies	Discussion
Policy 5.G. Architectural elements such as bays, bay windows, recessed or projecting balconies, verandahs, balconies, porches and other elements that add visual interest, scale and character to the neighborhood are encouraged.	
Policy 8.A. Building materials should be durable, require low maintenance, and relate a sense of quality and permanence. Frequent changes in materials should be avoided.	No Conflict. Building design remains conceptual and specific colors, siding, windows, and overall materials are still being refined and would be subject to the Planning Commission Design Review, which would ensure that the final design incorporate high quality building materials that are complementary and stylistically consistent across the BCHD campus. The proposed Project would be consistent with the objectives and policies in the Residential Design Guidelines for Multi-Family Residential.
Policy 8.B. Textures, colors and materials should unify the building and its elements.	
Policy 8.F. Exterior materials and architectural details should complement each other and should be stylistically consistent.	
Policy 9.A. Landscaped areas should generally incorporate plantings utilizing a three-tier system; 1) grasses and ground covers, 2) shrubs and vines, and 3) trees.	No Conflict. The proposed Project would landscape the Project site with a mix of drought-resistant grasses, shrubs, indigenous ground cover, and native shade trees. The proposed Project would be consistent with the objectives and policies in the Residential Design Guidelines for Multi-Family Residential.
Policy 9.B. Plant materials should be placed so that they do not interfere with lighting of the premises or restrict access to emergency apparatus such as fire hydrants or fire alarm boxes. Trees or large shrubs should not be planted under overhead lines or over underground utilities if their growth might interfere with such public utilities.	No Conflict. The landscaping design remains conceptual and specific plant materials and exact locations are still being refined and would be subject to the Redondo Beach Planning Commission Design Review Process. This review process along with the review of the landscaping plan by the Redondo Beach Building & Safety Division would ensure proposed landscaping is sited to avoid interference with lighting, emergency apparatus, or utilities in accordance with these design guidelines. Therefore, the proposed Project would be consistent with the objectives and policies in the Residential Design Guidelines for Multi-Family Residential.
Policy 9.I. Impervious surfaces should be minimized in all open space and setback areas.	No Conflict. The proposed Project would redevelop the site with greater active green space, landscaping, and grass-crete, which is a semi-permeable surface (refer to Figure 2-10). As such, the proposed Project would result in a net reduction in the total amount impervious surface (see Section 3.9, <i>Hydrology and Water Quality</i>). The proposed Project would be consistent with the objectives and policies in the Residential Design Guidelines for Multi-Family Residential.
Policy 9.J. Landscaping shall emphasize water-efficient plants.	No Conflict. The proposed Project would landscape the Project site with a mix of drought-resistant grasses, shrubs, indigenous ground cover, and native shade trees (refer to Figure 2-9). The proposed Project would

Table 3.1-2. Potential Conflict with the Redondo Beach General Plan Land Use Element and Parks and Recreation Element Policies (Continued)

Policies	Discussion
	be consistent with the objectives and policies in the Residential Design Guidelines for Multi-Family Residential.
Policy 10.L.A. All lighting in parking areas should be arranged to prevent direct glare of illumination onto adjacent units.	No Conflict. As described further in Impact VIS-3, outdoor lighting would be shielded so as not to produce obtrusive glare onto the City-owned right-of-way or adjacent properties in accordance with RBMC Section 92.30.5 and these design guidelines. The proposed Project would be consistent with the objectives and policies in the Residential Design Guidelines for Multi-Family Residential.
Policy 10.L.B. The type and location of site and building lighting should preclude direct glare onto adjoining property, streets, or skyward.	
Policy 10.L.C. Pedestrian-scaled lighting should be located along all pedestrian routes of travel within multi-family communities.	No Conflict. The proposed pedestrian pathways within the interior of the Project site would be lit with low-lying downcast light in sufficient levels for public safety. The proposed Project would be consistent with the objectives and policies in the Residential Design Guidelines for Multi-Family Residential.
Policy 10.L.D. All lighting should be designed to shine downward and eliminate all skyward glare.	No Conflict. As described further in Impact VIS-3, outdoor lighting would be shielded so as not to produce obtrusive glare onto the public right-of-way or adjacent properties in accordance with RBMC Section 92.30.5 and these design guidelines. The proposed Project would be consistent with the objectives and policies in the Residential Design Guidelines for Multi-Family Residential.
Policy 10.ME.A. In addition to the following guidelines, mechanical equipment shall be screened as required pursuant to Section 10-2.1530 of the Zoning Ordinance.	No Conflict. Mechanical equipment included in the proposed Project would be screened in compliance with RBMC Section 10-2.1530. The proposed mechanical equipment would be sited away from public streets and would be screened by proposed landscaping and other screening devices consistent with the architecture and color of the proposed development. The proposed Project would be consistent with the objectives and policies in the Residential Design Guidelines for Multi-Family Residential.
Policy 10.ME.B. Utility meters, electric transformers, fire standpipes, water heaters and similar equipment should be placed in locations that are not exposed to view from the street or they should be suitably screened.	
Policy 10.ME.C. All screening devices are to be compatible with the architecture and color of the adjacent buildings.	

Consistency with City of Torrance Policies

As described in Section 2.2.1, *Project Location*, the proposed Project would extend into the City of Torrance right-of-way at three locations. The proposed Project includes two access points with driveways along Flagler Lane. One driveway would serve a left-turn only exit from the proposed pick-up/drop-off zone located on the vacant Flagler Lot. A second driveway is proposed for a subterranean service area and loading dock entry/exit, which would require grading and construction of retaining walls (see Section 2.5.1.3, *Proposed Access, Circulation and Parking*). These elements of the proposed Project would require grading and building permits from the City of Torrance (refer to Section 1.5, *Required Approvals*).

The proposed Project would also re-landscape the eastern slope of the BCHD campus to be consistent with the landscaping proposed within the remainder of the campus. The proposed grading and landscaping on this portion of the slope would also require a grading permit, landscape plan approval, and site plan review from the City of Torrance (refer to Section 1.5, *Required Approvals*).

As such, the analysis of potential conflicts with the Torrance General Plan is limited to the proposed development within the City of Torrance right-of-way.

Table 3.1-3. Consistency with Torrance General Plan Policies

Objectives	Discussion
Land Use Element	
Policy LU.2.1. Require that new development be visually and functionally compatible with existing residential neighborhoods and industrial and commercial areas.	No Conflict. Development within the City of Torrance right-of-way would be limited to the proposed pick-up/drop-off loading zone exit as well as the subterranean service area and loading dock entry/exit. The subterranean service entrance would require the construction of retaining walls, which would require a grading and building permit from the City of Torrance. Additionally, the proposed Project would re-landscape the east portion of the campus to be consistent with the proposed landscape within the remainder of the campus. This proposed construction of retaining walls, a paved driveway, and landscaping would not be incompatible or inconsistent with the Torrance neighborhood to the east, particularly given that the existing slope is already characterized by a series of wooden retaining walls, maintaining the slope. The landscaping would serve to help screen and soften the view of the proposed RCFE Building in Redondo Beach. It should also be noted that the RCFE Building has been sited along the northern perimeter of the Project site in an effort to minimize the potential visual effect on the Torrance neighborhood to the east. The proposed Project would not conflict with any of these policies from the Torrance General Plan Land Use Element.
Policy LU.2.2. Encourage the transition of incompatible, ineffective, and/or undesirable land uses to land uses that are compatible and consistent with the character of existing neighborhoods.	
Policy LU.3.1. Require new development to be consistent in scale, mass and character with structures in the surrounding area. For distinct neighborhoods and districts, consider developing design guidelines that suit their unique characteristics. Create guidelines that offer a wide spectrum of choices and that respect the right to develop within the context of existing regulations.	
Policy LU.5.1. Require that new residential development be visually and functionally consistent in scale, mass, and character with structures in the surrounding neighborhood. Encourage residential development that enhances the visual character, quality, and uniqueness of the City’s neighborhoods and districts.	
Community Resources Element	
Policy CR.1.1. Continue to evaluate the environmental impact of public and private projects on properties that have significant open space value.	No Conflict. The existing City of Torrance right-of-way is located along the eastern slope of the Project site. However, given the steepness of the slope this area is not considered to be a significant public open space. Re-landscaping within this area would ensure consistency with the proposed landscaping within Redondo Beach and would further help to soften and screen views of the Beach Cities Health Center. It should also be noted that the proposed Project as a whole would provide a variety of active and passive open space areas within the Project site, including a central lawn and landscaped walkways within the interior of the campus. Within the interior of the campus, the central lawn would support outdoor community events such as movie nights. The lawn would also support group classes associated with the CHF for up to 200 people. A flexible use platform would provide additional space for group exercise classes or small performances. Sensory gardens would include water features and sculptures, shaded intimate gathering areas for small groups, butterfly habitat, and a walking labyrinth. A tree-lined pedestrian promenade (Main Street) could support outdoor farmers’
Policy CR.1.2. Require the provision of on-site open space in new developments.	
Policy CR.1.3. Require that development projects involving modifications or additions include plans to upgrade or add open space and landscaping.	
Policy CR.3.1. Maximize open space for active and passive recreational uses at strategic and convenient locations throughout the City.	
Policy CR.3.5. Encourage the multiple use of open space land for recreational purposes.	
Policy CR.3.6. Require greater creativity and flexibility in the design of residential developments to encourage the provision of more usable on-site open space.	
Policy CR.3.8. Look for opportunities to create neighborhood pocket parks and similarly scaled recreation and cultural facilities that complement larger active park areas.	

Table 3.1-3. Consistency with Torrance General Plan Policies (Continued)

Policies	Discussion
	<p>markets and health fair expositions. At its eastern terminus, the pedestrian promenade would become the Wellness Walk, a distinct loop with distance markers, signage, and fitness stations. The proposed Project would also upgrade and relocate BCHD's existing Demonstration Garden.</p> <p>The proposed Project would also incorporate several open space areas into and surrounding the proposed RCFE Building. The RCFE Building would feature two dining terraces, including one on the south side of the building facing the central lawn and a larger landscaped dining terrace above the PACE service on the north side of the building.</p> <p>The proposed Project would not conflict with any of these policies from the Torrance General Plan Land Use Element.</p>
Policy CR.4.2. Require that developers and property owners improve their properties by providing landscaping and similar aesthetic treatments along roadways.	<p>No Conflict. The proposed Project would landscape the Project site with a mix of drought-resistant grasses, shrubs, indigenous ground cover, and native shade trees. The landscaping design remains conceptual and specific plant materials and exact locations are still being refined. The final landscaping plan for the City of Torrance right-of-way would be subject to review and approval by the Torrance Building & Safety Division.</p>
Policy CR.4.3. Encourage planting of new trees, and preserve existing street trees in residential neighborhoods.	
Policy CR.19.1. Make the preservation of scenic vistas an integral factor in land development decisions.	<p>No Conflict. As described in Section 3.1.3, <i>Impact Assessment and Methodology</i>, the Project site – including the City of Torrance right-of-way – is not located within a scenic view corridor established in the Torrance General Plan. Additionally, views of the existing campus from the east in Torrance are limited to open sky above the adjacent low-rise development. As such, the views of the Project site generally lack scenic qualities (e.g., distant views of the Project site or views of natural features including the ocean or mountains).</p> <p>The proposed Project would not conflict with any of these policies from the Torrance General Plan Land Use Element.</p>
Policy CR.20.1. Establish regulations for private lighting that minimize or eliminate light pollution, light trespass, and glare (obtrusive light).	<p>Consistent. As described further in Impact VIS-3, outdoor lighting would be shielded so as not to produce obtrusive glare onto the public right-of-way or adjacent properties in accordance with Section 92.30.5 and these design guidelines. Lighting onsite would also be screened by proposed trees and landscaping.</p> <p>The proposed Project would not conflict with any of these policies from the Torrance General Plan Land Use Element.</p>
Policy CR.20.2. Require that nonresidential uses adjacent or near residential neighborhoods provide shielding or other protections from outdoor lighting and lighted signage.	

Impact Description (VIS-3)

- c) *The project would create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.*

VIS-3 The proposed Project – including the Phase 1 preliminary development plan as well as the Phase 2 development program – would create new sources of exterior lighting. Additionally, building materials used in the construction of the proposed buildings could result in new sources of glare. However, through the conformance of the proposed Project with the Redondo Beach Municipal Code (RBMC) and the Torrance Municipal Code (TMC), impacts associated with the proposed Project would be *less than significant*.

Light and Glare

As described in Section 2.5.1.6, *Construction Activities* construction activities at the BCHD campus would occur between the hours of 7:30 a.m. and 6:00 p.m. Monday through Friday and 9:00 a.m. to 5:00 p.m. on Saturday. As such, exterior construction lighting would generally not be required. If necessary, during the winter when the sun sets earlier or if otherwise necessary for security purposes, lighting would be shielded and directed into the interior of the Project site. Security fencing and the noise barriers required under MM NOI-1 would screen light sources from view of nearby sensitive receptors (e.g., neighboring single- and multi-family residences) and other passersby. Thus, temporary lighting associated with construction activities would not adversely affect daytime or nighttime views in the area.

As described in Section 3.1.1, *Environmental Setting*, existing uses in the immediate vicinity of the Project site contribute to nighttime lighting that is characteristic of suburban environment. The primary light sources in the immediate vicinity include exterior lighting associated with the neighboring single and multi-family residential uses as well as the Redondo Village Shopping Center and the BCHD campus. Additionally, streetlights are regularly spaced along North Prospect Avenue, Beryl Street, and Flagler Lane. Vehicle headlights along North Prospect Avenue and Beryl Street, and to a lesser extent Flagler Lane also present a steady source of light during the evening hours.

The proposed Project – including the Phase 1 preliminary site development plan as well as the more general Phase 2 development program, would eliminate sources of light associated with the existing Beach Cities Health Center as well as the surface parking lots and perimeter circulation road. These light sources would be replaced by the 6-story RCFE Building during Phase 1, which would introduce new sources of light and glare to the Project site. Additionally, Phase 2 would result in the

construction of an additional multi-story building(s) and a parking structure that would also introduce new sources of light.

The proposed Project would increase lighting associated with interior building illumination and outdoor lighting for nighttime security and wayfinding around and through the BCHD campus. Interior lighting would be designed with occupancy sensors and dimmers, where feasible and appropriate. Additionally, during the evening hours, interior lighting associated with the Assisted Living and Memory Care units would be muted as a result of interior blinds, curtains, and other shades. Outdoor ground floor illumination would be limited to the entry plaza, outdoor seating areas, and pedestrian pathways. Lighting in these areas would be low lying and directed toward the ground. As such, outdoor ground lighting would generally be contained within interior spaces of the Project site. Exterior outdoor lighting would also be further muted by proposed landscaping along the perimeters of the Project site. Vehicle headlights from the proposed driveway exits onto Flagler Lane would constitute a new source of light directed toward the residential uses in Torrance. However, service deliveries would not occur during the evening hours. Additionally, pick-ups and drop-offs during the evening hours would also be few. Further direct light from vehicle headlights would be blocked by the concrete wall along Flagler Lane. While indirect light may be visible from the second stories, this would be similar in intensity to the exterior lighting associated with the existing development on the BCHD campus and in the surrounding vicinity (e.g., security lighting within the surface parking lots on the BCHD campus and the Redondo Village Shopping Center).

Lighting associated with the proposed Project would generally be similar in type and intensity to the lighting sources surrounding the Project site. The nearest light-sensitive receptors to the Project site include the multi-family residences to the north of Beryl Street and the single-family residences to the east of Flagler Lane. Dominguez Park to the northeast would also experience an increase in light intrusion from the Project. However, the lighting associated with the proposed RCFE Building would comply with Redondo Beach Residential Design Guidelines for Multi-Family Residential, which require that the type and location of building lighting preclude direct glare onto adjoining property, streets, or skyward, and all lighting be designed to shine downward. Lighting within the City of Torrance right-of-way would also comply with TMC Section 92.30.5, which limits the intensity and impacts of night lighting and requires lighting be directed away from all surrounding residential land uses. Compliance with the Redondo Beach Design Guidelines and the TMC would ensure the new light sources associated with the proposed Project would not substantially affect off-site light-sensitive receptors.

New sources of vehicle headlights at the Project site would largely be confined to the proposed surface parking lot during Phase 1 and the parking structure during Phase 2. The surface parking lot would be accessed from the existing driveways along North Prospect Avenue, where vehicle

headlights are already common. Additionally, the single- and multi-family residences along North Prospect Avenue are set back along a frontage road and separated from North Prospect Avenue by a 6- to 8-foot hedge. As such, the surface parking lot developed during Phase 1 would not result in a substantial new source of light that would affect adjacent sensitive receptors. The parking structure developed in Phase 2 of the proposed Project would rise to a maximum height of 81 feet and would be visible by the adjacent sensitive receptors to the east within Torrance. However, the parking structure would include standard treatments to avoid light spillover, including: 1) solid parapet walls at least 42 inches high at each garage level and ramps; 2) planted screening at lower floor levels; and 3) screening at openings for upper levels. Additionally, as with the development during Phase 1, the development during Phase 2 – including the proposed parking structure – would be subject to Planning Commission Design Review and final design review by the Redondo Beach Building & Safety Division prior to issuance of building permits. Compliance with the Redondo Beach Design Guidelines and the TMC would ensure the new light sources associated with the proposed Project would not substantially affect light-sensitive receptors.

The proposed Project may also include new sources of glare associated with glazing (windows) and other reflective materials used in the façade of the proposed structures, which could potentially result in increased glare emanating from the Project site. The building design details remain conceptual and specific colors, siding, windows, and overall materials are still being refined; however, the exterior of the proposed building shall be constructed of low- or no-glare materials, such as high-performance tinted non-reflective or non-mirrored glass and low reflective surfaces, with Light Reflective Values of less than 35 percent. Additionally, the proposed Project would be subject to Redondo Beach Planning Commission Design Review prior to the issuance of building permits. Due to the proposed increase in building mass and size, it is expected that the Project would include a greater number of windows and reflective surfaces than the existing Project site. The reflective exterior façade elements of the proposed development, such as the fixed paneling, sunshade louvers, and windows would be designed to be consistent with the RBMC and prevent substantial glare. Project architectural design and materials would be intended to minimize the lighting and glare effects on public views.

For the reasons described above, the proposed Project would not constitute a new source of substantial nighttime light pollution or glare; therefore, effects would be *less than significant*.

Impact Description (VIS-4)

Would shadow-sensitive uses be shaded by project-related structures for more than 3 hours between the hours of 9:00 a.m. and 3:00 p.m. Pacific Standard Time (between late October and early April), or for more than 4 hours between 9:00 a.m. and 5:00 p.m. Pacific Daylight Time (between early April and late October).

VIS-4 The proposed Project – including the Phase 1 preliminary development plan as well as the Phase 2 development plan – would result in additional shading of adjacent properties. However, the extent and duration of shading would be *less than significant*.

Potential shading effects of the proposed Project would vary widely depending upon time of day and year. Shadow effects are magnified during the winter, when the sun's lower position in the sky creates longer shadows. For example, according to the accepted shadow length multipliers for the City of Los Angeles, a 121.5-foot-tall building would create morning and afternoon shadows that would reach approximately 404.5 feet in length during the Winter Solstice; the same building would create shadows that would reach approximately 291 feet at the same times during the Summer Solstice (City of Los Angeles 2006). Winter is also when maximum solar access is more important to solar energy and passive heat production. For the purposes of this EIR analysis, Winter Solstice is considered the most severe condition for shade and shadow impacts.

The proposed 6-story RCFE Building would reach a maximum height of 103 feet (including the rooftop cooling tower) above the campus ground level and 133.5 feet above the vacant Flagler Lot below. This would be the tallest building included in either Phase 1 or Phase 2 of the Master Plan, casting shadows up to 404.5 feet long during the Winter Solstice. Therefore, the proposed Project would create longer and more extensive shadows than the existing buildings on the campus.

Shadow-sensitive land uses adjacent to the Project site would consist of residential buildings, including windows and private yards at most houses, Towers Elementary School to the east, and Dominguez Park to the northeast. The shade and shadow study prepared for the proposed Project demonstrate that the adjacent residential structures in Torrance, including on Towers Street, Tomlee Avenue, Mildred Avenue, and Redbeam Avenue would be shaded beyond existing shadows, particularly during the Fall and Winter evenings during Phase 1 and Phase 2 (see Appendix M). However, the vast majority of the residences in the Torrance neighborhood east of the Project site would not be shaded until the evening hours (i.e., 5:00 p.m. during the Fall Equinox and 4:00 p.m. during the Winter Solstice) (see Figure 3.1-3 and Figure 3.1-5). Further, many of these residences are already shaded by the Beach Cities Health Center in the evening hours under existing conditions

(refer to Figure 3.1-2) given the difference in elevation between the BCHD campus and the Torrance residences below.

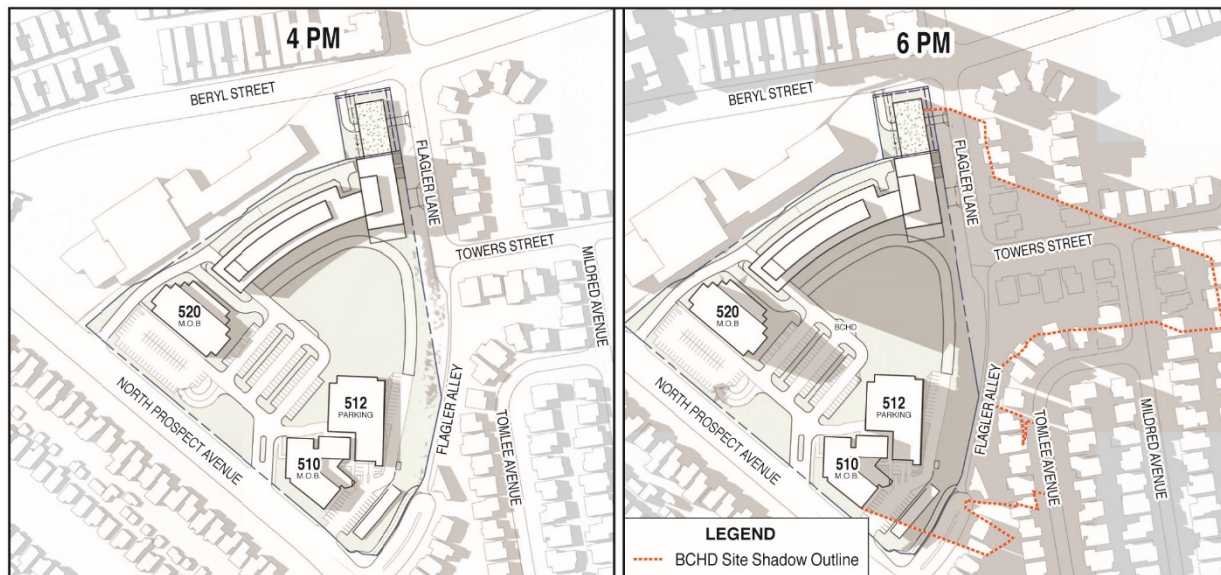
The multi-family residential buildings adjacent to the north of the Project site would be shaded by the proposed RCFE Building beyond existing shadows during the early morning hours (i.e., 8:00 a.m. or earlier) in the Winter, due to the proximity of the residences to the Project site. However, by 10:00 a.m., the multi-family residences would not be shaded. Further, the proposed RCFE Building would not cast shadows over these residences in the Spring, Summer, and Fall (refer to Figure 3.1-3).

During the Fall and Winter, the proposed RCFE Building would also cast shadows on Towers Elementary School – including the recreational field – in the evening hours (i.e., 5:00 p.m. during the Fall Equinox and 4:00 p.m. during the Winter Solstice). The latest dismissal time for Towers Elementary School students is at 3:12 p.m. for 4th and 5th graders; however, Towers Elementary School closes at 4:00 p.m. Therefore, shadows cast by the proposed RCFE Building would not have a significant adverse effect on Towers Elementary School.

Based on the shade and shadow study prepared for the proposed Project, the RCFE Building would also cast shadows along the southern edge of Dominguez Park during the evening hours (i.e., after 4:00 p.m.) in the Winter. However, the portion of Dominguez Park that would be shaded is comprised of a steep vegetated slope that does not provide any recreational opportunity and is fenced off from the rest of the park to the north. Consequently, the proposed Project would not generate shading that would affect shadow-sensitive receptors at Dominguez Park.

Shadow-sensitive uses would not be shaded by the proposed structures for more than 3 hours between the hours of 9:00 a.m. and 3:00 p.m. Pacific Standard Time (between late October and early April), or for more than 4 hours between 9:00 a.m. and 5:00 p.m. Pacific Daylight Time (between early April and late October); therefore, shade and shadow effects would be *less than significant*.

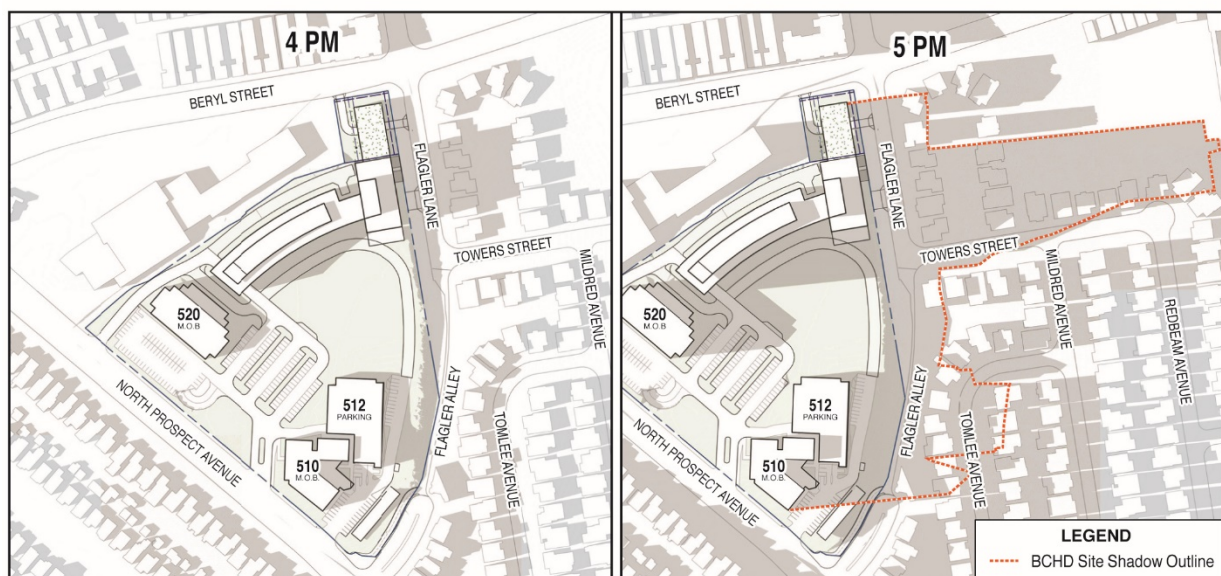
A shade and shadow study was also prepared for the Phase 2 development assuming a maximum height of the parking structure of 81 feet (see Appendix M). As with the Phase 1 development, shadow-sensitive uses would not be affected by shadows from structures developed under Phase 2 for more than 3 hours between the hours of 9:00 a.m. and 3:00 p.m. Pacific Standard Time (between late October and early April), or for more than 4 hours between 9:00 a.m. and 5:00 p.m. Pacific Daylight Time (between early April and late October) shade and shadow impacts would be *less than significant*.



wood.

**Summer Solstice with the
Implementation of Phase 1**

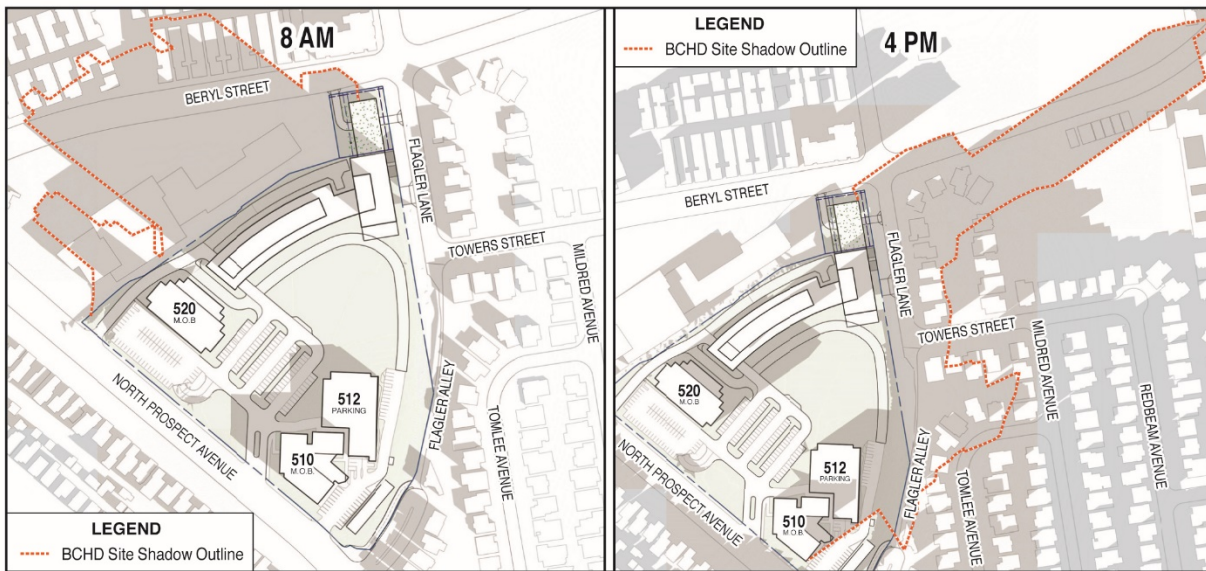
**FIGURE
3.1-5**



wood.

**Fall Equinox with the
Implementation of Phase 1**

**FIGURE
3.1-6**



wood.

**Winter Solstice with the
Implementation of Phase 1**

**FIGURE
3.1-7**

Cumulative Impacts

The visual character of the Project vicinity is not expected to change substantially over time, given that the Project site is located in a primarily suburban neighborhood, surrounded by single- and multi-family residences, elementary schools, and public parks, with some neighborhood-serving commercial uses (i.e., Redondo Village Shopping Center) to the north. Additionally, the nearest cumulative projects to the Project site are the Dominguez Park improvements and Redondo Beach Police Department (RBPd) shooting range upgrade. As such, none of the cumulative projects that would be visible from the Project site would result in visual changes that would contribute to adverse visual character changes in the Project vicinity. None of the cumulative projects that would be visible from the Project site would result in taller structures that would affect shade and shadows in the Project vicinity. Further, all new projects in the vicinity would be required to adhere to regulations of the RBMC or TMC, and would be required to undergo plan review by the respective City Planning Commission and City Council. Thus, although the visual character could change as development intensity increases, the impact to visual quality would not be considered substantially adverse.

As with the proposed Project, cumulative projects would introduce new lighting sources. However, new development would be subject to design review and approval by the respective City staff to

3.1 AESTHETICS AND VISUAL RESOURCES

ensure compliance with local regulations. Compliance with the RBMC and TMC would reduce potential impacts associated with light spillover. With adherence to applicable local regulations addressing aesthetics, visual resources, light and glare, and shade and shadows, impacts would be less than significant. Therefore, the proposed Project *would not substantially contribute to a cumulatively considerable impact* to aesthetics and visual resources in the Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach.

3.2 AIR QUALITY

This section of the Environmental Impact Report (EIR) describes the existing air quality conditions in the South Coast Air Basin (Basin) – which encompasses most of Los Angeles County, including Redondo Beach, Torrance, and the Project site – and evaluates the potential impacts of the proposed Beach Cities Health District (BCHD) Healthy Living Campus Master Plan Project (Project). This discussion includes an assessment of both short-term construction and long-term operational air emissions generated by the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program. Information for this section was derived from the U.S. Environmental Protection Agency (USEPA), California Air Resources Board (CARB), and South Coast Air Quality Management District (SCAQMD). Air Quality modeling was prepared using the California Emission Estimator Model (CalEEMod) Version 2016.3.2 (see Appendix B). An analysis of greenhouse gas (GHG) emissions and associated impacts is included in Section 3.7, *Greenhouse Gas Emissions and Climate Change*.

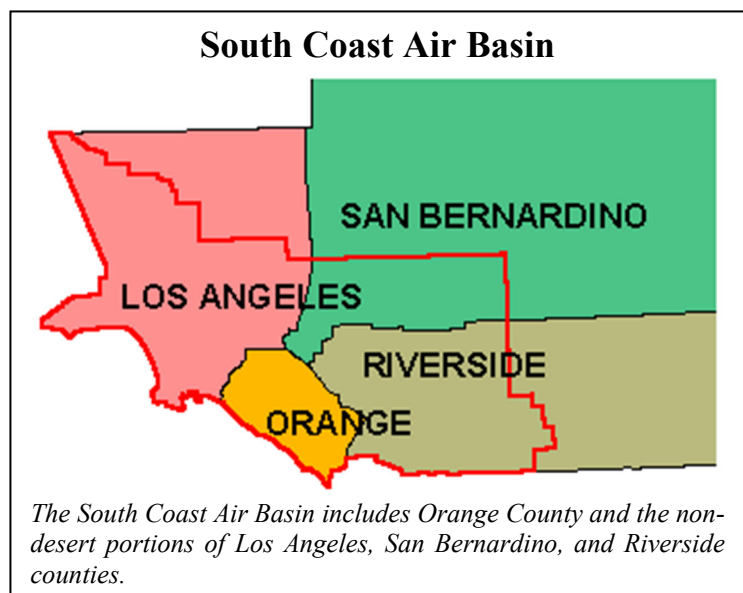
3.2.1 Environmental Setting

3.2.1.1 Location and Climate

The South Coast Air Basin is bounded by the Pacific Ocean to the west, and the San Gabriel, San Fernando, and San Jacinto Mountains to the north and east. The topography defining the Basin traps air in the valleys below, making the Basin an area of high air pollution potential.

Redondo Beach and Torrance have a Mediterranean coastal climate with warm, dry summers and mild, cool winters. The average annual temperature recorded at Torrance

Municipal Airport is 62.6 degrees Fahrenheit (°F), with a monthly average maximum temperature of 77.8 °F in August and a monthly average minimum temperature of 46.2 °F in December. The average annual rainfall in the region is approximately 14.45 inches per year, with the majority of



annual rainfall occurring between December and March (National Climatic Data Center [NCDC] 2010).

The Basin frequently experiences weather conditions that trap air pollutants within the Basin. First, the Basin has persistent temperature inversions formed by warmer air in the upper layer and cooler air in the lower layer. Temperature inversions limit the vertical dispersion of air contaminants, holding them relatively near the ground. These inversions break when the sun heats the lower layer, allowing the two layers to mix and the previously trapped air to leave the Basin. Second, the Basin experiences periods of stagnant wind conditions, which also limit the movement of air pollutants. The combination of stagnant wind conditions and low temperature inversions produces the greatest pollutant concentrations, typically from June through September. Conversely, on days with no inversion (i.e., days with high wind speeds) air pollutant concentrations are the lowest. However, pollutant concentrations in the Basin also vary with location. Concentrations of ozone (O₃), for example, tend to be lower along the coast (i.e., within the vicinity of the Project site) and higher in the near inland valleys.

3.2.1.2 Air Pollutants

Air pollutant emissions within the Basin are generated from several stationary, mobile, and natural sources, ranging from large power plants and manufacturing facilities to residential water heaters and consumer products. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at an identified location and are usually associated with industry and manufacturing. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are more widely distributed. Examples of area sources include residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products. Mobile sources, including motor vehicles, aircraft, trains, and construction equipment, account for most of the air pollutant emissions within the Basin. Construction activities that disturb the ground surface (e.g., excavation and grading) contribute to fugitive dust emissions within the Basin. Fugitive dust can also be generated naturally when strong winds pull fine dust particles off the ground surface into the air.

To protect the public health and welfare, the Federal and State governments have identified and regulate criteria air pollutants and certain air toxics. In California, these pollutants are regulated through the Federal Clean Air Act (CAA), which established the National Ambient Air Quality Standards (NAAQS), and the California Clean Air Act (CCAA), which established the more restrictive California Ambient Air Quality Standards (CAAQS) (see Table 3.2-1). The air pollutants for which both Federal and State standards have been promulgated and which are most

relevant to air quality planning and regulation in the air basin are ozone (O₃), carbon monoxide (CO), respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead (Pb). Toxic air contaminants (TACs), discussed below, are of particular concern in the Basin and are regulated separately from criteria air pollutants. The CAAQS regulate additional air pollutants that are not currently regulated by the NAAQS, including hydrogen sulfide (H₂S), vinyl chloride, and sulfates. These pollutants are described below (refer to Table 3.2-1 for Federal and State ambient air quality standards):

Ozone (O₃)

O₃ is a gas that is produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides (NO_x) and volatile organic compounds (VOCs). NO_x and VOCs are also commonly referred to as reactive organic gases (ROGs). NO_x is formed during the combustion of fuels, while VOCs are formed during combustion and evaporation of organic solvents. Conditions that produce high concentrations of O₃ are direct sunshine, stagnation in source areas, high ground surface temperatures, and a strong inversion layer that restricts vertical mixing. O₃ concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable.

O₃ is a pungent, colorless, toxic gas with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions. Children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors are the most sensitive to O₃.

Carbon Monoxide (CO)

CO is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest near congested transportation corridors and intersections, especially during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels.

The health effects of CO are related to its affinity for hemoglobin in the blood. At high concentrations, CO reduces the amount of oxygen in the blood, causing heart difficulties in people with chronic diseases, reduced lung capacity, and impaired mental abilities. Those most at risk are fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (i.e., oxygen deficiency, as seen at high altitudes).

Respirable Particulate Matter (PM₁₀) and Fine Particulate Matter (PM_{2.5})

PM₁₀ and PM_{2.5} consist of extremely small, suspended particles with diameters less than 10 microns and less than 2.5 microns, respectively. PM₁₀ generally comes from fugitive dust (windblown dust and dust generated from mobile sources), while PM_{2.5} is generally associated with combustion processes, it is also formed in the atmosphere as a secondary pollutant through chemical reactions. Most particulate matter in urban areas is produced by fuel combustion, motor vehicle travel, and construction activities.



Fugitive dust can be controlled by applying water or other soil stabilizers to exposed soil surfaces daily during construction activities to avoid windblown dust.

Children, the elderly, and people with pre-existing respiratory or cardiovascular disease appear to be more susceptible to the effects of high levels of PM₁₀ and PM_{2.5}. Potential impacts of elevated levels of PM₁₀ and PM_{2.5} include increased mortality rates, respiratory infections, number and severity of asthma attacks, and number of hospital admissions. Daily fluctuations in PM_{2.5} concentration levels have been related to hospital admissions for acute respiratory conditions in children, school absences, decreases in respiratory lung volumes in normal children, and increased medication use in children and adults with asthma. Recent studies show the development of lung function in children is reduced with long-term exposure to particulate matter.

Nitrogen Dioxide (NO₂)

NO₂ is a reddish-brown toxic gas with a characteristic sharp, biting odor and is a prominent air pollutant resulting from nitrogen oxides emitted primarily by motor vehicles, making it a strong indicator of vehicle emissions. Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO₂ at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO₂ in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive

pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.

Sulfur Dioxide (SO₂)

SO₂ is a colorless, extremely irritating gas or liquid. The largest sources of SO₂ are fossil fuel combustion at power plants and other industrial facilities. Smaller sources of SO₂ emissions include industrial processes such as extracting metal from ore, and the burning of high sulfur containing fuels by locomotives, large ships, and non-road equipment.

SO₂ is linked with adverse effects on the respiratory system. Asthmatics are particularly sensitive to SO₂, with only a few minutes of exposure to low levels of the gas potentially resulting in airway constriction.

Lead (Pb)

Pb occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne lead in the Basin. The use of leaded gasoline is no longer permitted for on-road motor vehicles; therefore, most Pb combustion emissions are associated with aircraft, and some racing and off-road vehicles. Substantial Pb emissions also occur in the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and secondary lead smelters. Despite these sources, Pb emissions in the U.S. decreased by 99 percent from 1980 to 2015 (USEPA 2016).

Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased levels of lead are associated with increased blood pressure. Pb poisoning can cause anemia, lethargy, seizures, and death.

Toxic Air Contaminants (TACs)

TACs are a diverse group of air pollutants including both organic and inorganic chemical substances that may be emitted from a variety of common sources including gasoline stations, heavy duty trucks, motor vehicles, construction equipment, and industrial operations. TACs are different than criteria pollutants in that ambient air quality standards have not been established for TACs, largely because there are hundreds of air toxics and their effects on health tend to be local rather than regional. CARB has designated nearly 200 compounds as TACs. Additionally, CARB has implemented control measures for many compounds that pose high risks and show potential for effective control.

TACs can cause chronic and acute adverse effects on human health. These health impacts include increased risk of cancer due to continual inhalation of toxic air pollutants. Most of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines (i.e., diesel particulate matter [DPM]).

Volatile Organic Compounds (VOCs)

VOCs are organic chemicals that have a high vapor pressure at ordinary room temperature and include any compound of carbon, excluding CO, carbon dioxide (CO₂), carbonic acid (H₂CO₃), metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. The high vapor pressure of VOCs results from a low boiling point, which causes large numbers of molecules to evaporate or sublime from the liquid or solid form of the compound and enter the surrounding air. For example, formaldehyde, which evaporates from paint, has a boiling point of only -2 °F.

VOCs are numerous, varied and ubiquitous, and include both human-made and naturally occurring chemical compounds. Most scents or odors are of VOCs. Some VOCs are dangerous to human health or cause harm to the environment. Anthropogenic VOCs are regulated by law, especially indoors, where concentrations are the highest. Harmful VOCs typically are not acutely toxic, but have compounding long-term health effects.

Odors

Odors are not regulated under the Federal CAA or CCAA; however, they are considered under the California Environmental Quality Act (CEQA). Odors can potentially affect human health in several ways. Odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Additionally, VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system.

According to the SCAQMD CEQA Air Quality Handbook (1993), land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. Major sources within Redondo Beach and Torrance include the AES Redondo Beach Power Plant. Other sources of odors may include odors from commercial kitchens, particularly those with outdoor grilling or wood burning ovens, as well as short term odors generated by construction activities such as painting and asphalt paving.

Table 3.2-1. Federal and State Ambient Air Quality Standards for Criteria Pollutants

Criteria Pollutant	Averaging Time	California Standards		National Standards
		Concentration	Primary	Secondary
Ozone (O ₃)	1-Hour	0.09 ppm (180 µg/m ³)	-	-
	8-Hour	0.07 ppm (137 µg/m ³)	0.07 ppm (137 µg/m ³)	Same as Primary Standard
Respirable Particulate Matter (PM ₁₀)	24-Hour	50 µg/m ³	150 µg/m ³	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m ³	-	
Fine Particulate Matter (PM _{2.5})	24-Hour	-	35 µg/m ³	Same as Primary Standard
	Annual Arithmetic Mean	12 µg/m ³	12 µg/m ³	15 µg/m ³
Carbon Monoxide (CO)	1-Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	-
	8-Hour	9 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	-
Nitrogen Dioxide (NO ₂)	1-Hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)	-
	Annual Arithmetic Mean	0.03 ppm (57 µg/m ³)	0.53 ppb (100 µg/m ³)	Same as Primary Standard
Sulfur Dioxide (SO ₂)	1-Hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)	-
	3-Hour	-	-	0.5 ppm (1,300 µg/m ³)
	24-Hour	0.04 ppm (105 µg/m ³)	-	-
Lead	30 Day Average	1.5 µg/m ³	-	-
	Rolling 3-Month Average	-	0.15 µg/m ³	Same as Primary Standard
Sulfates	24-Hour	25 µg/m ³	-	-
Hydrogen Sulfide (H ₂ S)	1-Hour	0.03 ppm (42 µg/m ³)	-	-
Vinyl Chloride	24-Hour	0.01 ppm (26 µg/m ³)	-	-

Notes: ppm = parts per million; µg/m³ = micrograms (one-millionth of a gram) per cubic meter of air.

Sources: CARB 2016.

3.2.1.3 Regional Air Quality

Measurements of ambient concentrations of criteria pollutants are used by the USEPA and CARB to assess and classify the air quality of each air basin, county, or, in some cases, a specific

developed area. The classification is determined by comparing monitoring data with Federal and State air quality standards. If a pollutant concentration in an area is lower than the standard, the area is classified as being in “*attainment*.” If the pollutant exceeds the standard, the area is described as being in marginal, moderate, serious, severe, or extreme “*nonattainment*,” depending on the magnitude of the air quality standard exceedance. In order to reach attainment again, the NAAQS may not be exceeded more than once per year. A nonattainment area can reach attainment when the NAAQS have been met for a period of 10 consecutive years. During this time period, the area is in “*maintenance*.” If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as “*unclassified*.”

The entire Basin is designated as a Federal and/or State nonattainment area for O₃, PM_{2.5}, and PM₁₀. At the Federal level, the Basin is designated as a nonattainment area for O₃, Pb, and PM_{2.5}. The Basin is in attainment of federal standards for SO₂ and NO₂, a subcategory of NO_x. At the State level, the Basin, including the Los Angeles County portion of the Basin, is also designated as a nonattainment area for O₃, PM_{2.5}, and PM₁₀. The Basin is in attainment for the State ambient air quality standards for CO, NO₂, and SO₂, and the Los Angeles County portion of the Basin is designated as attainment for Pb (CARB 2019a; USEPA 2019a).

Table 3.2-2. Los Angeles County-South Coast Air Basin Federal and State Attainment Status for Criteria Pollutants

Criteria Pollutant		Federal Designation	State Designation
Ozone (O ₃)	1-hour	Extreme Nonattainment	Nonattainment
	8-hour	Extreme Nonattainment	Nonattainment
Particulate Matter (PM ₁₀)	24-hour	Attainment as Serious Maintenance Area	Nonattainment
	Annual		
Particulate Matter (PM _{2.5})	24-hour	Serious Nonattainment	Nonattainment
	Annual		
Carbon Monoxide (CO)	1-hour	Attainment as Serious Maintenance Area	Attainment
	8-hour		
Nitrogen Dioxide (NO ₂)	1-hour	Attainment	Attainment
	Annual	-	-
Sulfur Dioxide (SO ₂)	1-hour	Attainment	Attainment
	24-hour		
Lead (Pb)	30 day rolling average	-	Attainment
	3 month rolling average	Nonattainment	-
Sulfates		-	Attainment
Hydrogen Sulfide (H ₂ S)		-	Attainment
Vinyl Chloride		-	Attainment

Sources: CARB 2019a; USEPA 2019a.

In an effort to monitor the various concentrations of air pollutants throughout the Basin, the SCAQMD operates 37 permanent monitoring stations and four single-pollutant source impact Pb air monitoring sites in the Basin and a portion of the Salton Sea Air Basin in Coachella Valley (i.e., Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties). The SCAQMD has divided the region into 38 source receptor areas (SRAs). Redondo Beach and Torrance – including the Project site – are located within SRA 3, which covers southwestern coastal Los Angeles County. Ambient air pollutant concentrations within SRA 3 are monitored at the 7201 West Westchester Parkway Monitoring Station, which is located approximately 7.57 miles north of the Project site. Of the six criteria air pollutants, ambient concentrations of CO, O₃, NO₂, SO₂, and PM₁₀ are monitored in SRA 3. Measurements for PM_{2.5} are taken in SRA 4 at the South Long Beach 1305 East Pacific Coast Highway Monitoring Station. Table 3.2-3 provides a summary of ambient air quality measured within SRA 3 and 4 from 2015 to 2019 for all pollutants.¹ Since 2015, exceedances have occurred for the Federal and State 8-hour standards for O₃, the State 1-hour O₃ standard, the Federal 24-hour PM_{2.5} standard, and the annual average standard for PM₁₀.

3.2.1.4 CO Hotspots

Motor vehicles are the primary source of criteria pollutants in the vicinity of the Project site. Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed Federal and/or State standards for CO are termed “CO hotspots.” Section 9.14 of the SCAQMD CEQA Air Quality Handbook (1993) identifies CO as a “*localized problem requiring additional analysis when a project is likely to subject sensitive receptors to CO hotspots.*” In the past, the SCAQMD recommended that a CO hotspot analysis should be conducted for intersections where a proposed project would have a significant traffic-related congestion impact causing the Level of Service (LOS) to change to E or F or when a project increases the volume to capacity ratio (V/C) increases by 2 percent and the LOS is D or worse. These recommendations were formulated several years ago when the Basin was a nonattainment area for Federal and State CO standards. The Basin is now in attainment of all applicable ambient CO standards – in 2019, the maximum 8-hour concentration of CO measured within SRA 3 was 1.3 parts per million (ppm) (refer to Table 3.2-3), which is well below the 9.0 Federal and State 8-hour standard (refer to Table 3.2-1).

¹It should be noted that the closest SCAQMD monitoring stations are located at Los Angeles International Airport and Long Beach near major sources of criteria air pollutants. Redondo Beach and Torrance do not contain any major sources of criteria air pollutants; instead, air pollutant levels are affected mostly by large regional sources outside of the city limits.

Table 3.2-3. Exceedances of Ambient Air Quality Standards for Criteria Pollutants

Criteria Pollutant / Standards	Number of Days Threshold Was Exceeded and Maximum Levels During Violations				
	2015	2016	2017	2018	2019
Ozone (O₃)					
State 1-Hour Standard: > 0.09 ppm	1 day	0 days	0 days	0 days	0 days
State 8-Hour Standard: > 0.070 ppm	3 days	3 days	0 days	0 days	0 days
Federal 8-Hour Standard: > 0.070 ppm	3 days	2 days	0 days	0 days	0 days
Max. 1-Hour Conc. (ppm)	0.096 ppm	0.087 ppm	0.086 ppm	0.074 ppm	0.082 ppm
Max. 8-Hour Conc. (ppm)	0.077 ppm	0.080 ppm	0.070 ppm	0.065 ppm	0.067 ppm
Carbon Monoxide (CO)					
State 8-Hour Standard: > 9.0 ppm	0 days	0 days	0 days	0 days	0 days
Federal 8-Hour Standard: > 9.0 ppm	0 days	0 days	0 days	0 days	0 days
Max. 8-Hour Conc. (ppm)	1.4 ppm	1.3 ppm	1.6 ppm	1.5 ppm	1.3 ppm
Max. 1-Hour Conc. (ppm)	1.7 ppm	1.6 ppm	2.1 ppm	1.8 ppm	1.8 ppm
Nitrogen Dioxide (NO₂)					
State 1-Hour Standard: > 0.18 ppm	0 days	0 days	0 days	0 days	0 days
Annual Average (ppm)	0.11 ppm	0.10 ppm	0.09 ppm	0.09 ppm	0.10 ppm
Max. 1-Hour Conc. (ppm)	0.09 ppm	0.08 ppm	0.07 ppm	0.06 ppm	0.06 ppm
Sulfur Dioxide (SO₂)					
State 1-Hour Standard: > 0.25 ppm	0 days	0 days	0 days	0 days	0 days
State 24-Hour Standard: > 0.04 ppm	0 days	0 days	0 days	0 days	0 days
Max. 24-Hour Conc. (ppm)	0 days	0 days	0 days	0 days	0.001 ppm
Max. 1-Hour Conc. (ppm)	0.015 ppm	0.010 ppm	0.010 ppm	0.012 ppm	0.004 ppm
Respirable Particulates (PM₁₀)					
State 24-Hour Standard: > 50 µg/m ³	0 days	0 days	0 days	0 days	2 days
Federal 24-Hour Standard: > 150 µg/m ³	0 days	0 days	0 days	0 days	0 days
Max. 24-Hour Conc. (µg/m ³)	42.0 µg/m ³	43.0 µg/m ³	46.0 µg/m ³	45.0 µg/m ³	62.0 µg/m ³
Annual Average Standard: 20 (µg/m ³)	21.2 µg/m ³	21.6 µg/m ³	19.8 µg/m ³	20.5 µg/m ³	19.2 µg/m ³
Fine Particulates (PM_{2.5})					
Federal 24-Hour Standard: > 35 µg/m ³	3 days	0 days	4 days	2 days	0 days
Max. 24-Hour Conc. (µg/m ³)	54.6 µg/m ³	29.4 µg/m ³	55.3 µg/m ³	46.4 µg/m ³	29.0 µg/m ³
Annual Average (µg/m ³)	10.8 µg/m ³	10.4 µg/m ³	10.9 µg/m ³	11.0 µg/m ³	9.23 µg/m ³

Notes: Ambient concentrations for CO, O₃, NO₂, SO₂, and PM₁₀ were measured at the Southwest Coastal Los Angeles County monitoring station (SRA 3). Ambient concentrations of PM_{2.5}, were measured at the South Coastal Los Angeles County monitoring station (SRA 4).

Source: CARB 2019b; SCAQMD 2019a.

3.2.1.5 Sensitive Receptors

Sensitive receptors are populations that are more susceptible to the effects of air pollution than is the population at large. According to CARB, sensitive receptors include children less than 14 years of age, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. The Federal and State ambient air quality standards are designed to protect public health and are generally regarded as conservative for healthy adults because there is greater concern to protect adults who are ill or have long-term respiratory problems, and young children whose lungs are not fully developed. The SCAQMD identifies the following as locations that may contain a high concentration of sensitive receptors; long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds and parks with active recreational uses, childcare centers, and athletic facilities.

The majority of development within Redondo Beach and Torrance consists of residential uses, including large single-family neighborhoods and multiple-family apartments and condominiums (see Section 3.10, *Land Use and Planning*), all of which are considered sensitive land uses with regard to air quality. Residential uses occur to the north, south, east, and west of the Project site as close as 80 feet to the Project site (i.e., to the extent of proposed construction activities). The following 11 schools within 0.5 miles (2,640 feet) of the Project site: Beach Cities Child Development Center (preschool), Towers Elementary School, Beryl Heights Elementary School, Redondo Shores High School, Redondo Beach Learning Academy, Redondo Union High School, Jefferson Elementary School, Parras Middle School, Our Lady of Guadalupe School, Valor Christian Academy, and West High School. There are also many public parks in the vicinity, including Dominguez Park, Sunnyside Park, Entradero Park (see Table 3.2-4). The existing 60 Memory Care units associated with the Silverado Beach Cities Memory Care Community on the Project site also would also be sensitive to construction emissions during construction activities associated with the Phase 1 preliminary site development plan.

Table 3.2-4. Sensitive Receptors in the Vicinity of the Project Site

Sensitive Receptors	Distance to the Project Site / Extent of Construction Activities (feet)
<i>Residential Uses</i>	
Silverado Beach Cities Memory Care Community (located on the BCHD campus)	0
West Torrance Residences (located east of the Project site)	80
Redondo Beach Residences (located north of the Project site)	80
Redondo Beach Residences (located west and south of the Project site)	110
<i>Recreational Land Uses</i>	
Dominguez Park/Redondo Beach Dog Park	115
Sunnyglen Park	1,190
Entradero Park	1,390
Perry Allison Playfield	1,575
Sea Hawk Stadium	1,815
Moondust Parkette	2,590
Edith Rodaway Friendship Park	2,640
<i>Schools</i>	
Beach Cities Child Development Center (preschool located on the BCHD campus)	0
Towers Elementary School	350
Beryl Heights Elementary School	905
Redondo Shores High School	1,450
Redondo Beach Learning Academy	1,540
Redondo Union High School	1,730
Jefferson Elementary School	2,100
Parras Middle School	2,160
Our Lady of Guadalupe School	2,500
Valor Christian Academy	2,525
West High School	2,620
<i>Medical Facilities</i>	
Outpatient Medical Offices (located on the BCHD campus)	0

As shown in Table 3.2-4, the nearest sensitive receptors to the Project site are the Beach Cities Child Development Center, Silverado Beach Cities Memory Care Community, and outpatient medical offices located on the BCHD campus, as well as the single-family residences located as close as 80 feet to the Project site. See Table 3.11-5 and Figure 3.11-1 in Section 3.11, *Noise*, for additional descriptions and depictions of these sensitive receptors.

3.2.2 Regulatory Setting

Air quality within the Basin is addressed through the efforts of Federal, State, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality within the air basins are discussed below.

Federal Regulations

Clean Air Act

The Federal CAA was passed in 1963 and amended in 1990 and was the first comprehensive Federal law to regulate air emissions from stationary and mobile sources. Among other things, the CAA authorizes the USEPA to establish and enforce NAAQS for pollutants considered harmful to public health and the environment, including the six criteria air pollutants: CO, Pb, NO₂, O₃, PM_{2.5} and PM₁₀, and SO₂. The NAAQS help to ensure basic health and environmental protection from air pollution. The CAA also gives USEPA the authority to limit emissions of air pollutants coming from sources like chemical plants, utilities, and steel mills.

U.S. Environmental Protection Agency

Pursuant to the CAA, the USEPA must designate areas as meeting (i.e., in attainment) or not meeting (i.e., in nonattainment) the Federal standards for the six criteria air pollutants. As part of its enforcement responsibilities, the USEPA requires each State with Federal nonattainment area to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the Federal standards. The SIP must integrate Federal, State, and local plan components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP. These plans are developed by State and local air quality management agencies and submitted to the USEPA for approval.

The USEPA has adopted multiple tiers of emission standards to reduce emissions from non-road diesel engines by integrating engine and fuel controls as a system to gain the greatest emission reductions. The first Federal standards (Tier 1) for new non-road (or off-road) diesel engines were adopted in 1994 for engines over 50 horsepower, to be phased-in from 1996 to 2000. On August 27, 1998, the USEPA introduced Tier 1 standards for equipment under 37 kilowatts (50 horsepower) and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. Tier 1 through 3 standards were met through advanced engine design, with no or only limited use of exhaust gas after-treatment (oxidation catalysts).

Tier 3 standards for nitrogen oxides and hydrocarbons are similar in stringency to the 2004 standards for highway engines; however, Tier 3 standards for particulate matter were never adopted. On May 11, 2004, the USEPA signed the final rule introducing Tier 4 emission standards, which were phased-in between 2008 and 2015. Tier 4 standards require that emissions of particulate matter and NO_x be further reduced by about 90 percent. Such emission reductions are achieved using control technologies, including advanced exhaust gas after-treatment, similar to those required by the 2007 to 2010 standards for highway engines.

State Regulations

California Clean Air Act

The CCAA requires all areas of the State to achieve and maintain the CAAQS by the earliest practicable date. The CAAQS includes more stringent standards than the NAAQS.

California Air Resources Board

CARB, which is a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both Federal and State air pollution control programs within California. In this capacity, CARB conducts research, sets the CAAQS, compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP for submission to the USEPA.

In April 2005, CARB published the Air Quality and Land Use Handbook: A Community Health Perspective, which serves as a general guide for considering impacts to sensitive receptors from facilities that emit TAC emissions. The recommendations provided in the handbook are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts. The goal of the guidance document is to protect sensitive receptors, such as children, the elderly, acutely ill, and chronically ill persons, from exposure to TAC emissions.

CARB has also established California Idling Regulations that restrict the idling of heavy-duty vehicles. In particular, the Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling requires, among other things, that drivers of diesel-fueled commercial motor vehicles with gross vehicle weight ratings greater than 10,000 pounds, including buses and sleeper berth equipped trucks, not idle the vehicle's primary diesel engine longer than 5 minutes at any location.

California Air Toxics “Hot Spots” Information and Assessment Act

The Air Toxic “Hot Spots” Information and Assessment Act (Air Toxic Hot Spots Act) identifies toxic air contaminant hot spots where emissions from specific stationary source facilities may expose individuals to an elevated risk of adverse health effects. It requires that a business or other establishment identified as a significant source of toxic emissions provide the affected population with information about health risks posed by the emissions. Health Risk Assessments (HRAs) identify the hazard or hazardous material, assess the amount, duration, and pattern of exposure to the hazard or hazardous material, assess the amount it would take to cause negative health effects, and characterize the risk to the general population and sensitive receptors from the hazard or hazardous material. The CalEPA’s Office of Environmental Health Hazard Assessment (OEHHA) has published A Guide to Health Risk Assessment and The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments to aid California projects’ compliance with the Air Toxic Hot Spots Act.

CARB Off-Road Mobile Sources Emission Reduction Programs

The CCAA mandates CARB to achieve the maximum degree of emission reductions from all off-road mobile sources in order to attain the State ambient air quality standards. Off-road mobile sources include heavy construction equipment. Tier 1, Tier 2, and Tier 3 standards for large compression-ignition engines used in off-road mobile sources went into effect in California for most engine classes in 1996, 2001, and 2006, respectively. Tier 4 or Tier 4 Interim (4i) standards apply to all off-road diesel engines model years 2012 or newer. In addition, equipment can be retrofitted to achieve lower emissions using the CARB-verified retrofit technologies. The engine standards and ongoing rulemaking jointly address the products of diesel combustion, including emissions and toxic diesel particulate matter. The California Emission Standards for Off-Road Compression-Ignition Engines are as specified in California Code of Regulations (CCR) Title 13, Division 3, Chapter 9, Article 4, Section 2423.

Regional Regulations

South Coast Air Quality Management District

The SCAQMD is the regional agency principally responsible for comprehensive air pollution control in the Basin. To that end, the SCAQMD works directly with the Southern California Association of Governments (SCAG), county transportation commissions, local governments, and cooperates actively with all Federal and State government agencies. Under Federal and State law, the SCAQMD is under a legal obligation to enforce air pollution regulations. These regulations

are primarily meant to ensure that the ambient air meets Federal and State air quality standards. In addition to developing rules and regulations, SCAQMD establishes permitting requirements, inspects emissions sources, and effectuates ongoing regional air quality improvements through a combination educational and penalty programs, including fines or sanctions when necessary. SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and natural sources.

Air Quality Management Plan

The SCAQMD maintains and periodically updates an Air Quality Management Plan (AQMP) for the Basin. The most recent of these is the 2016 AQMP, which was adopted by the Governing Board of SCAQMD on March 3, 2017. The 2016 AQMP was prepared to comply with the Federal and State Clean Air Acts and amendments, to accommodate growth, to reduce the high pollutant levels in the Basin, to meet Federal and State ambient air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy.

The 2016 AQMP identifies the control measures that will be implemented over a 20-year horizon to reduce major sources of pollutants. The 2016 AQMP includes data to demonstrate attainment for the 2008 8-hour O₃ standard, the 2012 annual PM_{2.5} standard, the 2006 24-hour PM_{2.5} standard, the 1997 8-hour O₃ standard and the 1979 1-hour O₃ standard within the planning horizon (SCAQMD 2017).

The future air quality levels projected in the 2016 AQMP are based on several assumptions. For example, the SCAQMD assumes that general new development within the Basin will occur in accordance with population growth and transportation projections identified by SCAG in the 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which was adopted on April 7, 2016. The 2016 AQMP also assumes that general development projects will include strategies in the form of project design features and practices and other mitigation measures to reduce emissions generated during construction and operation in accordance with SCAQMD and local jurisdiction regulations which are designed to address air quality impacts and pollution control measures. This 2016 AQMP identifies the control measures that would be implemented to reduce major sources of pollutants. These planning efforts have substantially decreased the population's exposure to unhealthful levels of pollutants, even while substantial population growth has occurred within the Basin.

SCAQMD is currently developing the 2022 AQMP to address the 2015 updated NAAQS for ground-level O₃, for which the Basin is designated extreme nonattainment.

SCAQMD Rule Book

The SCAQMD has adopted the SCAQMD Rule Book, which establishes a set of rules and regulations that address air pollution sources. Some SCAQMD rules are administrative in nature, but many relate to a specific type of operation or source of pollution. Each regulation is broken down into rules, each of which governs a specific topic within that regulation. SCAQMD rules that may apply to the proposed Project include:

- **Rule 402 Nuisance** – This rule prohibits 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.
- **Rule 403 Fugitive Dust** – The purpose of this rule is to reduce the amount of particulate matter (e.g., PM₁₀) entrained in the ambient air as a result of anthropogenic (i.e., man-made) fugitive dust sources, such as grading and excavation, by requiring actions to prevent, reduce or mitigate fugitive dust emissions.
- **Rule 1113 Architectural Coatings** – This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories. For example, exterior paints and finishes are limited to a VOC emissions rate of 50 grams per liter (g/L).
- **Rule 1138 Control of Emissions from Restaurant Operations** – This rule specifies emissions and odor control requirements for commercial cooking operations that use chain-driven charbroilers to cook meat (e.g., for the kitchen facilities in the proposed RCFE Building and the Blue Zones café).
- **Rule 1146.2 Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters** – This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_x emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.
- **Rule 1186 PM₁₀ Emissions from Paved and Unpaved Roads** – This rule applies to owners and owners of paved and unpaved roads. The rule is intended to reduce PM₁₀ emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads.

In addition to developing air pollution regulations, the SCAQMD is under a legal obligation to enforce these regulations. The SCAQMD also has broad authority to regulate toxic and hazardous

air emissions, and these regulations are enforced in the same manner as those which pertain to the ambient air quality standards. The SCAQMD has devised a broad compliance program to provide for enforcement activities.

SCAQMD CEQA Air Quality Handbook

In 1993, the SCAQMD prepared the SCAQMD CEQA Air Quality Handbook to assist local government agencies and consultants in preparing environmental documents for projects subject to CEQA. The CEQA Air Quality Handbook describes the criteria that SCAQMD uses when reviewing and commenting on the adequacy of environmental documents. Other important subjects covered in the CEQA Air Quality Handbook include methodologies for estimating project emissions and mitigation measures that can be implemented to avoid or reduce air quality impacts. Although the Governing Board of the SCAQMD has adopted the CEQA Air Quality Handbook, the SCAQMD does not supersede a local jurisdiction's CEQA procedures.

The SCAQMD is in the process of developing the Air Quality Analysis Guidance Handbook (Guidance Handbook) to replace the 1993 CEQA Air Quality Handbook. While the Guidance Handbook is still being developed, the SCAQMD has adopted supplemental guidance for conducting an air quality analysis. This guidance includes revisions to the air quality significance thresholds and a procedure referred to as "*localized significance thresholds*," which has been added as a significance threshold under the Final Localized Significance Threshold (LST) Methodology. LSTs are developed based on the ambient concentrations of that pollutant for each SRA. The LST methodology provides thresholds of significance for NO_x, CO, PM₁₀, and PM_{2.5} to evaluate localized air quality impacts at sensitive receptors in the vicinity of a project, in lieu of conducting dispersion modeling. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways.

Southern California Association of Governments

SCAG is the Metropolitan Planning Organization for Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. Although SCAG is not an air quality management agency, it addresses regional issues relating to transportation, the economy, community development, and the environment resources and constraints. As part of regional planning, SCAG is responsible for developing transportation, land use, and energy conservation measures that affect air quality.

SCAG has adopted strategies and plans to implement California's Sustainable Communities and Climate Protection Act (Senate Bill [SB] 375). On September 3, 2020, SCAG's Regional Council adopted the 2020-2045 RTP/SCS (Connect SoCal). Connect SoCal is supported by a combination

of transportation and land use strategies that help the region achieve State GHG emission reduction goals and Federal CAA requirements, preserve open space areas, improve public health and roadway safety, support the vital goods movement industry, and utilize resources more efficiently. See Section 3.7, *Greenhouse Gas Emissions and Climate Change*, for a discussion of the RTP/SCS and GHG emissions.

City of Redondo Beach Local Regulations

As a local jurisdiction, the City of Redondo Beach has the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City of Redondo Beach is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. Redondo Beach is also responsible for the implementation of transportation control measures as outlined in the AQMP. Examples of such measures include development of bus turnouts to reduce traffic congestion, energy-efficient streetlights, and synchronized traffic signals. Redondo Beach assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

Redondo Beach General Plan Land Use Element

The Redondo Beach General Plan Land Use Element includes the following policies that directly relate to reducing air quality impacts:

- Policy 1.9.1 Control the development of industrial and other uses which use, store, produce, or transport toxics, generate unacceptable levels of noise, air emissions, or contribute other pollutants; requiring adequate mitigation measures confirmed by environmental review (II.1, II.8).
- Policy 1.60.4 Establish local procedures, requirements, and programs as to maintain local and regional environmental quality and mitigate impacts; including, but not limited to, air quality management, traffic congestion management, jobs-housing balance, hazardous waste management, water and energy conservation, water quality control, noise abatement, and coastal protection (II.1, II.2, II.3, II.8).
- Policy 1.57.3 Require that the elevation of all parking structures facing residential parcels be enclosed or controlled to prevent adverse

noise and air emission impacts on the residences and incorporate architectural design elements, such as surface treatments, off-set planes, and structural articulation and landscape, to provide visual interest and be compatible with the residences (I1.1, I1.7, I1.18).

Redondo Beach General Plan Transportation and Circulation Element

Goal 12: Encourage all employers to pursue successful TDM measures demonstrated in South California.

Goal 14: Increase the provision of bike lockers, bike racks, and lighting for bike facilities.

Many other goals and individual policies, as set forth in Section 3.14, *Transportation* and Section 3.7, *Greenhouse Gas Emissions and Climate Change*, also have the practical effect of reducing air pollution by reducing vehicle miles traveled (VMT), and fossil fuel, water, and energy consumption.

City of Torrance Local Policies and Regulations

The Torrance General Plan (2010) includes multiple chapters that identify goals and policies designed to help improve air quality in the City. Trip reduction strategies are addressed in the land use and circulation elements. The land use element also includes policies to encourage walkability through site design. The circulation element includes policies to encourage the use of alternative forms of transportation and implementation strategies for employers, developers, and merchants. Transportation Demand Management (TDM) strategies include promoting the use of carpools, vanpools, work-related transit use, bicycling, and walking as a means to improve air quality and to minimize congestion on the local and regional network (City of Torrance 2010).

Torrance General Plan Community Resources Element

Objective CR.13. To contribute to the improvement of local and regional ambient air quality to benefit the health of all.

Policy CR.13.1 Continue to participate in the efforts of the CARB and the SCAQMD to meet State and federal air quality standards.

Policy CR.13.2 Work with neighboring cities to implement local and regional projects that improve mobility on freeways and railways, reduce emissions, and improve air quality.

Policy CR.13.3 Support regional air quality goals through conscientious land use and transportation planning and the implementation of resource conservation measures.

Policy CR.13.4 Balance the achievement of clean air with other major goals of the City.

Policy CR.13.5 Support air quality and energy and resource conservation by encouraging alternative modes of transportation such as walking, bicycling, transit, and carpooling.

Policy CR.13.6 Promote citizen awareness and participation in programs to reduce air pollution and traffic congestion.

Policy CR.13.7 Encourage the use of alternative fuel vehicles and re-refined oil.

Policy CR.13.8 Promote energy-efficient building construction and operation practices that reduce emissions and improve air quality.

Many air quality strategies result in co-benefits by reducing GHG emissions and vice versa (See Section 3.7, *Greenhouse Gas Emissions and Climate Change* for a discussion of GHG emissions reduction policies).

Torrance Trip Reduction and Traffic Management Ordinance

In order to reduce mobile source emissions, the City has adopted a Trip Reduction and Traffic Management Ordinance (Municipal Code Division 9 Chapter 10) to incentivize walking, cycling, use of public transit, and carpooling to work.

3.2.3 Impact Assessment Methodology

3.2.3.1 Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the 2020 CEQA Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on air quality if it would do any of the following:

- a) Conflict with or obstruct implementation of the applicable air quality plan;
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard;

- c) Expose sensitive receptors to substantial pollutant concentrations; and/or
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

In determining whether an effect is significant, CEQA Guidelines Section 15064.7 states that a Lead Agency may consider thresholds of significance previously adopted or recommended by other public agencies, provided that the decision to use such thresholds is supported by substantial evidence. Further, with regard to air quality, CEQA Guidelines Section 15064.7 reads:

“Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make ... determinations.”

In a February 2018 CEQA Guidance document released by SCAQMD (SCAQMD 2018), the SCAQMD states that:

“Air districts’ thresholds provide a clear quantitative benchmark to determine the significance of project and project alternative air quality impacts. They also help identify the magnitude of the impacts, facilitate the identification of feasible mitigation measures, and evaluate the level of impacts before and after mitigation measures. Since one of the basic purposes of CEQA is to inform government decision makers and the public about the potential significant environmental effects of any proposed activities (CEQA Guidelines Section 15002[a][1]), use of air district thresholds is a best practice for CEQA impact determinations.”

The SCAQMD, the air pollution control agency in the Basin, has developed specific regional and local significance thresholds for air quality, and recommends that projects in the Basin be evaluated in terms of these thresholds. These SCAQMD thresholds do not supersede the significance thresholds established in Appendix G of the 2020 CEQA Guidelines described above; these SCAQMD thresholds are used to implement the CEQA thresholds with specific criteria to assess whether air pollution effects of proposed projects are significant. The impacts assessment of this EIR addresses the thresholds from Appendix G of the CEQA Guidelines through the application of SCAQMD thresholds which are specific to conditions in the Basin. The following thresholds are currently recommended by the SCAQMD and have been used to determine the significance of air quality impacts associated with the proposed Project.

Conflict with Air Quality Plan

The threshold used for determining whether the proposed Project would conflict with or obstruct an applicable air quality plan is qualitative and is based on whether the proposed Project is consistent with the assumed growth, applicable control measures and air emission reduction policies in the AQMP. Therefore, the proposed Project would have a significant impact if it would:

- Conflict with or obstruct implementation of the AQMP or any other adopted regional and local plans adopted for reducing air quality impacts.

Cumulatively Considerable Net Increase in Criteria Pollutants

Construction Emissions Thresholds

The SCAQMD recommends that projects with construction-related emissions that exceed any of the following regional (mass daily) emissions thresholds should be considered significant.

- 550 pounds per day of CO
- 100 pounds per day of NO_x
- 150 pounds per day of SO_x
- 75 pounds per day of VOC
- 150 pounds per day of PM₁₀
- 55 pounds per day of PM_{2.5}
- 3 pounds per day of Pb

Operational Emissions Thresholds

The SCAQMD's thresholds recommend that projects with operational emissions that exceed any of the following regional (mass daily) emissions should be considered potentially significant.

- 550 pounds per day of CO
- 55 pounds per day of NO_x
- 150 pounds per day of SO_x
- 55 pounds per day of VOC
- 150 pounds per day of PM₁₀
- 55 pounds per day of PM_{2.5}
- 3 pounds per day of Pb

Localized Significance Thresholds

As previously described, LSTs were developed for construction phases in response to the SCAQMD Governing Board's Environmental Justice Enhancement Initiative (I-4). The Final LST Methodology presents mass emission rates for each SRA, project sizes of 1, 2, and 5 acres, and nearest receptor distances of 25, 50, 100, 200, and 500 meters. For project sizes between the values given, or with receptors at distances between the given receptors, the methodology uses linear interpolation to determine the thresholds. If receptors are within 25 meters (82 feet) of the Project site (i.e., extent of construction activities), the methodology document says that the threshold for the 25-meter distance should be used.

The Project site is located in SRA 3. The nearest sensitive receptors are located on the BCHD campus and the nearest off-site sensitive receptors are located within 26 meters, including the residential uses located directly across Flagler Lane and Flagler Alley to the east of the Project site (refer to Table 3.2-4). The Project site is a 9.78-acres in size; however, this analysis uses LSTs for a 1-acre site to provide a conservative analysis (because a smaller site provides less buffering distance between construction activities and nearby sensitive receptors), given that construction activities would be distributed over a larger area, resulting in more disperse emissions. The LSTs for a 1-acre site within 25 meters of sensitive receptors in SRA 3 are:

- 664 pounds per day for CO
- 91 pounds per day for NO₂
- 5 pounds per day for PM₁₀
- 3 pounds per day for PM_{2.5}

CO and NO₂ LST thresholds apply to both residential and off-site worker receptors (i.e., people who work in businesses off-site). PM₁₀ and PM_{2.5} LST thresholds are relevant to sensitive receptors that are reasonably likely to be present for 24 hours or longer. Since off-site worker receptors are not expected to be present for this duration, PM₁₀ and PM_{2.5} LST thresholds do not apply to off-site worker receptors.

Impacts to Sensitive Receptors

Toxic Air Contaminants

CARB indicates that one of the highest public health priorities is the reduction of DPM generated by vehicles on California's freeways and highways, because it is one of the primary TACs. CARB's Air Quality and Land Use Handbook: A Community Health Perspective (2005) makes specific recommendations with respect to considering existing sensitive uses when siting new

TAC-emitting facilities or with respect to TAC-emitting sources when siting sensitive receptors. CARB recommends the following buffer distances be observed when locating these types of TAC emitters or sensitive land uses:

- Freeways or major roadways – 500 feet
- Dry cleaners – 500 feet
- Auto body repair services – 500 feet
- Gasoline dispensing stations with an annual throughput of less than 3.6 million gallons – 50 feet
- Gasoline dispensing stations with an annual throughput at or above 3.6 million gallons – 300 feet

The proposed Project does not place sensitive land uses within the above buffer zones. The nearest major arterial is the Pacific Coast Highway, located approximately 0.5 miles (2,640 feet) from the Project site. Other roadways in the immediate vicinity of the Project site (e.g., North Prospect Avenue and Beryl Street) do not carry sufficient volumes of traffic to be considered as potential TAC generators. Other potential TAC generators within the vicinity of the Project site are associated with specific types of facilities, such as gas stations, dry cleaners, and auto body repair shops, and are the focus of local control efforts. The existing Shell gas station at the southeast corner of North Prospect Avenue and Beryl Street is located approximately 330 feet from the Project site and approximately 485 feet from the proposed Residential Care for the Elderly (RCFE) Building, which would be constructed as a part of the Phase 1 preliminary site development plan.

The SCAQMD recommends that site-specific HRAs be performed to document potential cancer and non-cancer health risk, either when siting sensitive land uses within the above buffer zones or when a project could generate TACs that may impact surrounding sensitive receptors (e.g., residences). Based on the methodology established by the OEHHA, the SCAQMD established the following thresholds for maximum individual cancer risk (MICR)² and non-cancer acute and chronic hazard index (HI)³ to assess a project's construction-related health impacts on sensitive receptors:

- MICR – cancer risk of less than 10 in one million ($<10 \times 10^{-6}$)

² MICR is the maximum estimated risk of contracting cancer when continually exposed for a lifetime (70 years) to a given concentration of a substance. This does not necessarily mean anyone will contract cancer as a result of the project.

³ The potential non-cancer health impacts resulting from a 1-hour exposure to toxic substances. An acute (i.e., generally developing suddenly and lasting a short time) hazard index is calculated by dividing the 1-hour concentration of a toxic pollutant by the acute reference exposure level for that pollutant. A chronic (i.e., conditions develop slowly and may worsen over an extended period of time) hazard index is calculated by dividing the annual average concentration of a toxic pollutant by the chronic reference exposure level for that pollutant.

- HI – highest chronic health index of less than 1

Construction emissions from diesel-fueled heavy construction equipment could cause TAC exposure for surrounding sensitive receptors, as further described below in Section 3.2.3.2, *Methodology*; therefore, a construction HRA has been prepared to assess health risks associated with the proposed Project, including both the Phase 1 preliminary site development plan and the more general Phase 2 development program.

CO Hotspots

With respect to the formation of CO hotspots, a project's localized air quality impact is considered significant if CO emissions create a hotspot where either the State 1-hour standard of 20 ppm or the Federal and State 8-hour standard of 9.0 ppm is exceeded. In general, this only occurs at severely congested intersections (i.e., LOS E or worse).

To reflect current conditions at the Project site and the stable trend in declining CO concentration levels in the Basin, SCAQMD's CO hotspot screening criteria have been used to describe potential CO hotspots within Redondo Beach and Torrance. A detailed CO analysis was conducted in the Federal Attainment Plan for Carbon Monoxide (CO Plan for the SCAQMD's 2003 Air Quality Management Plan). The locations selected for microscale modeling in this analysis were worst-case intersections in the Basin that would likely experience the highest CO concentrations. As such, SCAQMD modeled the four most congested intersections in the Basin: 1) Wilshire Boulevard & Veteran Avenue; 2) Sunset Boulevard & Highland Avenue; 3) La Cienega Boulevard & Century Boulevard; and 4) Long Beach Boulevard & Imperial Highway. In the 2003 AQMP, SCAQMD notes that the intersection of Wilshire Boulevard & Veteran Avenue is the most congested intersection in Los Angeles County, with an ADT of approximately 100,000 vehicles per day (SCAQMD 2003a). This intersection is located near the on- and off-ramps to I-405 in West Los Angeles. The evidence provided in Table 4-10 of Appendix V of the 2003 AQMP shows that the peak modeled CO concentration due to vehicle emissions at these four intersections was 4.6 ppm (maximum 1-hour concentration) and 3.2 (maximum 8-hour concentration) at Wilshire Boulevard & Veteran Avenue (exclusive of ambient background CO concentrations), which is well below the Federal and State CO standards. This indicates that intersections operating with less than 100,000 vehicles per day would not create a CO hot spot.

3.2.3.2 Methodology

Conflict with Applicable Air Quality Plan

Federal and State ambient air quality standards are designed to prevent the harmful effects of air pollutant emissions. These standards are continually updated based on evolving research, including research which relates air quality impacts with health effects. At the regional level, plans such as the SCAQMD's AQMP and SCAG's RTP/SCS work to ensure that the Basin reaches and maintains attainment with these Federal and State standards. Locally, EIRs evaluate a plan or project's consistency with applicable policies identified in the SCAQMD's AQMP and SCAG's RTP/SCS intended to protect human health.

SCAQMD is required, pursuant to the Federal CAA, to reduce emissions of criteria pollutants for which the Basin is in nonattainment of the NAAQS. The assessment of consistency with the AQMP focuses on the potential for construction and operation of the proposed Project to create or contribute to air quality violations and possibly delay air quality standards attainment. The SCAQMD's AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving attainment with the NAAQS and CAAQS. The SCAQMD significance thresholds are health-protective and also serve to achieve attainment with the NAAQS and CAAQS within the Basin. Thus, projects, uses, and activities that generate emissions below SCAQMD's significance thresholds for criteria pollutants would thereby not conflict with or obstruct implementation of the AQMP.

Cumulatively Considerable Net Increase in Criteria Pollutants

CEQA Guidelines Section 15130 requires that an EIR discuss cumulative impacts of a project when the project's incremental effects are cumulatively considerable. A "*cumulative impact*" is an impact that is created as a result of the combination of the proposed project together with other projects causing related impacts. "*Cumulatively considerable*" means that the incremental effects of the individual project are significant when viewed in connection with the effects of past projects, current projects, and probable future projects.

The SCAQMD guidance on addressing cumulative impacts for air quality is as follows: "*As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR... Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds*

are generally not considered to be cumulatively significant” (SCAQMD 2003b). This policy is appropriate when addressing air quality impacts because project-specific criteria pollutant emissions are already evaluated in the SCAQMD’s AQMP on a cumulative basis in the context of emissions occurring Basin-wide.

This analysis focuses on the air quality impacts that could occur from air pollutant emissions associated with the construction and operation of the proposed Project, including impacts from Project-related traffic volumes. Consistent with SCAQMD guidance, this analysis evaluates the contribution of the proposed Project to cumulative air quality impacts by comparing the estimated construction and operational emissions against the SCAQMD’s thresholds of significance defined above, as described further below. Project-related construction and operational emissions were estimated using CalEEMod Version 2016.3.2 developed for SCAQMD. Calculation details are provided in the CalEEMod worksheet results in Appendix B.

Construction Emissions

Construction emissions were estimated using CalEEMod, which assesses emissions from each phase of construction, including demolition, excavation and site preparation, building construction, and architectural coating. CalEEMod was used to quantify emissions from construction equipment exhaust, construction vehicles, fugitive dust, and architectural coatings. Construction schedule, equipment utilization, the amount of demolition debris and excavated soil to be removed from the Project site, and the number of vehicle trips generated by construction workers and other construction vehicles (refer to Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*) were primarily developed by the construction management firm CBRE and manually included in the CalEEMod modeling. In cases where information was not provided by CBRE (e.g., trip length data for construction hauling), CalEEMod defaults were used.

Heavy construction equipment could include diesel-powered graders, excavators, dump trucks, cranes, and bulldozers. As a result, construction activities under the Phase 1 preliminary site development plan as well as the more general Phase 2 development program would temporarily increase diesel emissions from equipment and vehicle exhaust and would generate particulate matter in the form of fugitive dust. Compliance with SCAQMD rules and regulations that would be required during construction (e.g., SCAQMD Fugitive Dust Rule, etc.) were not included in CalEEMod to reflect a conservative analysis of the potential construction emissions. The precise construction timeline for the proposed Project depends on the timing of entitlements and permit

processing. The construction activities associated with the proposed Project and estimated durations are as follows (see Appendix B for the construction schedule used in the CalEEMod):

Phase 1 construction activity would begin in February 2022 and last for approximately 29 months with overlapping construction phases.

- Shoring, Excavation, and Utility Work – 2 months
- Construction of the RCFE Building – 24 months
- Demolition of the Beach Cities Health Center – 1 month

The development program under Phase 2 is expected to begin approximately 5 years after the completion of Phase 1 and would last for approximately 28 months. As with Phase 1, it is expected the duration of construction activities during Phase 2 would involve overlapping construction phases, including:

- Demolition of the Above Ground Parking Structure and Beach Cities Advanced Imaging Building – 3 months
- Excavation, Grading, and Utility Work – 1 month
- Construction of the New Medical Office Building – 6 months
- Construction of the Aquatics Center and Center for Health and Fitness (CHF) – 7 months
- Construction of the Wellness Pavilion – 6 months
- Construction of the Parking Garage – 12 months

CalEEMod calculates the peak day construction emissions by calculating emissions from overlapping construction activities. Peak daily construction emissions represent the potential worst-case maximum daily emissions of a construction day, and do not represent the emissions that would typically occur during every day of construction associated with the proposed Project. The estimated maximum daily construction emissions are then compared to the SCAQMD daily significance thresholds to identify any exceedances of thresholds, which could result in a significant impact.

Operational Emissions

Operational emissions associated with the proposed Project are estimated using CalEEMod for area, energy, and mobile source emissions. Operational air quality impacts are assessed by subtracting the baseline emissions from the total Project emissions and comparing the resulting increment (i.e., net increase or decrease in emissions) to the SCAQMD's numerical thresholds. Under CEQA, the baseline environmental setting for an EIR is established at or around the time that the Notice of Preparation (NOP) for the EIR is published. As discussed previously, the Project

site is currently occupied by the Beach Cities Health Center, outpatient medical office buildings, a maintenance building, and associated parking areas.

Area source emissions would be generated by consumer products, architectural coating, and landscape maintenance equipment. Energy source emissions are generated by emissions resulting from electricity and natural gas consumption for space and water heating. Mobile emissions that would result from vehicle trips to and from the BCHD campus were calculated based on the Intersection Operational Evaluation and other default traffic assumptions embedded in CalEEMod (see Appendix B). To determine if an air quality impact would occur, the incremental (i.e., net new) daily emissions from operation of the proposed BCHD Healthy Living Campus were compared with SCAQMD's regional (mass daily) thresholds.

Localized Significance Thresholds for Construction

The potential for construction emissions associated with the proposed Project to cause localized impacts for certain criteria pollutants was calculated using SCAQMD's LST Methodology (SCAQMD 2008). According to the SCAQMD LST Methodology, the assessment of localized impacts addresses only those emissions that are generated "*on-site*," that is for the purposes of the proposed Project, emissions generated from within or along the boundaries of the Project site. Therefore, for this localized analysis, only the on-site emissions reported for each construction phase in the CalEEMod worksheets are examined.

Impacts to Sensitive Receptors

Health Effects from Criteria Air Pollutant Emissions

In December 2018, the California Supreme Court held that the EIR for the Friant Ranch Project – a 942-acre master-planned, mixed-use development with over 2,500 senior residential units, 250,000 square feet (sf) of commercial space, and extensive open space/recreational amenities on former agricultural land in north central Fresno County – was deficient in its informational discussion of air quality impacts as they relate to adverse human health effects.

As noted in the Brief of Amicus Curiae by the SCAQMD in the Friant Ranch case (April 6, 2015, Attachment A), SCAQMD concluded that currently available regional modeling tools are not well suited to analyze relatively small changes in criteria pollutant concentrations associated with individual projects. Regional modeling tools are generally designed to be used at the national, State, regional, and/or city levels and are not well equipped to analyze whether and to what extent the criteria pollutant emissions of an individual project directly impact human health in a particular area. Even where a HRA can be prepared, however, the resulting maximum health risk value is

only a calculation of risk – it does not necessarily mean anyone will contract cancer or non-cancer health risks as a result of the project.

For local plans or projects that exceed any identified SCAQMD air quality threshold, EIRs typically identify and disclose generalized health effects of certain air pollutants but are currently unable to establish a reliable connection between any local plan or an individual project and a particular health effect. In addition, no relevant agency has approved a quantitative method to reliably and meaningfully do so. A number of factors contribute to this uncertainty, including the regional scope of air quality monitoring and planning, technological limitations for modeling at a local plan- or project-level, and the intrinsically complex nature of the relationship between air pollutants and health effects in conjunction with local environmental variables. Therefore, at the time, it is infeasible for this EIR to directly link a plan's or project's significant air quality impacts with a specific health effect.

Toxic Air Contaminants

The greatest potential for TAC impacts during construction activities under the Phase 1 preliminary site development plan and the more general Phase 2 development program would be related to DPM emissions associated with heavy-duty construction equipment during demolition, excavation, and grading activities. Construction activities associated with the proposed Project would be sporadic, transitory, and short-term in nature. Nevertheless, while the proposed construction activities would be temporary, construction impacts associated with TACs have been addressed quantitatively in a construction HRA prepared by iLanco Environmental, LLC (iLanco) (see Appendix B).

The HRA prepared for the proposed Project quantifies the potential cancer risks and non-cancer chronic health impacts to sensitive receptors that may be affected by exposure to TACs from proposed construction activities. Operational sources of TACs associated with the proposed Project would be limited to vehicle trips to and from the Project site. Given that the proposed Project would result in a minor increase of 376 daily vehicle trips relative to existing conditions and a decrease in AM and PM peak hour trips (see Section 3.14, *Transportation*), health risk associated with operational emissions would also be similar to existing conditions. Since health risks from operations would remain similar to baseline existing conditions, operational impacts related to TACs were not quantified in the HRA.

Sensitive receptors include residences, schools, childcare, and convalescent facilities. The closest and most impacted sensitive receptors would be off-site residences surrounding the Project site (refer to Table 3.2-4). The on-site Beach Cities Child Care Development Center and on-site

residents at the existing Silverado Beach Cities Memory Care Community and the proposed RCFE Assisted Living and Memory Care facilities were also evaluated. Students at the Towers and Beryl Elementary schools were considered, but since these receptors are located much further away from the Project site, they would experience impacts much lower than nearby residential and on-site receptors. Consequently, while air dispersion modeling was conducted for these receptors, health impacts at these receptors were inferred to be lower than the PMI, MEIR, and on-site receptors and therefore, were not quantified.

The construction HRA was conducted by: 1) calculating TAC emissions; 2) determining maximum TAC concentrations at sensitive receptors via air dispersion modeling; 3) quantifying health risks associated with those maximum concentrations; and 4) comparing those health risks to SCAQMD's thresholds of significance. The HRA was conducted in accordance with the SCAQMD dispersion modeling guidance (SCAQMD 2020) and the OEHHA Guidance (OEHHA 2015). CalEEMod was used to quantify emissions from anticipated construction activities. The USEPA's AERMOD dispersion model was used for dispersion modeling (USEPA 2019b). CARB's Hotspots Analysis Reporting Program (HARP) Risk Assessment Standalone Tool was used to calculate cancer risk and non-cancer health impacts.

The USEPA's AERMOD dispersion model is the accepted method to address the movement of air pollutants and considers various parameters, including configuration of the construction equipment, terrain elevation, meteorological conditions (i.e., localized wind patterns), and the location of sensitive receptors in relation to the site.

HARP is the accepted model used to calculate cancer risk and non-cancerous chronic health impacts. HARP's Risk Assessment Standalone Tool module was used in this analysis to evaluate cancer risk and non-cancer chronic effects associated with the receptors noted above. HARP's default residential exposure duration for cancer risk assumes that residents live in their homes and are exposed to pollutant emissions for 30 years. However, because the proposed Project would be constructed over a 6-year period (i.e., 2022, 2023, 2024, 2029, 2030, and 2031), the exposure duration for this assessment was 6 years (i.e., 3 years for Phase 1 and 3 years for Phase 2). Additionally, since emissions would vary in magnitude and location for each phase of construction, risk estimates were calculated individually for the Phase 1 preliminary site development plan and the Phase 2 development program. The total cancer risk at each receptor was then determined by adding Phase 1 and Phase 2 cancer risks. Non-cancer chronic impacts reflect the maximum calculated value among the 6 construction years.

For the purposes of assessing TACs during construction, the construction HRA quantifies cancer risk and non-cancer chronic health effects at the point of maximum impact (PMI) and for the

maximum exposed individual resident (MEIR). The PMI is the location where the cancer risk or non-cancer chronic health effect is maximum, regardless of the presence of a human receptor at that location. No concentration higher than the PMI would occur from the proposed construction activities. The MEIR is the location with the highest cancer risk or non-cancer chronic health effect where a person can be reasonably present. The dispersion modeling was conducted to estimate ground-level DPM concentrations for the PMI, MEIR, Towers Elementary School, Beryl Heights Elementary School, and residents living at the Silverado Beach Cities Memory Care Community and at the proposed RCFE Building that would be constructed during Phase 1 of the proposed Project (see Appendix B).

Health risk calculations were performed using the OEHHA methodologies and exposure parameters, and the corresponding SCAQMD guidance documents. In March 2015, OEHHA updated the methods for estimating cancer risks to use higher estimates of cancer potency during early life exposures and to use different assumptions for breathing rates and length of residential exposures. The Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments, incorporates advances in risk assessment with consideration of infants and children using Age Sensitivity Factors (OEHHA 2015). These updated exposure factors can result in numeric life-time health risk values to be approximately two to three times higher than those calculated under the previous OEHHA guidelines.

Project construction activities would require the use of off-road construction equipment and on-road vehicles. These equipment and vehicles would primarily burn diesel fuel, resulting in combustion exhaust emissions. The primary TAC of concern associated with combustion of diesel fuel is DPM. OEHHA guidance indicates that particulate matter of 10 microns in diameter or smaller (PM₁₀) be used as a surrogate for the TAC DPM when evaluating health risks associated with DPM (OEHHA 2015).

Diesel exhaust is the dominant type of TAC emission associated with construction of the proposed Project and diesel emissions would be emitted in closest proximity to receptors.

Detailed methodologies and assumptions utilized in the HRA are described further in Appendix B.

CO Hotspots

Localized air quality impacts and respiratory health risks could occur as a result of CO hotspots. Areas with high vehicle volumes, such as congested intersections (i.e., LOS E or worse), have the potential to create high concentrations of CO, known as CO hot spots. This analysis considers the potential generation of 376 net new vehicle trips per day following buildout under the Phase 2

development program (see Section 3.14, *Transportation*) and its contribution to the most congested intersections affected by the proposed Project.

3.2.4 Project Impacts and Mitigation Measures

Impact Description (AQ-1)

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

AQ-1 Construction and operation of the proposed Beach Cities Health District (BCHD) Healthy Living Campus – including the Phase 1 preliminary site development plan and the Phase 2 development program – would generate emissions that would contribute to Basin-wide air pollutant emissions. Because the proposed Project would not cause or increase the severity of air quality violations and mitigated emissions would not exceed the South Coast Air Quality Management District’s (SCAQMD’s) significance thresholds, the proposed Project would not conflict with the Air Quality Management Plan (AQMP). Impacts would be *less than significant with mitigation*.

Generally, a project would conflict with or potentially obstruct implementation of an air quality plan if the project would create or contribute to air quality violations within the Basin. Air quality violations occur when facilities are out of compliance with applicable SCAQMD rule requirements, permit conditions or legal requirements, or with applicable Federal or State air pollution regulations. The regional and localized air quality significance thresholds were designed as a screening tool to avoid the potential occurrence and exacerbation of air quality violations resulting from construction and operation of individual projects based on the designation of emissions sources warranting advanced permitting and regulation.

As described in Impact AQ-2 below, peak daily criteria pollutant emissions from construction of the proposed Project would not exceed the SCAQMD’s mass daily significance thresholds for construction. Unmitigated localized construction emissions from the proposed Project would exceed SCAQMD’s LSTs for PM₁₀ and PM_{2.5} (fugitive dust). However, implementation of MM AQ-1 includes watering of exposed soil surfaces three times daily, which would achieve a fugitive dust reduction of 74 percent, and prohibiting demolition when wind speed is greater than 25 mph, which would achieve a fugitive dust reduction of 98 percent. Implementation of MM AQ-1 would reduce on-site construction emissions for PM₁₀ and PM_{2.5} below the SCAQMD’s LSTs.

As described in Impact AQ-3 below, peak daily criteria pollutant emissions from operation of the proposed Project would not exceed the SCAQMD’s mass daily significance thresholds for

operation. Further, localized operational emissions from operation of the proposed Project, including the Phase 1 preliminary site development plan and the Phase 2 development program, would not exceed the SCAQMD's LSTs.

The proposed Project would not result in, cause, or contribute to air quality violations within the Basin. With implementation of MM AQ-1, localized construction emissions from the proposed Project would not exceed SCAQMD's LSTs. Therefore, the proposed Project would not conflict with the SCAQMD's 2016 AQMP, and impacts would be *less than significant with mitigation* for the Phase 1 preliminary site development plan and the Phase 2 development program.

Impact Description (AQ-2)

- b) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.*

AQ-2 Construction activities associated with the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would generate air pollutant emissions; however, emissions of CO, NO_x, SO_x, PM₁₀, PM_{2.5}, and VOC, would not exceed South Coast Air Quality Management District's (SCAQMD's) regional significance thresholds for construction. On-site construction-related emissions would exceed the Localized Significant Thresholds (LSTs) for PM₁₀ and PM_{2.5}. Therefore, the Project could expose sensitive receptors to substantial pollutant concentrations. However, this impact would be *less than significant with mitigation*.

As described in Section 3.2.3.2, *Methodology*, projects with impacts below the SCAQMD thresholds are not considered to contribute considerably to cumulative impacts. The following impact analysis considers peak daily and localized construction emissions generated from construction of the proposed Project, including the Phase 1 preliminary site development plan and the Phase 2 development program. These peak daily and localized construction emissions are evaluated against the SCAQMD's mass daily significance thresholds and LSTs, respectively, to determine whether construction of the proposed Project would contribute to a cumulatively considerable net increase of criteria pollutants.

Peak Daily Construction Emissions

During construction of Phase 1 and Phase 2, construction-related pollutant emissions such as PM₁₀, PM_{2.5}, NO_x, SO_x, CO, and VOC would be generated by exhaust from heavy-duty on-site construction equipment, haul trucks, and construction worker vehicles. The majority of fugitive dust emissions (i.e., PM₁₀ and PM_{2.5}) would result during demolition and excavation activities. During the architectural finishing phase, the application of architectural coatings (i.e., paints) and other building materials would also release VOC emissions. The assessment of construction air quality impacts provided in detail below quantifies each of these potential sources.

Haul truck trips, concrete truck trips, and materials delivery truck trips are described in detail in Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*. These truck trips in and out of the Project site would exit the Interstate (I-) 405 freeway on 190th Street or Hawthorne Avenue to 190th Street and reach the site using Del Amo Street to North Prospect Avenue (refer to Figure 2-13). Haul trucks would idle on-site while waiting to export excavation and debris from demolition. However, these trucks would be prohibited from idling for longer than 5 minutes pursuant to California Idling Regulations as defined by CARB, which prohibits heavy-duty diesel vehicles with a Gross Vehicle Weight Rating of 10,000 pounds or more from idling for longer than 5 minutes. Compliance with this regulation would result in minor, intermittent sources of air emissions. Additionally, roadways along the inbound and outbound haul routes carry substantial volumes of traffic, which currently generates mobile source emissions. As such, the haul truck trips associated with the Phase 1 preliminary site development plan and Phase 2 development program would not substantially increase mobile source emissions above existing conditions along these routes.

SCAQMD Rule 403 requires management of all fugitive dust (PM₁₀) generated during construction activities. All haul trucks would be required to be covered to contain dirt, sand, soil, or other loose materials during transport. Wheel washers would be installed where vehicles enter and exit the Project site onto paved roads, and/or wash-off trucks would be required for any equipment leaving the site before each trip to prevent tracking of construction dust/dirt off-site. All construction activities associated with the proposed Project would be required to control dust, including application of water at least two times daily, or by application of non-toxic soil stabilizers to all unpaved parking or staging areas or unpaved road surfaces, as well as application of non-toxic soil stabilizers to all inactive construction areas. The proposed Project would also be required to comply with SCAQMD Rule 1186, which requires the use of certified street sweepers or roadway washing trucks if visible soil materials are carried onto adjacent streets. Compliance with these SCAQMD requirements would ensure that fugitive dust emissions would be reduced during

the demolition, excavation, and building construction phases of the Project. Although these fugitive dust measures would be required by SCAQMD to reduce fugitive dust emissions, these were conservatively excluded from the CalEEMod for the proposed Project, and are not reflected in Table 3.2-5.

Table 3.2-5. Unmitigated Maximum Estimated Construction Emissions Compared to SCAQMD Thresholds (lbs/day)

Emission Source	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}
Phase 1						
Construction (2022)	30	4	61	0	16	4
Construction (2023)	38	12	26	0	4	2
Construction (2024)	25	9	41	0	17	4
Phase 2						
Construction (2029)	34	4	34	0	6	2
Construction (2030)	54	20	34	0	11	3
Construction (2031)	55	27	34	0	11	3
Peak Daily Total	55	27	61	0	17	4
SCAQMD Thresholds of Significance	550	75	100	150	150	55
Above Thresholds?	No	No	No	No	No	No

Notes: Refer to Appendix B for CalEEMod output sheets. **Bold** text indicates the highest potential daily emission level over the two construction phases.

Source: SCAQMD 2019b.

A portion of the VOC emissions associated with the Phase 1 and the Phase 2 would be generated from the application of architectural coatings, including paints, stains, and other finishes that off-gas VOCs during the drying/curing process. However, in compliance with the SCAQMD Rule 1113, the proposed Project would use No VOC or Low VOC finishes (i.e., VOC emission ratings <50 g/L). Use of No VOC or Low VOC finishes would ensure that VOC emissions during the architectural coating phase of construction would be minimized. Although the use of No VOC or Low VOC finishes would be required by SCAQMD Rule 1113, this measure was conservatively excluded from the CalEEMod, and is not reflected in the VOC emissions presented in Table 3.2-5 above.

Maximum daily criteria pollutant emissions for individual and overlapping construction activities were estimated using CalEEMod for each stage of construction, including demolition, grading/excavation, building construction, and architectural coating for both the Phase 1 preliminary site development plan and the Phase 2 development program. As shown in Table 3.2-5, maximum daily construction emissions would not exceed SCAQMD thresholds for CO, VOC, NO_x, SO_x, PM₁₀, or PM_{2.5} for the proposed Project. Therefore, impacts relating to temporary, short-

term emissions of construction-related air pollutants would be *less than significant* for the Phase 1 preliminary site development plan and the Phase 2 development program .

Localized Construction Emissions

Sensitive receptors, including the Silverado Beach Cities Memory Care Community, Beach Cities Child Development Center, and outpatient medical offices (refer to Table 3.2-4), are currently located on the BCHD campus and would remain on-site during the construction activities associated with Phase 1. Additional off-site sensitive receptors include the single-family residences located approximately 80 (26 meters) feet to the east in West Torrance, multi-family residences located approximately 80 feet (26 meters) to the north along Beryl Street, and Dominguez Park located approximately 110 feet (34 meters) to the northeast of the Project site. Nearby residents as well as those using the recreational facilities located near the Project site, particularly the elderly and children, could experience adverse health effects from CO, NO_x, PM₁₀, or PM_{2.5}, if concentrations of these criteria pollutants exceed the applicable LSTs. For example, fugitive dust would be generated during construction activities due to grading and excavation activities. Additionally, NO_x, CO, PM₁₀, and PM_{2.5} emissions from engine exhaust would be generated by diesel trucks and construction equipment. Although these construction-related emissions would be temporary, they could expose sensitive receptors to substantial pollutant concentrations during the estimated 29-month Phase 1 construction period and 28-month Phase 2 construction period.

The LSTs listed in Table 3.2-6 below, per SCAQMD guidance, only apply to those emissions generated by on-site construction activities and do not apply to off-site mobile emissions (e.g., haul truck trips). The closest sensitive receptors include the single-family residences to the east and multi-family residences to the north located within 26 meters from the Project site boundary. Off-site worker receptors include employees within the Redondo Village Shopping Center to the north of the Project site. Therefore, LSTs for receptors located within 25 meters from the Project site in SRA 3 were used to determine if the construction emissions associated with Phase 1 and Phase 2 of the proposed Project would result in exceedance of the LSTs (see Table 3.2-6).

Table 3.2-6. Unmitigated On-site Construction Emissions (lbs/day) Compared to Localized Significance Thresholds for 25 Meter Receptors

Emission Source	Sensitive Receptors				Off-site Worker Receptors	
	CO	NO ₂	PM ₁₀	PM _{2.5}	CO	NO ₂
Phase 1						
2022 On-site Emissions	21.3	26.8	13.5	3.0	21.3	26.8
2023 On-site Emissions	30.3	23.1	1.2	1.1	30.3	23.1
2024 On-site Emissions	17.0	17.4	13.9	2.7	17.0	17.4
Phase 2						
2029 On-site Emissions	27.5	22.6	4.1	1.3	27.5	22.6
2030 On-site Emissions	34.6	14.2	0.3	0.3	34.6	14.2
2031 On-site Emissions	31.6	14.0	0.4	0.4	31.6	14.0
Localized Significance Threshold	<i>664</i>	<i>91</i>	<i>5</i>	<i>3</i>	<i>664</i>	<i>91</i>
Above Thresholds?	No	No	Yes	Yes	No	No

Notes: See Appendix B for CalEEMod output sheets. **Bold** text indicates the highest potential daily emission level over the construction phases. Emissions might not add precisely due to rounding.

SCAQMD LST thresholds are based on:

1 acre of daily disturbed area. This is a very conservative estimate; the construction site is larger than 1 acre and construction activities would be distributed over a larger area, resulting in more disperse emissions. 25-meter separation distance to the closest residential/sensitive receptor. 25-meter separation distance to the closest worker receptor. SRA: 3.

PM₁₀ and PM_{2.5} LST thresholds are relevant to sensitive receptors that are reasonably likely to be present for ≥ 24 hours. Since off-site worker receptors are not expected to be present for this duration, significance for particulates does not apply to off-site worker receptors.

Source: SCAQMD 2009.

The greatest levels of daily CO construction emissions are projected to occur during Phase 2 construction (2030). The greatest levels of NO_x and PM_{2.5} construction emissions are projected to occur during Phase 1 construction (2022). The greatest levels of PM₁₀ are projected to occur, as fugitive dust emissions, at the end of Phase 1 during demolition of the Beach Cities Health Center (2024). As shown in Table 3.2-6, the Phase 1 construction emissions would exceed LSTs for PM₁₀ and PM_{2.5}; therefore, air quality impacts to sensitive receptors related to localized temporary construction-related emissions would be *potentially significant* for the Phase 1 preliminary site development plan and *less than significant* for the Phase 2 development program. However, implementation of MM AQ-1, which would require watering exposed soils three times daily and prohibiting demolition when wind speeds are greater than 25 mph, would reduce localized PM₁₀ and PM_{2.5} emissions to below SCAQMD's LSTs and mitigated on-site construction emissions would be *less than significant with mitigation*.

Mitigation Measure (MM)

MM AQ-1 ***Air Quality Management Plan.** Beach Cities Health District (BCHD) shall prepare an Air Quality Management Plan for project construction, which shall be approved by the City of Redondo Beach and the City of Torrance prior to issuance of demolition, grading, or building permits for the Phase 1 preliminary site development plan or the Phase 2 development program. The plan shall include the following conditions for construction:*

- *Construction equipment engines shall be maintained in good condition and in proper tune per manufacturer's specification for the duration of construction.*
- *All construction activities that are capable of generating fugitive dust are required to implement dust control measures during each phase of construction to reduce the amount of particulate matter entrained in the ambient air. These measures include the following:*
 - *Quick replacement of ground cover in disturbed areas.*
 - *Watering of exposed surfaces three times daily.*
 - *Watering of all unpaved haul roads three times daily.*
 - *Covering all stock piles with tarp.*
 - *Post signs on-site limiting traffic to 15 miles per hour (mph) or less on unpaved roads.*
 - *Prohibit demolition when wind speed is greater than 25 mph.*
 - *Sweep streets adjacent to the project site at the end of the day if visible soil material is carried over to adjacent roads.*
 - *Cover or have water applied to the exposed surface of all trucks hauling dirt, sand, soil, or other loose materials prior to leaving the site to prevent dust from impacting the surrounding areas.*
 - *Install wheel washers where vehicles enter and exit unpaved roads onto paved roads to wash off trucks and any equipment leaving the site each trip.*
- *Construction activities associated with the proposed Project shall use USEPA Tier 4 engines on all construction equipment, except crushing equipment, which would reduce DPM emissions from combustion by 94 percent for Phase 1 and 79 percent for Phase 2 construction.*
- *Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes.*

Residual Impact

Localized Construction Emissions

Impacts related to localized construction emissions would be mitigated with implementation of specific components of MM AQ-1. In addition to SCAQMD Rule 403 for required fugitive dust control, MM AQ-1 includes watering of exposed soil surfaces three times daily, which would achieve a fugitive dust reduction of 74 percent, and prohibiting demolition when wind speed is greater than 25 mph, which would achieve a fugitive dust reduction of 98 percent. The associated reductions in PM₁₀ and PM_{2.5} are reflected in the maximum daily on-site construction emissions shown in Table 3.2-7.

Table 3.2-7. Mitigated On-site Construction Emissions (lbs/day) Compared to Localized Significance Thresholds for 25 Meter Receptors

Emission Source	Sensitive Receptors				Off-site Worker Receptors	
	CO	NO ₂	PM ₁₀	PM _{2.5}	CO	NO ₂
Phase 1						
2022 On-site Emissions	21.3	26.8	4.4	1.6	21.3	26.8
2023 On-site Emissions	30.3	23.1	1.2	1.1	30.3	23.1
2024 On-site Emissions	17.0	17.4	0.8	0.7	17.0	17.4
Phase 2						
2029 On-site Emissions	27.5	22.6	1.2	0.9	27.5	22.6
2030 On-site Emissions	34.6	14.2	0.3	0.3	34.6	14.2
2031 On-site Emissions	31.6	14.0	0.4	0.4	31.6	14.0
Localized Significance Thresholds (LSTs)	<i>664</i>	<i>91</i>	<i>5</i>	<i>3</i>	<i>664</i>	<i>91</i>
Above Thresholds?	No	No	No	No	No	No

Notes: See Appendix B for CalEEMod output sheets. **Bold** text indicates the highest potential daily emission level over the construction phases. Emissions might not add precisely due to rounding.

SCAQMD LST thresholds are based on:

1 acre of daily disturbed area. This is a very conservative estimate; the construction site is larger than 1 acre and construction activities would be distributed over a larger area, resulting in more disperse emissions. 25-meter separation distance to the closest residential/sensitive receptor. 25-meter separation distance to the closest worker receptor. SRA: 3.

PM₁₀ and PM_{2.5} LST thresholds are relevant to sensitive receptors that are reasonably likely to be present for ≥ 24 hours. Since off-site worker receptors are not expected to be present for this duration, significance for particulates does not apply to off-site worker receptors.

Source: SCAQMD 2009.

As shown in Table 3.2-7, implementation of MM AQ-1 would reduce on-site construction emissions for PM₁₀ and PM_{2.5} below the SCAQMD LSTs. Therefore, with implementation of MM AQ-1, impacts with regard to localized construction emissions would be less than *significant with mitigation*.

Impact Description (AQ-3)

- b) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.*

AQ-3 Operational activities associated with the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would generate criteria air pollutant emissions that would be below South Coast Air Quality Management District (SCAQMD) mass daily thresholds and Localized Significance Thresholds (LSTs). Therefore, this impact would be *less than significant*.

As described in Section 3.2.3.2, *Methodology*, projects with impacts below the SCAQMD thresholds are not considered to contribute considerably to cumulative impacts. The following impact analysis considers peak daily and localized operational emissions generated from construction of the proposed Project, including the Phase 1 preliminary site development plan and the Phase 2 development program. These peak daily and localized operational emissions are evaluated against the SCAQMD's mass daily significance thresholds and LSTs, respectively, to determine whether operation of the proposed Project would contribute to a cumulatively considerable net increase of criteria pollutants.

Peak Daily Operational Emissions

Operational emissions associated with the proposed Project would include those generated by the addition of new vehicle trips (mobile emissions) under the Phase 2 development program, the use of landscaping maintenance equipment and consumer products (area source emissions), the use of natural gas (energy emissions), and the use of appliances. New vehicle trips would include employee trips as well as visitor trips to the Project site. As described in Section 3.12, *Population and Housing*, the large majority of employees would commute to the Project site from neighboring cities. Even with average commute times ranging from 10 to 35 minutes, these trips would not substantially contribute to operational emissions. Further, while it is likely that some employees and/or visitors would rely on alternative modes of transportation to travel to and from the Project site, these vehicle trip reductions were not considered in order to provide a conservative analysis.

Operational emissions associated with the proposed Project were estimated using CalEEMod. Mobile, energy, and area (i.e., consumer products, architectural coating, and landscape maintenance equipment) emissions are based on emission factors contained in CalEEMod. Maximum estimated daily operational emissions are detailed in Table 3.2-8.

Table 3.2-8. Maximum Estimated Operational Emissions Compared to SCAQMD Thresholds (lbs/day)

Emission Source	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}
Phase 1						
Area Emissions	17.9	6.7	0.2	0.0	0.1	0.1
Energy Emissions	0.4	0.1	0.7	0.0	0.1	0.1
Mobile Emissions	75.6	1.2	4.7	0.3	0.2	0.2
Phase 1 Total	93.9	8.0	5.6	0.3	0.3	0.3
2019 Baseline Emissions	260.9	9.5	20.7	0.7	0.5	0.5
Phase 1 Net Change	-167.0	-1.5	-15.0	-0.4	-0.2	-0.2
SCAQMD Thresholds of Significance	550	55	55	150	150	55
Above Thresholds?	No	No	No	No	No	No
Phase 2						
Area Emissions	18.0	9.9	0.2	0.0	0.1	0.1
Energy Emissions	0.9	0.2	1.4	0.0	0.1	0.1
Mobile Emissions	225.8	3.3	13.2	0.9	0.5	0.5
Phase 2 Total	244.7	13.4	14.8	0.9	0.7	0.7
2019 Baseline Emissions	260.9	9.5	20.7	0.7	0.5	0.5
Phase 2 Net Change	-16.2	3.9	-5.9	0.2	0.2	0.2
SCAQMD Thresholds of Significance	550	55	55	150	150	55
Above Thresholds?	No	No	No	No	No	No

Notes: Emissions might not add precisely due to rounding. Operational nontraffic, emissions were calculated using CalEEMod. Operational traffic emissions were calculated outside of CalEEMod, based on trips provided in the traffic study. Phase 2 emissions are cumulative - they reflect total emissions following the buildout of Phase 2. See Appendix B for CalEEMod output sheets.

Source: SCAQMD 2019b.

As shown in Table 3.2-8, the maximum emissions anticipated during operation of the Project would not exceed SCAQMD thresholds for NO_x, VOC, PM₁₀, PM_{2.5}, SO_x, or CO; therefore, this impact would be *less than significant* under the Phase 1 preliminary site development plan and the more general Phase 2 development program.

Localized Operational Emissions

Similar to construction, the LSTs listed in Section 3.2.3, *Impact Assessment and Methodology*, only apply to those emissions generated by on-site operational activities and do not apply to most of mobile emissions as these would occur largely off-site. As explained above, the LSTs for sensitive receptors within 25 meters of the Project site and are the most conservative LST thresholds and were used to represent the distance to the closest receptors. LSTs and estimates of on-site construction-related Project emissions for the proposed Project are shown in Table 3.2-9.

Table 3.2-9. On-site Operational Emissions (lbs/day) Compared to Localized Significance Thresholds for 25 Meter Receptors (Unmitigated)

Emission Source	Sensitive Receptors				Off-site Worker Receptors	
	CO	NO ₂	PM ₁₀	PM _{2.5}	CO	NO ₂
Phase 1						
Area	17.9	0.2	0.1	0.1	17.9	0.2
Energy	0.4	0.7	0.1	0.1	0.4	0.7
Peak Daily Total	18.3	0.9	0.2	0.2	18.3	0.9
2019 Baseline Emissions	3.9	0.5	0.1	0.1	3.9	0.5
Phase 1 Net Change	14.4	0.4	0.1	0.1	14.4	0.4
Phase 2						
Area	18.0	0.2	0.1	0.1	18.0	0.2
Energy	0.9	1.4	0.1	0.1	0.9	1.4
Peak Daily Total	18.9	1.6	0.2	0.2	18.9	1.6
2019 Baseline Emissions	3.9	0.5	0.1	0.1	3.9	0.5
Phase 2 Net Change	15.0	1.0	0.1	0.1	15.0	1.0
<i>LSTs (5-acre site at 25 meters)</i>	<i>1,796</i>	<i>197</i>	<i>4</i>	<i>2</i>	<i>1,796</i>	<i>197</i>
Above Thresholds?	No	No	No	No	No	No

Notes: Emissions may not add precisely due to rounding.

Mobile emissions are primarily generated offsite; therefore, they are not included here.

SCAQMD LST thresholds are based on:

5-acre site. This is a conservative estimate; the proposed site is larger than 5 acres and activities would be distributed over a larger area, resulting in more disperse emissions. 25-meter separation distance to the closest residential/sensitive receptor. 25-meter separation distance to the closest worker receptor. SRA: 3.

Phase 2 emissions are cumulative - they reflect total emissions following the buildout of Phase 2.

PM₁₀ and PM_{2.5} LST thresholds are relevant to sensitive receptors that are reasonably likely to be present for greater than or equal to 24 hours. Since off-site worker receptors are not expected to be present for this duration, significance for particulates does not apply to off-site worker receptors.

Source: See Appendix B; SCAQMD 2009.

As presented therein, the operational emissions associated with the proposed Project would not exceed LSTs for CO, NO_x, PM₁₀ and PM_{2.5}. These results indicate that the proposed Project would not generate levels of operational emissions that would adversely affect local air quality and public health. Therefore, this impact would *less than significant* for both Phase 1 preliminary site development plan and the Phase 2 development program.

Impact Description (AQ-4)

c) *Expose sensitive receptors to substantial pollutant concentrations.*

AQ-4 Construction-related diesel particulate matter (DPM) emissions – including emissions associated with the Phase 1 preliminary site development plan as well as emissions with the Phase 2 development program – would exceed the South Coast Air Quality Management District’s (SCAQMD’s) thresholds. However, this impact would be *less than significant with mitigation*.

The sensitive receptors listed in Table 3.2-4 would be exposed to construction and operational TAC emissions generated under the Phase 1 preliminary site development program and the Phase 2 development program. Construction health risks have been quantified as a part of a construction HRA prepared for the proposed Project (refer to Section 3.2.3.2, *Methodology*; see Appendix B). Because the proposed Project would include residential, medical office, general office, and health club uses that would not generate substantial TACs as part of its operations after development (as would be the case for an industrial use) and is not located in close proximity to TAC emitters, operational emissions of TACs are expected to be minor and operational health risks are discussed qualitatively in this EIR.

Construction

This analysis evaluated individual lifetime cancer risks and non-cancerous chronic hazard index (HIc) associated with DPM emissions during construction activities under the Phase 1 preliminary site development plan and the Phase 2 development program. The individual lifetime cancer risk represents the chance that an individual would contract cancer after exposure to the TACs emitted during construction of the proposed Project. Cancer risk is quantified by taking into consideration the TAC concentration, receptor breathing rate, duration and frequency of exposure, age sensitivity, and the TAC potency factor developed by OEHHA. The HIc evaluates the probability of TACs to cause adverse non-cancer health effects due to long-term exposure. The HIc is quantified by dividing the TAC concentration at a sensitive receptor location by the TAC reference exposure level (REL) established by OEHHA, where the REL is a concentration below which OEHHA has determined that no adverse health effect is anticipated. It should be noted that the maximum health risk value is only a calculation of risk – it does not necessarily mean anyone will contract cancer as a result of the proposed Project.

An acute HI, which evaluates the probability of TACs to cause adverse health effects due to short-term exposure, was not quantified for the proposed Project because the chief pollutant of concern is DPM, for which OEHHA has not established an acute REL. OEHHA states that an acute HI

analysis of the individual TAC components of diesel exhaust is warranted only in certain unusual situations such as when a nearby receptor is located above the emission release point (e.g., on a hillside or in a multi-story apartment building) (OEHHA 2015). Given the elevated location of the Project site, no unusual situations were identified for the proposed Project which would warrant an acute HI analysis.

Cancer risk and the HIc were quantified at the PMI, MEIR, on-site residences (i.e., existing Silverado Beach Cities Memory Care Community, proposed Assisted Living and Memory Care programs), and the existing Child Development Center within the Beach Cities Health Center (see Table 3.2-10). The PMI was determined to occur on the eastern boundary of the Project site during both Phase 1 and Phase 2 construction. It should be noted that the PMI represents the point of maximum impact regardless of whether a human receptor would be present at that location; no concentration higher than the PMI would occur from the proposed construction activities. The MEIR was determined to occur just east of the Project site, north of Towers Street during Phase 1 construction and south of Towers Street during Phase 2 construction (see Appendix B).

Since Phase 1 and Phase 2 construction activities would occur in different locations within the Project site boundaries, their contribution to cancer risk would be slightly different at the surrounding sensitive receptors. For example, the PMI would occur in a slightly different location during Phase 1 construction than for Phase 2 construction. To capture maximum impacts, cancer risks at the PMI, the MEIR, and on-site sensitive receptors were calculated individually for Phase 1 and for Phase 2 construction, and then the total Phase 1 and Phase 2 cancer risk was added for each receptor type. For example, cancer risk at the PMI for Phase 1 was added to cancer risk at the PMI for Phase 2 even though the Phase 1 PMI would occur in a slightly different location than the Phase 2 PMI. The same approach was done for the MEIR and other on-site receptors. This results in a conservative estimate (i.e., overstating) of cancer risk because the maximum impacts from Phase 1 and Phase 2 were added even though they would actually occur at slightly different locations. The HIc, at each receptor, was determined by taking the maximum calculated HIc from Phase 1 and Phase 2 construction (see Table 3.2-10).

The HRA conservatively assumed cancer risk exposure to off-site residential receptors starting in the third trimester before birth and an exposure duration of 3 years after birth during Phase 1 construction. Cancer risk for the same receptors during Phase 2 conservatively assumed exposure starting in the third year of life and an exposure duration of 3 years, overlapping the duration of Phase 2 construction. Cancer risk at the on-site Child Development Center within the Beach Cities Health Center was quantified from birth, for an exposure duration of 3 years for Phase 1 and Phase 2 construction. Cancer risk for residents of the existing Silverado Beach Cities Memory Care

Community were quantified assuming a starting age of 60 and an exposure duration of 3 years during Phase 1 construction. Cancer risk for Assisted Living and Memory Care residents of the proposed RCFE Building also assumed a starting age of 60 and an exposure duration of 3 years during Phase 2 construction.

Table 3.2-10. Cancer Risk and Non-Cancer Health Effects from Unmitigated Construction DPM Emissions

Location	MICR at the Modeled Locations			
	PMI	MEIR	On-site Residences	Child Development Center
Scenario	Start - 3rd trimester Duration - 3 years		Start - 60 Duration - 3 years	Start - 0 Duration - 3 years
Phase 1				
Annual Average Concentration (µg/m³)	0.2498	0.2173	0.1694	0.1694
Cancer Risk	9.26E-05 (92.6 in a million)	8.05E-05 (80.5 in a million)	1.30E-06 (1.30 in a million)	6.05E-05 (60.5 in a million)
Annual Maximum Concentration (µg/m³)	0.41021	0.35686	0.27815	0.27815
HIc	0.0820	0.0714	0.0556	0.0556
Phase 2				
Annual Average Concentration (µg/m³)	0.13302	0.09413	0.01757	0.01757
Cancer Risk	1.14E-05 (11.4 in a million)	8.06E-06 (8.06 in a million)	1.35E-07 (0.13 in a million)	6.27E-06 (6.27 in a million)
Annual Maximum Concentration (µg/m³)	0.1565	0.11075	0.02067	0.02067
HIc	0.0313	0.0222	0.00413	0.00413
Total				
Cancer Risk	1.04E-04 (104 in a million)	8.86E-05 (88.6 in a million)	1.44E-06 (1.44 in a million)	6.68E-05 (66.8 in a million)
SCAQMD Threshold	1.00E-05 (10 in a million)			
Above Threshold?	Yes	Yes	No	Yes
HIc	0.0820	0.0714	0.0556	0.0556
SCAQMD Threshold	1.0			
Above Thresholds?	No	No	No	No

Notes: MICR = maximum individual cancer risk

PMI = point of maximum impact

MEIR = maximum exposed individual resident

HIc = non-cancerous chronic hazard index

$\mu\text{g}/\text{m}^3$ = micrograms (one-millionth of a gram) per cubic meter air

Annual average emissions were used to quantify cancer risk. Annual maximum emissions were used to quantify non-cancer chronic impacts.

Additional explanatory details are provided in the construction HRA (see Appendix B).

As shown in Table 3.2-10, the unmitigated construction DPM emissions anticipated during construction of the proposed Project are not anticipated to exceed SCAQMD's H1c thresholds of 1.0 under any of the modeled locations and scenarios. The unmitigated construction DPM emissions would exceed SCAQMD thresholds for cancer risk (1.0E-05 or 10 in a million) during Project construction activities; therefore, health risk impacts to sensitive receptors from Project construction activities would be *potentially significant*. However, as described in *Residual Impacts* below, MM AQ-1 would require the use of Tier 4 engines for all construction equipment, except for crushing equipment.⁴ The use of Tier 4 Final engines would reduce DPM emissions from combustion by 94 percent during Phase 1 construction and 79 percent during Phase 2 construction (see Table 3.2-11). Therefore, mitigated DPM emissions anticipated during construction activities would not exceed SCAQMD thresholds for cancer risk, and impacts would be *less than significant with mitigation*.

Operation

The potential for TACs to have an operational effect on sensitive receptors would occur if the proposed Project is located near an existing significant source of TACs or if it would generate TACs in quantities that may have an adverse effect on sensitive receptors. CARB identifies high-volume freeways and roads, dry cleaners, and large gas stations as potential sources of TACs, while typical sources of acutely and chronically hazardous TACs include industrial manufacturing processes and automotive repair facilities.

The proposed Project would not include any industrial uses that would generate substantial amounts of TACs and pose a risk to sensitive receptors in the vicinity of the Project site. Project operations would only result in minimal emissions of TACs from maintenance or other ongoing activities, such as from the use of architectural coatings or application of cleaning solutions. Therefore, emissions of toxic or carcinogenic air pollutants are not expected to occur in any substantial amounts in conjunction with operations under the Phase 1 preliminary site development plan or the more general Phase 2 development program.

The SCAQMD recommends that operational HRAs be conducted for substantial sources of operational DPM (e.g., truck stops and warehouse distribution facilities that generate more than 100 trucks per day or more than 40 trucks with operating transport refrigeration units) and has provided guidance for analyzing mobile source diesel emissions (SCAQMD 2003c). Operation of

⁴ Crushing equipment is unique equipment. Although crushing equipment with Tier 4 Final engines may be available during Phase 2, in particular, this analysis conservatively assumes that crushing equipment would not be equipped with Tier 4 Final engines. This is a conservative assumption because the use of cleaner crushing equipment would further reduce health effects from what is presented in this analysis.

the proposed BCHD Healthy Living Campus would generate only minor amounts of diesel emissions from mobile sources, such as delivery trucks and occasional maintenance activities. These activities would not meet or exceed 100 trucks per day or more than 40 trucks with operating transport refrigeration units. Further, as previously described, truck trips associated with the proposed Project would be required to comply with the applicable provisions of the CARB regulations to minimize and reduce DPM and NO_x emissions from existing diesel trucks. Therefore, operation of the proposed Project would not be considered a substantial source of diesel particulates.

Typical sources of TACs that may affect future users of the proposed Project involve those same uses and activities identified above. According to CARB's Air Quality and Land Use Handbook, CARB recommends maintaining 500 feet of separation between residences and dry cleaners using perchloroethylene, 500 feet between residences and a major freeway that generates more than 100,000 ADT, and more than 50 feet from a typical gas station. The Project site is not located within these buffer zones from dry cleaners, freeways, or gas stations. The Project site is located approximately 370 feet southeast of the Shell gas station in the Redondo Village shopping center. While a dry cleaner service was historically located within the Redondo Village Shopping Center, this business permanently closed in 2018 (see Section 3.8, *Hazards and Hazardous Materials* for further details regarding the former dry cleaner).

Therefore, long-term operation of the proposed Project would not release substantial amounts of TACs, and future residents or visitors of the Project site would not be adversely affected by TAC emissions originating from off-site. TAC pollution controls would not be required for the proposed Project, and *less than significant* impacts on human health would occur.

Residual Impact

Toxic Air Contaminants Construction Emissions

Impacts associated with construction-related TAC emissions would be mitigated with implementation of specific components of MM AQ-1. MM AQ-1 requires the use of USEPA Tier 4 engines on all construction equipment (except crushing equipment), which have the strictest USEPA emissions requirement for off-highway diesel engines (refer to Section 3.2.2, *Regulatory Setting*). Cancer risk from Project construction emissions was modeled with the assumption of USEPA Tier 4 engines on all construction equipment, except crushing equipment (see Table 3.2-11). The annual average emissions presented in Table 3.2-11 were used to quantify cancer risk. Annual maximum emissions were used to quantify non-cancer chronic impacts.

Table 3.2-11. Cancer Risk and Non-Cancer Health Effects from Mitigated Construction DPM Emissions

Location	MICR at the Modeled Locations			
	PMI	MEIR	On-site Residences	Child Development Center
Scenario	Start - 3rd trimester Duration - 3 years		Start - 60 Duration - 3 years	Start - 0 Duration - 3 years
Phase 1				
Annual Average Concentration (µg/m³)	0.0159	0.0138	0.0108	0.0108
Cancer Risk	5.88E-06 (5.88 in a million)	5.11E-06 (5.11 in a million)	8.27E-08 (0.08 in a million)	3.86E-06 (3.86 in a million)
Annual Maximum Concentration (µg/m³)	0.02373	0.02064	0.01609	0.01609
HIc	0.00475	0.00413	0.00322	
Phase 2				
Annual Average Concentration (µg/m³)	0.02841	0.02010	0.00375	0.00375
Cancer Risk	2.43E-06 (2.43 in a million)	1.72E-06 (1.72 in a million)	2.88E-08 (0.03 in a million)	1.34E-06 (1.34 in a million)
Annual Maximum Concentration (µg/m³)	0.03098	0.02192	0.00409	0.00409
HIc	0.0062	0.00438	0.000818	0.000818
Total				
Cancer Risk	8.31E-06 (8.31 in a million)	6.38E-06 (6.38 in a million)	1.12E-07 (0.11 in a million)	5.19E-06 (5.19 in a million)
SCAQMD Threshold	1.00E-05 (10 in a million)			
Above Threshold?	No	No	No	Yes
HIc	0.0062	0.00438	0.00322	0.00322
SCAQMD Threshold	1.0			
Above Thresholds?	No	No	No	No

Notes: MICR = maximum individual cancer risk

PMI = point of maximum impact

MEIR = maximum exposed individual resident

HIc = non-cancerous chronic hazard index

$\mu\text{g}/\text{m}^3$ = micrograms (one-millionth of a gram) per cubic meter air

Additional explanatory details are provided in the construction HRA (see Appendix B).

The use of USEPA Tier 4 engines on all construction equipment, except crushing equipment, would reduce DPM emissions from combustion by 94 percent during Phase 1 construction and 79 percent during Phase 2 construction. With the use of Tier 4 engines as required under MM AQ-1, mitigated DPM emissions generated during Project construction activities would not exceed SCAQMD's significance threshold of 10 in a million (1E-05) for cancer risk (refer to Table 3.2-

11). Therefore, implementation of MM AQ-1 would reduce DPM emissions below SCAQMD thresholds for cancer risk. Project impacts to sensitive receptors due to temporary, localized construction DPM emissions would be *less than significant with mitigation*.

Impact Description (AQ-5)

c) *Expose sensitive receptors to substantial pollutant concentrations.*

AQ-5 The net increase in daily traffic, together with other cumulative traffic in the area, would generate increases in CO levels near local intersections. However, CO levels generated as a result of the proposed Project would not exceed Federal and State CO standards and would not result in CO hotspots. Therefore, this impact would be *less than significant*.

The potential for the proposed Project to cause or contribute to CO hotspots has been evaluated by comparing intersections within the vicinity of the Project site (both intersection geometry and traffic volumes) with the results of prior studies conducted by the SCAQMD in support of their AQMPs. As shown in Table 3.2-3, CO levels near the Project site are substantially below the Federal and State standards. Maximum CO levels in recent years are 1.8 ppm (1-hour average) and 1.6 ppm (8-hour average), which are well below the CAAQS of 20 ppm (1-hour average) and 9.0 ppm (8-hour average). CO levels decreased dramatically in the Basin with the introduction of the catalytic converter in 1975. No exceedances of CO have been recorded at monitoring stations in the Basin for some time, and the Basin is currently designated as a CO attainment area for the NAAQS and as a CO maintenance area for the CAAQS. Thus, it is unlikely that CO levels at Project-impacted intersections would result in an exceedance of these standards.

Additionally, SCAQMD conducted CO modeling to demonstrate attainment in the 2003 AQMP for the four worst-case intersections in the Basin, which are:

- Wilshire Boulevard & Veteran Avenue;
- Sunset Boulevard & Highland Avenue;
- La Cienega Boulevard & Century Boulevard; and
- Long Beach Boulevard & Imperial Highway.

In the 2003 AQMP, SCAQMD states that the intersection of Wilshire Boulevard & Veteran Avenue is the most congested intersection in Los Angeles County, with an ADT volume of approximately 100,000 vehicles per day. This intersection is located near the on- and off-ramps to I-405 in West Los Angeles. The evidence provided in Table 4-10 of Appendix V of the 2003 AQMP shows that the peak modeled CO concentration due to vehicle emissions at these four

intersections was 4.6 ppm (1-hour average) and 3.2 ppm (8-hour average) at Wilshire Boulevard and Veteran Avenue, exclusive of ambient background CO concentrations. When added to the existing background CO concentrations, the screening values would be 7.6 ppm (1-hour average) and 5 ppm (8-hour average), which are still well below the CAAQS of 20 ppm (1-hour average) and 9.0 ppm (8-hour average).

The Non-CEQA Intersection Operational Evaluation for the proposed Project demonstrates that four of the studied intersections within Redondo Beach and Torrance currently operate at LOS E or F during one or both of the AM and PM peak hours and five intersections are projected to operate at LOS E or F during one or both of the peak hours in 2032 (without the proposed Project) (see Appendix J). However, the highest total intersection ADT for any of these intersections would be approximately 89,300⁵ vehicles at the intersection of Hawthorne Boulevard & Del Amo Boulevard, which is less than the recognized threshold of 100,000 vehicles per day. Therefore, it can be reasonably inferred that CO hotspots do not currently exist at any of the intersections within the Project study area for the Non-CEQA Intersection Operational Evaluation (see Appendix J).

Five intersections are projected to operate at LOS E or F during one or both peak periods under future operational year (2032) plus Project conditions (see Appendix J). These intersections are:

- Inglewood Avenue & 190th Street (PM peak hour);
- Flagler Lane & Beryl Street (AM and PM peak hour);
- Redbeam Avenue & Del Amo Boulevard (AM and PM peak hour);
- Anza Avenue & Del Amo Boulevard (PM peak hour); and
- Hawthorne Boulevard & Del Amo Boulevard (AM and PM peak hour).

The most heavily trafficked intersection within the vicinity of the Project site that would be affected by the proposed Project is Hawthorne Boulevard & Del Amo Boulevard, which currently experiences approximately 89,300 vehicle trips per day, or approximately 89.3 percent of the 100,000 vehicles per day experienced at the Wilshire Boulevard and Veteran Avenue intersection evaluated in the CO Plan for the SCAQMD's 2003 Air Quality Management Plan (see Appendix J). Under the Phase 2 development program, the proposed Project would increase average daily trips by approximately 376 trips compared to existing trip generation from the Project site. These additional trips would contribute minor amounts of CO emissions to the five intersections identified above, which do not produce CO hotspots from existing traffic. With the conservative assumption that all 376 trips per day generated by the proposed Project would pass through the Hawthorne Boulevard & Del Amo Boulevard intersection, this intersection would

⁵ The ADT volume for the Hawthorne Boulevard & Del Amo Boulevard intersection was estimated using the standard assumption that AM peak hour traffic is approximately 8 percent of ADT.

experience approximately 89,676 vehicle trips per day. This would be approximately 89.7 percent of the 100,000 vehicles per day experienced at the Wilshire Boulevard & Veteran Avenue intersection, which does not generate a CO hotspot. As a result, CO concentrations are expected to be far less than those estimated in the 2003 AQMP for the most congested intersection in Los Angeles and would not create a CO hotspot or exceed the CAAQS for CO concentrations. Therefore, the proposed Project would neither directly result in nor substantially contribute to a CO hotspot and impacts would be *less than significant* during the Phase 2 development program. There would be *no impact* under the Phase 1 preliminary site development plan given the net reduction in vehicle trips.

Impact Description (AQ-6)

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

AQ-6 None of the land uses included in the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would result in objectionable odors that would affect a substantial number of people. Therefore, this impact would be *less than significant*.

According to SCAQMD's CEQA Air Quality Handbook (1993), objectionable odors are typically associated with industrial uses such as agricultural facilities (e.g., farms and dairies), refineries, wastewater treatment facilities, and landfills. The proposed Project would involve the construction of residential, outpatient medical office, community services, and restaurant uses. During construction, short-term, temporary odors would be expected from construction equipment and paving activities the duration of the two phases of construction. Operationally, odors that would be expected from the proposed Project would be typically associated with food smells (e.g., from the Blue Zones café, Assisted Living and Memory Care kitchens, outdoor dining areas, etc.) and solid waste storage. However, refuse associated with the proposed Project would be consistent with that generated by existing uses on-site and surrounding uses (e.g., existing restaurant and commercial uses in the Redondo Village Shopping Center and surrounding multi-family residences). Further, all refuse would be stored in covered containers and removed regularly consistent with the Redondo Beach's solid waste and recycling pick-up schedules. Therefore, the proposed Project would not be expected to generate objectionable odors that would affect a substantial number of people. Therefore, impacts associated with objectionable odors would be *less than significant* under the Phase 1 preliminary site development plan and the more general Phase 2 development program.

Cumulative Impacts

As described in Tables 3.0-1, 3.0-2, Table 3.0-3, and Table 3.0-4 in Section 3.0.2, *Cumulative Impacts*, there are several pending, approved, and recently completed development projects in Redondo Beach and Torrance as well as the neighboring Hermosa Beach and Manhattan Beach. Development of the proposed Project in conjunction with these projects would result in a cumulative increase in construction and operational criteria air pollutant emissions in the region.

Construction of the proposed Project would potentially overlap with other future projects in the immediate vicinity (e.g., a residential project at 190th Street & Fisk Lane in Redondo Beach and an industrial/warehouse complex in Torrance, which both have been approved). Construction-related emissions from the proposed Project and reasonably foreseeable future development projects (i.e., development projects that have not yet been approved or built) would be localized to the construction sites. It should be noted that Redondo Beach and Torrance have limited control over the timing or sequencing of many of the future development projects that may occur within the vicinity of the Project site. However, SCAQMD's mass daily emissions thresholds are designed to account for numerous construction projects occurring throughout the Basin. Further, as with the proposed Project, cumulative projects in the Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach as well as other cumulative projects within the wider regional vicinity would be subject to CARB's and SCAQMD's standards, rules, and thresholds to cumulatively control construction emissions.

With regard to cumulative effects related to operation of the proposed Project, the Basin is a nonattainment area for the State standards of O₃, PM₁₀, and PM_{2.5} (refer to Table 3.2-2). In addition, the Basin is in nonattainment for the Federal standards of O₃ and PM_{2.5}. Any growth within Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach as well as the Los Angeles metropolitan area would contribute to existing exceedances of ambient air quality standards when taken as a whole with existing development.

Cumulative impacts to air quality are evaluated under two sets of thresholds for CEQA and SCAQMD, as described below.

According to CEQA Guidelines Sections 15064(h)(3):

A project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program (including an air quality attainment or management plan) that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located.

As discussed in Impact AQ-1, the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would not conflict with the 2016 AQMP, which serves as the Basin’s approved AQMP; therefore, the project’s contribution to air quality impacts would not be cumulatively considerable under CEQA.

As described in Section 3.2.3.2, *Methodology*, SCAQMD’s cumulative significance thresholds are the same as project-specific significance thresholds. As such, the SCAQMD considers projects that do not exceed the project-specific thresholds to not contribute considerably to a cumulatively significant impact (SCAQMD 2003b).

Temporary construction emissions are discussed under Impacts AQ-2 and AQ-4. The construction emissions associated with the proposed Project would not exceed SCAQMD mass daily emissions thresholds, but would exceed LSTs for PM₁₀ and PM_{2.5}. However, with implementation of MM AQ-1, construction emissions would be reduced, and mitigated construction emissions would not exceed LSTs. Similarly, implementation of MM AQ-1 would reduce construction DPM emissions below SCAQMD’s threshold for cancer risks. As discussed under Impact AQ-3, the long-term operational emissions associated with the proposed Project would not exceed SCAQMD significance thresholds. Therefore, the construction and operational emissions associated with the proposed Project would not be cumulatively considerable under SCAQMD methodology.

Because the mitigated construction- and operation-generated emissions associated with the proposed Project would not exceed either the thresholds used to evaluate cumulative impacts to air quality, the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would not result in a considerable contribution to cumulative air quality impacts.

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3.3 BIOLOGICAL RESOURCES

This section of the Environmental Impact Report (EIR) describes the existing biological resources at the Beach Cities Health District (BCHD) campus and the surrounding vicinity and analyzes potential impacts that could result from the implementation of the proposed BCHD Healthy Living Campus Master Plan (Project). This analysis is based on the technical assessments provided by a Biological Evaluation prepared by Hamilton Biological, Inc. (2019a), a Nesting Bird Survey Report prepared by Hamilton Biological, Inc. (2019b), and a Tree Inventory Report prepared by Carlberg Associates (2019) (see Appendix C). Each of these technical studies has been peer reviewed by Wood Environment & Infrastructure, Inc. (Wood) senior biologists, with decades of experience conducting vegetation surveys and nesting bird surveys throughout Southern California.

The BCHD campus is located approximately 1 mile inland and outside of the Coastal Zone boundary, occupying a densely-developed area surrounded by residential and commercial land uses (refer to Section 2.2.1, *Project Location*). Due to the developed, urbanized character of the Project site and the surrounding vicinity and the lack of native habitat, there are no biological resources on-site that are considered significant under the California Environmental Quality Act (CEQA), except for non-native landscaped trees that have the potential to provide nesting and roosting habitat for migratory birds. Therefore, the analysis of effects to biological resources provided in this EIR is generally limited to potential impacts related to the removal or alteration of nesting or roosting trees.

3.3.1 Environmental Setting

Regional Setting

Redondo Beach and Torrance are located within Los Angeles County, situated approximately 7 miles south of the Los Angeles International Airport (LAX) at the southern edge of the Santa Monica Bay and approximately 20 miles south of the Santa Monica Mountains. Redondo Beach and Torrance are developed cities characterized almost entirely with buildings, parking lots, paved roads, sidewalks, and other urban development. There is very little native terrestrial vegetation in the area. Most large groupings of mature trees, shrubbery, and other low-growing vegetation is found in parks and other small, isolated open spaces. Most of the vegetation in Redondo Beach

and Torrance consists of commercial and residential landscaping. This vegetation provides limited habitat for urban-dwelling rodents and feral and domesticated mammals. However, street trees and other landscaped trees throughout the cities provide potential nesting and roosting sites for resident and migratory birds.

Several small (i.e., less than 6 acres) wetlands – identified in the National Wetlands Inventory (NWI) – are located in Redondo Beach and Torrance; however, none

of these wetlands are located in the immediate proximity of the Project site (U.S. Fish and Wildlife Services [USFWS] 2020a). As such, the operation of the BCHD campus has no direct or indirect effects on their ecological function. These wetland features are not visible from the campus, do not receive runoff from the campus, and are not affected by nighttime lighting from the campus.



The Project site is located adjacent to Dominguez Park. Landscaped trees at this location could provide habitat or roosting for residential and migratory species.

Los Angeles County Significant Ecological Areas

Redondo Beach and Torrance are located in close proximity to the Pacific Ocean as well as four Significant Ecological Areas (SEAs), which is a designation given by Los Angeles County to lands that contains irreplaceable biological resources. These SEAs – including the Madrona Marsh Preserve, El Segundo Dunes, Ballona Wetlands, and Santa Monica Mountains – serve as larger blocks of native habitat that support special status species and, in some cases, riparian habitat or other sensitive natural communities. However, none of these SEAs are located in the close proximity to the Project site. The Madrona Marsh is located approximately 2.5 miles from the BCHD campus, while the Santa Monica Mountains SEA is located more than 20 miles from the campus. As such, the operation of the BCHD campus has no direct or indirect effects on their ecological function. The SEAs are not visible from the campus, do not receive runoff from the campus, and are not affected by nighttime lighting from the campus.

Wildlife Corridors

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for dispersal or migration. Wildlife corridors contribute to population viability by ensuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local extirpation or

ecological catastrophes such as fires. Habitat linkages are smaller patches of habitat that join larger blocks of habitat and generally reduce the adverse effects of habitat fragmentation associated with surrounding development. Habitat linkages may be represented by continuous patches of habitat or by nearby habitat “islands” that function as steppingstones for dispersal and movement – particularly for birds and flying insects. Given the extent of surrounding development, and the distances between larger blocks of habitat (including SEAs), there are no designated regional habitat linkages between the SEAs. Additionally, there are no terrestrial wildlife corridors traversing the City of Redondo Beach or the City of Torrance.

The Pacific Flyway is a major north-south route of travel for migratory birds in America, extending along the Western American coast from Alaska south to the Patagonia region in South America (USFWS 2020b). Migratory birds travel some or all of this distance annually to follow food sources, head to breeding grounds, or travel to suitable overwintering sites. Along the Pacific Flyway, there are many key “rest stops” or temporary habitat areas where some bird species gather to feed and recuperate. For example, the Ballona Wetlands are one of many rest stops along the Pacific Flyway. Some species may remain in these rest stops for the entire season, but most stay a few days before moving on. Redondo Beach and Torrance are located along the Pacific Flyway and may host migratory birds using street trees or other landscaped trees or shrubs as rest stops. The Monarch butterfly (*Danaus plexippus*)¹ also migrates along the Pacific Flyway and roosts in locations along the Pacific coastline, typically where eucalyptus trees (*Eucalyptus* spp.) and occasionally pine trees (*Pinus* spp.) are located. However, there are no known roosting sites for migratory species or Monarch butterflies within Redondo Beach or Torrance.

Project Setting

The description of biological resources at the Project site is based on a Biological Evaluation prepared by Hamilton Biological, Inc. (2019a), a Nesting Bird Survey Report prepared by Hamilton Biological, Inc. (2019b), and a Tree Inventory Report prepared by Carlberg Associates (2019) (see Appendix C).

The Project site is bordered by residential land uses to the west, south, east and the Redondo Village Shopping Center to the north (refer to Section 2.2.2, *Surrounding Land Uses*; refer to Figure 2-2). Additionally, the Project site is surrounded by heavily trafficked, arterial roadways including North Prospect Avenue to the southwest and Beryl Street to the north. Diamond Street to the southeast and Flagler Lane to the east support lighter, residential traffic. All surrounding

¹ The listing status of the monarch butterfly under the Endangered Species Act (ESA) is currently under review. In 2014, the USFWS was petitioned to protect the monarch butterfly under the Endangered Species Act. A species status assessment report is currently being prepared. The final listing decision of the monarch is expected in December 2020 (USFWS 2020c).

roadways are lined with concrete sidewalks, aboveground utilities, streetlights, and occasional street signs with very little urban landscaping.



The BCHD campus is approximately 90 percent paved and developed with multi-story buildings and paved parking lots. The majority of landscaped vegetation occurs along the perimeter of the Project site, with larger stands of landscaped trees occurring along the Project site frontage with Diamond Street, Flagler Lane, and Flagler Alley. The vacant Flagler Lot at the intersection of Flagler Lane & Beryl Street is undeveloped and characterized by patches of low-growing weedy vegetation.

Vegetation

Vegetation occurring on and immediately adjacent to the Project site (e.g., within the Redondo Village Shopping Center) consists primarily of non-native species commonly used in commercial landscaping, such as silver dollar eucalyptus (*Eucalyptus polyanthemos*), Mexican fan palm (*Washingtonia robusta*), wild radish (*Raphanus sativus*), Bermuda grass (*Cynodon dactylon*), and crab grass (*Digitaria sanguinalis*). A list of landscaped plant species observed during the field survey conducted by Hamilton Biological, Inc. (2019a) is provided in Table 3.3-1. No native habitats were identified within the Project site (Hamilton Biological, Inc. 2019a).

Table 3.3-1. Plant Species Observed on the Project Site

Common Name	Species Name
<i>Herbaceous Weeds</i>	
Wild raddish	<i>Raphanus sativus</i>
Garland chrysanthemum	<i>Glebionis coronaria</i>
Cheeseweed	<i>Malva parviflora</i>
Puncturevine	<i>Tryonia imitator</i>
London rocket	<i>Sisymbrium irio</i>
Dandelion	<i>Taraxacum officinale</i>
<i>Exotic Grasses</i>	
Smilo grass	<i>Piptatherum miliaceum</i>
Bermuda grass	<i>Cynodon dactylon</i>
Crab grass	<i>Digitaria sanguinalis</i>
<i>Trees</i>	
Blackwood acacia	<i>Acacia melanoxylon</i>
Golden wreath wattle	<i>Acacia saligna</i>
African fern pine	<i>Afrocarpus falcatus</i>
Lemons bottle brush	<i>Callistemon citrinus</i>
Floss silk tree	<i>Ceiba speciose</i>
Bronze loquat	<i>Eriobotrya deflexa</i>
Japanese loquat	<i>Eriobotrya japonica</i>
Spider gun	<i>Eucalyptus conferruminata</i>
Flooded gum	<i>Eucalyptus rudis</i>
Weeping palm	<i>Ficus benjamina</i>
Indian laurel fig	<i>Ficus microcarpa</i>
Australian willow	<i>Geijera parviflora)</i>
Jacaranda	<i>Jacaranda mimosifolia</i>
Hollywood juniper	<i>Juniperus chinensis 'Torulosa'</i>
Brisbane box	<i>Lophostemon confertus</i>
Paperbark	<i>Melaleuca quinquenervi</i>
Olive tree	<i>Olea europaea</i>
Canary Island date palm	<i>Phoenix canariensis</i>
Fraser photinia	<i>Photinia x fraseri</i>
Canary Island pine	<i>Pinus canariensis</i>
Aleppo pine	<i>Pinus halepensis</i>
Brazilian pepper	<i>Schinus terebinthifolius</i>
Queen palm	<i>Syagrus romanzoffiana</i>
Mexican fan palm	<i>Washingtonia robusta</i>

Notes: This list of plant species on the Project site includes the existing BCHD campus as well as the vacant Flagler Lot.
Source: Hamilton Biological, Inc. 2019a.

3.3 BIOLOGICAL RESOURCES

A separate Tree Inventory Report was prepared for the Project site to inventory all of the individual trees within and immediately adjacent to the Project site (Carlberg Associates 2019). The Tree Inventory Report identified 228 trees ranging from 5 to 51 feet in height and 1 to 29 inches in diameter (measured at a height of approximately 4.5 feet). Larger mature landscaped trees occur along the Diamond Street as well as Flagler Lane and Flagler Alley, which form the eastern boundary of the Project site. Other slightly smaller landscaped trees are commonly found adjacent to existing buildings (e.g., Beach Cities Advanced Imaging Building).



The Project site is entirely developed and almost completely covered with paved surfaces; however, landscaping including trees and shrubs occur along the perimeter of the Project site and in planters near the existing buildings. The larger mature trees occur along the eastern boundary of the Project site adjacent to Diamond Street as well as Flagler Lane and Flagler Alley. Smaller trees, shrubs, and turf grass are located adjacent to the building footprint.

Carlberg Associates (2019) graded the physiological condition (i.e., health) of the trees on a scale of A through F. The physiological condition of a majority of trees on Project site received a rating of A (Outstanding with good growth form and vigor) or B (Above Average with minor symptoms of stress or disease) (Carlberg Associates 2019). A similar grading scale was used to rate trees' structural condition. Over 97 percent of trees located on the Project site received a rating of C (Average, or moderate structure with defects, decay, or disease).

Wildlife

Wildlife species were observed during the field survey associated with the Biological Evaluation (2019a) and Nesting Bird Survey Report (2019b). These species – including several birds, sandy beach tiger beetle, and western fence lizard – are identified in Table 3.3-2.

Table 3.3-2. Wildlife Species Observed on the Project Site

Common Name	Species Name
Birds	
Cedar waxwing	<i>Bombycilla cedrorum</i>
Anna's hummingbird	<i>Calypte anna</i>
Swainson's thrush	<i>Catharus ustulatus</i>
Rock pigeon*	<i>Columba livia</i>
American crow	<i>Corvus brachyrhynchos</i>
Yellow warbler	<i>Dendroica petechia</i>
Pacific-slope flycatcher	<i>Empidonax difficilis</i>
Hooded oriole	<i>Icterus cucullatus</i>
California towhee	<i>Melospiza crissalis</i>
House sparrow*	<i>Passer domesticus</i>
Lazuli bunting	<i>Passerina amoena</i>
Blue grosbeak	<i>Passerina caerulea</i>
Black-headed grosbeak	<i>Pheucticus melanocephalus</i>
Western tanager	<i>Piranga ludoviciana</i>
Bushtit (Pacific)	<i>Psaltiriparus minimus</i>
House finch	<i>Rallus longirostris levipes</i>
Black phoebe	<i>Sayornis nigricans</i>
Allen's hummingbird	<i>Selasphorus sasin</i>
Hermit warbler	<i>Setophaga occidentalis</i>
Lesser goldfinch	<i>Spinus psaltria</i>
Eurasian collared-dove*	<i>Streptopelia decaocto</i>
European starling*	<i>Sturnus vulgaris</i>
Orange-crowned warbler	<i>Vermivora celata</i>
Warbling vireo	<i>Vireo gilvus</i>
Wilson's warbler	<i>Wilsonia pusilla</i>
Mourning dove	<i>Zenaida macroura</i>
Invertebrates	
Sandy beach tiger beetle	<i>Cicindela hirticollis gravida</i>
Reptiles	
Western fence lizard	<i>Sceloporus occidentalis</i>

Notes: *Non-native species

Source: Hamilton Biological, Inc. 2019b.

Many of the birds observed are migratory species that generally do not nest in Redondo Beach or Torrance. However, one active Allen's hummingbird nest was detected during the field survey associated with the Nesting Bird Survey Report (Hamilton Biological, Inc. 2019b).

No mammals were detected during the field survey, but expected species include the non-native eastern fox squirrel (*Sciurus niger*) and several native species, including the botta pocket gopher (*Thomomys bottae*), raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and Striped skunk (*Mephitis mephitis*) (Hamilton Biological, Inc. 2019a). Due to the presence of the Silverado Memory Care Community and associated dining services on the BCHD campus, BCHD has a pest control program and dedicated contractor that routinely sets traps and/or exterminates nuisance pests on the campus.

Special-Status Species

The California Natural Diversity Database (CNDDDB) is an inventory of the status and locations of rare plants and wildlife in California, maintained by the California Department of Fish and Wildlife (CDFW). The CNDDDB organizes regional data by 7.5-minute quadrangle maps. Federal and state listed species known to occur in the Redondo Beach quadrangle map, where the Project site is located, includes recorded observations of the federally endangered Pacific pocket mouse (*Perognathus longimembris pacificus*), federally endangered Palos Verdes blue butterfly (*Glaucopsyche lygdamus palosverdesensis*), federally endangered El Segundo blue butterfly (*Eupilotes battoides allyni*), State endangered willow flycatcher (*Empidonax traillii*), State threatened beach spectaclepod (*Dithyrea maritima*), and State candidate endangered Croth bumble bee (*Bombus crotchii*) (CDFW 2021). However, given the developed, urbanized character and the lack of undisturbed native habitats within Project site and surrounding vicinity, the potential for special-status wildlife species to occur at the Project is very low (Hamilton Biological, Inc. 2019a).

Based on the review of the CNDDDB and the habitat assessment conducted by Hamilton Biological, Inc. (2019a) three special status species would have the potential to occur on the Project: Cooper's Hawk (*Accipiter cooperii*), southern tarplant (*Centromadia parryi*) and the monarch butterfly (*Danaus plexippus*) (see Table 3.3-3).

Southern Tarplant. Southern tarplant is designated as California Rare Plant Rank (CRPR) by the California Native Plant Society (CNPS) and typically occurs on flat, disturbed ground near the coast that receives intermittent flooding. The vacant Flagler Lot in the northeastern corner of the Project site has marginal potential to support southern tarplant. However, the species very rarely occurs in disturbed areas and no signs of the plant were observed during the field survey. Therefore, this species is considered to have a very low potential to occur on the Project site (Hamilton Biological, Inc. 2019a).

Table 3.3-3. Special-Status Species with Potential to Occur On-site

Common Name	Species Name	Habitat	Occurrence or Potential for Occurrence	Status
Plants				
Southern tarplant	<i>Raphanus sativus</i>	Flat, disturbed ground near the coast that receives intermittent flooding.	Very Low Suitable habitat present; known historically in region	CRPR 1B.1
Invertebrates				
Monarch butterfly	<i>Piptatherum miliaceum</i>	Overwinter in groves of eucalyptus or pines, in natural areas between a half-mile and one mile from the coast.	Low Suitable pine habitat present; known historically in region	_*
Birds				
Cooper's Hawk	<i>Accipiter cooperii</i>	Found in a variety of vegetated habitats including urban, suburban, and rural. Requires large trees for nesting.	High Moderate potential to breed in vicinity; high potential to occur during migration and/or winter	WL

Notes:

California Rare Plant Rank (CRPR)

1B – Plants rare, threatened or endangered in California and elsewhere

0.1 – Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

State Rank

S2: Imperiled – At high risk of extirpation in the state due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.

S3: Vulnerable – At moderate risk of extirpation in the state due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.

S4: Apparently Secure – At a fairly low risk of extirpation in the state due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.

State Status

WL – Watch List

Federal Status

*On December 15, 2020, the USFWS announced that listing the monarch as endangered or threatened under the ESA is warranted but precluded by higher priority listing actions (USFWS 2021). The ESA provides for a warranted-but-precluded finding when the Service does not have enough resources to complete the listing process because the agency must first focus on higher-priority listing rules (USFWS 2020c). With this decision, the monarch becomes a candidate for listing under the ESA, and its status will be reviewed each year until it is no longer a candidate.

Source: Hamilton Biological, Inc. 2019a.

Monarch Butterfly. The Monarch butterfly is considered a California Special Animal. “*Special Animal*” is a broad term used to refer to all the animal taxa tracked by the CDFW in the CNDDB, regardless of their legal or protection status. Monarch butterflies passes through Southern California to overwinter in substantial groves of eucalyptus, and occasionally pines, in natural areas between 0.5 miles and 1 mile from the coast. While the Project site contains mature pine trees, they are relatively small in size and sparsely located throughout the Project site. Therefore, existing pines on-site do not provide suitable overwintering habitat for monarchs. Therefore, monarch butterflies are unlikely to occur on the Project site (Hamilton Biological, Inc. 2019a).

Cooper's Hawk. Cooper's hawk, which is listed on the CDFW Watch List, is a common and widespread raptor species found frequently in urban and suburban areas across Southern California. Cooper's hawk has a moderate potential to breed in the vicinity of the Project site due to rapid expansion of the breeding population into urban and suburban areas. Cooper's hawk has a high potential to be present on the Project site during winter or migration periods. The large mature trees located along the perimeter of the Project site would provide potential roosting areas during seasonal migration. Cooper's hawks that nest in urban areas use tall mature trees found in parks, commercial, and industrial areas (Lepczyk and Warren 2019). Cooper's hawks that use urban areas for habitat also subsist off small and medium sized birds abundant in urban areas (Lepczyk and Warren 2019). Therefore, the Cooper's hawk has potential to nest and forage at the Project site or immediate vicinity (Hamilton Biological, Inc. 2019a).

In summary, the Project site is nearly fully developed and does not provide intact native habitats. No riparian habitat, aquatic features, or other sensitive natural communities, or jurisdictional wetlands are located on or in the vicinity of the Project site. While located along the Pacific Flyway, it is not part of any recognized wildlife corridors or habitat linkages. No federally listed, state-listed, or candidate species have the potential to occur on the Project site. Cooper's hawk, listed on the CDFW Watch List, is the only special status species with a high-potential to occur on the Project site.

3.3.2 Regulatory Setting

Significant biological resources – including plants, wildlife, and their habitats – are subject to multiple Federal, State, and local laws, regulations, and policies that are designed to protect sensitive, threatened, or otherwise special-status species from displacement and loss.

Federal Policies and Regulations

Clean Water Act (CWA)

The Clean Water Act (CWA) authorizes Federal, State, and local entities to cooperatively create comprehensive programs for eliminating or reducing the pollution of state waters and tributaries. Key provisions of the CWA address water quality standards and the establishment of the National Pollutant Discharge Elimination System (NPDES) program for controlling the discharge of stormwater.

Endangered Species Act

The purpose of the Federal Endangered Species Act (ESA) is to protect and recover imperiled species and the ecosystems upon which they depend. The Federal ESA is administered by the USFWS and the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS). The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales, and anadromous fish (e.g., salmonids).

Under the Federal ESA, species may be listed as either endangered or threatened. “*Endangered*” means a species is in danger of extinction throughout all or a significant portion of its range. “*Threatened*” means a species is likely to become endangered within the foreseeable future.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S. Code [USC] §§703-711) includes provisions for the protection of migratory birds, including the non-permitted take of migratory birds, under the authority of the USFWS and CDFW. The MBTA makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds, and prohibits the removal of nests occupied by migratory birds. Over 800 species, including geese, ducks, shorebirds, raptors, songbirds, and many common species are protected under the MBTA.

State Policies and Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) declares that all native plant or wildlife species threatened with extinction and those experiencing a significant decline will be given protection by the State because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people. CESA establishes that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats. Under State law, plant and wildlife species may be formally designated as rare, threatened, or endangered. Listed species are given greater attention during the land use planning process by local governments, public agencies, and landowners than are species that have not been listed.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) and implementing regulations in of the California Fish and Game Code Section 1900 *et seq.* designates rare and endangered plants and provides specific

protection measures for identified populations. The NPPA was enacted to, “*preserve, protect, and enhance endangered or rare native plants of this state.*” The NPPA defines a plant as endangered when its prospects of survival and reproduction are in immediate jeopardy from one or more causes. A rare plant is defined as a plant species that, though not presently threatened with extinction, occurs in such small numbers throughout its range that it may become endangered if its present environment worsens. The NPPA prohibits the take or sale of rare and endangered plants in California. However, the law includes broad exemptions to the prohibition of take, including removal of endangered or rare plants from a building site, road, or right-of-way.

California Fish and Game Code (Sections 3503, 3503.5, and 3800)

California Fish and Game Code Sections 3503, 3503.5, and 3800 prohibit the take or possession of birds, their nests, or eggs. Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) is considered a take. Such a take would also violate Federal law protecting migratory birds. Incidental Take Permits are required from the CDFW for projects that may result in the incidental take of species listed as endangered, threatened, or candidate species. The permits require that impacts to protected species be minimized to the extent possible and mitigated to a level of insignificance.

City of Redondo Beach Local Policies and Regulations

Redondo Beach General Plan Land Use Element

The Redondo Beach General Plan Land Use Element establishes goals, objectives, policies, and implementation programs to guide the manner in which new development will occur and existing uses will be conserved. The following policies aim to create and maintain high quality visual landscapes throughout the City.

Objective 1.55: Provide for the landscaping of residential, commercial, industrial and public sites to be compatible with existing development exhibiting significant and recognized landscape and site design assets and establish an improved visual image and landscape quality where not currently existing in the City.

Policy 1.55.1 Review existing and modify, as necessary, landscaping standards and guidelines for development which promote a high level of visual and environmental quality and require developers to incorporate adequate landscape on-site (I1.18).

- Policy 1.55.2 Select landscape and tree species which complement the architectural design of structures and reflect the intended functional, physical, and visual character of the district in which they are located (I1.18).
- Policy 1.55.3 Require that development projects submit and implement a landscaping plan (I1.1, I1.7).
- Policy 1.55.5 Encourage developers to incorporate mature and specimen trees and other significant vegetation which may exist on a site into the design of a development project for that site (I1.18).
- Policy 1.55.6 Require that surface parking lots incorporate trees which will provide extensive shade cover within two years of completion of construction (e.g., canopy coverage versus vertical palms) (I1.1, I1.7, I1.18).
- Policy 1.55.7 Encourage the use of drought-tolerant species in landscape design (I1.1, I1.18).

Redondo Beach Municipal Code

Redondo Beach Municipal Code (RBMC) Section 10-5.1900 aims to establish standards for installation of landscaping in order to enhance the aesthetic appearance of properties within the City, ensure the quality, quantity, and appropriateness of landscape materials, effect a functional and attractive design, improve compatibility between land uses, conserve water, control soil erosion, and preserve the character of existing neighborhoods. Landscaping plans of projects within the City shall comply with the following criteria:

- **Plant type.** Drought-tolerant plants shall be used where feasible. Recommended drought-tolerant plant species are listed in the City of Redondo Beach List of Recommended Trees and Water Conserving Plants maintained by the Superintendent of Parks.
- **Plant size.** Plants shall be sized and spaced to achieve immediate effect and shall normally not be less than a 15-gallon container for trees, 5-gallon container for shrubs, and a one-gallon container for mass planting. Groundcover coverage must be 100 percent in one year, with rooted cuttings from flats planted no more than 12 inches on center, and containerized woody, shrub ground cover planted no more than 3 feet on center.
- **Landscape plans.** Landscape plans shall incorporate existing mature trees with trunk diameters of 6 inches or greater that are compatible with the proposed grades, structures,

for all new residential projects of two or more units. A landscape plan and irrigation plan may be required in conjunction with other projects requiring Administrative Design Review, Planning Commission Review, Conditional Use Permit, or Variance.

City of Torrance Local Policies and Regulations

Torrance General Plan Community Resources Element

The Torrance General Plan Community Resources Element establishes goals, objectives, policies, and implementation programs to enhance of community qualities that distinguish Torrance. The following policies focus on the preservation and management of open space, providing parks, recreation, and community facilities for all residents, historic preservation, natural resource conservation, preservation of scenic resources, managing energy resources, reducing greenhouse gas emissions, and promoting sustainable building practices.

Objective CR.18: Preserve significant strands of trees and to establish a comprehensive plan to protect and enhance the urban forest.

Policy CR.18.1 Preserve specimen trees whether they occur on public or private property and promote the planting of new trees.

Policy CR.18.2 Provide, maintain, and encourage appropriate street trees along all sidewalks and property frontages.

Torrance Municipal Code

Tree protection and maintenance measures are provided in the Torrance Municipal Code (TMC) Sections 75.1.1 through 75.2.7, which constitutes the Torrance Tree Ordinance:

Section 75.1.5(a): No person may cut, trim, remove, prune, plant, injure or interfere with any tree upon any street, park, alley or public place of the City without first obtaining a permit from the Public Works Director. The permit will be valid for 30 days.

Section 75.1.11. During the erection, repair, alteration or removal of any building, house or structure in the City, no person in charge of such work shall leave any tree, shrub or plant in any street, park, boulevard, alley or public place of the City in the vicinity of such building or structure without good and sufficient guards or protectors as shall prevent injury to such tree, shrub or plant arising out of or by reason of the erection, repair, alteration or removal.

Section 75.1.5(a): No person may cut, trim, remove, prune, plant, injure or interfere with any tree upon any street, park, alley or public place of the City without first obtaining a permit from the Public Works Director. The permit will be valid for 30 days.

Section 75.1.11. During the erection, repair, alteration or removal of any building, house or structure in the City, no person in charge of such work shall leave any tree, shrub or plant in any street, park, boulevard, alley or public place of the City in the vicinity of such building or structure without good and sufficient guards or protectors as shall prevent injury to such tree, shrub or plant arising out of or by reason of the erection, repair, alteration or removal.

Torrance Street Tree Planting Plan

The Torrance Street Tree Master Plan, adopted in April 2015, was created to enhance and preserve the city's trees by having a set list of recommended trees that would best fit each area of the City. The Torrance Street Tree Planting Matrix (2015) provides the following tree species recommendations for Beryl Street and Flagler Lane:

Beryl Street:

- Indian Laurel Fig (*Ficus microcarpa*)
- Saint Mary Magnolia (*Magnolia grandiflora*)
- Bronze Loquat (*Eriobotrya deflexa*)
- Toyon (*Heteromeles arbutifolia*)

Flagler Lane:

- Strawberry Tree (*Arbutus unedo*)
- Hong Kong Orchid Tree (*Bauhinia blakeana*)
- Chinese Fringe Tree (*Chionanthus retusus*)

3.3.3 Impact Assessment Methodology

Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the 2020 CEQA Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on biological resources if:

- a) The project would 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 CDFW or the USFWS.
- b) The project would 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 CDFW or USFWS.
- c) The project would have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- d) The project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- e) The project would conflict with any Federal, State, local policies or ordinances protecting biological resources, such as tree preservation policy/ordinance.
- f) The project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Screened-Out Threshold(s):

- Threshold (a) (*Sensitive Species*): The existing BCHD campus is fully developed with multi-story buildings and paved surfaces. Vegetation on the Project site is limited to landscaped trees, shrubs, and grasses. Additionally, the Project site is surrounded by residential and commercial development as well as arterial roadways. As described in the Biological Evaluation prepared by Hamilton Biological, Inc. (2019a) no federally listed or State-listed species are known to occur on the Project site or the immediate surrounding vicinity. Species expected to occur on-site would be limited to animals that are commonly found in urban environments. Therefore, for the reasons stated above and as discussed in Section IV, *Biological Resources* of the Initial Study (IS), this issue is not further analyzed in the EIR. Potential impacts to migratory birds associated with the removal of landscaped vegetation is discussed further under Impact MM BIO-1.
- Threshold (b) (*Sensitive Natural Communities*): Existing vegetation on-site is limited to landscaped trees, shrubs, and grasses. No sensitive natural community including wetlands, streams, creeks, lakes, vernal pools, marshes, other water bodies, or riparian habitats exists on the Project site or in the surrounding vicinity. Therefore, for the reasons stated above

and as discussed in Section IV, *Biological Resources* of the IS, there would be no adverse effects to sensitive natural communities and this issue is not further analyzed in the EIR.

- Threshold (c) (*Wetlands*): The Project site does not contain and is not located in close proximity to any wetland areas. There would be no filling, dredging, or other modification to wetland areas, and no impacts would occur. Therefore, for the reasons stated above and as discussed in Section IV, *Biological Resources* of the IS, this issue is not further analyzed in the EIR.
- Threshold (d) (*Wildlife Corridors*): Due to the developed, urbanized nature of the Project site and the surrounding vicinity, there are no recognized wildlife corridors or habitat linkages. Re-development of the existing BCHD campus would not result in short- or long-term impacts to the movement of fish or wildlife species. Similarly, the re-development of the existing BCHD campus would not result in impacts to nursery sites. Therefore, for the reasons stated above and as discussed in Section IV, *Biological Resources* of the IS, this issue is not further analyzed in the EIR. Potential impacts to migratory birds associated with the removal of landscaped vegetation is discussed further under Impact BIO-1.
- Threshold (f) (*Habitat Conservation Plan*): The Project site is devoid of significant habitat identified in any Federal, State, and local conservation plans. Additionally, the Project site is not located within a planning area for any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other conservation plans. As such, for the reasons stated above and as discussed in Section IV, *Biological Resources* of the IS, the proposed Project would not conflict with any adopted conservation plans, and this issue is not further analyzed in the EIR.

Methodology

As previously described, this analysis is based on a Biological Evaluation prepared by Hamilton Biological, Inc. (2019a), a Nesting Bird Survey Report prepared by Hamilton Biological, Inc. (2019b), and a Tree Inventory Report prepared by Carlberg Associates (2019). The Biological Evaluation consisted of literature review – including a review of the CNDDB and the CNPS Inventory of Rare and Endangered Plants – as well as a field survey conducted on May 9, 2019. (Another separate field survey was conducted on July 9, 2019 associated with the Tree Inventory Report.)

Due to the developed, urbanized character of the Project site and the surrounding vicinity, the analysis of biological resources is focused on potential impacts to the landscaped trees and shrubs at the Project site that could potentially serve as nesting and roosting sites for resident or migratory birds.

3.3.4 Project Impacts and Mitigation Measures

Impact Description (BIO-1)

- a) *The project would conflict with any Federal, State, local policies or ordinances protecting biological resources, such as tree preservation policy/ordinance.*

BIO-1 The proposed redevelopment of the Beach Cities Health District (BCHD) campus – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would result in the removal of landscaped trees, shrubs, and other non-native vegetation that may provide nesting and roosting habitat. With the implementation of pre-construction nesting bird surveys, if necessary, and new landscaping, the proposed Project would not substantially interfere with resident or migratory birds. Impacts would be *less than significant with mitigation*.

The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would redevelop the existing BCHD campus, which is located in a developed, urbanized area and is surrounded on all sides by residential and commercial development as well as heavily trafficked, arterial roadways. However, as described in Section 3.3.1, *Existing Setting*, landscaped trees, shrubs, and other non-native vegetation on the existing BCHD campus could provide suitable nesting and roosting opportunities for resident and migratory bird species afforded protection under the MBTA and/or California Fish and Game Code. For example, the nesting bird survey conducted in May 2019 found one active Allen’s hummingbird nest (Hamilton Biological, Inc. 2019b).

The Tree Inventory Report prepared by Carlberg Associates (2019) concluded that 219 of the 228 of the landscaped trees located on the Project site are in good condition. These trees would be preserved in place where feasible. However, redevelopment of the Project site would require the direct removal of approximately half of the existing landscaped trees as well as a number of shrubs and other non-native ground cover. Additionally, adjacent vegetation, not proposed for removal, could be indirectly impacted by intrusion into their root zone.

Construction under the Phase 1 preliminary site development plan would require the removal of approximately 20 landscaped trees along Flagler Lane (north of Towers Street) and approximately 60 trees along the northern perimeter of the campus to provide space for the proposed footprint of the Residential Care for the Elderly (RCFE) Building. (The removal of trees within the City of Torrance right-of-way would require issuance of a permit from the Public Works Direct pursuant to TMC 75.1.5[a].) Additionally, construction under Phase 1 would require removal of an

additional 20 landscaped trees along Diamond Street to provide space for the SCE Substation Yard. Similarly, while a site development plan has not yet been selected for Phase 2, the development program would also require the removal of additional landscaped trees and shrubs within the interior portions of the existing BCHD campus.

In addition to direct removal and indirect impacts to landscaped trees and shrubs, the proposed construction activities would result in a temporary increase in exterior noise that could also have an indirect impact on wildlife potentially occupying the Project site and the surrounding vicinity. However, the implementation of Mitigation Measure (MM) BIO-1 would avoid direct and indirect impacts to resident and migratory birds. MM BIO-1 would require that construction activities would not be conducted within 500 feet of suitable vegetation or structures that provide nesting habitat for resident and migratory birds during the nesting bird season (i.e., between February 15 and August 31) to the maximum extent practicable. If construction within the nesting season cannot be avoided, a nesting bird survey would be conducted by a qualified biologist. If active nests are discovered during the pre-construction nesting bird survey, the locations of these nests would be flagged and avoided until the qualified biologist has determined that young have fledged (i.e., left the nest), or the nest becomes inactive. With implementation of MM BIO-1, the proposed Project would not adversely impact any resident or migratory birds and this impact would be *less than significant with mitigation*.

The proposed landscaping plan would replace this vegetation with new vegetation that meets the landscaping regulations provided in RBMC Section 10-5.1900. Additionally, the proposed tree removal and the proposed landscaping plan along Flagler Lane within the City of Torrance right-of-way would be consistent the Torrance Street Tree Master Plan and would incorporate the tree species recommendations for Flagler Lane (refer to Section 3.3.2, *Regulatory Setting*). The proposed landscaping – including large landscaped trees – would provide enhanced roosting or nesting habitat for resident and migratory birds. Therefore, long-term impacts to resident and migratory birds protected under the MBTA and/or California Fish and Game Code would be *less than significant*.

Mitigation Measure (MM)

MM BIO-1 *Pre-Construction Nesting Bird Surveys.* To prevent impacts to nesting or roosting birds through loss or damage of mature trees, Beach Cities Health District (BCHD) shall comply with the following:

- *Where suitable vegetation and structures for nesting birds occur within 500 feet of project construction activities, all phases of construction*

shall avoid the general nesting season (i.e., between February 15 and August 31) to the maximum extent practicable.

- *If the nesting season cannot be avoided, a qualified biologist shall be retained to conduct a pre-construction survey for nesting birds. The survey shall be conducted within 72 hours prior to commencement of vegetation removal.*
- *If any nesting birds are present within or immediately adjacent to the construction area, the following shall be required: A qualified biologist shall be retained by BCHD to flag and demarcate the location of all nesting birds and monitor construction activities. Temporary avoidance of active nests, including the enforcement of an avoidance buffer determined by the qualified biological monitor, shall be required until the qualified biological monitor has verified that the young have fledged or the nest has otherwise become inactive.*
- *If Federal or State protected species are observed during the site survey, consultation shall be completed with the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) to determine if work shall commence or proceed during the breeding season; and, if work may proceed, what specific measures shall be taken to ensure protected bird species are not affected.*

Residual Impacts

With implementation of the recommended MM BIO-1 and compliance with Federal, State, and local regulations, impacts on biological resources – including resident and migratory birds provided with protection under the MBTA and/or California Fish and Game Code – would be reduced to *less than significant*.

Cumulative Impacts

A cumulative impact to biological resources would occur if the impacts associated with the proposed Project, when combined with other pending, approved, and recently completed projects within Redondo Beach, Torrance, and the other neighboring South Bay communities would result in significant loss of or damage to biological resources. However, the existing BCHD campus generally lacks intact native habitats. While construction during Phase 1 and Phase 2 of the proposed Project would remove landscaped vegetation, this landscaped vegetation would be replaced under the proposed landscaping plan. Additionally, the implementation of MM BIO-1 would avoid potential impacts to resident and migratory birds. Future projects in Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach (refer to Section 3.0.2, *Cumulative Impacts*) would also be expected to remove and replace landscaped trees, shrubs, and other non-native

ground cover. However, as with the proposed Project, these projects would be required to comply with Federal and State regulations pertaining to the protection of migratory birds, including the MBTA and/or the California Fish and Game Code. Additionally, any cumulative projects with the potential to impact federally listed species, State-listed species, or sensitive natural communities would require an Incidental Take Permit from the USFWS and/or CDFW (refer to Section 3.3.3, *Regulatory Setting*), which would require the preparation of a Habitat Conservation Plan and associated mitigation to offset any such impacts. With the proposed landscape plan and the implementation of MM BIO-1 the proposed Project *would not substantially contribute to cumulatively considerable impacts.*

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3.4 CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

Cultural resources are defined by the California Environmental Quality Act (CEQA) as historic-period buildings, structures, and objects as well as prehistoric or historic-period archaeological resources. Public Resources Code (PRC) Section 21074(a)(1) and (2) defines tribal cultural resources as “*sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe*” that are either included or determined to be eligible for inclusion in the California Register of Historical Resources (CRHR) or included in a local register of historic resources, or a resource that is determined to be a tribal cultural resource by a lead agency, in its discretion and supported by substantial evidence.

This analysis describes the existing cultural setting within the vicinity of the Beach Cities Health District (BCHD) campus and discusses known cultural resources on the Project site. This section then assesses the potential effects associated with the redevelopment of the BCHD campus under the proposed BCHD Healthy Living Campus Master Plan (Project) on cultural resources and tribal cultural resources.

This analysis is based on the Historic Resources Assessment prepared by LSA (2018) and peer reviewed by Wood Environment & Infrastructure Solutions, Inc. (Wood) senior architectural historian. This analysis is also based on the findings of an archaeological literature and records search prepared by Wood archaeologists as well as the information from the Redondo Beach Historic Ordinance (Ord. No. 2554) (1989), Historic Resources Surveys conducted by the City of Redondo Beach (1986 and 1996), Torrance General Plan Community Resources Element (2010), and Torrance Historic Preservation Ordinance (Ord. No. 3822) (2017).

3.4.1 Environmental Setting

Prehistory

There is evidence for human occupation of mainland Southern California dating back 10,500 or more years. Based on the small number of sites dated to this period, population densities along the coast may have been low initially. However, many prehistoric sites may have been lost, inundated, or deeply buried as a result of rising sea levels, erosion, aggradation (i.e., accumulation of sediments), and other natural forces.

Prehistoric human occupation and cultures within coastal Southern California evolved significantly over more than 10,000 years based on changes in climate, food availability, technological innovations, and utilization and changes in population densities and cultural characteristics. Although prehistoric remains within the region could be from any of the various past cultural epochs,

they would most likely represent past occupation by the Gabrieleño/Tongva or other Takic people. The Gabrieleño/Tongva occupied territory that included the Los Angeles Basin south to parts of Orange County and north to Topanga Canyon and the southern Channel Islands. The total Gabrieleño/Tongva territory covered more than 1,500 square miles and included the watersheds of the Los Angeles, San Gabriel, and Santa Ana Rivers and the islands of Santa Catalina, San Clemente, and San Nicolas. Within this large territory were more than 50 villages with populations that ranged from approximately 50 to 150 individuals. The fully developed Gabrieleño/Tongva culture was a socially and economically complex hunting and gathering group, very advanced in their culture, social organization, religious beliefs and art and material object production. The tribe was known for its artisanship in the form of pipes, ornaments, cooking implements, inlay work, and basketry. It is believed their economic system exchanged goods and managed food reserves (i.e., storage and processing), which allowed them to maintain permanent year-round villages. The Gabrieleño/Tongva are estimated to have had a population numbering around 5,000 in the pre-contact period (Kroeber 1925). Gabrieleño/Tongva populations and culture underwent dramatic changes following European contact. Introduced diseases weakened and killed large numbers of native peoples, and most villages were abandoned by 1810. Those Gabrieleño/Tongva that survived built the Spanish Missions and the Mexican and American ranches that followed.

Due to subsequent urban development beginning in the late nineteenth century and early twentieth century, the full extent and density of Gabrieleño/Tongva occupation of the South Bay is difficult to accurately characterize. However, based on the records searches for the proposed Project conducted through the South Central Coastal Information Center (SCCIC) at California State University, Fullerton (see Appendix D), no prehistoric sites or evidence of settlement have previously been recorded within the immediate vicinity of the Project site. Further, no prehistoric or historic-period archaeological resources have been previously identified on the Project site.

History

Redondo Beach and Torrance

Initial European contact with the Gabrieliño began in 1542, followed by more intensive exploration in 1769, when Spanish explorer, Gaspar de Portola, passed through Gabrieliño territory. In 1771, Mission San Gabriel was established approximately 23 miles northeast of the Project site and Mission San Fernando Rey de España, in 1797, approximately 30 miles north of the Project site. By the early 1800's, the majority of the surviving Gabrieliños had entered the mission system at one of these locations. In 1781, El Pueblo de La Reina de Los Angeles, which would later become the City of Los Angeles in the twentieth century, was established approximately 16 miles northeast of the Project site as a civilian settlement made up of families of African, Native American, and Spanish

descent. As the pueblo prospered and grew, it ushered in the Rancho era as thousands of acres of surrounding lands were granted to individuals as ranchos or farmsteads by the Spanish crown, and later the Mexican government, as repayment for the service the individual contributed.

Redondo Beach includes portions of three different ranchos: San Pedro, Los Palos Verdes, and Sausal Redondo. San Pedro, the largest and oldest of the three ranchos, was bounded on the east by the San Gabriel River, on the south and west by the Pacific Ocean, and on the north by Redondo Bay. Its boundaries include most of the modern-day Redondo Beach, Torrance, Gardena, and Compton (Cleland 1951). Early economic development in the region started with the Pacific Salt Works along Redondo Bay which succumbed to local competition following the arrival of the Southern Pacific Railroad in the mid-1870s. In 1892, Redondo Beach was incorporated and, by the early 1900s, thrived as a port city and shipping point for lumber and oil.

In 1911, Jared Sidney Torrance, a Pasadena real estate promoter, purchased approximately 3,000 acres of the Rancho San Pedro with the intention of creating a new city that incorporated design elements of the garden city movement of the late nineteenth century (City of Torrance 2010). To accomplish this, Jared Torrance hired the Olmsted Brothers, Frederick Law Olmsted Jr. and Charles Olmsted, of Brookline, Massachusetts, sons of Frederick Law Olmsted, a landscape architect whose work included Central Park in New York City and the original Stanford University campus. Groundbreaking for the model city commenced in 1912 with the renowned Irving Gill as the chief architect (City of Torrance 2010).

The 1920s marked the expansion of commercial and residential development in the area near Redondo Beach and Torrance. The introduction of the automobile supported new commercial developments such as gasoline stations and restaurants. Single-family farms were slowly being replaced with housing tracts. As with several other cities in California, World War II and post-World War II led to booms in residential and commercial development. New families moved to the cities during World War II as employment increased at the defense plants located in the area. Following World War II, veterans returned from the war and faced a shortage of rental properties. As a result of this shortage, veterans purchased vacant lots to build future homes. This accelerated growth led to a demand for a more urban amenities such as shopping centers, civic institutions, and medical facilities increased. The cities continued to grow and support industrial, residential, tourist, and commercial uses.

Project Site

The increased demand for urban medical facilities and services following the post-World War II economic and population boom was especially escalated in previously rural areas. To accommodate this need, in 1946, following a speech by President Truman outlining five goals to improve national health, Congress passed the Hospital Survey and Construction Act which provided Federal funding to support construction of hospitals and clinics in underserved communities. In California, the Local Hospital District Law (Local Health Care District Law) was passed in 1945 and authorized the formation of hospital districts for the purposes of allowing maintenance of local hospitals in underserved counties with small populations. In 1950, a report prepared for the medical division of the Citizens' Emergency Corps found that Los Angeles area hospitals were inadequate to service existing needs and were not prepared to provide needed services in the scenario of a major local disaster, thus

prompting the creation of the South Bay Hospital District and the construction of the South Bay Hospital Building (LSA 2018). The hospital was expanded with an approximately 12,300-square-foot (-sf) addition on the south side of the building completed in 1970 (Gnerre 2015; LSA 2018). However, by the late 1970s, the hospital began to struggle financially as it tried to compete with nearby privately-owned competitors. By 1984, the 203-bed hospital was privatized due to economic concerns. In the mid-1990s, the South Bay Hospital District changed its name to the Beach Cities Health District. Today BCHD continues to own and operate the facility as an outpatient medical campus with a variety of tenant health care providers (LSA 2018).



The former South Bay Hospital was originally constructed in 1958. The 150-bed, four-story hospital opened in early August 1960 after 27 months of construction.



Construction of a new hospital wing began in 1968, expanding the hospital to 203 beds.

Historic Architectural Resources

“Historic architectural resources” include standing buildings, structures, and objects of historic importance. When a significant concentration of such resources occurs within a defined geographic space, a historic district may be defined for the area.

Properties subject to review under CEQA include those meeting the criteria for listing in the NRHP, CRHR, National Register of Historic Places (NRHP), or designation under a local ordinance or identified in a historic resources survey. Lead agencies under CEQA may also determine that an unlisted resource may be a historic resource as defined in Public Resources Code sections 5020.1(j) or 5024.1 (refer to CEQA Guidelines Section 15064.5[a][4]).

Project Site

Existing development on the Project site includes: the 5-story Beach Cities Health Center and attached single-story Maintenance Building located at 514 North Prospect Avenue; the 3-story Beach Cities Advanced Imaging Building located at 510 North Prospect Avenue; and the 3-story Providence Little Company of Mary Medical Institute Building located at 520 North Prospect Avenue. A 2-level subterranean parking garage, a 3-story parking structure, and various paved surface parking lots are also located on the



The former South Bay Hospital's south- and west-facing elevations include a fourth story balcony addition and replaced front canopy, giving the building a modern aesthetic.

Project site. The vacant Flagler Lot at the southwest corner of Flagler Lane and Beryl Street is undeveloped and characterized by patches of ruderal, weedy vegetation.

The Beach Cities Health Center and the attached Maintenance Building, both of which are located at 514 North Prospect Avenue, are historic-period buildings that were constructed in 1960 and therefore meet the 50-year threshold for consideration as potential historic resources for the purposes of Federal, State, and local regulations and policies.

The former South Bay Hospital is designed in the International style, featuring a multi-level flat roof and unadorned, smooth, white exterior walls occasionally punctuated by horizontal bands of metal framed windows. Such features are common of the minimalist International style, best

characterized by its lack of decorative elements, instead incorporating the following design features:

- Simple geometric forms, often rectilinear;
- Balance and regularity, but not necessarily symmetry;
- Reinforced concrete and steel construction with a non-structural skin;
- Unadorned, smooth wall surfaces typically of glass, steel, or stucco painted white;
- Complete absence of ornamentation and decoration;
- Often cantilevered upper floor or balcony;
- Flat roof without a ledge or eaves;
- Large areas of glass; and
- Metal window frames set flush with the exterior walls, often in horizontal bands as its distinguishing features.



A modern, one-story addition has been added to a 1-story bay on the east side of the east stairwell as seen from the south and east.

Originating in Bauhaus interdisciplinary design school in Germany and migrating to the U.S. with German architects who relocated during the Depression Era, the International style garnered popularity in the post-World War II years and typically appeared in large, non-residential projects.

The former South Bay Hospital was designed by the well-known architectural firm, Walker, Kalionzes and Klingerman and built by notable builders M.J. Braock and Sons and R.J. Daum Construction Company. Kalionzes is best known as the principal architect for the 1952 Byzantine-style Saint Sophia Greek Orthodox Cathedral, which is a designated Los Angeles Historic-Cultural Monument (LSA 2018).

Numerous alterations and additions were made to the hospital from 1962 through 2009. The vast majority of these were for interior alterations, but permits for exterior alterations and/or additions were issued as well in 1963, 1968, 1976, 1979, and 2007. These alterations included the following:

- 4-story balcony addition on the west elevation;
- Expanded, 1-story lobby area on the south elevation;
- Replacement of an original folded plate canopy with an arched canopy supported by four round columns over the entry walkway;

- Nondescript 1-story addition on the northwest corner of the building; and
- 1-story addition to a 1-story bay on the east side of the east stairwell.

LSA (2018) evaluated the Beach Cities Health Center and the attached Maintenance Building for historic architectural significance using the criteria for listing in the CRHR and the criteria for designation as a Redondo Beach Landmark (see Appendix D). The findings of this evaluation are summarized below:

Under Criteria 1/A, the former South Bay Hospital is associated with the post-WW II population boom and the resulting demand for housing and related amenities including medical facilities. It is associated with at least two pieces of important legislation, the Federal Hospital Survey and Construction Act (Hill-Burton Act) and the State Local Hospital District Law (The Local Health Care District Law). The Federal law provided funding for construction of new medical facilities, and the State law established regulations for the formation of district hospitals. Numerous communities in California took advantage



The west elevation of the original 1960 building retains a high degree of integrity and features smooth, white wall surfaces and minimalist designs characteristic of the International style.

of these, forming hospital districts and building new or improving existing healthcare facilities. The South Bay Hospital District was not exceptional in this regard. In addition, while the building still houses medical facilities, it is no longer a hospital and does not provide emergency room services or overnight care. Alterations to accommodate these new uses have further compromised its ability to convey an association with its origins as a district hospital.

Under Criteria 2/B, although a number of people who were active in the local community were associated with the development and operation of the former South Bay Hospital District and the former South Bay Hospital, none appears to have derived any historic significance specifically from their association with this building.

Under Criteria 3/C/D, the former South Bay Hospital was originally designed in the International style and retains many of the character-defining features of that style. However, 1-story additions to the façade (south elevation), west elevation, and east elevation have compromised the integrity of design, materials, and workmanship. Modern construction elsewhere on the property has

compromised the integrity of setting and feeling, and because the building is no longer used for its original purpose, integrity of association has also been compromised to a degree. The building is associated with prominent architects and builders. However, this building does not represent any innovations in design or construction or utilize unique materials. Additionally, the architects appear to have worked in the prevailing styles of the time, and there is no indication that this building was ever featured for its design in any publication or that it ever won any design awards. M.J. Brock and Sons is no longer in business, but was best known for residential projects. Daum Construction Company is still in business, but does not cite the former South Bay Hospital as one of its representative projects.

Criterion 4 is normally associated with archaeological resources. The former hospital building was constructed in 1960 using common methods and materials and does not have the potential to provide any information important to the prehistory or history of the local area, California, or the Nation.

With regard to Local Criterion E, the former South Bay Hospital does not have a unique location or singular physical characteristic that represents an established and familiar visual feature or landmark of a neighborhood, community, or city.

For these reasons, the building does not meet the criteria for listing in the CRHR or the City of Redondo Beach Historic Ordinance (Ord. No. 2554). Further, the building is not part of a designated historic district (LSA 2018).

The two medical office buildings (510 and 520 North Prospect Avenue) were added to the campus in 1976 and 1989, respectively and do not meet the 50-year threshold generally required for consideration as potential historic resources under the CRHR (California Code of Regulations [CCR] Section 4852[d][2]). Similarly, given their age, these buildings are not eligible for consideration as a Redondo Beach Landmark, a building must be at least 50 years. There is an exception buildings that are at least 30 years if the Redondo Beach Preservation Commission determines that the resource is very exceptional. However, for all the reasons described for the former South Bay Hospital Building these two medical office buildings have not been determined by the Redondo Beach Preservation Commission to be very exceptional and do not meet the criteria for designation as a Redondo Beach Landmark.

Historic Resources within the Project Vicinity

As previously described, Wood senior archaeologists conducted a literature and records search through the SCCIC at California State University, Fullerton to identify known historic or archaeological resources and prior studies within 0.5 miles of the Project site. Sources consulted

during the SCCIC records search include: NRHP, CRHR, California Historical Landmarks, California Points of Historical Interest, and California Inventory of Historic Resources. The literature and records search indicated that six previous investigations have been undertaken at the Project site, and a further 14 have been undertaken within a 0.5-mile radius of the Project site. No previously recorded resources are known within the Project site, but four historic-period resources are documented within the 0.5-mile radius, only one of which is listed in the NRHP, CRHR, or a local register.

- *P-19-177669/Redondo Beach Original Townsite Historic District.* This resource is an NRHP, CRHR, and locally-listed historic district containing 48 contributing elements and 19 associated historic properties comprising a neighborhood built just outside of the original center of Redondo Beach.

There are also three historic-period resources identified in the area as part of the Southern California Edison (SCE) electrical grid, which are not eligible for listing in the NRHP, CRHR, or the local register. These resources include:

- *P-19-189960.* This resource is a steel lattice electrical tower, part of the SCE electrical grid. The resource was evaluated for NRHP-, CRHR-, and local register-eligibility in 2011, and determined to be ineligible for listing.
- *P-19-190298.* This resource is also a steel lattice electrical tower, also part of the SCE electrical grid. The resource was evaluated for NRHP-, CRHR-, and local register-eligibility in 2012, and determined to be ineligible for listing.
- *P-19-190323.* This resource is also a steel lattice electrical tower, also part of the SCE electrical grid. The resource was evaluated for NRHP-, CRHR-, and local register-eligibility in 2013, and determined to be ineligible for listing.

The City of Redondo Beach also maintains a Historic Resources Register which is a combined list of all properties in Redondo Beach listed in the NRHP or CRHR and/or designated as local landmarks. According to the Redondo Beach Historic Resources Register, four buildings located within the vicinity of the Project site have been designated for protection under the City of Redondo Beach Historic Ordinance (Ord. No. 2554), one of which is also listed in the NRHP and as a contributor to the Original Townsite Historic District. The listed resources are shown in Table 3.4-1. No historic resources recorded in the Torrance Historic Resource Survey (1979) occur in the immediate vicinity of the Project site.

Table 3.4-1. Historic Architectural Resources within Redondo Beach

Name	Address	Proximity to Project Site	Status
Morrell House at Dominguez Park	298 Flagler Lane	650 feet north	Local Landmark
Queen Anne House at Dominguez Park	302 Flagler Lane	750 feet north	Local Landmark
Hibbard House/ Original Townsite Historic District	328 N. Gertruda Avenue	0.43 miles southwest	Listed in NRHP
-	820 Beryl Street	0.23 miles southwest	Locally Significant

Note: The City of Torrance has surveyed hundreds of historic resources within its Olmsted Tract (also referred to as the Torrance Tract or Old Torrance Tract), an area of the City originally planned by Fredrick Law Olmsted Jr. and includes a number of buildings designed by the noted Southern California Architect Irving Gill (Page and Turnbull 2018). The Olmsted Tract and its contents are located in the eastern area of the City and not in proximity to the proposed Project site.

Sources: City of Redondo Beach 2019a; 2019b.

The Morrell House, located at 298 Flagler Lane, is a designated Redondo Beach Landmark characterized by a combination of Queen Anne and Craftsman detailing. The Morrell House was originally constructed in 1906 on Catalina Avenue just north of Diamond Street. However, following the purchase of this property for redevelopment as condominiums in the late 1980s, the developer donated the building, and the City of Redondo Beach allocated a



The Morrell House is a designated Redondo Beach Landmark that was related to Dominguez Park from its original location on Catalina Avenue, just north of Diamond Street.

new location in Dominguez Park, creating Heritage Court. The building is located within Dominguez Park between 190th Street and Beryl Street, approximately 650 feet north from the Project site. The Morrell House faces west with a direct view of an adjacent residential apartment complex. The view to the north of the building includes the Redondo Beach Historical Museum parking lot and the Queen Anne House, another designated Redondo Beach Landmark located in the courtyard (refer to Table 3.4-1). The Morrell House is located within a developed urban area of Redondo Beach predominantly surrounded by single-family residences.

The Queen Anne House, located at 302 Flagler Lane, is a designated Redondo Beach Landmark. As with the Morrell House, the Queen Anne House was also relocated to the site in the late 1980s in an effort to form Heritage Court. The building is located in Heritage Court within Dominguez Park between 190th Street and Beryl Street, approximately 750 feet north from the Project site. The Queen Anne House faces west with a view of the

Heritage Courtyard and adjacent residential apartments across the street. The Queen Anne House is immediately surrounded by the Dominguez Park and parking lots to the north, east and south, and medium-density multi-family residential development to the west.



The Queen Anne House is a designated Redondo Beach Landmark and serves as the Redondo Beach Historical Museum.

The Hibbard House, located at 328 North Gertruda Avenue, is listed in the NRHP and part of the Original Townsite Historic District. This neighborhood was largely built between 1906 and 1914, with houses in a mix of styles typical of the period (i.e., Craftsman and Colonial Revival). The district was added to the NRHP in June of 1988. The Hibbard House is located in a residential neighborhood approximately 0.43 miles southwest of the Project site, facing west towards single-family and low-density multi-family residences.



The Hibbard House, constructed in 1910, is listed on the National Register of Historic Places.

The craftsman home located at 820 Beryl Street was designated as a historically significant building by the City of Redondo Beach since its listing in the Historic Resource Survey conducted by the City of Redondo Beach in 1986 (City of Redondo Beach 2019b). The Historic Resource Survey used a ranking system of “A,” “B,” “C,” “D,” with “A” being most significant. The structure at 820 Beryl Street is ranked as an “A.” This property is surrounded by single-family and low-density multi-family residential homes and Beryl Heights Elementary School to the east.

Archaeological Resources

Archaeological resources both represent and document activities, accomplishments, and traditions of past cultures, and link current and former inhabitants of an area. Archaeological resources may date from the historic or prehistoric period, and include deposits of physical remains of the past (e.g., artifacts, manufacturing debris, dietary refuse, and the soils in which they are contained) or areas where prehistoric or historic activity measurably altered the earth.

As previously described, the literature and record search results indicate no archaeological resources have been recorded at the Project site. A lack of known archaeological sites is not a reliable indicator of archaeological sensitivity. In developed urban settings, the original ground surface is typically not available for inspection and prehistoric and historic archaeological deposits may be preserved at depth under existing buildings and structures.

Native American Outreach and Tribal Cultural Resources

A search of the Native American Heritage Commission's (NAHC's) Sacred Lands File was requested to determine the presence of any Native American cultural resources within a 0.5-mile buffer extending from the boundaries of the Project site. The NAHC indicated that the results of the Sacred Lands File search were negative (see Appendix D). However, the NAHC identified five Native American tribes and/or individuals that would potentially have specific knowledge as to whether cultural resources are identified in the Area of Potential Effect:

- Andrew Salas, Chairperson, Gabrieleño Band of Mission Indians-Kizh Nation;
- Anthony Morales, Chairperson, Gabrieleno/Tongva San Gabriel Band of Mission Indians;
- Robert Dorame, Chairperson, Gabrielino Tongva Indians of California Tribal Council;
- Sandonne Goad, Chairperson, Gabrielino/Tongva Nation; and
- Charles Alvarez, Gabrielino-Tongva Tribe.

As part of the tribal consultation process required by Assembly Bill (AB) 52, BCHD sent a request for tribal consultation to the list of tribes provided by the NAHC. The letters, which were sent on July 29, 2019, described the proposed Project and location and requested input on the proposed Project from these individuals and organizations. Of the five tribes/individuals contacted, one tribe, the Gabrieleño Band of Mission Indians – Kizh Nation, responded with a request for formal consultation. A telephone call held on September 16, 2020 between Mr. Andrew Salas, Tribal Chairperson, Matthew Teutimez, Tribal Biologist, and Ed Almanza, representative of BCHD. Tribal representatives were aware of the proposed Project and its location from BCHD's earlier correspondence, and advised that the potential exists for the proposed Project to impact tribal cultural resources (see Impact CUL-4). Mr. Salas requested that BCHD provide for tribal

monitoring by a representative of the Gabrieleño Band of Mission Indians – Kizh Nation during all ground disturbances associated with the proposed Project. Mr. Salas, on behalf of the Gabrieleño Band of Mission Indians – Kizh Nation, also requested that specific measures be implemented in the event of unanticipated discovery of tribal cultural resources, archaeological resources, human remains, and/or associated funerary objects.

3.4.2 Regulatory Setting

Federal Laws and Regulations

National Historic Preservation Act

The National Register of Historic Places was established by the National Historic Preservation Act (NHPA) to help identify and protect properties that are significant cultural resources at the Federal, State, and/or local levels. As previously described, four criteria have been established to determine if a resource is significant to American history, architecture, archaeology, engineering, or culture and should be listed in the NRHP. These criteria include:

1. It is associated with events that have made a significant contribution to the broad patterns of our history;
2. It is associated with the lives of persons significant in our past;
3. It embodies the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction;
4. It yields, or may be likely to yield, information important in prehistory or history.¹

Districts, sites, buildings, structures, and objects of potential significance that are at least 50 years in age must meet one or more of the above criteria to be eligible for listing in the NRHP. However, the NRHP does not prohibit the consideration of properties less than 50 years in age whose exceptional contribution to the development of U.S. history, architecture, archaeology, engineering, or culture can be clearly demonstrated under NRHP criteria.

In addition to meeting the Criteria for Evaluation, a property must have integrity, which is defined as “*the ability of a property to convey its significance.*” According to NRHP Bulletin 15, the NRHP recognizes seven aspects or qualities that, in various combinations, define integrity. To

¹ *Guidelines for Completing National Register Forms*, National Register Bulletin 16, U.S. Department of Interior, National Park Service, September 30, 1986. This bulletin contains technical information on comprehensive planning, survey of cultural resources and registration in the NRHP.

retain historic integrity a property will always possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance. The seven factors that define integrity are location, design, setting, materials, workmanship, feeling and association.

In assessing a property's integrity, the NRHP criteria recognize that properties change over time; therefore, it is not necessary for a property to retain all its historic physical features or characteristics. The property must, however, retain the essential physical features that enable it to convey its historic identity.

State Laws and Regulations

The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, implements the policies of the NHPA at the State level. The OHP also carries out the duties as set forth in the PRC and maintains the CRHR as well as the California Historic Resources Inventory. The State Historic Preservation Officer is an appointed official who implements historic preservation programs within the State's jurisdictions. CEQA requires projects to identify any substantial adverse impacts which may affect the significance of identified historic resources.

California Register of Historical Resources

The CRHR is “an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change.” CEQA Guidelines Section 15064.5(a)(3) states that a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the CRHR (PRC Section 5024.1; CCR Section 4852).

A historic resource eligible for listing in the CRHR must meet one or more of the criteria of significance and retain enough of its historic character or appearance to be recognizable as a historic resource and to convey the reasons for its significance. Historic resources that have been rehabilitated or restored may be evaluated for listing.

The CRHR automatically includes “all properties formally determined eligible for, or listed in, the National Register of Historic Places,” and certain specifics, and California Points of Historical Interests that have been evaluated and recommended for inclusion on the CRHR. Unless a resource listed in a survey has been demolished, lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the

resource to be potentially eligible for the CRHR. The fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, not included in a local register of historic resources, or identified in an historic resources survey, does not preclude a lead agency from determining that the resource may be an historic resource as defined in PRC Sections 5020.1(j) or 5024.1.

California Environmental Quality Act

CEQA includes regulations that address historic resources. As described in PRC 21084.1, “*historic resources*” are defined according to PRC Section 5020.1(k) as “*any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California*” (OHP 2005). Resources included in a local register of historic resources (pursuant to PRC Section 5020.1[k]), or identified as significant in an historic resources survey (meeting the criteria in PRC Section 5024.1[g]), are also considered “*historic resources*” for purposes of CEQA. The fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, not included in a local register of historic resources, or identified in a historic resources survey, does not preclude a lead agency from determining that the resource may be a historic resource as defined in PRC Sections 5020.1(j) and 5024.1.

Assembly Bill 52

AB 52 amended CEQA to require that lead agencies notify and consult in good faith with California Native American tribes requesting consultation regarding projects that may impact tribal cultural resources. Tribal cultural resources may include site, features, places, cultural landscapes, sacred places, or objects with cultural value to a California Native American tribe. Under AB 52, a project with a potential to impact tribal cultural resources such that it would cause a substantial adverse change constitutes a significant effect on the environment unless mitigation reduces such effects to a less than significant level.

State Laws and Regulations Governing Human Remains

The disposition of human remains is governed by California Health and Safety Code Section 7050.5 and PRC Sections 5097.94 and 5097.98, and may fall within the jurisdiction of the NAHC. If human remains are discovered, the County Coroner must be notified immediately and there should be no further disturbance to the site where the remains were found. If the remains are determined by the coroner to be Native American, the coroner is responsible for contacting the NAHC within 24 hours. The NAHC, pursuant to PRC Section 5097.98, will immediately notify

those persons it believes to be most likely descended from the deceased Native American(s) so they can inspect the burial site and make recommendations for treatment or disposal. CEQA Guidelines Section 15064.5 also assigns special importance to human remains and specifies procedures to be used when Native American human remains are discovered.

City of Redondo Beach Local Policies and Regulations

Redondo Beach Historic Ordinance

The Redondo Beach Historic Ordinance (Ord. No. 2554) in Redondo Beach Municipal Code (RBMC) Title 10 Chapter 4 is intended to promote the public health, safety, and general welfare by providing for the identification, protection, enhancement, perpetuation, and use of historic resources such as buildings and structures, sites and places within the City that reflect special elements of the City's architectural, artistic, cultural, historic, political, and social heritage (City of Redondo Beach 1989).

A historic resource may be designated a landmark, and an area may be designated an historic district if it meets one or more of the following criteria:

1. It exemplifies or reflects special elements of the City's cultural, social, economic, political, aesthetic, engineering, or architectural history; or
2. It is identified with persons or events significant in local, State, or national history; or
3. It embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship; or
4. It is representative of the notable work of a builder, designer, or architect; or
5. Its unique location or singular physical characteristic(s) represents an established and familiar visual feature or landmark of a neighborhood, community, or the City.

In order to be eligible for consideration as a landmark, a historic resource must be at least 50 years old; with the exception that an historic resource of at least 30 years of age may be eligible if the City's Preservation Commission determines that the resource is very exceptional, or that it is threatened by demolition, removal, relocation, or inappropriate alteration.

Historic Resources Survey

The City of Redondo Beach has conducted two surveys in the development of its historic resource list. A structure is considered a historic resource if it is designated as a national or State landmark or meets the criteria described under the Redondo Beach Historic Ordinance (Ord. No. 2554). The

1986 Historic Resource Survey includes the City's original townsite and adjacent areas to the south. Included are structures, sites and artifacts related to the history of the City from the origins of the community to and including 1946. The survey identified approximately 1,400 buildings pre-dating 1946 and with the original townsite, the Clifton-by-the-Sea area, and Clifton Heights area.

The 1996 Historic Resources Survey was designed to supplement the 1986 investigations and expand the surveyed area. Areas north of 190th Street/Anita Avenue (North Redondo), areas located east of the 1986 study, and some isolated areas location the southern portion of the City were included. Not including addresses identified in the 1986 Survey, the 1996 Survey team found 1,565 addresses to be located within the City and pre-dating 1950, none of which are located on the Project site.

City of Torrance Local Policies and Regulations

Torrance General Plan Community Resource Element

The Torrance General Plan Community Resource Element states that the goal of the historic preservation policies are to demonstrate respect and pride for the foundations of the City through the establishment of a long-range vision for the protection of historic resources in the City and to goals and policies to achieve that vision (City of Torrance 2010). The Community Resource Element is organized into objectives, and policies. Some of the policies include identifying and evaluating local structures and sites of historic interest, encouraging the preservation of public and private buildings which are of local, historic, or cultural importance balancing historic preservation goals with the interests of private property owners, the establishment of a historic policy and programs for recognition of historic assets within the City.

Torrance Historic Preservation Ordinance

The Torrance Historic Preservation Ordinance (Ord. No. 3822) establishes the Torrance Register of Historic Resources and allows the designation of a property or area by the Historic Preservation Commission if eligible (City of Torrance 2017). The primary purpose of the Historic Preservation Ordinance is to promote the public health, safety, and general welfare by providing for the identification, designation, protection, enhancement, perpetuation and use of historic resources that reflect themes important in the City's heritage.

To be eligible for designation as a landmark or historic district in the Torrance Register of Historic Resources, a property or area shall meet one or more of the following requirements below:

1. Listed in the CRHR and NRHP, if the property has not undergone substantial exterior alteration since its designation and retains integrity;

2. Identified as eligible in a survey adopted by the Torrance City Council;
3. Determined by a qualified historic preservation professional through a historic assessment to meet at least one (1) or more of the criteria outlined in Torrance Municipal Code (TMC) Section 91.50.050 or 91.50.060.

Torrance Municipal Code

TMC Section 91.50.050 lists criteria for a property to be designated as a historic landmark. These criteria consider the structure's association with historic events, persons, or renowned architects, artistic or aesthetic value, potential to yield information about the prehistory or history of the City, state, or nation. The criteria also consider if the property embodies the distinct characteristic of a type, period, or style, or method of construction, or if property is among the last, best remaining examples of an architectural or historic type of specimen.

3.4.3 Impact Assessment and Methodology

Thresholds for Determining Significance

The following thresholds of significance for cultural resources are based on Appendix G of the CEQA Guidelines. For the purposes of this EIR, the proposed Project would be considered to have a significant adverse impact on cultural resources if:

- a) The project would cause a substantial adverse change in the significance of an historic resource as defined in CEQA Guidelines Section 15064.5;
- b) The project would cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5; and/or
- c) The project would disturb any human remains, including those interred outside of formal cemeteries.

Implementation of the proposed Project would be considered to have a significant adverse impact on tribal cultural resources if it would:

- a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is at least one of the following:
 - i. Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC 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 PRC Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.

Historic Resources

Analysis of impacts to historic architectural resources requires that a lead agency first determine whether a building, structure, object, or feature is a historic resource as defined in CEQA Guidelines Section 15064.5. If the lead agency determines a building, structure, object, or feature is determined to be a historic resource, its significance may be considered to be materially impaired by a project through demolition or alteration. The resource may also be materially impaired by demolition or incompatible new construction that alters the setting of the resource, thereby diminishing its integrity and significance.

According to the CEQA Guidelines Section 15064.5(b), a project with an effect that may cause a substantial adverse change in the significance of a historic resource may have a significant effect on the environment. A substantial adverse change means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings, resulting in material impairment of the historic resource (CEQA Guidelines Section 15064.5[b][1]). According to CEQA Guidelines Section 15064.5(b)(2), the significance of a historic resource is materially impaired when a project:

- Demolishes or materially alters in an adverse manner those physical characteristics of a historic resource that convey its historic significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR; or
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historic resources pursuant to PRC Section 5020.1(k) or its identification in an historic resources survey meeting the requirements of PRC Section 5024.1(g), unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of a historic resource that convey its historic significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA.

Removal, demolition, or alteration of historic resources can directly impact their significance by destroying the historic fabric of an archaeological site, structure, or historic district. Direct impacts can be assessed by identifying the types and locations of proposed development, determining the

exact locations of cultural resources within the project vicinity, assessing the significance of the resources that may be affected, and determining the appropriate mitigation.

The maintenance, repair, stabilization, restoration, preservation, conservation, or reconstruction of a historic resource in a manner consistent with The Secretary of the Interior's Standards and Guidelines (Weeks and Grimmer 1995) generally will constitute mitigation of impacts to a less than significant level. Documentation of historic buildings and structures, including documentation to the standards of the Historic American Buildings Survey or Historic American Engineering Record, may reduce impacts but may not reduce them to less than significant levels.

The Secretary of the Interior's Standards for the Treatment of Historic Properties (36 Code of Federal Regulations [CFR] Part 68) defines four options for the treatment of historic buildings: 1) preservation; 2) rehabilitation; 3) restoration; and 4) reconstruction. These standards are not prescriptive but instead provide general guidelines and are intended to be flexible and adaptable to specific project conditions, including aspects of adaptive use, functionality, and accessibility. The goal is to balance continuity and change and retain historic building fabric to the maximum extent feasible. The National Park Service has compiled a series of bulletins to provide guidance on specific historic preservation topics.

Archaeological Resources and Human Remains

CEQA provides guidelines for mitigating impacts to archaeological resources in CEQA Guidelines Section 15126.4. According to the CEQA Guidelines, public agencies should, whenever feasible, seek to avoid damaging effects on any historic resource of an archaeological nature. The following factors shall be considered for a project involving such an archaeological site:

1. Preservation in place (i.e., avoidance) is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.
2. Preservation in place may be accomplished by, but is not limited to, the following:
 - Planning construction to avoid archaeological sites;
 - Incorporation of sites within parks, greenspace, or other open space;
 - Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site;
 - Deeding the site into a permanent conservation easement.

3. When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historic resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Information System. Archaeological sites known to contain human remains shall be treated in accordance with the provisions California Health and Safety Code Section 7050.5.
4. Data recovery shall not be required for a historic resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historic resource, provided that the determination is documented and that the studies are deposited with the California Historical Resources Information System.

Tribal Cultural Resources

CEQA provides recommendations for mitigating impacts to tribal cultural resources in PRC Section 21084.3. According to these recommendations, public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. If the lead agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process provided for in PRC Section 21080.3.2, Section 21084.3 lists the following examples of mitigation measures that, if feasible, may be considered to avoid or minimize the significant adverse impacts:

1. Avoidance and preservation of the resources in place, including, but not limited to:
 - a. Planning and construction to avoid the resource and protect the cultural and natural context; and
 - b. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
2. Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - c. Protecting the cultural character and integrity of the resource;
 - d. Protecting the traditional use of the resource; and
 - e. Protecting the confidentiality of the resource.

3. Permanent conservation easements of other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
4. Protecting the resource.

Methodology

Historic Resources

Under CEQA, a proposed development must be evaluated to determine how it may impact the potential eligibility of a structure(s) or a site for designation as a historic resource. Based on CEQA Guidelines Section 15064.5(b)(2) presented above, the proposed Project would have a significant impact on historic resources if it would demolish, destroy, relocate, or alter a historic resource or its setting such that its historic significance or integrity as a historic resource would be materially impaired, rendering it no longer eligible as a historic resource. The analysis of the potential impacts of the proposed Project on historic resources is based on a review of information and analysis available in several reports:

- Historic Resources Assessment prepared by LSA (2018);
- Peer Review of the Historic Resources Assessment prepared by Wood's architectural historian;
- Redondo Beach Historic Resources Survey (1986 and 1996); and
- Torrance General Plan Community Resources Element (2010).

The Historic Resources Assessment included a records search of the NRHP and its annual updates, determinations of eligibility for the NRHP and CRHR. The Redondo Beach Historic Resources Register and the Torrance Olmsted District Torrance California Survey of Historic Resources were also reviewed to identify any previously surveyed properties within the Project site and the surrounding vicinity. Site inspections were made to assess existing conditions and to describe the remaining historic integrity of the former South Bay Hospital Building and associated Maintenance Building as well as the outpatient medical office buildings and the other structures developed on the campus in the 1980s. Criteria of the NRHP and CRHR as well as the Redondo Beach Historic Ordinance (Ord. No. 2554) and City of Torrance Historic Preservation Ordinance (Ord. No. 3822), were applied to evaluate these each of these resources.

Archaeological Resources and Human Remains

Investigation of potential archaeological resources at the Project site was conducted through an archaeological literature and records search at the SCCIC at California State University, Fullerton

and consultation of the NRHP, CRHR, California Historical Landmarks, California Points of Historical Interest, and California Inventory of Historic Resources.

Tribal Cultural Resources

The impact analysis for tribal cultural resources is based on information provided during consultation with California Native American tribes that requested consultation pursuant to AB 52, the findings of the literature and records search, Project site-specific geologic and topographic conditions, and the footprint and depth of the subsurface excavation associated with the proposed Project.

3.4.4 Project Impacts and Mitigation Measures

Impact Description (CUL-1)

- a) *The project would cause a substantial adverse change in the significance of an historic resource as defined in CEQA Guidelines Section 15064.5;*

CUL-1 Redevelopment of the Beach Cities Health District (BCHD) campus would include the proposed demolition of Beach Cities Health Center and the attached Maintenance Building during Phase 1 as well as the demolition of the existing parking structure and potentially the Beach Cities Advanced Imaging Center during Phase 2. However, no historic architectural resources exist on the campus and the proposed redevelopment of the campus would not damage or result in a substantial change in the historic setting of historic architectural resources in the vicinity of the Project site. Therefore, impacts would be *less than significant*.

The implementation of Phase 1 would begin with the removal of the northern surface parking lot and the construction of the Residential Care for the Elderly (RCFE) Building. The Beach Cities Health Center would remain in place for the duration of construction of the RCFE Building to allow some of BCHD's existing programs to continue. However, following the completion of the proposed construction activities, the existing uses would be relocated from the Beach Cities Health Center to the new RCFE Building and the Beach Cities Health Center and attached Maintenance Building would be demolished. The footprint of this building would be converted to a surface parking lot and open space within the interior portion of the campus. During Phase 2, the existing parking structure and potentially the Beach Cities Advance Imaging Building would be demolished and redeveloped with a Wellness Pavilion, Aquatics Center, and Center for Health and Fitness (CHF) as well as a new parking structure.

As described in Section 3.4.1, *Environmental Setting*, the Historic Resources Assessment prepared for the BCHD campus by LSA (2018) identified the Beach Cities Health Center (former South Bay Hospital Building) and the attached Maintenance Building as historic-period structures that are more than 50 years old; however, it was determined that these buildings do not meet any of the criteria for listing as a historic resource in CRHR, or designation as a local landmark under the Redondo Beach Historic Ordinance (Ord. No. 2554). The other existing structures on the campus – including the two outpatient medical office buildings and the existing parking structure – also do not meet any of these criteria. Further, the Project site is not listed in the Torrance Register of Historic Resources or located within the Torrance Tract Overlay Zone. Therefore, the demolition of the Beach Cities Health Center and attached Maintenance Building during Phase 1 as well as the existing parking structure and Beach Cities Advanced Imaging Building during Phase 2 would not result in a significant impact to historic architectural resources under the criteria set forth in CEQA Section 15064.5(b)(3).

As described in Table 3.4-1, the Morell House and Queen Anne House are located within the immediate vicinity of the Project site within Dominguez Park. These buildings have been previously determined to be Redondo Beach Landmarks in accordance with the criteria described in the Redondo Beach Historic Ordinance (Ord. No. 2554) (refer to Section 3.4.2, *Regulatory Setting*). According to the Redondo Beach Historic Resources Survey, there are no other significant or potentially significant historic architectural resources in the immediate vicinity of the Project site.

Potential impacts to historic built resources can include physical damage or the loss of character defining features and alteration of the historic setting. As described in Section 3.11, *Noise*, redevelopment of the BCHD campus would not result in substantial ground-borne vibration that could physically damage either of the two nearby historic buildings (see Section 3.11, *Noise*). With regard to their historic setting, both the Morell House and Queen Anne House were relocated to their current location in Dominguez Park in the late 1980s. As such, these buildings have been previously removed from their original historic settings and context. Additionally, the area surrounding the current location of Morell House and Queen Anne House has already been substantially redeveloped over the years with the construction former South Bay Hospital, Redondo Village Shopping Center, and other surrounding uses including Dominguez Park, which was formerly a landfill that was operated from 1904 to 1967. As such, the existing surrounding development does not contribute to the character-defining features that establish of the Morell House and Queen Anne House as Redondo Beach Landmarks.

Given that the proposed Project would not physically damage or substantially change the historic setting or context of any historic architectural resources, the potential impacts associated with Phase 1 and Phase 2 of the proposed Project would be *less than significant*.

Impact Description (CUL-2)

- b) *The project would cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5; and/or*

CUL-2 Ground disturbing activities associated with the proposed Project – particularly demolition of existing pavements and excavation of subterranean levels during Phase 1 and Phase 2 – could uncover previously unknown prehistoric or historic archaeological deposits that qualify as archeological resources as defined CEQA Guidelines Section 15064.5. Damage or destruction of any such archaeological resources would be considered a potentially significant impact. However, this impact would be *less than significant with mitigation*.

Under the proposed Project, major earthwork would involve demolition, grading, and excavation of the previously disturbed Project site. Phase 1 would begin with the demolition of approximately 100,000 sf of pavements include the existing northern surface parking lot and associated perimeter circulation road. Subsequent construction of the RCFE Building would begin with a 26-foot-deep excavation for the subterranean service area and loading dock. Similarly, Phase 2 would include a 26-foot-deep subterranean excavation for the proposed parking structure and other service areas. These excavations would occur in a 20,000-sf area at the corner of Flagler Lane and Beryl Street and an area of between 23,100 sf and 39,200 sf near the central area of the BCHD campus. Earth movement across the remainder of the Project site would include relatively minor grading to even the terrain in the central area of the BCHD campus.

The Project site has been extensively disturbed beginning with the construction of the former South Bay Hospital (and associated basement) in 1958 as well as the subsequent expansion in the 1960s. Thereafter, the Beach Cities Advanced Imaging Building, Providence Little Company of Mary Medical Institute Building, and the associated subterranean parking garage and parking structure were constructed in the 1980s, causing further soil disturbance on the Project site. Utilities including electrical lines, water lines, sewer lines, and storm drains have also been installed throughout the Project site to support these facilities. Based on the results of the literature and records search, no archaeological resources were identified during any of these construction episodes. Consequently, given the extensive ground disturbance that has occurred previously, the Project site is unlikely to

contain any intact, previously undisturbed archaeological resources and the potential for the proposed Project improvements to impact previously unknown prehistoric or historic-period archaeological resources is considered to be low.

Nevertheless, with the implementation of MM CUL-1 and MM CUL-2, agreed to during AB 52 consultation with the Gabrieleño Band of Mission Indians – Kizh Nation, any previously unknown buried archaeological resources inadvertently discovered during construction would be protected and curated, if encountered. Therefore, impacts associated with Phase 1 and Phase 2 of the proposed Project would be *less than significant with mitigation*.

Mitigation Measures (MM)

MM CUL-1 Cultural Resources Monitoring Plan. *Prior to issuance of a demolition or excavation/grading permit, a Cultural Resources Monitoring Plan shall be developed by a qualified archaeologist, with provisions for review and input by representatives of the Native American tribe(s) that consulted on the project pursuant to Assembly Bill (AB) 52. The Cultural Resources Monitoring Plan shall identify those specific locations on the Project site where a qualified archaeologist and Native American tribal monitor shall be required during ground disturbing activities – including (but not limited to) clearing/grubbing, excavations, grading, and trenching – during the construction activities associated with Phase 1 and Phase 2 of the proposed Project. The rate of excavation, the types of activities, their proximity to known archaeological resources, the provenance and character of materials being excavated (e.g., non-cultural fill, younger alluvium, or older alluvium), the depth of excavation, and if found, the abundance and type of prehistoric archaeological or tribal resources encountered, will determine the frequency of monitoring in these areas. Full-time field observation shall be reduced to part-time inspections or ceased entirely if determined appropriate by the qualified archaeologist and Native American tribal monitor. The Cultural Resources Monitoring Plan shall also include a Treatment Plan that sets forth explicit criteria for appropriately mitigating impacts to archaeological resources that may be eligible for the California Register of Historic Resources (CRHR), human remains, and/or burial goods or other significant tribal resources inadvertently discovered during ground disturbing activities. The Treatment Plan shall also include requirements for a final technical report on all cultural resource studies and requirements for curation of artifacts and other recovered remains, including appropriate treatment of tribal resources, as necessary.*

MM CUL-2 *Inadvertent Discoveries.* *A qualified professional archaeologist and approved Native American monitor shall be retained for the duration of ground-disturbing activities. In the event of any inadvertent discovery of prehistoric or historic-period archaeological and/or tribal resources during construction, ground-disturbing activities in the immediate vicinity of the discovery shall stop. Construction activities shall temporarily be redirected to areas located more than 50 feet from the find. The qualified archaeologist and/or Native American monitor shall evaluate the significance of the discovery based on the Treatment Plan prior to resuming any activities that could impact the discovery. All tribal cultural resources unearthed by ground disturbing activities shall be evaluated by the Native American monitor. Any required testing or data recovery shall be directed by the qualified archaeologist and Native American monitor pursuant to the Treatment Plan.*

Residual Impacts

With the implementation of MM CUL-1 and MM CUL-2, the potential for impacts to archaeological resources would be *less than significant*. In the event of an unanticipated discovery there would be a clear Treatment Plan and any required testing or data recovery would be completed, as necessary.

Impact Description (CUL-3)

- c) *The project would disturb any human remains, including those interred outside of formal cemeteries.*

CUL-3 **While unlikely, unknown, isolated Native American human remains could potentially be inadvertently uncovered during construction activities associated with the Phase 1 preliminary site development plan and the more general Phase 2 development program. In the event of this occurrence, Beach Cities Health District (BCHD) would immediately cease activity in the vicinity of the discovery and comply with existing regulations. Therefore, impacts would be *less than significant*.**

The nearest known cemetery to the Project site is the Pacific Crest Cemetery, located approximately 1.4 miles northeast of the Project site. As described in Impact CUL-2 above, the Project site has previously been disturbed during construction of the existing facilities at the BCHD campus. No human remains have been discovered during any of the construction episodes at the existing BCHD campus.

However, as described further in Impact CUL-4, during AB 52 consultation the Gabrieleño Band of Mission Indians – Kizh Nation described that the Project site is in an area known to have had a high level of tribal activity including trade routes. It is possible that the area within and around these trade routes contains isolated burials and cremations.

Although human remains have not been identified previously within the Project site or the surrounding vicinity, it is possible that human remains could be preserved at depth beneath the existing building foundations and adjacent surface parking lots. In the unlikely event that human remains are discovered during excavation or grading associated with Phase 1 or Phase 2 of the proposed Project, California Health and Safety Code Section 7050.5 requires that disturbance of the site shall be halted. A qualified professional archaeologist shall inspect the remains and confirm that they are human and, if so, shall immediately notify the coroner in compliance with PRC Section 5097.98 and Health and Safety Code Section 7050.5. If the coroner determines the remains are Native American, the coroner shall contact the NAHC. As provided in PRC Section 5097.98, the NAHC shall identify the person or persons believed to be most likely descended from the deceased Native American. The most likely descendent would make recommendations for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98.

With compliance to existing requirements in California Health and Safety Code Section 7050.5, CEQA Guidelines Section 15064.5, and PRC Section 5097.98, any impacts to human remains associated with Phase 1 and Phase 2 of the proposed Project would be *less than significant*.

Impact Description (CUL-4)

- a) *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is at least one of the following:*
 - i. *Listed or eligible for listing in the CRHR, or in a local register of historic resources as defined in PRC 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 PRC Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.*

CUL-4 Potential tribal cultural resources, as defined in Public Resources Code (PRC) Section 21074, may be inadvertently uncovered during excavation and grading associated with the Phase 1 preliminary site development plan and the more general Phase 2 development program. Damage or destruction of such tribal cultural resources would be a potentially significant impact. However, impacts would be reduced to *less than significant with mitigation*.

As previously described, a search of the NAHC's Sacred Lands File was requested to determine the presence of any Native American cultural resources within a 0.5-mile buffer extending from the boundaries of the Project site. The NAHC indicated that the results of the Sacred Lands File search were negative. However, during AB 52 consultation, the Gabrieleño Band of Mission Indians – Kizh Nation advised that the Project site is an area of high cultural sensitivity because of the presence of traditional trade routes. Higher elevations, such as the site of the BCHD campus, may have served as look-out locations.

Maps shared by the tribe illustrate the probable alignment of a traditional trade route (now the Hermosa Greenbelt and former railroad right-of-way). Trade routes were heavily used by the tribe for movement of trade items, visiting family, going to ceremonies, accessing recreation areas, and accessing foraging areas. As such, these areas can contain seasonal or permanent ramadas or trade depots, seasonal and permanent habitation areas, and isolated burials and cremations. Watercourses and water bodies within the region may have also supported seasonal or permanent settlements, seasonal or permanent trade depots, ceremonial and religious prayer sites, and burials and cremation sites. Additionally, salt beds in the region provided unique minerals and salts that were used for food flavoring and preservation, medicinal therapies and cleansers, and spiritual ceremonies in sand drawings.

Due to the concerns raised by the Gabrieleño Band of Mission Indians – Kizh Nation during AB 52 consultation, MM CUL-1 and MM CUL-2 would be required in order to avoid impacting or destroying potential previously unknown resources that may be inadvertently unearthed during the ground disturbing activities. Implementation of these measures would ensure that any potential impacts associated with Phase 1 and Phase 2 of the proposed Project would remain *less than significant with mitigation*. Pursuant to PRC Section 21082.3(d) consultation with the Gabrieleño Band of Mission Indians – Kizh Nation was concluded on December 15, 2020.

Residual Impact

With the implementation of MM CUL-1 and MM CUL-2, the potential for impacts to archaeological resources would be *less than significant*. In the event of an unanticipated discovery

there would be a clear Treatment Plan and any required testing or data recovery would be completed, as necessary.

Cumulative Impacts

A cumulative impact to cultural resources would result if the impacts associated with the proposed Project, along with other pending, approved, and recently completed projects in Redondo Beach, Torrance, and the other neighboring South Bay communities would cumulatively impact historic architectural resources, archaeological resources, or tribal cultural resources. Excavation, grading, and other ground disturbing activities associated with cumulative development in Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach (refer to Section 3.0.2, *Cumulative Impacts*) could increase the potential for prehistoric or historic cultural resources to be altered, disturbed, or otherwise damaged. The potential to create adverse cumulative impacts to such resources depends on the nature of each project, including its specific site and surroundings. However, all pending, approved, or recently completed projects would be required to comply with the laws and regulations related to historic architectural resources, archeological resources, discovery of human remains, and tribal cultural resources cited and discussed in the analysis above. Given the extensive ground disturbance that has occurred previously, the Project site is unlikely to contain any intact, previously undisturbed archaeological resources and the potential for the proposed Project improvements to impact previously unknown prehistoric or historic-period archaeological resources is considered to be low. Additionally, with implementation of MM CUL-1 and MM CUL-2, in the unlikely event that buried cultural resources are discovered during construction, ground-disturbing activities in the immediate vicinity of the discovery shall stop and a qualified archaeologist and/or Native American monitor shall evaluate the significance of the discovery based on the Treatment Plan prior to resuming any activities that could impact the discovery. The Treatment Plan shall also include requirements for a final technical report on all cultural resource studies and requirements for curation of artifacts and other recovered remains, including appropriate treatment of tribal resources, as necessary. Therefore, regardless of the potential impacts of other pending, approved, and recently completed projects, the proposed Project would have less than significant residual impacts and *would not substantially contribute to cumulatively significant impacts*.

3.5 ENERGY

This section of the Environmental Impact Report (EIR) describes the existing energy sources, energy providers, and infrastructure within the region, including the Project site and the surrounding vicinity. This impact analysis assesses the potential short- and long-term energy consumption that could result from the construction and operation of the proposed Beach Cities Health District (BCHD) Healthy Living Campus Master Plan (Project). The description of the physical setting and environmental impacts provided in this EIR is consistent with the intent and requirements of Appendix F, *Energy Conservation* of the California Environmental Quality Act (CEQA) Guidelines. The analysis considers the conformance of the proposed Project with all applicable State and local energy conservation regulations and policies (e.g., compliance California Title 24 Building Energy Efficiency Standards [Part 6] CALGreen [Part 11]). Emissions of criteria air pollutants and greenhouse gases (GHG) due to energy consumption are addressed in Section 3.2, *Air Quality* and 3.7, *Greenhouse Gas Emissions and Climate Change*.

3.5.1 Environmental Setting

Electricity

Generation of electricity requires the consumption of energy produced by a mix of non-renewable and renewable sources. Energy production, consumption, research, and conservation efforts within the State of California are managed by the California Energy Commission (CEC). Southern California Edison Company (SCE) provides electricity to approximately 15 million people, 15 counties, and 180 incorporated cities across Central and Southern California, including Redondo Beach and Torrance (SCE 2019).

In 2018, approximately 218,120,200,000 kilowatts (kWh) (218,120.2 gigawatts [GWh]) of electricity were consumed in the State and approximately 67,856,281,249 kWh (67,856.3 GWh) of electricity were consumed in Los Angeles County. Of the electricity consumed in the State, 46.54 percent was generated by natural gas-fired power plants, 0.15 percent was generated by coal-fired power plants, 11.34 percent was generated by large hydroelectric dams, 0.24 percent was generated by oil and other petroleum or waste heat, 9.38 percent was generated by nuclear power plants. The remaining 32.35 percent of electricity production in the State was generated by renewable sources including biomass, geothermal, small hydroelectric dams, solar, and wind power. An additional 30,095 GWh of electricity, or approximately 10.54 percent of the State's total energy mix, was provided from imported sources (CEC 2019b).

3.5 ENERGY

In 2012, the most recent year of publicly available data provided in the Redondo Beach and Torrance Energy Efficiency Climate Action Plans (EECAPs), approximately 498,141,349 kWh of electricity were consumed within Redondo Beach and approximately 1,733,990,505 kWh were consumed within Torrance (South Bay Cities Council of Governments [SBCCOG] 2015a, 2015b).

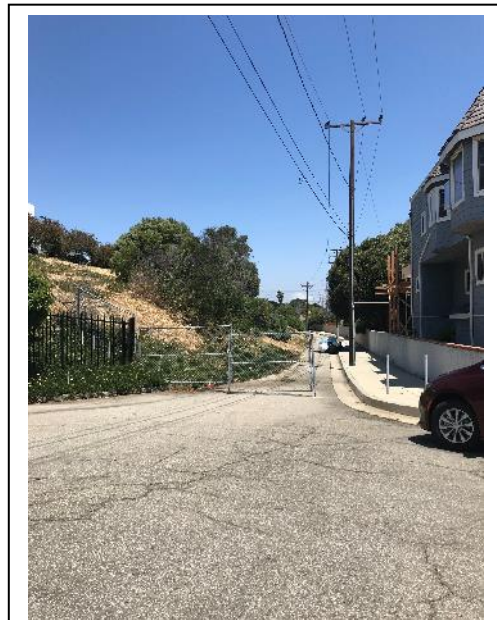
Table 3.5-1. State, County, and City Electricity Consumption

Year	Area	Population	Electricity Demand (kWh)	
			Total	Per Capita
2018	State of California	39,557,045	218,120,200,000	5,514.07
2018	Los Angeles County	10,105,518	67,856,281,249	6,714.78
2012	Los Angeles County	9,935,000	69,274,866,576	6,972.81
2012	Redondo Beach	67,459	498,141,349	7,242.60
2012	Torrance	146,340	1,733,990,505	11,697.82

Notes: The most recent publicly available data for the Redondo Beach and Torrance is provided in the Redondo Beach and Torrance EECAPs.

Source: CEC 2019a; U.S. Census Bureau 2019; SBCCG 2015b, 2015a.

There are four power plants in the South Bay, which are located in Alamitos, Huntington Beach, and Redondo Beach, that AES Corporation (AES), bought from SCE in 1998. The AES Redondo Beach Power Plant, which provides electricity to the system-wide grid and supports peak usage on hot days, was slated for retirement on December 31, 2020 in accordance with the State Water Resources Control Board (SWRCB) Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (Once-Through Cooling [OTC] Policy). The OTC Policy, which became effective on October 1, 2010, mandated the phasing out of “once-through cooling,” a process that uses ocean water to cool turbines and endangers marine life. However, in the aftermath of a heatwave and two rolling blackouts in California in Summer 2020, the SWRCB voted to amend its policy, extending compliance dates for the four power plants in the South Bay. This amendment gave the AES Redondo Beach Power Plant license to operate until December 2021. Redondo Beach and Torrance are also served by electrical infrastructure (e.g., substations, transmission lines, transformers, overhead and underground power lines, etc.) with maintenance and periodic upgrades provided by SCE, as necessary. Overhead power lines



Overhead powerlines are located adjacent to the east of the Project site along Flagler Lane through Flagler Alley. Similarly, overhead power lines are also provided along North Prospect Avenue.

and SCE service poles are provided located along North Prospect Avenue and Flagler Lane. A buried power line is located to the northwest between the Project site and the Redondo Village Shopping Center.

The estimated electricity demand for the operation of the existing residential, medical office, office, health and fitness, and community services uses at the existing BCHD campus is approximately 2,378,070 kWh per year, far less than 0.1 percent of total electricity demand in Redondo Beach (see Table 3.5-2; see Appendix E).

Table 3.5-2. Estimated Annual Electricity Demand of the BCHD Campus

Equivalent Land Use Type at the Existing BCHD Campus	Area (sf/unit)	Annual Usage (kWh/year)
Beach Cities Health Center		
Residential (Memory Care)	60 units	166,963
Medical Office	42,103 sf	589,021
General Office	15,810 sf	221,182
Day-Care Center	9,717 sf	59,079
Health Club (Center for Health and Fitness)	12,294 sf	103,884
College (Regents of the University of California; California State University of Dominguez Hills Classrooms)	1,519 sf	18,760
Beach Cities Advanced Imaging Building		
Medical Office	45,913	642,322
Providence Little Company of Mary Medical Institute Building		
Medical Office	46,881	576,859
Total		2,378,070

Notes: Some square footage does not generate energy demand (e.g., janitorial closets, storage, etc.) and therefore, is not included in the estimate of energy demand for the existing BCHD campus.

Sources: See Appendix B and Appendix E.

Natural Gas

Natural gas is a fossil fuel formed when layers of buried organic matter are exposed to intense heat and pressure over thousands of years. The energy is stored in the form of hydrocarbons and can be extracted in the form of natural gas, which can be combusted to generate electricity or can be used directly for heating, cooking, and other use. The Southern California Gas Company (SoCal Gas) provides natural gas to 21.8 million consumers in more than 500 communities. Redondo Beach and Torrance are located in SoCalGas's Pacific Region, which includes all of the coastal areas between Long Beach and Ventura (SoCalGas 2019).

3.5 ENERGY

In 2018, approximately 12,665,640,779 therms of natural gas were consumed in the State and 2,921,507,284 therms of natural gas were consumed in Los Angeles County (see Table 3.5-3; CEC 2018b, 2019a).

In 2012, the most recent year of publicly available data provided in the Redondo Beach and Torrance EECAPs, approximately 15,486,097 therms of natural gas were consumed within the Redondo Beach and approximately 50,300,801 therms of natural gas were consumed within Torrance (SBCCG 2015a, 2015b). Natural gas is delivered to the cities by SoCalGas through their integrated pipeline system. The majority of this natural gas is produced outside of the State while a small supply is produced locally in Central and Southern California



The attached Maintenance Building supports the Beach Cities Health Center and serves as a centralized distribution point for electricity and natural gas utilities.

from onshore and offshore fields. All residential and commercial areas within Redondo Beach and the Torrance are served by buried natural gas infrastructure, with maintenance and periodic upgrades provided by SoCalGas, as necessary. A natural gas line is located beneath North Prospect Avenue. Natural gas is delivered to the Project site from this line through another located along the eastern boundary of the Project site paralleling Flagler Lane. After passing through a meter, natural gas is delivered to the Beach Cities Health Center and attached Maintenance Building through a 3-inch and 2-inch natural gas line, respectively.

Table 3.5-3. State, County, and City Natural Gas Consumption

Year	Area	Population	Natural Gas Demand (therms)	
			Total	Per Capita
2018	State of California	39,557,045	12,665,640,779	320.19
2018	Los Angeles County	10,105,518	2,921,507,284	289.10
2012	Los Angeles County	9,935,000	2,958,817,134	297.82
2012	Redondo Beach	67,459	15,486,097	229.56
2012	Torrance	146,340	50,300,801	343.73

Notes: Natural gas consumption data was not available from the CEC for Lake, Mariposa, and Sierra Counties for 2018; therefore, the total and per capita gas consumption for the State may be slightly greater than reported in this table. The most recent publicly available data for Redondo Beach and Torrance is provided in the Redondo Beach and Torrance EECAPs. Sources: CEC 2019a; U.S. Census Bureau 2019; SBCCG 2015b, 2015a.

The estimated natural gas demand for operation of the existing residential, medical office, office, health and fitness, and community services uses at the existing BCHD campus is 2,252,693 thousand British thermal units (kBTU) (approximately 22,532 therms) per year, far less than 0.1 percent of total electricity demand in Redondo Beach (see Table 3.5-4; see Appendix E).

Table 3.5-4. Estimated Annual Natural Gas Demand of the BCHD Campus

Land Use	Area (sf /unit)	Annual Usage (kBTU/year)	Annual Usage (therms/year)
Beach Cities Health Center			
Residential (Memory Care)	60 units	479,953	4,801
Medical Office	42,103 sf	384,821	3,849
General Office	15,810 sf	144,503	1,445
Day-Care Center	9,717 sf	115,049	1,151
Health Club (Center for Health and Fitness)	12,294 sf	256,945	2,570
College (Regents of the University of California; California State University of Dominguez Hills Classrooms)	1,519 sf	23,286.3	233
Beach Cities Advanced Imaging Building			
Medical Office	45,913	419,644	4,197
Providence Little Company of Mary Medical Institute Building			
Medical Office	46,881	428,491	4,286
Total		2,252,693	22,532

Notes: Some square footage does not generate energy demand (e.g., janitorial closets, storage, etc.) and therefore, are not included in the estimate of energy demand for the existing BCHD campus.

1 therm is equal to approximately 99,976.1 BTUs.

Sources: See Appendix B and Appendix E.

Transportation Energy

According to the CEC, transportation accounts for nearly 40 percent of the total energy demand throughout the State and approximately 39 percent of the GHG emissions throughout the State (CEC 2018a). In 2018, California consumed 14.24 billion gallons of gasoline (including aviation fuel) and 3.07 billion gallons of diesel fuel (California Department of Tax and Fee Administration 2019). The California Department of Transportation (Caltrans) reports that approximately 25.5 million automobiles, 5.76 million trucks, and 881,386 motorcycles were registered in the State as of January 1, 2018, resulting in a total estimated 344.3 billion vehicle miles traveled (VMT) in 2017 and 13 billion gallons of transportation fuel consumed (Caltrans 2018a, 2018b). Within Redondo Beach, approximately 538,339,762 miles were traveled by gasoline-, diesel-, and electric-powered vehicles in 2012, accounting for approximately 0.15 percent of the total VMT

throughout the State (SBCCG 2015a). Within Torrance, approximately 1,369,046,211 miles were traveled by gasoline-, diesel-, and electric-powered vehicles in 2012, accounting for approximately 0.4 percent of the total VMT throughout the State (SBCCG 2015b). However, Redondo Beach and Torrance have adopted several policies and regulations to reduce VMT, encourage the use of electric vehicles, and prioritize mass transit services. The Redondo Beach EECAP projected that VMT and the demand for gasoline will decline over the next 15 years and will be approximately 5.7 percent lower than 2012 levels by the year 2035 (SBCCG 2015a). The Torrance EECAP projects that VMT and the demand for gasoline will slow over the next 20 years, but will be 6.7 percent greater than 2012 levels by the year 2035 (SBCCG 2015b).

Solar Energy

Currently, there is no publicly available data on the amount of solar energy produced and consumed in either Redondo Beach or Torrance. However, both cities' Climate Action Plans include multiple goals and objectives to expand the solar energy sector. Additionally, both cities promote solar energy use by providing streamlined solar permitting processes and through the Home Energy Renovation Opportunity (HERO) program, which is a financing mechanism for residential and commercial properties so homeowners and businesses can finance energy and water efficiency projects, such as renewable energy production.

3.5.2 Regulatory Setting

Federal Policies and Regulations

At the Federal level, the U.S. Environmental Protection Agency (USEPA), U.S. Department of Energy, and U.S. Department of Transportation are the three agencies with the most direct influence over national energy policies, especially transportation energy consumption. Generally, these Federal agencies establish and enforce fuel economy standards for automobiles and light trucks, fund energy-related research and development projects, and fund transportation infrastructure projects to manage transportation energy resource demand.

State Policies and Regulations

California has adopted legislation to address issues related to various aspects of energy consumption and efficiency. Several regulatory entities administer energy policy throughout the State. The CEC is the primary energy policy and planning agency in California, and is responsible for ensuring a safe, resilient, and reliable supply of energy. The CEC has seven core responsibilities: advancing state energy policy, encouraging energy efficiency, certifying thermal power plants, investing in energy innovation, developing renewable energy, transforming

transportation, and preparing for energy emergencies. The California Public Utilities Commission (CPUC) is a State agency that regulates privately owned utilities providing telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation services. The CPUC is responsible for assuring that California utility customers have safe, reliable utility services at reasonable rates, while protecting utility customers from fraud. The CPUC regulates the planning of and approval for the physical construction of electric generation, transmission, and distribution facilities as well as local distribution pipelines for natural gas. The California Air Resources Board (CARB) has adopted long-term plans and policies to address GHGs (e.g., 2017 Scoping Plan Update), which are discussed in detail within Section 3.7, *Greenhouse Gas Emissions and Climate Change*.

California Building Standards Code

The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations [CCR] Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically – typically every 3 years – to allow for the consideration and inclusion of new energy efficiency technologies and methods. The Energy Efficiency Standards for Residential and Nonresidential Buildings focus on several key areas to improve the energy efficiency of renovations and addition to existing buildings as well as newly constructed buildings and renovations and additions to existing buildings. The major efficiency improvements to the residential standards involve improvements for attics, walls, water heating, and lighting, whereas the major efficiency improvements to the nonresidential Standards include alignment with the American Society of Heating, Refrigerating and Air-Conditioning Engineers 90.1-2013 national standards. Further, the standards require that enforcement agencies determine compliance with the CCR Title 24, Part 6 before issuing building permits for any construction.

California Green Building Standards Code

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to “*improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories: 1) planning and*

design; 2) energy efficiency; 3) water efficiency and conservation; 4) material conservation and resource efficiency; and 5) environmental air quality.” The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission. The CALGreen Code establishes mandatory measures for new residential and nonresidential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design and overall environmental quality.

CEQA Guidelines

Appendix F, *Energy Conservation* of the CEQA Guidelines expresses the goal of conserving energy in the State of California and provides guidance for the analysis of energy impacts. Under CEQA (Public Resources Code [PRC] Section 21100[b][3]), EIRs must include a discussion of the potentially significant energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. Appendix F lists the following methods to achieve this goal: 1) decreasing overall per capita energy consumption; 2) decreasing reliance on natural gas and oil; and 3) increasing reliance on renewable energy sources. In addition to building code compliance, relevant considerations may include, among others, the project size, location, orientation, equipment use and any renewable energy features that are incorporated into the project (CEQA Guidelines Section 15126.2[b]).

Regional and Local Policies and Regulations

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial counties. SCAG addresses regional issues related to transportation, the economy, community development, and the environment. SCAG develops plans pertaining to transportation, growth management, hazardous waste management, housing, and air quality. SCAG prepares the Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) that supports the land use and transportation components of the Air Quality Management Plans (AQMPs), which provide GHG-reduction co-benefits (see Section 3.7, *Greenhouse Gas Emissions and Climate Change* as well as Section 3.14, *Transportation*). The 2016-2040 RTP/SCS, adopted on April 7, 2016, integrates land use and transportation strategies to achieve required emission reductions consistent with Senate Bill (SB) 375 of 8 percent by 2020 and 13 percent by 2035 relative to the base year of 2005. The RTP/SCS set forth a development pattern for the region, which, when integrated with the transportation

network and other transportation measures and policies, aims to reduce GHG emissions from automobiles and light trucks consistent with CARB targets for SCAG.

City of Redondo Beach Local Policies and Regulations

Redondo Beach General Plan Housing Element

- Policy 2.5 Promote the use of energy conservation features in the design of residential development to conserve natural resources and lower energy costs.

Redondo Beach Climate Action Plan and Energy Efficiency Climate Action Plan

Redondo Beach, in concert with the SBCCOG, is committed to providing a more livable, equitable, and economically vibrant community and subregion through the implementation of energy efficiency measures. The Climate Action Plan, which was adopted in 2017, contains goals and policies that incorporate energy use reduction into municipal and community operations (SBCCOG 2017a). The Climate Action Plan includes a list of non-binding goals and strategies in the following five categories:

- Land Use and Transportation. Facilitate pedestrian and neighborhood development and identify ways to reduce automobile emissions including supporting zero emission vehicle infrastructure, improving pedestrian and bicycle infrastructure, enhancing public transit service, and supporting reductions in single-occupancy vehicle use.
- Energy Efficiency. Emphasize energy efficiency retrofits for existing buildings, energy performance requirements for new construction, water efficient landscaping, financing programs that will allow home and business owners to obtain low-interest loans for implementing energy efficiency in their buildings.
- Solid Waste. Focus on increasing waste diversion and encouraging participation in recycling and composting throughout the community.
- Urban Greening. Create carbon sinks as they store GHG emissions that are otherwise emitted into the atmosphere as well as support health of the community.
- Energy Generation. Demonstrate the City's commitment to support the implementation of clean, renewable energy while decreasing dependence on traditional, GHG emitting power sources.

The Redondo Beach EECAP, adopted in December 2015, served as a foundation for developing the 2017 Climate Action Plan. The EECAP includes a detailed description of methodology, a

comprehensive GHG and energy inventory for 2012, and a forecast for the years 2020 and 2035. Development and adoption of the EECAP allows the City of Redondo Beach to:

- Understand its municipal and community energy use and GHG emissions now and in the future;
- Identify strategies at the local level that will result in long-term energy efficiency;
- Develop a plan to implement strategies; and
- Monitor and report progress toward energy-efficiency goals.

Sustainable Development Plan

In 2004, Redondo Beach created a Strategic Development Plan to encourage and promote sustainable development through policies, strategies, and programs. The plan's goals include increasing community awareness of sustainable development, revising codes to promote sustainable urban design, sustainable building practices in Redondo Beach, increasing water and energy resource conservation, and increasing sustainable transportation practices.

Sustainable City Plan

The Redondo Beach City Council established a Green Task Force in 2007 to educate the public on the importance of environmental best practices to meet Federal, State, and regional regulations, to advise on how to best prepare for meeting higher environmental standards locally and regionally, and to address environmental disaster mitigation. Redondo Beach's Green Task Force created the Sustainable City Plan, presented to City Council in 2008. The plan is a compilation of sustainable recommendations addressing five issue areas, including Economic Vitality and Regional Issues; Housing and Building; Open Space, Land Use and Trees; Resource Conservation; and Transportation.

Redondo Beach Municipal Code

Section 9-23.01: The City adopted a Green Building Ordinance in 2008, with updates in 2019. This ordinance requires the use of highly efficient plumbing fixtures, irrigation, and landscaping for new construction, major remodels, and new or remolded landscapes.

City of Torrance Local Policies and Regulations

Torrance General Plan Community Resource Element

Objective CR.13: To contribute to the improvement of local and regional ambient air quality to benefit the health of all.

Policy CR.13.5 Support air quality and energy and resource conservation by encouraging alternative modes of transportation such as walking, bicycling, transit, and carpooling.

Policy CR.13.7 Encourage the use of alternative fuel vehicles and re-refined oil.

Policy CR.13.8 Promote energy-efficient building construction and operation practices that reduce emissions and improve air quality.

Objective CR.14: To reduce the City of Torrance's overall carbon footprint and counteract the effects of global warming through a reduction in the emissions of GHGs within Torrance.

Policy CR.14.1 Support the CARB in its ongoing plans to implement Assembly Bill (AB) 32, and fully follow any new AB 32-related regulations.

Policy CR.14.2 Develop and implement GHG emissions reduction measures, including discrete, early-action GHG-reducing measures that are technologically feasible and cost-effective.

Policy CR.14.3 Pursue actions recommended in the U.S. Mayors Climate Protection Agreement to meet AB 32 requirements.

Policy CR.14.4 Act as a leader and example in sustainability and reduction in GHG emissions by conducting City business in the most GHG-sensitive way.

Objective CR.21: The efficient use and conservation of energy resources to reduce consumption of natural resources and fossil fuels.

Policy CR.21.1 Promote and encourage energy resource conservation by the public sector, private sector, and local school district.

Policy CR.21.3 Support the development and use of non-polluting, renewable energy resources.

- Policy CR.21.4 Encourage the construction of homes and buildings that exceed Title 24 standards. Consider adoption of regulations requiring greater energy efficiency in new or remodeled larger homes and businesses.
- Policy CR.21.5 Educate residents and businesses about the benefits of energy efficiency technologies and practices, such as solar panels and low-energy appliances.
- Policy CR.21.6 Promote energy-efficient design features, including appropriate site orientation, use of light-colored roofing and building materials, and use of trees to reduce fuel consumption for heating and cooling.
- Policy CR.21.7 Encourage owners to retrofit existing buildings with energy-conserving lighting fixtures. Also encourage owners to equip new buildings with energy-efficient lighting devices and to design projects to take full advantage of natural lighting.
- Policy CR.21.8 Explore and consider the cost/benefits of alternative fuel vehicles including hybrid, natural gas, and hydrogen-powered vehicles when purchasing new City vehicles.

Objective CR.24: To encourage and promote green building methods and practices within Torrance.

- Policy CR.24.1 Encourage sustainable construction practices and the use of energy-saving technology. Consider establishing a green building program that draws from the Leadership in Energy and Environmental Design (LEED) standards.
- Policy CR.24.3 Explore the feasibility of adopting green building requirements for all new commercial and industrial development projects of large scale.
- Policy CR.24.4 Provide information to the residents and the residential development community about options for “going green” in residential construction, including option for Low Impact Development.

Torrance Climate Action Plan

The City, in coordination with SBCCOG, prepared the Torrance Climate Action Plan in order to reduce GHG emissions (SBCCOG 2017b). The Torrance City Council adopted the Torrance Climate Action Plan on December 12, 2017. The City has established GHG reduction goals for year 2020 (15 percent below 2005 levels) and for year 2035 (49 percent below 2005 levels). The Climate Action Plan includes a list of non-binding goals and strategies in the following the same five general categories as the Redondo Beach's Climate Action Plan listed above (SBCCOG 2017b).

Similar to Redondo Beach's EECAP, the Torrance EECAP served as a foundation for developing the 2017 Climate Action Plan. The EECAP includes a detailed description of methodology, a comprehensive GHG and energy inventory for 2012, and a forecast for the years 2020 and 2035, and is provided in Appendix A to Torrance's Climate Action Plan.

Trip Reduction and Traffic Management Ordinance

In order to reduce mobile source emissions, Torrance has adopted a Trip Reduction and Traffic Management Ordinance (Torrance Municipal Code [TMC] Division 9 Chapter 10) to incentivize walking, cycling, use of public transit, and carpooling to work. Prior to approval of any new development project for which an EIR will be prepared, Torrance shall identify and consult with the regional and municipal fixed-route transit operators providing service to the project.

Torrance Municipal Code

Section 8.113: TMC Chapter 8.113 adopts by reference the CALGreen requirements with the local amendments that require reuse or recycling of all trees, stumps, rocks and associated vegetation and soils removed from land clearing.

3.5.3 Impact Assessment Methodology

Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the CEQA Guidelines and Appendix F, *Energy Conservation* of the CEQA Guidelines as well as State and local sustainability policies.

For purposes of this EIR, the proposed Project may have a significant adverse impact related to energy if:

- a) The project would result in potentially significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.
- b) The project would conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Appendix F, *Energy Conservation* of the CEQA Guidelines, which provide assistance to lead agencies with regard to evaluation of impacts related to energy resources in EIRs, recommends consideration of the following environmental impacts to the extent relevant and applicable:

- a) The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
- b) The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- c) The effects of the project on peak and base period demands for electricity and other forms of energy.
- d) The degree to which the project complies with existing energy standards.
- e) The effects of the project on energy resources.
- f) The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

Methodology

The impact analysis provided in this section of the EIR utilizes data from the CEC, Redondo Beach and Torrance EECAPs as well as land use and emissions assumptions from the California Emissions Estimator Model (CalEEMod) consistent with the air quality analysis provided in Section 3.2, *Air Quality* and Section 3.7, *Greenhouse Gas Emissions and Climate Change* (see Appendix B and Appendix E). Based on these resources, this analysis assesses the availability and level of energy services, any planned improvements to or changes in these utilities, and projected increases in energy demand associated with future residential and commercial development at the BCHD campus.

Electricity and natural gas demand were estimated using State-wide average energy consumption factors by land use as documented in the CEC's California Commercial End-use Survey (CEC 2006). As described further in the impact analysis below, these factors do not account for the sustainability features described for the proposed Project including photovoltaic solar panels, solar

hot water systems, high efficiency heating, ventilation, and air conditioning (HVAC) systems, etc. (refer to Section 2.5.1.5, *Sustainability Features*). Additionally, this analysis does not account for the Transportation Demand Management (TDM) that would be prepared for the proposed Project (refer to Section 2.5.1.5, *Sustainability Features*). As such, the analysis below presents conservative electricity and natural gas demand estimates as well as conservative fuel consumption estimates.

Construction

Construction of the proposed Project – including the Phase 1 preliminary site development plan as well as the Phase 2 development program – would result in energy consumption as a result of the use of heavy-duty construction equipment, on-road trucks, and construction worker commutes to and from the Project site. Energy consumption from heavy-duty construction equipment has been estimated based on the equipment mix analyzed in the CalEEMod, consistent with the air quality analysis in Section 3.2, *Air Quality* and Section 3.7, *Greenhouse Gas Emissions and Climate Change*, and fuel consumption data from the CARB OFFROAD2011 model. The assumption that diesel fuel would be used for all equipment represents the most conservative scenario for maximum potential energy use during construction.

Operation

Operation of the proposed Project would result in energy consumption in the form of electricity and natural gas for building heating, air conditioning, cooking, lighting, electronics, and other miscellaneous energy needs. Additionally, operation of the proposed Project would result in the consumption of transportation fuels, primarily gasoline, for vehicles traveling to and from the Project site. Building energy use factors, vehicle trips from all vehicle types to and from the Project site, and vehicle trip lengths from CalEEMod have been used to estimate building energy use and VMT (see Appendix B and Appendix E). The estimated fuel economy for vehicles has been based on fuel consumption factors from the CARB Emission FACTors (EMFAC) emissions model, which is incorporated into CalEEMod. Therefore, this energy assessment is consistent with the modeling approach used for other quantitative construction and operational analyses provided in this EIR and consistent with general CEQA practices.

3.5.4 Project Impacts and Mitigation Measures

Impact Description (EN-1)

- a) *The project would result in potentially significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.*

EN-1 The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not result in wasteful, inefficient, or unnecessary energy consumption. Conformance with of State regulations including the California Title 24 Building Energy Efficiency Standards (Part 6) CALGreen (Part 11) as well as conformance with the Redondo Beach and Torrance General Plans and Climate Action Plans would ensure that this impact would be *less than significant*.

As described in Section 3.5.1, *Existing Setting*, overhead power lines are located along North Prospect Avenue as well as Flagler Lane and Flagler Alley. Additionally, a buried natural gas line is located on the eastern edge of the Project site serving the Beach Cities Health Center and the attached Maintenance Building. Additionally, there are.

The proposed development under Phase 1 and Phase 2 of the proposed Project would be tied into the existing points of connection along North Prospect Avenue. A new electric service would be developed for the Project site – including the development of an underground on-site distribution system – that would replace the existing electrical service at the Project site. The 16 kilovolt (kV) or 4.16 kV line along North Prospect Avenue would be brought onto the Project site from a service drop along North Prospect Avenue. This medium voltage line would be distributed on-site via a proposed distribution system including a SoCal Edison Substation Yard and generator yard, which would be located along the eastern perimeter of the Project site, immediately east of the pedestrian promenade (refer to Figure 2-5 and Figure 2-7). The existing natural gas lines on the BCHD campus would be re-routed as necessary to support the new buildings, and the existing lines to the Beach Cities Health Center and attached Maintenance Building would be removed.

Construction Energy Use

Construction of the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would require energy consumption for on-site demolition, grading, and construction, transport of demolition debris, soil, and construction materials, and construction worker commute trips.

Electricity would be used during demolition, grading, and construction activities to provide temporary power for lighting, electric-powered hand tools, and other equipment. Electricity use during these activities would vary (e.g., depending on lighting needs) and would be temporary for the duration of demolition, grading, and construction, which would occur over 29 months during Phase 1 and 28 months during Phase 2. Energy use during construction would not result in a substantial increase in on-site electricity consumption and would be substantially less than the

ongoing operational energy use on-site under existing conditions at the BCHD campus. Overall energy impacts associated with construction-related electricity use would be comparable with similarly sized construction projects in the South Bay and would be *less than significant*.

Diesel fuel would be required to power heavy construction equipment and haul trucks exporting demolition debris and soil and delivering construction materials to the Project site. The assumption that diesel fuel would be used for all equipment represents the most conservative scenario for reasonable maximum potential energy use during construction. The total construction fuel consumption has been calculated as the sum of total estimated fuel consumption for each piece of equipment used in each phase of construction. Section 3.0, *Construction Detail* in the CalEEMod Worksheets (see Appendix B and Appendix E), provides detailed construction phasing, construction equipment used in each phase, total number of days worked, equipment horsepower, equipment load factor, and equipment quantities based on typical construction equipment and default model assumptions. These assumptions were used to calculate total fuel consumption for specific construction equipment.

Total fuel consumption has been based on a fuel consumption factor of 0.05 gallons per horsepower per hour (gal/hp/hr) for diesel engines as derived from the South Coast Air Quality Management District (SCAQMD) CEQA Handbook Table A9-3E.

The amount of total fuel required during construction of the proposed Project would be approximately 1,910,839 gallons (see Table 3.5-5). As shown in Table 3.5-5, approximately 91 percent of this fuel consumption (i.e., 1,746,342 gallons of fuel) would be required for construction vehicles, including haul truck trips and construction worker commutes. Total fuel consumption for construction worker commute trips is based on average fuel consumptions for light-duty vehicles conservatively assuming that 100 percent of construction workers would arrive to the Project site using such vehicles. The average fuel consumption rate for construction vehicle trips has been based on light-duty fuel efficiency estimates from 1990 to 2015, as provided by Bureau of Transportation Statistics. Refer to detailed calculations of Project Construction Fuel Consumption in Appendix E.

Table 3.5-5. Estimated Project Construction Fuel Consumption

Phase	Fuel Consumption from Construction Equipment (Gallons)	Fuel Consumption from Construction Vehicle Trips (Gallons)	Total (Gallons)
Phase 1	84,491	803,276	887,767
Phase 2	80,006	943,066	1,023,072
Total	164,497	1,746,342	1,910,839

Source: See Appendix E.

For comparison purposes, the construction energy demand from transportation fuel has been compared to the Los Angeles County transportation fuel sales. As shown in Table 3.5-6, the proposed Project would represent a very small fraction – less than 1 percent – of the County’s total 2018 fuel consumption and would not result in a substantial increase in fuel consumption. The total fuel consumption associated with the proposed Project would be comparable with similarly sized construction projects in the South Bay.

Table 3.5-6. Comparison of Project-related Diesel Fuel Consumption to Annual County Diesel Fuel Consumption

	Diesel Fuel Consumption (Gallons)
Annual Los Angeles County (2018)	228,000,000
Total Project Construction (including Phase 1 and Phase 2)	1,910,839

Source: CEC 2018a.

Compliance with State and local policies, such as the State law prohibiting heavy-duty diesel vehicles from idling for longer than 5 minutes (PRC Title 13, Section 2485; refer to Section 3.2, *Air Quality*) would minimize energy consumption. Additionally, the implementation of the Air Quality Management Plan required under Mitigation Measure (MM) AQ-1 would require the use of more efficient USEPA Tier 4 Final engines on all construction equipment, except crushing equipment, to reduce diesel particulate matter emissions. Overall impacts associated with construction-related fuel use would be *less than significant*.

The proposed construction activities would not result in substantial use of natural gas or other energy sources.

Operational Vehicle Fuel Consumption

Phase 1 of the proposed Project would result in a reduction of 1,920 daily vehicle trips to the BCHD campus compared to existing conditions (see Section 3.14, *Transportation*) and would therefore result in a reduction in operational vehicle fuel consumption. Phase 2 would result in an

increase of 376 daily vehicle trips compared to existing conditions. However, this 6-percent increase in daily vehicle trips compared to existing conditions would be minor and would not result in wasteful, inefficient, or unnecessary energy consumption.

Using vehicle fleet mix data provided in Appendix B and Appendix E and average fuel economy information provided by the Bureau of Transportation Statistics, the annual VMT associated with the proposed Project would result in the consumption of approximately 189.9 gallons of fuel per day (see Table 3.5-7), or an estimated 69,313.5 gallons per year. The proposed Project would represent a very small fraction – far less than 1 percent – of the Redondo Beach’s total fuel consumption (an estimated 30.3 million gallons). Additionally, the location of the Project site close to several stops along Beach Cities Transit Line 102 and the provision for multi-modal transportation (see Section 3.14, *Transportation*) would incrementally reduce operational vehicle fuel consumption. Further, the proposed Project would implement a Transportation Demand Management Plan under MM T-1 to further minimize VMT and thereby further reduce operational vehicle fuel consumption (see Section 3.14, *Transportation*).

Table 3.5-7. Comparison of Project and Redondo Beach Transportation Fuel Usage

Vehicle Type	Percent of Vehicle Trips ¹	Daily VMT	Average Fuel Economy (miles/gallon) ²	Total Daily Fuel Consumption (gallons)
Passenger Cars	55.2	1,865	23.3	80
Light/Medium Duty Vehicles	36.0	1,216	17.1	71
Heavy Duty Vehicles/Other	8.3	281	7.3	38.5
Motorcycles	0.5	17	43.4	0.4
Total	100%	3,379³	--	189.9
Redondo Beach 2012 VMT		Redondo Beach 2012 Fuel Consumption⁴		
Daily	Annual	Daily	Annual	
1,474,904	538,339,762	82,932	30,270,180	

Notes:

¹ Percentage of Vehicle Trips and Fleet Mix information provided in Table 4.4, *Fleet Mix* of Appendix E.

- Passenger Cars is the sum of the light-duty-auto fleet mix trip percentage column.

- Light/Medium Duty Vehicles is the sum of the LDT1, LDT2, and MDV fleet mix trip percentage columns. LDT = light-duty truck; MDV = medium-duty vehicle

- Heavy Duty Vehicles/Other is the sum of the LHD1, LHD2, MHD, HHD, and bus fleet mix trip percentage columns. LHD = light-heavy-duty; MHD = medium-heavy-duty; HHD = heavy-heavy-duty

Motorcycles is the sum of the MCY fleet mix trip percentage column. MCY = motorcycle

² Average fuel economy based on average 2014 U.S. vehicle fuel efficiency (mpg) from Table 4-12: Average Light Duty Vehicle, Long Wheel Base Fuel Consumption and Travel, and Table 4-13: Single-Unit 2-Axle 6-Tire or More Truck Fuel Consumption and Travel of the *National Transportation Statistics*.

³ Phase 2 Daily VMT provided in Appendix B.

⁴ Based on the same fleet mix presented for the proposed Project.

Source: See Appendix B, CalEEMod Worksheets, Section 4.2. *Trip Summary Information*; Bureau of Transportation Statistics 2016; SBCCOG 2015a.

Although the increased VMT associated with the proposed Project following the completion of Phase 2 would result an increase in the consumption of transportation fuels, the proposed Project would not result wasteful, inefficient, or unnecessary energy consumption. Operational impacts associated with long-term energy consumption would be *less than significant*.

Operational Energy Consumption

As previously described, the existing BCHD campus is estimated to consume 2,378,070 kWh of electricity per year and 2,252,693 kBTU (22,532 therms) of natural gas per year. The BCHD campus was constructed in 1958 beginning with the construction of the former South Bay Hospital and, therefore, was not designed or constructed to meet current State and local energy efficiency standards.

Operation of the proposed Project would permanently increase the demand for electricity and natural gas. However, as required by RBMC and TMC, all new buildings on the Project site would conform with the California Title 24 Building Energy Efficiency Standards (Part 6) CALGreen (Part 11) (refer to Section 2.5.1.5, *Sustainability Features*). Compliance with these standards would reduce the amount of energy consumed for heating and cooling, lighting, and other electricity and natural gas consumption relative to existing conditions and would ensure that operational energy consumption associated with the proposed Project would not be wasteful, inefficient, or unnecessary. Additionally, as described in Phase 2.5.1.5, *Sustainability Features*, the proposed Project would include photovoltaic solar panels, solar hot water systems, and high efficiency HVAC systems. New buildings would also meet the equivalent of Leadership in Energy and Environmental Design (LEED) Gold Certification. These features of the proposed Project would further reduce the operational demand for electricity and natural gas compared to the projections in Table 3.5-8 and Table 3.5-9.

The proposed Project would slightly decrease electricity demand following buildout of Phase 1 and would increase electricity demand following buildout of Phase 2. The overall estimated increased electricity demand following the completion of Phase 2 would be 4,989,622 kWh per year (refer to Table 3.5-8), for a net increase in electricity demand of 2,611,552 kWh per year as compared to existing conditions (refer to Table 3.5-2). This estimated increase corresponds with approximately 0.5 percent of electricity consumption in the Redondo Beach in 2012.

Table 3.5-8. Estimated Annual Electricity Demand of the Proposed Project

Land Use	Area (sf /unit)	Annual Usage (kWh/year)
Phase 1		
Residential (Assisted Living and Memory Care)	217 units	862,640
PACE Services	14,000 sf	195,860
Community Services	6,270 sf	529,81.5
Youth Wellness Center	9,100 sf	69,325
Surface Parking Lot	40,725 sf	16,520
Phase 1 Total		1,144,345
Phase 2		
Health Club (Aquatics Center and Center for Health and Fitness)	51,300 sf	480,817
Wellness Pavilion	37,150 sf	283,015
Parking Garage	292,500 sf	3,081,445
Phase 1 Annual Electricity Demand		1,144,345
Phase 2 Total		4,989,622
<i>Existing Site Demand</i>		<i>2,378,070</i>
<i>Project-Related Net Increase in Electricity Demand</i>		<i>2,611,552</i>

Note: Some uses do not generate energy demand (e.g., janitorial closets, storage, etc.) and therefore, are not included in the estimate of energy demand for the existing BCHD campus.

Source: see Appendix B and Appendix E.

Table 3.5-9. Estimated Annual Natural Gas Demand of the Proposed Project

Land Use	Area (sf /unit)	Annual Usage (kBtu/year)	Annual Usage (therms/year)
Phase 1			
Residential (Assisted Living and Memory Care)	217 units	2,479,760	24,804
PACE Services	14,000 sf	127,960	1,280
Community Services	6,270 sf	131,043	1,311
Youth Wellness Center	9,100 sf	171,468	1,715
Surface Parking Lot	42,750 sf	0	0
Phase 1 Total		2,910,231	29,110
Phase 2			
Health Club (Aquatics Center and Center for Health and Fitness)	51,300 sf	1,189,239	11,895
Wellness Pavilion	37,150 sf	700,002	7,002
Parking Structure	292,500 sf	0	0
Phase 1 Annual Natural Gas Demand		2,910,231	18,897
Phase 2 Total		4,799,472	48,007
<i>Existing Site Demand</i>		<i>2,252,693</i>	<i>22,532</i>
<i>Project-Related Net Increase in Natural Gas Demand</i>		<i>2,546,779</i>	<i>25,475</i>

Note: Some uses do not generate energy demand (e.g., janitorial closets, storage, etc.) and therefore, are not included in the estimate of energy demand for the existing BCHD campus.

Source: see Appendix B and Appendix E.

The natural gas demand for the proposed Project would increase existing natural gas demand during both Phase 1 and Phase 2. The overall estimated net increase in natural gas demand following the completion of Phase 2 would be 2,546,779 kBTU (25,475 therms) per year (see Table 3.5-9). This estimated increase corresponds with approximately 0.2 percent of natural gas consumption in Redondo Beach in 2012.

As previously described, the estimated energy demand is conservative in that it does not account for the sustainability features described for the proposed Project including photovoltaic solar panels, solar hot water systems, high efficiency HVAC systems, etc. (refer to Section 2.5.1.5, *Sustainability Features*).

The proposed Project would not constrain local or regional energy supplies, and would not require the expansion or construction of new system-wide electricity generation and/or transmission facilities. Compliance with the energy requirements established within State and local regulations would prevent wasteful and inefficient energy consumption. Additionally, the achievement of LEED Gold Certification would further reduce operational energy use. Therefore, implementation of the proposed Project would not result in a significant impact due to wasteful, inefficient, or unnecessary energy consumption and impacts would be *less than significant*.

In summary, energy use during construction would be temporary and not would result in a substantial increase in on-site electricity consumption. Diesel fuel required for construction activities would represent a very small fraction – far less than 1 percent – of the total annual fuel consumption of Los Angeles County. Overall energy consumption during construction would be comparable with similarly sized construction projects in the South Bay and be *less than significant*. Operation of the proposed Project would incrementally the regional electricity and natural gas demand by less than 1 percent and would not have substantial impacts on peak and base period demands for electricity, natural gas, or other forms of energy. Further, the proposed Project would incorporate sustainability features to ensure efficient energy use (refer to Section 2.5.1.5, *Sustainability Features*). As such, the proposed Project would not create an impact under criteria (a), (c), or (e) of Appendix F, *Energy Conservation* of the CEQA Guidelines.

The proposed Project would utilize existing electrical and natural gas utilities and would not be likely to require substantial upsizing of existing utilities. As such, the proposed Project would not have a substantial impact on local and regional energy supplies and would not create an impact under criteria (b) of Appendix F, *Energy Conservation* of the CEQA Guidelines.

The proposed Project would be subject to compliance with all State and local energy standards and which would ensure the prevention of wasteful, inefficient, or unnecessary energy consumption.

As such, the proposed Project would not create an impact under criteria (d) of Appendix F, *Energy Conservation*, of the CEQA Guidelines.

The proposed Project would represent a very small fraction – far less than 1 percent – of the total fuel consumption of Los Angeles County’s over the life of the proposed Project and would not result in a substantial increase in energy demand. Operation of the proposed Project would result in an incremental increase in the daily consumption of vehicle fuel for trips associated with the proposed Project. The proposed Project would not cause wasteful, inefficient, or unnecessary use of transportation energy and would incorporate efficient transportation alternatives. Therefore, the proposed Project would not result in impacts under criteria (f) of Appendix F, *Energy Conservation*, of the CEQA Guidelines.

Impact Description (EN-2)

- b) *The project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.*

EN-2 The proposed Project – including the Phase 1 preliminary site development plan as well as the Phase 2 development program – would conform with State regulations including the California Title 24 Building Energy Efficiency Standards (Part 6) CALGreen (Part 11) as well as the Redondo Beach and Torrance General Plans, Climate Action Plans, and other applicable local plans for renewable energy and energy efficiency. Therefore, this impact would be *less than significant*.

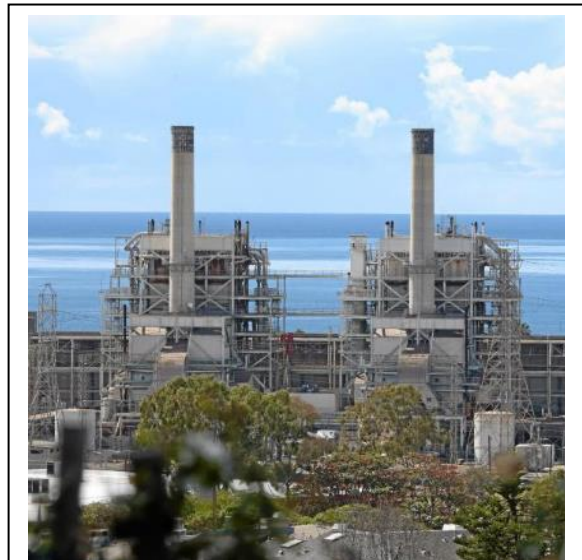
The proposed Project would support the energy conservation and GHG reduction goals and policies established California Title 24 Building Energy Efficiency Standards (Part 6) CALGreen (Part 11) as well as the Redondo Beach and Torrance General Plans, Climate Action Plans, and other applicable local plans for renewable energy and energy efficiency. As described in Impact EN-1, the proposed Project includes a number of sustainable features intended to reduce overall energy impacts (refer to Section 2.5.1.5, *Sustainability Features*). For example, the proposed Project would include the installation of solar on-site photovoltaic systems on between 25-50 percent of the rooftop space developed during Phase 1 and Phase 2. Additionally, the proposed development would include high efficiency HVAC systems, high-performance insulation, and lighting systems designed with occupancy sensors and dimmers to minimize energy use (refer to Section 2.8, *Sustainability Features*). New buildings would meet the equivalent of LEED Gold Certification (consistent with Torrance General Plan Community Resource CR.24.1). Implementation of these sustainable design features would reduce overall energy demand,

including the reliance on non-renewable energy supplies, as called for in the Redondo Beach General Plan, Climate Action and Adaptation Plan, Sustainable Development Plan, and Sustainable City Plan, and the Torrance General Plan and TMC. Therefore, implementation of the proposed Project – include the Phase 1 preliminary site development plan and the more general Phase 2 development program – would result in a *less than significant* impact.

See Tables 3.7-7 and 3.7-8 in Section 3.7, *Greenhouse Gas Emissions and Climate Change* for a summary consistency with the goals and policies established in the Redondo Beach and the Torrance General Plans and Climate Action Plans.

Cumulative Impacts

The proposed Project, along with other past, present, and future projects in Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach would incrementally contribute to the need for regional energy production and distribution facilities. However, as with the proposed Project, all cumulative development would be required to comply with the requirements of the California Building Standards Code, CALGreen, and all applicable local regulations and policies related to energy efficiency. Further, as discussed above, electricity and natural gas facilities are operated and maintained by private utility companies that plan for and accommodate anticipated growth. Electricity and natural gas services are provided upon demand from consumers and expanded as needed to meet demand, consistent with applicable



The pending closure of the AES Redondo Beach Power Plant would not affect system-wide grid reliability and would not contribute to a cumulatively substantial impact on energy in the South Bay.

Federal, State, and local with oversight from the CEC and CPUC. The pending closure of the AES Redondo Beach Power Plant would not affect system-wide grid reliability. The AES Redondo Beach Power Plant will continue to serve as a bridge until December 2021 as new procurement comes online including new battery energy storage resources (SWCRB 2020) and AES' Southland Project intended to replace the 1960-era power plants at Alamitos, Huntington Beach, and Redondo Beach that AES bought from SCE. As described in Impact EN-1, implementation of the proposed Project would result in an increase in the energy use at the Project site that would be negligible within the context of regional energy use in the South Bay and would not be wasteful,

inefficient, or unnecessary. As described in Impact EN-2, the proposed Project would be consistent with applicable local policies and regulations. Therefore, the proposed Project *would not result in a considerable contribution to cumulatively significant impact* associated with energy use.

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3.6 GEOLOGY AND SOILS

This section of the Environmental Impact Report (EIR) describes the existing geology and soils at the Beach Cities Health District (BCHD) campus and within the wider region. These conditions are discussed in the context of potential geologic hazards that could affect the existing proposed re-development of the BCHD campus – including the Phase 1 preliminary site development plan and the more general Phase 2 development program.

Information for this analysis is based on the Geotechnical Report prepared by Converse Consultants (2016), a Seismic Assessment prepared by Nabih Youssef and Associates Structural Engineers (2018), and other sources of publicly available information including the Redondo Beach General Plan Environmental Hazards/Natural Hazards Element (1993), Torrance General Plan Safety Element (2010), Southern California Earthquake Data Center, California Department of Conservation California Geological Survey (CGS) (previously known as the California Division of Mines and Geology), and California Emergency Management Agency (Cal EMA).

3.6.1 Environmental Setting

Regional Geology

The City of Redondo Beach and the City of Torrance are located within the western Coastal Plain of the Los Angeles Basin and the Peninsular Ranges Geomorphic Province in Los Angeles County (U.S. Geological Survey [USGS] 1971). The Los Angeles Basin – bounded by the Transverse Ranges to the north, the Peninsular Ranges to the east, and the continental border to the west – is underlain by both marine and non-marine accumulations of gravel, sand, silt, and clay, that were deposited over time as a consequence of sea level fluctuations and erosion. This western Coastal Plain has been uplifted to form the existing gently rolling topography towards the southeast (City of Redondo Beach 1993).



The topography within the vicinity of the Project site is generally level with gently rolling hills including the location pictured above along 190th Street, located approximately 0.25 miles north of the Project site.

Geologic deposits underlying Redondo Beach and Torrance consist predominantly of late Pleistocene to Holocene-age (i.e., 200,000 to 100,000 years old) dune sands located west of the adjacent older alluvial deposits in the inland areas of the Los Angeles Basin. The youngest of these deposits are the El Segundo Sand Hills comprised of Late Pleistocene to Holocene-age sand, silty sand, and silt. The El Segundo Sand Hills parallel the coast for approximately 11 miles from the Ballona Escarpment (a bluff just south of Ballona Creek) to the base of the Palos Verdes Hills, and extend from the coast to between 3 and 6 miles inland. Directly underlying the El Segundo Sand Hills layer is the Upper Pleistocene Lakewood formation, consisting of marine and non-marine derived gravel, sand, silt, and clay (USGS 1971).

Southern California is generally a seismically active (i.e. earthquake prone) region. Faulting and seismicity in Southern California are largely determined by the San Andreas Fault Zone, which extends from Baja California to the Oregon Coast. The San Andreas Fault Zone separates two of the major tectonic plates that comprise the Earth's crust. The Pacific Plate is located west of the San Andreas Fault Zone and moves in a northwesterly direction relative to the North American Plate, which is located east of the San Andreas Fault Zone. This relative movement between the two plates is the driving force of fault ruptures (i.e., earthquakes) in western California. The San Andreas Fault generally trends northwest-southeast. However, north of the Transverse Ranges Province, the fault trends more in an east-west direction – generally known as the Big Bend – causing the fault's right-lateral strike-slip movement, which produces north-south compression between the two plates. This compression has produced rapid uplift of many of the mountain ranges in Southern California.

Faults are generally characterized as active, potentially active, or inactive according to their most recent seismic activity. Active faults are faults that show evidence of surface displacement within the past 11,700 years (i.e., during the Holocene epoch). Potentially active faults are those that show evidence of fault rupture between 11,700 and 2.6 million years ago (i.e., during the Pleistocene epoch).¹ Inactive faults are those without recognized activity within the past 2.6 million years. Buried (i.e., blind) thrust faults are faults that do not have a surface expression but are still a potentially significant source of seismic activity. They are typically defined based on the analysis of seismic wave recordings of hundreds of small and large earthquakes in Southern California. Due to the buried nature of these thrust faults, their existence is usually not known until they produce an earthquake, such as the Northridge Earthquake in 1994, which was produced by the Northridge blind thrust fault (Geotechnologies, Inc. 2019).

¹ Quaternary was previously recognized to extent to 1.6 million years. Recent studies have extended the Quaternary system to 2.588 million years (CGS 2016).

Regional Groundwater Basin

The Los Angeles Coastal Plain is divided into several distinct groundwater basins, which are formed by geologic features such as non-water bearing bedrock, faults, and other features that impede the flow of groundwater. Redondo Beach and Torrance are located within the West Coast Groundwater Basin, a sub-basin of the Los Angeles Groundwater Basin. The West Coast Groundwater Basin underlies 160 square miles in the southwestern part of the Los Angeles Coastal Plain in Los Angeles County (see Section 3.9, *Hydrology and Water Quality*).

Project Site Geology

A Geotechnical Report was prepared for the proposed Project by Converse Consultants (2016) (see Appendix G). This investigation included 12 exploratory borings that were drilled to characterize the geologic conditions on the Project site and identify potential geologic hazards such as active or potentially active faults, liquefiable or expansive soils, etc. The existing BCHD campus is developed, resulting in a relatively level surface supporting building footprints or pavements (e.g., asphalt surface parking lots, sidewalks, etc.). The elevation of the BCHD campus generally ranges from an elevation of approximately 165 feet above mean sea level (MSL) within the central area of the campus, to an elevation of approximately 145 feet MSL at the southern entrance from North Prospect Avenue. The ground level elevation of the Project site is approximately 30 feet higher than the vacant Flagler Lot as well as the residential area to the east along Flagler Lane and Flagler Alley.



The majority of the Project site is developed with building footprints or pavements and is located on top of an uplifted terrace approximately 30 feet higher than Flagler Lane, Flagler Alley, and Diamond Street (left). The vacant Flagler Lot, located at the northeastern corner of the Project site, is currently undeveloped and is located at a similar grade to Beryl Street and Flagler Lane.

The vacant Flagler Lot, located in the northeastern corner of the Project site at the intersection of Flagler Lane & Beryl Street has been previously disturbed with the development of an oil and gas well that has previously been plugged and abandoned (see Section 3.8, *Hazards and Hazardous Materials*). Unlike the rest of the Project site, the vacant Flagler Lot is currently undeveloped. The elevation of the Flagler Lot is approximately 130 to 145 feet MSL, with a gentle slope to the northeast.

Based on an analysis of the 12 exploratory borings collected by Converse Consultants (2016), the first 3 feet of the soil beneath the Project site includes asphalt from previous development, beginning with the original development of the former South Bay Hospital in 1958 (refer to Section 2.1, *Introduction*). Existing fill soils placed at the Project site during previous grading activities are encountered from 3 feet to 13 feet below ground surface (bgs) and consist of silty and clayey sand. Underlying subsurface soils consist of alluvial sediments, primarily older dune and drift sand (Converse Consultants 2016).

Project Site Groundwater

In general, groundwater levels fluctuate with the seasons and local zones of perched groundwater may be present at various depths due to local conditions or during rainy seasons. Groundwater conditions at any given location vary depending on numerous factors including seasonal rainfall, local irrigation, and groundwater pumping, among other factors. Groundwater was not encountered in the exploratory borings, which were collected by Converse Consultants (2016) to a maximum depth of 61.5 feet bgs. In accordance with the Seismic Hazard Zone Report for the Redondo Beach Quadrangle (California Department of Conservation Division of Mines and Geology 1998), the historically highest groundwater level is reportedly at depths of greater than 50 feet. For further information regarding groundwater hydrology and groundwater quality (see Section 3.9, *Hydrology and Water Quality*).

Geologic Hazards

Faults and Fault Rupture

Fault rupture involves the displacement and cracking of the ground surface along a fault trace. Fault ruptures are visible instances of horizontal or vertical displacement, or a combination of the two typically confined to a narrow zone along the fault. Fault rupture is more likely to occur in conjunction with active fault segments where earthquakes are large, or where the location of the movement (i.e., earthquake hypocenter) is shallow.

As discussed in Section 3.6.2, *Regulatory Setting*, the Alquist-Priolo Earthquake Fault Zoning Act regulates development near active faults to mitigate the hazard of surface fault rupture. The Act requires the State Geologist to establish regulatory zones, also known as Earthquake Fault Zones, around the surface traces of active faults and to issue appropriate maps. Local agencies must regulate most development projects within the zones, as appropriate. Before a project can be permitted, local agencies must require a site-specific geologic investigation to demonstrate that the proposed buildings would not be constructed across active faults. An evaluation and written geotechnical report must be prepared by a licensed geologist. If an active fault is documented, a structure for human occupancy cannot be placed over the trace of the fault and must be set back – generally 50 feet – from the fault (CGS 2018).

There are no Alquist-Priolo Earthquake Zones within Redondo Beach or Torrance. According to the Earthquake Fault Zone Map for the Redondo Beach Quadrangle Map, the closest Earthquake Fault Zone is associated with the Palos Verdes Fault which is located approximately 3 miles south of the Project site (CGS 2019b). The Palos Verdes Fault is identified as an active fault, meaning it has ruptured in the last 11,000 years; however, it has not yet been zoned by the State of California under the provisions of the Alquist-Priolo Earthquake Fault Zoning Act (Geocon West, Inc. 2016).² The Newport Inglewood – Rose Canyon Fault, the designated Alquist-Priolo Earthquake Fault Zone nearest to the Project site, is located approximately 6.3 miles to the northeast (Converse Consultants 2016). Several earthquakes have occurred along the Newport Inglewood – Rose Canyon Fault including the March 10, 1933 “Long Beach” earthquake of magnitude 6.4, with its epicenter off Newport Beach, and smaller earthquakes at Inglewood on June 20, 1920 (magnitude 4.9), Gardena on November 14, 1941 (magnitude 5.4). These earthquakes show evidence of right-lateral strike slip focal mechanisms (Converse Consultants 2016).

Seismicity and Earthquakes

Seismic ground shaking is defined as motion that occurs as a result of energy released during faulting which could potentially result in the damage or collapse of buildings and other structures, depending on the magnitude of the earthquake, the location of the epicenter, and the character and duration of the ground motion. The composition of the underlying soil and rock, the locations of existing structure, and the building materials used are important details affecting the potential for damage due to seismic ground shaking.

² The State of California does not have the funds required to map every potentially dangerous faulting, leaving a number of well-known faults unmapped including several in Los Angeles County. As such, many cities have taken the lead creating their own Alquist-Priolo-like rules for active faults in the area. For example, the City of Torrance has designated a Fault Hazard Management Zone for the Palos Verdes Fault.

Earthquake magnitudes are quantified using the Richter scale, which is a logarithmic scale whereby each whole number increase in magnitude represents a tenfold increase in the amplitude of the seismic wave generated by an earthquake. For example, at a given distance from a fault, the shaking during a magnitude 5.0 earthquake will be 10 times larger than a magnitude 4.0 earthquake while the amount of energy released would increase by a factor of 32. Earthquakes of magnitude 6.0 to 6.9 are classified as moderate, those between 7.0 and 7.9 are classified as major, and those of 8.0 or more are classified as great.

Historically, the Redondo Beach and Torrance have experienced seismic activity from various regional faults. The strongest, most recent regional seismic event was the 6.7 magnitude Northridge Earthquake generated from the Northridge Fault in January 1994. The epicenter of this event was approximately 12 miles northeast of the Project site in Northridge, California. The City of Redondo Beach and the City of Torrance experienced extensive damage from the Northridge Earthquake, particularly from earthquake-induced landslides.

As previously described, the active fault nearest to the Project site is the Palos Verdes Fault, located approximately 3 miles south (see Figure 3.6-1; see Table 3.6-1). The Palos Verdes Fault extends from the Santa Monica-Malibu Coast Fault in northern Santa Monica Bay southeastward across the Palos Verdes Peninsula and the San Pedro Shelf to the vicinity of Lassen Knoll, a distance of more than 50 miles. The location of the Palos Verdes Fault is not precisely known because nearly the entire onshore portion of the fault is covered by development, and the age of the last earthquake along the fault is unknown. Several strands of the fault segments, located offshore of San Pedro and Redondo Beach, are known to cut Holocene deposits (younger than 10,000 to 11,000 years old), and are therefore considered to be active.

The Palos Verdes Fault system is characterized with a right-lateral strike-slip movement with an estimated slip rate of between 1.0 and 5.0 millimeters per year (mm/year) and causing earthquakes up to magnitudes 7.3 (USGS 2017). To address hazards associated with this fault, the Torrance General Plan Safety Element established a Fault Hazard Management Zone for the Palos Verdes Fault. However, the proposed Project site is not included as part of the Fault Hazard Management Zone (City of Torrance 2010).

The Newport – Inglewood Fault is a right-lateral strike-slip fault that extends for approximately 47 miles from Culver City southeast through Inglewood and other coastal communities to Newport Beach at which point the fault extends east-southeast into the Pacific Ocean where it is known as the Rose Canyon Fault. The fault can be inferred on the Earth's surface as passing along and through a line of hills extending from Signal Hill to Culver City. The fault is active and is located

approximately 6.3 miles northeast of the Project site. The fault has a slip rate of approximately 0.6 mm/year and is predicted to be capable of a 6.0 to 7.4 magnitude earthquake.

In addition, there are two major, potentially active buried thrust fault structures in the Los Angeles area: the Elysian Park fold and thrust belt and the Torrance-Wilmington fold and thrust belt (see Table 3.6-2; see Appendix G).

Table 3.6-1. Active and Potentially Active Faults in the Project Vicinity

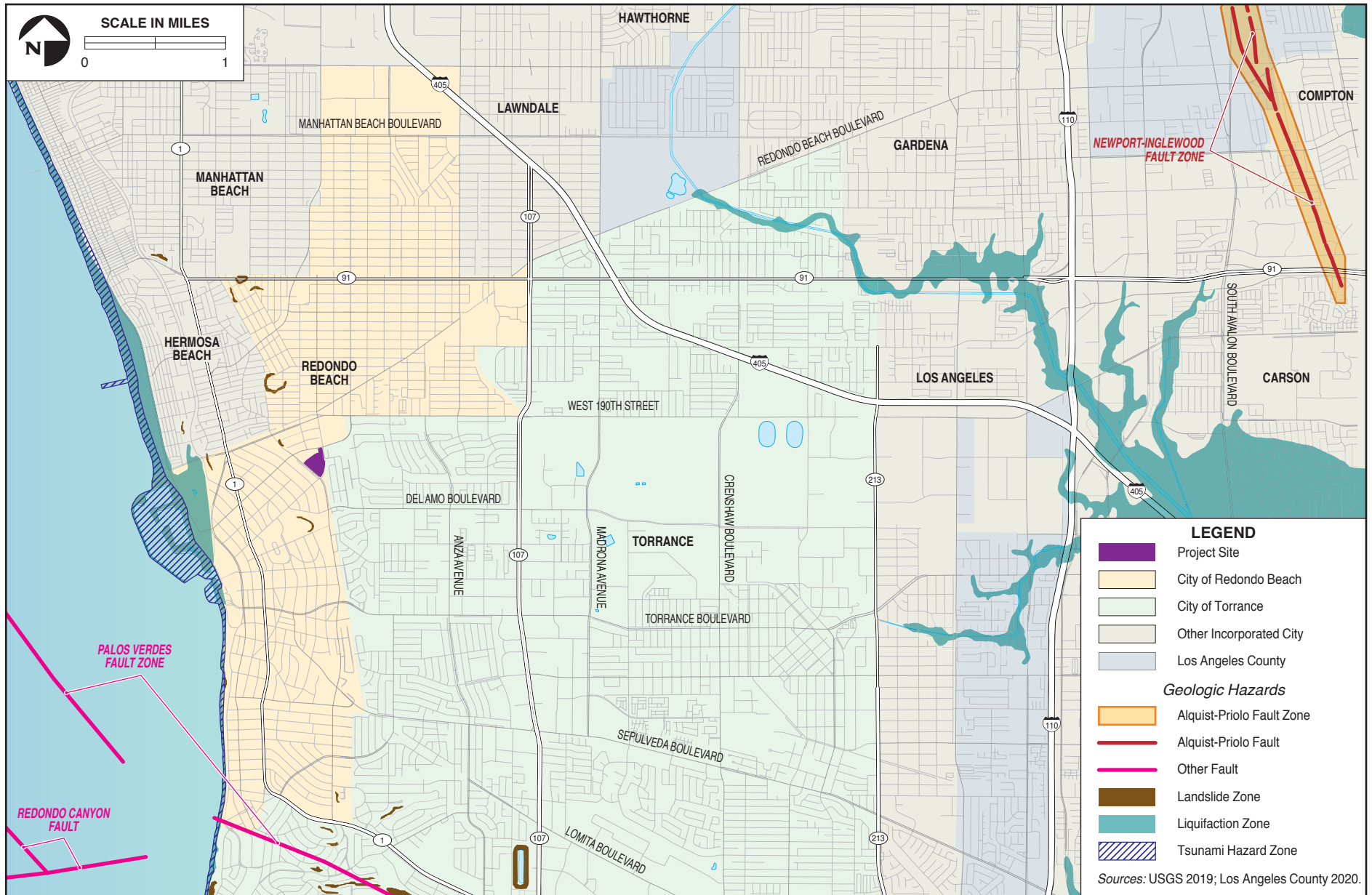
Fault Name	Distance from Project site	Onshore or Offshore Fault	Estimated Maximum Magnitude
Palos Verdes Fault	3.0 miles to the south	Onshore/Offshore	7.3
Newport-Inglewood Fault	6.3 miles to the northeast	Onshore	7.1
Puente Hills	13.8 miles to the east	Onshore	6.6
Santa Monica Fault	14.4 miles to the northwest	Onshore/Offshore	6.6
Elysian Park Thrust	16.0 miles to the northeast	Onshore	6.7
Hollywood Fault	16.1 miles to the north	Onshore	6.4
Malibu Coast	20.3 miles to the northwest	Onshore/Offshore	6.7
Raymond Fault	20.4 miles to the north	Onshore	6.5
Whittier Fault	21.4 miles to the northeast	Onshore	6.8
Verdugo Fault	22.1 miles to the northeast	Onshore	6.9
Anacapa-Dume Fault	24.3 miles to the northwest	Offshore	7.5
San Gabriel Fault System	31.0 miles to the northeast	Onshore	N/A
San Andreas Fault System	50.1 miles to the northeast	Onshore	7.8

Source: City of Torrance 2010.

Table 3.6-2. Buried Thrust Fault Related Earthquakes in the Los Angeles Area

Buried Thrust Fault	Earthquake	Date of Earthquake	Magnitude
Elysian Park	Whittier Narrows Earthquake	October 1, 1987	5.9
Torrance-Wilmington	Malibu Earthquake	January 19, 1989	5.0
Unidentified Buried Thrust Fault	Northridge Earthquake	January 17, 1995	6.7

Source: City of Torrance 2010.



In the event of an earthquake along any of the faults listed in Table 3.6-1, the South Bay (including Redondo Beach and Torrance) would be subject to high-frequency strong ground motions with potential horizontal ground accelerations of up to 1.01g,³ which could potentially result in damage, particularly to older buildings and infrastructure, liquefaction, and risk to human health (City of Torrance 2010). Many older buildings constructed before 1996, including the existing development on the BCHD campus, do not meet current California Building Code (CBC) standards and are more likely to sustain significant damage during a seismic event and the aftershocks that follow. In cases of moderate to major earthquakes failures in older buildings' structural systems could cause significant damage. The Beach Cities Health Center, formerly the South Bay Hospital, is a 60-year-old, non-ductile concrete building. The original 4-story (north) tower was constructed in 1958 and the 4-story addition (south tower) was constructed in 1967. Both of these towers were constructed with non-ductile concrete roofs, floors, and poorly reinforced columns, making them susceptible to collapse in the event of an earthquake. A Seismic Assessment prepared by Nabih Youssef Associates (2018) concluded that the original north tower and south tower addition of the Beach Cities Health Center have numerous seismic deficiencies (e.g., brittle concrete columns result from poor steel design) and require extensive seismic upgrades. In particular, the structural foundations of the building, concrete walls (north tower), and interior columns of the building require strengthening. Additionally, the building requires new exterior steel braced frames (south tower) (Nabih Youssef Associates 2018). The Beach Cities Advanced Imaging Building (510 North Prospect Avenue), which was constructed in 1976 is subject to similar deficiencies (refer to Section 2.1, *Introduction*).

The Redondo Beach General Plan Environmental Hazards / Natural Hazards Element (1993) identifies types of hazardous buildings that would be of concern during an earthquake (i.e., non-ductile concrete frame buildings). The Element also identifies critical facilities (i.e., facilities whose continued functioning is necessary to maintain public health and safety following a natural disaster), sensitive facilities (e.g., housing for the elderly, handicapped, and mentally ill), and high-occupancy facilities (e.g., housing) that pose a greater degree of importance for or risk to the public, and may warrant special standards or protection from seismic-related impacts or damage. The Redondo Beach Draft Local Hazard Mitigation Plan identifies the Providence Family Medical Center and the Beach Cities Health Center on the BCHD campus as critical facilities (City of Redondo Beach 2019). The Torrance General Plan Safety Element (2010) also identifies unreinforced masonry buildings as most susceptible to seismic-related damage. Torrance adopted a mandatory retrofit seismic ordinance (Torrance Municipal Code [TMC] Division 2 Chapter 6)

³ G-force is a unit of force equal to the force exerted by gravity and is used to indicate the force to which a body is subjected when it is accelerated, in this case from seismic ground shaking.

in 1987 and used subsidies to prioritize the retrofit of older buildings, especially unreinforced masonry buildings that needed to be reinforced and strengthened. As a result, most of the unreinforced masonry buildings in Torrance have been brought into compliance with Torrance's mandatory strengthening requirements (City of Torrance 2010).

In October 2015, the City of Los Angeles adopted Ordinance 183893 requiring Mandatory Earthquake Hazard Reduction in Existing Non-Ductile Concrete Buildings (Section 2, Division 95, or Article 1 of Chapter IX of the Los Angeles Municipal Code). Although neither Redondo Beach nor Torrance have adopted a similar ordinance, the seismic hazard presented by the present condition of the Beach Cities Health Center warrants significant hazard reduction measures. As previously describe, the proposed Project would address these hazards by demolishing the Beach Cities Health Center and potentially the Beach Cities Advanced Imaging Building, because the work needed to implement a proper seismic retrofit are financially infeasible (refer to Section 1, *Introduction*).

Liquefaction and Lateral Spreading

Liquefaction is a form of earthquake-induced ground failure that occurs primarily in relatively shallow, loose, granular, water-saturated soils. Liquefaction is defined as the transformation of a granular material from a solid state into a liquefied state as a consequence of increased pore pressure, which results in the loss of grain-to-grain contact (Converse Consultants 2016). Unconsolidated silts, sands, and silty sands are most susceptible to liquefaction. Almost any saturated granular soil can induce an increase in pore water pressures when shaken, and subsequently, these excess pore water pressures can lead to liquefaction if the intensity and duration of earthquake shaking are great enough.

According to the Redondo Beach Quadrangle Seismic Hazard Zones Map, the Project site is not located within an area where historic occurrence of liquefaction or geological, geotechnical, and high groundwater conditions indicate a potential for permanent ground failure due to liquefaction (CGS 1999). The Redondo Beach Draft Local Hazard Mitigation Plan maps liquefaction zones along coastline stretching from the waterline inland as far as North Francisca Avenue at the widest point, a distance of approximately 2,150 feet inland. The remainder of the liquefaction zone reaches approximately 1,000 feet inland from the coast. The Project site is located well outside of these liquefaction zones (City of Redondo Beach 2019). The Geotechnical Report prepared for the proposed Project determined that the absence of shallow groundwater and relatively dense soils indicate the Project site is not susceptible to liquefaction (Converse Consultants 2016).

In addition, lateral spreading can occur when potentially liquefiable soils are present and exposed in conjunction with a sloping ground surface. If liquefiable soils in the slope are continuous, the toe of the slope is unsupported, and the soils liquefy, the result may be temporary instability resulting in movement of sediments on the slope, causing slope failure. While the Project site includes sloping ground surfaces at the vacant Flagler Lot and along the eastern boundary of the Project site, there are no liquefiable soils underlying the Project site. Therefore, the potential for lateral spreading at the Project site is considered to be negligible (Converse Consultants 2016).

Landslides and Slope Instability

The stability of slopes is affected by gravity, rock and soil type, and amount of water and vegetation present. Events that can cause a slope to fail include but are not limited to sudden movements, such as those during a seismic event, modification of the slope by natural processes or human activities, undercutting caused by erosion, and changes in hydrologic characteristics (California Department of Transportation [Caltrans] 2001). The Seismic Hazards Maps prepared by CGS indicate the Project site is not located within an “Earthquake Induced Landslide” zone (CGS 2019a). The nearest areas to the Project site that are designated within a landslide zone are an area developed as multi-family residences east of North Prospect Avenue, approximately 1,100 feet to the northwest and Redondo Beach High School, approximately 1,800 feet to the southwest. The Redondo Beach Draft Local Hazard Mitigation Plan also maps the area beneath Redondo Beach High School as a landslide zone (City of Redondo Beach 2019).

Tsunamis and Seiches

A tsunami is a wave or surge most commonly caused by an earthquake beneath the sea floor. The Project site is located outside of a mapped Tsunami Inundation Area as mapped by the California Official Tsunami Inundation Maps (CGS 2009) and the Redondo Beach Draft Local Hazard Mitigation Plan (City of Redondo Beach 2019). Therefore, the Project site would not likely be affected by a tsunami. (For issues associated with emergency evacuation and/or emergency access see Section 3.8, *Hazards and Hazardous Materials*.) Seiches are large waves generated in enclosed bodies of water in response to ground shaking. Based on the Project site’s location away from lakes and reservoirs, seiches do not pose a hazard (Converse Consultants 2016).

Soils and Surface Hazards

Many of the properties, including the Project site, have been previously developed and are underlain by a layer of fill soils with native soils underneath. These soils and surfaces can be subject to risk from hazards related to erosion, expansion, subsidence, settlement, consolidation

(including hydroconsolidation⁴), and/or collapse. These hazards can result from the nature of the soils themselves, physical site conditions, or the presence of groundwater.

Erosion Susceptibility

Erosion of exposed soils and rocks occurs naturally as a result of physical weathering caused by water and wind energy. Currently, the Project site is developed and most of the land surface is covered by impervious materials such as buildings, asphalt pavements (e.g., surface parking lots), concrete (e.g., sidewalks). The only exception is the vacant Flagler Lot, which is currently undeveloped and characterized by exposed gravel and dirt. Therefore, minimal area of exposed soils and the moderately sloped nature of the Project site, the potential for substantial erosion hazards is low.

Expansive Soils

Expansive soils consist largely of clays, which can greatly increase in volume when saturated with water and shrink when dried. The potential for soil to undergo shrink and swell is greatly enhanced by the presence of a fluctuating, shallow groundwater table. Expansive soils tend to swell with seasonal increases in soil moisture in the winter months and shrink as soils become drier in the summer months. Repeated shrinking and swelling of the soil can lead to stress and damage of structures, foundations, fill slopes, and other associated facilities (CGS 1998).

As previously described, the Project site is located above silty and clayey sand earth materials. However, the Expansion Index tests conducted on soil samples collected from the Project site yielded a value of 0-1 (very low). Therefore, the Geotechnical Report concluded that the soils underlying the Project site have a very low potential for expansion (Converse Consultants 2016).

Subsidence

Subsidence is the downward shift of the ground surface and is most frequently caused by subsurface withdrawal of water (i.e., groundwater drawdown), oil, or natural gas earth extraction (e.g., subsurface mining), faulting, or seasonal changes in soil moisture. Compaction of soils in some aquifer systems can accompany excessive groundwater pumping and is the largest cause of subsidence in the region (City of Redondo Beach 1993).

Historically, hydrostatic pressure in the West Coast Groundwater Basin confined aquifers was sufficient to maintain a freshwater outflow to the ocean and prevent seawater intrusion. Prior to

⁴ Hydroconsolidation, commonly referred to as soil collapse, is a common problem in Southern California. This happens when wetted, collapsible soils undergo a rearrangement of their grains and the water removes the cementing material, causing rapid, significant settlement

the 1953, an almost total dependence on groundwater to meet water demand resulted in a serious overdraft of the Basin, resulting in seawater intrusion and higher risk of subsidence. The West Coast Basin Barrier Project, which started in 1953, prevents subsidence by injecting water into sea barriers, which prevents seawater intrusion and replenishes the groundwater basin. Additionally, operation of the Torrance Oil Field, which underlies portions of the City of Redondo Beach and the City of Torrance – including the Project site (see Section 3.8, *Hazards and Hazardous Materials*) – had a peak production from approximately 82 active on- and off-shore wells from 1925 to 1956. However, subsidence from hydrocarbon withdrawal is considered to have been negligible (City of Redondo Beach 1993). Additionally, based on the substantial depth to groundwater greater than 61.5 feet bgs, the risk of subsidence on-site is considered very low (Converse Consultants 2016).

Differential Settlement

Differential settlement is the process whereby soils settle non-uniformly, potentially resulting in stress and damage to utility pipelines, building foundations, or other overlying structures. Such movement can occur in the absence of seismically induced ground failure, due to improper grading and soil compaction or discontinuity of underlying fill and naturally occurring soils. Strong ground shaking often greatly exacerbates soil conditions already prone to differential settlement, resulting in distress to overlying structures. Elongated structures, such as pipelines, are especially susceptible to damage as a result of differential settlement.

The risk of differential settlement is considered to be low at the Project site and in the surrounding vicinity. Some seismically induced settlement (i.e., approximately 0.5 inches) of the Project site should be expected as a result of strong ground-shaking; however, the Geotechnical Report concluded that the absence of shallow groundwater and relatively dense soils indicate differential settlement to be less than 0.25 inches over a distance of 30 feet (Converse Consultants 2016).

Paleontological Resources

Significant paleontological resources include fossils and fossiliferous deposits such as identifiable vertebrate fossils, uncommon invertebrate, plant, and trace fossils, and other data that provide information regarding the preservation, biochronology, and paleoecology of past life on Earth (Society of Vertebrate Paleontology [SVP] 2010). The potential to encounter paleontological resources is based on the geologic unit, and array of fossil resources known to be contained within that unit, within which excavations would occur. The Project site is located in an area that has been regionally mapped as underlain by Pleistocene-aged stabilized dune and drift sand (Converse Consultants 2016). Exploratory borings at the Project site identified the presence of recent artificial

fills (Qaf) up to 13 feet below existing grade underlain by Quaternary-aged alluvium (Qal) composed of dune and drift sand (Converse Consultants 2016). Recent artificial fills are typically too young to contain fossil resources; however, Pleistocene-aged units are sufficiently old to preserve fossil resources.

Pleistocene-aged geologic deposits have an unpredictable potential for containing fossil resources including significant locations that produce large numbers of fossils (i.e., bonebeds or trackways) as well as broad swaths where no resources are uncovered during extensive excavations. For instance, a search of the University of California Museum of Paleontology (UCMP) online locality database for Pleistocene-aged⁵ paleontological localities in Los Angeles County recorded a total of 12,357 entries. However, of these entries 11,796 are associated with Rancho La Brea (commonly known as the La Brea Tar Pits) and 553 are associated with the marine deposits of the San Pedro Formation in the vicinity of San Pedro. Only 2 entries are associated with the Palos Verde sand and only 2 entries are associated with the unnamed Pleistocene-aged deposits ranging from Signal Hill to Timm's Point (UCMP 2020). Therefore, based on the distance from known high density paleontological resources localities and no known localities recorded during previous construction at the BCHD campus, Quaternary-aged alluvium deposits within the Project site can be expected to have a low potential for containing fossil resources.

3.6.2 Regulatory Setting

Federal Regulations

Earthquake Hazards Reduction Act

The purpose of the Earthquake Hazards Reduction Act is to reduce the risks to life and property from future earthquakes in the U.S. through establishment and maintenance of an effective earthquake hazards reduction program. To accomplish this, the Act established the National Earthquake Hazards Reduction Program (NERHP). The NERHP was amended in November 2004 by refining the description of agency responsibilities, program goals, and objectives.

Clean Water Act Section 402 (National Pollutant Discharge Elimination System Program)

Clean Water Act (CWA) Section 402 mandates that certain types of construction activities comply with the requirements of the U.S. Environmental Protection Agency's (USEPA's) National Pollutant Discharge Elimination System (NPDES) program. Under State Water Resources Control Board (SWRCB) enforcement, the Los Angeles Regional Water Quality Control Board (RWQCB)

⁵ Geologic units deposited prior to the Quaternary-aged alluvium deposit identified at the site were not assessed as they are unlikely to be encountered during implementation of the proposed Project.

implements the NPDES program in Los Angeles County. The program requires a General Construction Activities Permit, including implementation of established Best Management Practices (BMPs) for management of stormwater, erosion control, and/or siltation. More information regarding the NPDES program is provided in Section 3.9, *Hydrology and Water Quality*.

State Regulations

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act addresses the hazard of surface fault rupture only, and is not directed toward other earthquake hazards. Local cities and counties must regulate certain development projects within the Earthquake Fault Zones, generally by issuing building permits only after geologic investigations demonstrate that development sites are not threatened by future surface displacement. A buffer prohibiting the construction of structures for human occupancy in proximity to an active fault may be established. Typically, structures for human occupancy are not allowed within 50 feet of the trace of an active fault. Projects subject to these regulations include all land subdivisions and most buildings intended for human occupancy.

California Building Code

The State of California provides a minimum standard for building design through the CBC, which is based on the Uniform Building Code (UBC) but has been modified to account for California's unique geologic conditions. All provisions of the CBC are uniformly applicable throughout the State of California, except where they may be made even stricter by local jurisdictions, based on local conditions. Chapter 16 of the CBC contains specific requirements for seismic safety. Chapter 18 of the CBC regulates excavation, foundations, and retaining walls. Chapter 33 of the CBC contains specific requirements pertaining to site demolition, excavation, and construction to protect people and property from hazards associated with excavation cave-ins and falling debris or construction materials. Appendix J of the CBC regulates grading activities, including drainage and erosion control. Both the Redondo Beach and Torrance have adopted the CBC.

Seismic Hazards Mapping Act

In order to address the effects of strong ground shaking, liquefaction, landslides, and other ground failures due to seismic events, the State of California passed the Seismic Hazards Mapping Act. Under the Seismic Hazards Mapping Act, the State Geologist is required to delineate "*seismic hazard zones*." Cities and counties must regulate certain development projects within these zones until the geologic and soil conditions of the project site are investigated and appropriate mitigation

measures, if any, are incorporated into development plans. The Project site is located within the seismic hazard zone for the Redondo Beach Quadrangle (CGS 1999).

The State Mining and Geology Board provides additional regulations and policies to assist municipalities in preparing the Safety Element of their General Plan and encourages land use management policies and regulations to reduce and mitigate those hazards in order to protect public health and safety. Under Public Resources Code Section 2697, cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard. Each city or county shall submit one copy of each geotechnical report, including mitigation measures, to the State Geologist within 30 days of its approval.

South Coast Air Quality Management District Rule 403 Fugitive Dust

To address the effects of wind erosion, the South Coast Air Quality Management District (SCAQMD) Rule 403 requires the implementation of best available fugitive dust control measures (e.g., limiting vehicle speeds to 15 miles per hour [mph] on unpaved roads, wiping down construction equipment before leaving a site, etc.) during active operations capable of generating fugitive dust emissions from on-site earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads.

City of Redondo Beach Local Policies and Regulations

Redondo Beach General Plan Environmental Hazards / Natural Hazards Element

The Redondo Beach Environmental Hazards / Natural Hazards Element describes seismic-related problems associated with existing older structures and provides recommendations for new development (City of Redondo Beach 1993). The Environmental Hazards / Natural Hazards Element requires developers to submit a geotechnical report before starting construction on new buildings, as part of the environmental and development review process. The Environmental Hazards / Natural Hazards Element identifies damages that earthquakes may cause to buildings that contain people or essential functions as a principal threat. This element also identifies non-ductile concrete frame building as hazardous buildings of particular concern, noting concrete roof systems supported on non-ductile concrete columns as hazardous features. The geotechnical report must be submitted to the City for review and approval before a grading or building permit can be issued by the City for the project. The standards for data and analysis that must be included in the geotechnical report must demonstrate compliance with applicable CBC regulations and standards for review set forth by the California Geological Survey Special Publication 117 Guidelines for Evaluating and Mitigating Seismic Hazards in California. The Environmental Hazards / Natural

Hazards Element provides the following goals and policies addressing issues of protecting the public from earthquake and landslide hazards and minimizing the impact of strong ground motion, liquefaction, and fault rupture.

Objective 9.1: Substantially reduce the level of death, injury, property damage, economic and social dislocation and disruption of vital services that would result from earthquake damage and related seismic events; and to ensure the widespread availability and effective response of emergency evacuation, and disaster relief services throughout the community following an earthquake (seismic) event.

Policy 9.2.2 Periodically review and assess current formats and guidelines required for geotechnical reports and environmental impact reports prepared and submitted to the City for proposed development projects, particularly locations within high liquefaction areas, to assure their continued adequacy and comprehensiveness.

Policy 9.2.3 Monitor and evaluate existing grading standards, slope retainage standards, and erosion control mitigation measures required and implemented by the City in local development and construction projects to ensure their continued adequacy and success relative to seismic safety.

Policy 9.4.1 Maintain the existing high standards of performance currently enforced in the City for existing buildings and construction techniques of new buildings relative to potential strong ground motion and shaking that may be caused in the local area by an earthquake event.

Objective 9.6: Take all necessary and appropriate actions in the siting, maintenance, and operation of critical and sensitive facilities in the community, to ensure, as much as possible, that these facilities continue to operate safely and successfully both during and after an earthquake event.

Policy 9.6.1 Require that earthquake survival and efficient post-disaster functioning be a primary concern in the siting, design, and construction standards for essential critical facilities in the City.

Policy 9.6.2 Require that proposed Critical, Sensitive, and High-Occupancy facilities be subject to careful and rigorous standards of seismic

review prior to any local approvals or permits, including detailed site investigations for faulting, liquefaction and ground motion characteristics, and application of the most current professional standards for seismic design.

- Policy 9.6.3 Prohibit the location of any Sensitive and High-Occupancy facilities within one hundred (100) feet of an active or potentially active local fault or fault system.
- Policy 9.6.4 Attempt, wherever possible, to locate Critical and Sensitive structures in areas of the City with continuous road access, and areas where utility services can be easily maintained and/or quickly reinstated in the event of an earthquake.
- Policy 9.6.5 Require that existing Critical and Sensitive facilities with significant seismic vulnerabilities be upgraded, relocated, or phased out as appropriate or possible.
- Policy 9.6.6 Incorporate planning for potential geologic or seismic-related incidents affecting Critical, Sensitive, and High-Occupancy facilities into the City's contingency plans for disaster response, evacuation, and recovery.
- Policy 9.6.7 Require all Critical, Sensitive, and High-Occupancy facilities located in areas of potential seismic-related hazards (particularly liquefaction or tsunami) to maintain site-specific emergency response plans, with contingencies for all appropriate geologic and seismic-related hazards.

Draft Local Hazard Mitigation Plan

The City of Redondo Beach began the process of updating its Local Hazard Mitigation Plan in early 2018. The City assembled a Hazard Mitigation Planning Committee, which included representatives from the public safety departments (i.e., fire and police) and other City departments including building, planning, and public works, and a series of meetings were held that guided the overall development of the Draft Local Hazard Mitigation Plan. This plan is intended to help create a safer community for residents, businesses, and visitors. The plan allows public safety officials and City staff, elected officials, and members of the public understand the threats from natural and human-caused hazards in the community. The plan also recommends specific actions to

proactively decrease these threats before disasters occur. The Redondo Beach Draft Local Hazard Mitigation Plan was published on August 8, 2019 and includes four main sections:

1. A summary of the natural and human-caused hazards that pose a risk to the community. This will include descriptions of past disaster events and the chances these disasters may occur in the future.
2. An assessment of the threat to the City of Redondo Beach, which will describe how the community is vulnerable to future disasters. The plan will look at the threat to important buildings and infrastructure, such as police and fire stations, roads, and utility lines. It will also look at the threat to community members, particularly disadvantaged persons.
3. A hazard mitigation strategy, which will lay out specific policy recommendations for the City to carry out over the next 5 years. These recommendations will help reduce the threat that the community faces from hazard events.
4. A section on maintaining the plan, which will help ensure that the Local Hazard Mitigation Plan is kept up to date. This will make it easier for the City to continue to proactively protect itself and will also keep the City eligible for additional funding.

Redondo Beach Municipal Code

Redondo Beach Municipal Code (RBMC) Section 5-7.113 requires planning priority projects to prepare and submit a SUSMP to the City's Engineer for review and approval. The Standard Urban Stormwater Mitigation Plan (SUSMP) shall also contain low impact development (LID) requirements consistent with Parts VI.D.7.c and VI.D.7.d(iii) of the Municipal NPDES Permit. The provisions of this section establish requirements for construction activities and facility operations of development and redevelopment projects to comply with the current Municipal NPDES Permit to minimize potential water quality impacts, including soil erosion, from development.

City of Torrance Local Policies and Regulations

Torrance General Plan Safety Element

The Torrance General Plan Safety Element contains goals and policies aimed at reducing the risk of natural disasters and anthropogenic (i.e., human-made) hazards. The basic objective of the Safety Element is to reduce death, injuries, property damage, and economic and social impact from hazards. The Safety Element provides the following goals and policies addressing issues of protecting the public from earthquake and landslide hazards and minimizing the impact of strong ground motion, liquefaction, and fault rupture:

Objective S.1: To protect the community from hazards related to earthquakes, seismic-related activity, and flooding.

Policy S.1.2 Reduce the risk associated with structures which would likely be seriously damaged during a major earthquake, such as those located in high-risk seismic areas and buildings that do not meet current seismic codes.

Policy S.1.4 Require increased levels of structural protection for critical facilities such as hospitals, police and fire facilities, communication and emergency operations centers, and places of community assembly.

Draft Local Hazard Mitigation Plan

The Torrance Local Hazard Mitigation Plan is a blueprint for how the City of Torrance may reduce the threat posed by natural hazards. This plan is intended to help make Torrance a safer place to live, work, and visit by identifying effective and feasible actions to reduce the risks posed by various hazards (i.e., drought, seismic hazards, extreme weather, hazardous materials, flood, diseases and pest management, and geologic hazards). The City of Torrance established goals for the plan as part of the planning process to develop its previous Local Hazard Mitigation Plan, which was adopted in 2004. The planning team modified these goals for Torrance Draft Local Hazard Mitigation Plan, which was published in September 2016.:

- Make properties and structures more resilient to natural hazards, reducing injuries and damage.
- Improve assessments of hazards to encourage preventive measures.
- Create outreach and education efforts to increase public awareness of risks.
- Support the local environment through hazard mitigation planning efforts.
- Improve public and private participation to encourage leadership and prioritize hazard mitigation actions.
- Coordinate hazard planning and emergency operations by strengthening collaboration.

Torrance Municipal Code

Section 81.2.5 – Grading Permit Requirements: The City of Torrance adds to the CBC with grading and permit requirements. Each application for a grading or paving permit shall be accompanied by two sets of plans and specifications and, when required, supporting data consisting of, but not limited to, a geotechnical report, engineering geology report, drainage report, and

hillside landscape report to incorporate erosion control. This section also includes requirements for the geotechnical report, engineering geology report, drainage report, and hillside landscape report.

Section 26 – Seismic Safety Building Rehabilitation Bond Procedural Ordinance: The City of Torrance’s Seismic Safety Building Rehabilitation Bond Procedural Ordinance, adopted in February 1988, issued the first Special Assessment bond to finance the retrofit of privately owned hazardous structures. The Special Assessment program is one of two incentives provided to owners of hazardous structures. The second, a subsidy to pay for engineering analysis, was used by owners of more than half of the City's unreinforced masonry parcels. To date, Torrance has seen 43 of its 50 identified unreinforced masonry parcels retrofitted.

3.6.3 Impact Assessment and Methodology

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2020 California Environmental Quality Act (CEQA) Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse geological impact if it would do any of the following:

- a) The project would 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;
 - ii. Strong seismic ground shaking;
 - iii. Seismic-related ground failure, including liquefaction; or
 - iv. Landslides.
- b) The project would result in substantial soil erosion or the loss of topsoil.
- c) The project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
- d) The project would be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.

- e) The project would have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.
- f) The project would directly or indirectly destroy a unique paleontological or site or unique geologic feature.

Screened-Out Threshold(s):

- Threshold (a.i) (*Fault Rupture*): Based on the Redondo Beach Quadrangle Seismic Hazard Zone Map and the Geotechnical Report prepared by Converse Consultants (2016). The fault located nearest to the Project site is the Palos Verdes Fault, located approximately 3 miles to the south of the Project site. While the proposed Project may be subject to seismic shaking from nearby faults, the proposed Project would not be subject to rupture along a fault that traverses the Project site. Therefore, for the reasons stated above and as discussed in Section VII, *Geology and Soils* of the Initial Study (IS), this issue will not be analyzed further in this EIR.
- Threshold (e) (*Septic Systems*): The proposed Project would not involve the use or development of on-site wastewater treatment systems, such as septic tanks or alternative wastewater disposal systems, because sewers are available for the disposal of wastewater at the Project site (see Section 3.15, *Utilities and Service Systems*). The proposed Project would not result in impacts related to the capability of soils for supporting septic systems or alternative wastewater disposal systems. Therefore, for the reasons stated above and as discussed in Section VII, *Geology and Soils* of the IS, this issue will not be analyzed further in this EIR.

Methodology

Geology and Soils

The impact analysis for geology and soils focuses on the potential for the proposed Project to cause or increase the risk for geologic hazards including but not limited to seismicity and soil stability. As previously described, this analysis relies on a Geotechnical Report prepared by Converse Consultants (2016) and a Seismic Assessment prepared by Nabih Youssef and Associates Structural Engineers (2018) as well as other sources of publicly available information including the Environmental Hazards/Natural Hazards Element of the City of Redondo Beach General Plan (1993), Safety Element of the City of Torrance General Plan (2010), Southern California Earthquake Data Center, CGS, and Cal EMA.

Regional and on-site geologic and soil conditions were compared to relative risk of potential geologic hazards under the proposed Project, which could affect the Project site and/or the surrounding community.

Paleontological Resources

The analysis of paleontological resources is based on a review of the UCMP paleontological records search results as well as geologic map and literature review including the site-specific Geotechnical Report prepared for the proposed Project (Converse Consultants 2016). The objective of the analysis was to determine the geological formations underlying the Project site, whether any paleontological localities have previously been identified within the Project site or in the same or similar formations near the Project site, and the potential for excavations associated with the proposed Project to encounter paleontological resources. These methods are consistent with the SVP guidelines for assessing the potential for paleontological resources to occur in individual geologic units (SVP 2010).

As described further in Impact GEO-4, although no known paleontological resources were identified within the Project site from the UCMP search, this does not preclude the existence of previously unknown buried paleontological resources within the Project site that may be impacted during construction of the proposed Project.

3.6.4 Project Impacts and Mitigation Measures

Impact Description (GEO-1)

- a) The project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:*
 - ii. Strong seismic ground shaking;*
 - iii. Seismic-related ground failure, including liquefaction; or*
 - iv. Landslides.*

GEO-1 **Compliance with all applicable State and local regulations as well as the recommendations of the Geotechnical Report would ensure that the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program would not directly or indirectly cause potential substantial adverse effects involving strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides. Potential impacts would be *less than significant with mitigation*.**

Strong Seismic Shaking

As previously described, the Project site is located within the seismically active region of Southern California. During an earthquake along any of the nearby faults (e.g., Palos Verdes Fault and Newport – Inglewood Fault), strong seismic ground-shaking has the potential to affect the existing buildings located at the Project site – including the Beach Cities Health Center and to a lesser extent the Beach Cities Advanced Imaging Building, which do not meet the most recent seismic requirements included in Chapter 16 of the CBC. Phase 1 of the proposed Project would demolish the Beach Cities Health Center and eliminate the need for ongoing seismic-related structural maintenance as well as the potential for catastrophic seismic failure or collapse during an earthquake event (refer to Section 2.4.3, *Project Objectives*). This would also eliminate seismic hazards in an identified critical and sensitive facility, in support of Redondo Beach Environmental Hazards / Natural Hazards Element Policy 9.6.5. Similarly, the potential demolition of the Beach Cities Advanced Imaging Building during Phase 2 would also accomplish these goals. As such, the implementation of the proposed Project would have a *beneficial impact* related to the elimination of geologic hazards.

Development under the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would also be subject to strong seismic ground-shaking during an earthquake event. However, unlike the existing buildings on the Project site, the proposed development would comply with the latest State and local building standards including Chapter 16 of the CBC (as adopted by the RBMC and the TMC), which contains specific requirements for seismic safety (refer to Section 3.6.2, *Regulatory Setting*). The Geotechnical Report prepared by Converse Consultants (2016), which evaluates site-specific geologic hazards including strong seismic ground-shaking (Converse Consultants 2016), confirmed that the proposed development would be capable of withstanding lateral ground movement from an earthquake provided that it incorporates all appropriate earthwork and site grading, design, and construction recommendations (Converse Consultants 2016). Therefore, compliance with all applicable State and local building standards as well as the implementation of Mitigation Measure (MM) GEO-1, which would ensure the incorporation of all appropriate earthwork and site grading, design, and construction recommendations provided in the Geotechnical Report, would not exacerbate and would reduce potentially significant impacts from strong seismic ground-shaking to *less than significant with mitigation*.

Liquefaction

As previously described, according to the State of California Seismic Hazards Map the Project site is not located within a designated liquefiable area (CGS 2019a). Similarly, according to the

Redondo Beach Draft Local Hazard Mitigation Plan Liquefaction Zones Map the Project site is not located in an area that is at risk for liquefaction (City of Redondo Beach 2019). The Geotechnical Report prepared for the proposed Project also categorizes the underlying soils as silty and clayey sands with low risk of liquefaction. Therefore, required compliance with the CBC would ensure that potential impacts associated with liquefaction would be *less than significant*.

Landslides

As previously described, according to the CGS Seismic Hazard Maps for Earthquake-Induced Landslides the Project site is not located in a designated landslide zone (CGS 2019a). Similarly, according to the Redondo Beach Draft Local Hazard Mitigation Plan Earthquake-Induced Landslide Zones Map the Project site is not located in an area at risk for landslides (City of Redondo Beach 2019). Further, the Geotechnical Report prepared for the proposed Project determined that the Project site is underlain by dense alluvial deposits on an older terrace slope. No evidence of landslides was observed on descending hillside slopes below the Project site and the potential for seismically induced landslides is considered by very low (Converse Consultants 2016). Therefore, required compliance with the CBC would ensure that potential impacts associated with landslides would be *less than significant*.

Mitigation Measure (MM)

MM GEO-1 Geotechnical Report Recommendations. *The proposed Project shall comply with all earthwork and site grading, design, and construction recommendations provided in the Geotechnical Report prepared for the proposed Project. These recommendations shall be reviewed by the City of Redondo Beach and the City of Torrance Building & Safety Divisions and formalized on all final grading plans, design drawings, and construction plans, as appropriate, prior to the issuance of any demolition or grading permits. City of Redondo Beach and City of Torrance permit compliance staff shall observe and ensure compliance with these recommendations and specifications during grading and construction activities associated with the proposed Project.*

Residual Impacts

The CBC (as adopted by the RBMC and TMC) includes comprehensive requirements and standards to ensure that all development is constructed to provide the maximum level of protection feasible and minimize the risk to life and property. Accordingly, required compliance with the CBC along with the implementation of the recommendations in the Geotechnical Report prepared for the proposed Project would reduce the risk of potential impacts associated with geologic

hazards to *less than significant*. However, it should be noted that although the occurrence probability of a larger-than-expected seismic event with corresponding ground acceleration is low, it is not zero. Consequently, while impacts associated with geologic hazards would be *less than significant*, any structure built in Southern California, regardless of compliance with the CBC, is susceptible to failure during larger-than-expected seismic events.

Impact Description (GEO-2)

b) *The project would result in substantial soil erosion or the loss of topsoil.*

GEO-2 The proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would redevelop the existing BCHD campus. The proposed Project would not result in substantial soil erosion or the loss of topsoil. While the construction of the proposed Project would involve excavation of soils and grading, compliance with applicable State and local regulations would ensure potential impacts would be *less than significant*.

As described in Section 2.2.3, *Existing Project Site*, the Project site consists of the existing 9.35-acre campus and the adjacent 0.43-acre vacant Flagler Lot at the corner of Flagler Lane and Beryl Street. The existing BCHD campus is nearly entirely developed with existing building footprints and pavements. The vacant Flagler Lot has been previously disturbed, but unlike the rest of the existing Project site is currently undeveloped with exposed gravel and dirt.

Construction of the proposed Project would involve the excavation of substantial amounts of soil. As described in Section 2.5.1.6, *Construction Activities*, Phase 1 would involve the excavation of approximately 20,000 cubic yards (cy) of soil, in order to facilitate construction of the proposed subterranean service area and loading dock. Additional grading would be required to backfill the basement associated with the existing Beach Cities Health Center and to level the other areas of the Project site. Phase 2 would include the excavation of approximately 30,250 cy of soil, which would be necessary to facilitate the construction of the basement levels of the proposed parking structure. While construction activities would be temporary – lasting for a period of 29 months during Phase 1 and 28 months during Phase 2 – excavation and grading associated with the proposed Project would result in exposed soil and the potential for erosion caused by wind and/or stormwater runoff.

Because the Project site is greater than 1 acre in size, BCHD would be required to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) in order to meet the requirements of the Statewide General Permit for Construction in accordance with the NPDES program (see

Section 3.9, *Hydrology and Water Quality*). The SWPPP would contain BMPs designed to reduce the potential for erosion (e.g., sand/gravel bags, silt fences, dust control, etc.). Additionally, the proposed Project would be required to comply with all applicable SUSMP and LID requirements (RBMC Section 5-7.113) to address soil erosion and urban runoff. Under this ordinance, construction projects in Redondo Beach must prepare and submit a SUSMP, for compliance with the Municipal NPDES Permit to minimize potential water quality impacts, including soil erosion, from development. The SUSMP would include erosion drainage controls (e.g., detention ponds, sediment ponds or infiltration pits; dikes, filter berms or ditches; and/or down drains, chutes or flumes). Proof of compliance with the Municipal NPDES Permit would be required prior to the issuance of any demolition, grading, building, or occupancy permits, or any other type of permit or license issued by the City of Redondo Beach. With the implementation of BMPs in accordance with the SWPPP, and all applicable SUSMP and LID requirements, construction activities during Phase 1 and Phase 2 would not result in substantial erosion or loss of topsoil. As such, potential impacts associated with erosion or the loss of topsoil would be *less than significant*.

Following the completion of Phase 1 the overall open space on the BCHD campus would be increased to approximately 205,200 sf. Following the completion of Phase 2 the overall open space on the BCHD campus would range from 198,500 square feet (sf) to 221,400 sf depending on the ultimate site plan. As such, the overall open space would increase dramatically from the existing 82,940 sf currently on the campus – primarily along the eastern property boundary. As described further in Section 3.9, *Hydrology and Water Quality* stormwater would be captured and treated within the proposed storm drain network associated with the proposed Project, which would include the use of an infiltration system. Therefore, stormwater runoff associated with the proposed Project would not result in substantial erosion. Additionally, compliance with all earthwork and site grading, design, and construction recommendations provided in the Geotechnical Report prepared for the proposed Project, as required by MM GEO-1, would ensure that there would be no substantial erosion associated with engineered slopes and impacts would be *less than significant*.

Impact Description (GEO-3)

- c) *The project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.*
- d) *The project would 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.*

GEO-3 The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not be located on an unstable geologic unit or soil that is made unstable as a result of the proposed Project or an expansive soil creating a substantial risk to life or property. Compliance with all applicable State and local regulations as well as the recommendations of the Geotechnical Report would ensure that potential impacts associated with the proposed Project would be *less than significant*.

As described in Impact GEO-2, construction of the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program would involve excavation of substantial amounts of soil. Shoring would be required to provide adequate structural support for the excavations associated with the subterranean service area and loading dock in Phase 1 and the basement levels of the parking structure in Phase 2. Shoring may also be required to provide structural support for neighboring adjacent roadways, buildings, and other infrastructure. For example, the proposed excavation associated with the service area and loading dock in Phase 1 would be located immediately adjacent to Beryl Street and Flagler Lane. The shoring system recommended in the Geotechnical Report prepared by Converse Consultants (2016) is summarized in Section 2.5.1.6, *Construction Activities* and described in further detail within Appendix G. All excavation activities for the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would be required to adhere to mandatory regulations set forth by the California Occupational Safety and Hazard Administration (CalOSHA), which specify excavation requirements to protect life and safety of construction workers during excavation, as well as all requirements of Section 1541 (General Requirements) of Title 8 of the California Code of Regulations. All excavation activities would also be required to adhere to all applicable provisions of the CBC, including Section 3304 of Chapter 33 of the CBC (refer to Section 3.6.2, *Regulatory Setting*), which includes requirements for safeguards at work sites to ensure stable excavations and cut or fill slopes. Excavation and shoring requirements are enforced through the City of Redondo Beach’s and the City of Torrance’s plan check process, which would require BCHD to prepare and submit grading plans, which depict excavation and shoring, to the City of Redondo Beach and City of Torrance Building & Safety Divisions prior to the issuance of permits for demolition or grading. Conformance with all applicable State and local regulations as well as the implementation of MM GEO-2, which would require monitoring of adjacent roads, would ensure that impacts associated with soil stability would be *less than significant*.

The level topography of the Project site as well as the depth to groundwater and soil type result in limited potential for hydroconsolidation and differential settlement. According to the Geotechnical

Report prepared by Converse Consultants (2016), the silty and clayey sands, which underlie the Project site do not exhibit hydroconsolidation or differential settlement characteristics (see Appendix G).

The soil borings collected as a part of the Geotechnical Report were tested and conservatively determined to be in the “Very Low” expansion range (Converse Consultants 2016). The UBC mandates that special foundation design consideration be employed if the Expansion Index is 20, or greater, as recorded in UBC Table 18-1-B. Compliance with all earthwork and site grading, design, and construction recommendations, including implementation of a monitoring program as recommended in the Geotechnical Report prepared by Converse Consultants (2016) and required by MM GEO-1 would ensure that any proposed import fill would have an Expansion Index of less than 20 would be reduced to *less than significant*.

Impact Description (GEO-4)

- f) *The project would directly or indirectly destroy a unique paleontological or site or unique geologic feature.*

GEO-4 The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would require excavations below fill soils placed during previous grading activities. However, the geologic unit that is likely to be affected by these excavations has a low potential to contain paleontological resources. Impacts would be *less than significant with mitigation*.

Implementation of the proposed Project would result in excavations to a depth of up to 26 feet. These excavations would occur in a 20,000-sf area at the corner of Flagler Lane and Beryl Street and an area of between 23,100 sf and 39,200 sf near the central area of the BCHD campus. The two geologic units likely to be encountered by these ground-disturbing activities include graded fill material extending as much as 13 feet below existing grade, and underlying Pleistocene-aged alluvium deposits, primarily composed of dune and drift sands. As previously described, the Pleistocene-aged alluvium deposits underlying the Project site have a low potential for containing paleontological resources and the fill materials placed at the Project site from prior grading operations are too young to preserve paleontological resources. However, while individual fossil localities are rare, paleontological resources may still be present and should be protected or collected and deposited with an appropriate institution if uncovered during ground-disturbing activities. With adherence to MM GEO-2a and -2b, potential impacts to paleontological resources would be *less than significant with mitigation*.

Mitigation Measures

MM GEO-2a Worker Paleontological Resource Awareness Session. *In order to educate construction contractors regarding the protection of any paleontological resources that are unexpectedly discovered during excavations associated with the proposed Project. Beach Cities Health District (BCHD) shall retain a qualified paleontologist to develop a worker awareness program to educate all workers regarding the paleontological resources that, while unlikely, may occur on the development site as well as appropriate procedures to enact should paleontological resources be discovered during development. The qualified paleontologist shall develop appropriate training materials including, but not limited to, a summary of geologic units present at the Project site by depth, a description of potential paleontological resources that may be encountered during the proposed excavations, and worker attendance sheets to record workers' completions of the awareness session. The worker awareness session for paleontological resources shall occur prior to the initiation of excavation and grading activities. BCHD shall provide awareness session sign-in sheets documenting employee attendance to the City of Redondo Beach and City of Torrance permit compliance staff, if requested.*

MM GEO-2b Paleontological Resources Inadvertently Discovered During Ground-Disturbing Activities. *In the unlikely event that any potentially significant paleontological resources are uncovered during ground disturbance or construction activities the following actions would be implemented by the construction contractor to prevent potential significant impacts on paleontological resources:*

- *Temporarily cease grading in the vicinity of the find and redirect activity elsewhere to ensure the preservation of the resource and surrounding rock in which the discovery was made.*
- *Immediately notify the City of Redondo Beach and/or the City of Torrance regarding the resource and redirected ground-disturbing activity.*
- *Obtain the services of a qualified professional paleontologist who shall assess the significance of the find and provide recommendations, as necessary, for its proper disposition.*
- *Complete all significance assessment and mitigation of impacts to the paleontological resource prior to resuming ground-disturbing activities in the area of the find.*

Residual Impacts

With the implementation of mitigation measures MM GEO-2a and -2b, impacts to paleontological resources would be reduced to *less than significant*.

Cumulative Impacts

A cumulative impact related to geology and soils would result if the impacts associated with the proposed Project, when combined with other past, present, and future project within Redondo Beach, Torrance, and the other neighboring South Bay communities would increase the potential for the number of residents and visitors to be exposed to geologic hazards. The geographic context for analysis of impacts on development from ground shaking or unstable soil conditions including landslides, liquefaction, subsidence, collapse, or expansive soil is generally site-specific. In accordance with State and local requirements, future projects in the Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach would be required to conduct a geotechnical investigation prior to construction. This analysis would include sampling of native soils on-site and an assessment of the structural stability of each proposed structure, given the reasonably foreseeable seismic activity or unstable soil conditions. Each of the cumulative projects would be required to meet the most current and stringent building safety requirements. Therefore, it is anticipated that the cumulative risks of seismic ground shaking, seismic-related ground failure, soil instability, subsidence, collapse, and/or expansive soil would not be substantial. Compliance with the current CBC standards MM GEO-1 and MM GEO-2a and -2b would ensure that impacts to geology and soils associated with the proposed Project would be reduced to less than significant. As such, the proposed Project *would not substantially contribute to cumulatively considerable impacts*.

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3.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

This section of the Environmental Impact Report (EIR) analyzes the potential impacts of the proposed Beach Cities Health District (BCHD) Healthy Living Campus Master Plan (Project) related to greenhouse gas (GHG) emissions and global climate change. This analysis estimates the GHG emissions that would result from the construction and operation of the proposed Project, including the generation of GHG emissions from vehicle trips; energy demands for building heating, cooling, and power; and construction of new buildings and associated infrastructure. The analysis focuses on the major GHGs generated by human activities including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and chlorofluorocarbons (CFCs). (An analysis of other impacts related to air pollutant emissions is included in Section 3.2, *Air Quality*.) Information for this analysis was derived from the Intergovernmental Panel on Climate Change (IPCC), U.S. Environmental Protection Agency (USEPA), California Air Resources Board (CARB), South Coast Air Quality Management District (SCAQMD) and Southern California Association of Governments (SCAG) as well as the Redondo Beach and Torrance General Plans, Climate Action Plans, and municipal codes.

There are several unique challenges to analyzing GHG emissions and climate change under the California Environmental Quality Act (CEQA), largely due to the global nature of climate change. Typical CEQA analyses address local actions that have local or regional impacts, whereas GHG emissions and global climate change presents the considerable challenge of analyzing the relationship between local activities and the resulting potential, if any, for global environmental impacts. With regard to climate change, it is generally accepted that while the overall magnitude of global impacts is substantial, the contribution of any individual development project is so small that direct project-specific significant impacts – albeit not cumulatively significant impacts – are highly unlikely. Global climate change is also fundamentally different from other types of air quality impact analyses under CEQA in which the impacts are all measured within, and are linked to, a discrete region (i.e., air basin). Instead, a climate change analysis must be considered on a global level and requires consideration of GHG emissions from the project under consideration as well as the extent of the related displacement, translocation, and redistribution of GHG emissions.

3.7.1 Environmental Setting

Overview of Global Climate Change

The USEPA defines climate change as “*any significant change in the measures of climate lasting for an extended period of time.*” In other words, climate change includes major changes in air temperature, precipitation, or wind patterns, among others, that occur over several decades or

longer. These changes are caused by a number of natural factors, including oceanic processes, variations in solar radiation reaching the Earth's atmosphere and surface, plate tectonics and volcanic eruptions, and anthropogenic (i.e., human-related) activities. The primary anthropogenic driver of climate change is the release of GHGs into the atmosphere (National Research Council 2010; IPCC 2014).

The Earth's natural warming process is known as the "*greenhouse effect*." The Earth's atmosphere consists of a variety of gases that regulate the Earth's temperature by trapping solar energy; these gases are cumulatively referred to as GHGs because they trap heat like the glass of a greenhouse. Relying on decades of research, the overwhelming majority of the scientific community agrees that human activities, including the burning of fossil fuels to produce energy and deforestation, have contributed to elevated concentrations of GHGs in the atmosphere since the Industrial Revolution (National Research Council 2010). The human production and release of GHGs to the atmosphere has caused an increase in the average global temperature. While the increase in global temperature is known as "*global warming*," the resulting change in weather patterns is known as "*global climate change*."

Potential Effects of Global Climate Change

Potential adverse physical and environmental effects of global climate change include sea level rise, flooding, increased weather variability and intensified storm events, reduced reliability of water supplies, reduced quality of water supplies, and increased stress on ecosystems that would reduce biodiversity. Additionally, climate change has resulted in impacts to human health due to heat waves and extreme weather events, reduced air quality, and increased climate-sensitive diseases, including food-borne, water-borne, and animal-borne diseases.

Adverse effects from climate change are distributed across the world and have global consequences. Sensitive communities, such as low-lying nations that are more susceptible to impacts from sea level rise, may be more heavily impacted than communities in other regions.

Greenhouse Gases

Although GHGs include a variety of gases that have the potential to trap heat, policies and regulations to manage their effects generally focus on CO₂, CH₄, and N₂O. The following provides a brief description of each of these GHGs and their sources:

- **CO₂.** The natural production and absorption of CO₂ occurs through the burning of fossil fuels (e.g., oil, natural gas, and coal), solid waste, trees and wood products, and as a result of other chemical reactions, such as those required to manufacture cement. CO₂ is

constantly being exchanged among the atmosphere, ocean, and land surface as it is both produced and absorbed by many microorganisms, plants, and animals. However, emissions and removal of CO₂ by these natural processes tend to balance. Since the Industrial Revolution began around 1750, human-related activities had increased CO₂ concentrations in the atmosphere by more than 40 percent as of 2016 (USEPA 2016). Globally, the largest source of CO₂ emissions is the combustion of fossil fuels such as coal, oil, and gas in power plants, motor vehicles, and industrial facilities. CO₂ is sequestered (i.e., removed from the atmosphere) when it is absorbed by plants as part of the biological carbon cycle. When in balance, total CO₂ emissions and removals from the entire carbon cycle are roughly equal.

- **CH₄.** CH₄ is emitted from a variety of both human-related and natural sources. Anthropogenic sources include the production and transport of coal, natural gas, and oil, from livestock and other agricultural practices, and from the decay of organic waste in municipal solid waste landfills. It is estimated that 60 percent of global CH₄ emissions are related to human activities. Natural sources of CH₄ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and wildfires (USEPA 2019).
- **N₂O.** Concentrations of N₂O also began to rise at the beginning of the Industrial Revolution, reaching 314 parts per billion (ppb) by 1998. Microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen, produce N₂O. In addition to agricultural sources, some industrial processes (e.g., fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to the atmospheric load of N₂O (USEPA 2019).

CO₂ is the most widely emitted GHG and is the reference gas for determining the global warming potential (GWP) of other GHGs. Because the impact each GHG has on climate change varies, the common metric of carbon dioxide equivalent (CO₂e) is used to report a combined impact from all of the GHGs. This metric scales the global warming potential of each GHG to that of CO₂. GHG emissions are typically expressed in metric tons of carbon dioxide equivalent (MT CO₂e) (USEPA 2017).

Existing GHG Emissions from Human Activity

The sources of GHG emissions from the operation of buildings generally consist of area, energy, mobile, waste, and water sources (California Air Pollution Control Officers Association [CAPCOA] 2013).

- **Area:** Area sources generally produce GHG emissions that occur in relatively small quantities over a dispersed area. For example, area sources include combustion of fossil fuels to operate landscape equipment, such as lawnmowers and trimmers.
- **Energy:** GHG emissions are also emitted as a result of activities within buildings when electricity and natural gas are used as energy sources (e.g., lighting and heating and air conditioning). Combustion of any type of fuel emits CO₂ and other GHGs directly into the atmosphere. When this occurs within building (e.g., the use of natural gas), it is considered a direct GHG emission source. However, GHGs are also emitted during the generation of electricity from fossil fuels. When electricity is used in a building, the electricity generation typically takes place off-site at the power plant; electricity use in a building generally causes emissions in an indirect manner.
- **Mobile:** Mobile source GHG emissions associated with a building are generally related to the on-road mobile sources associated with residents, employees, visitors, and delivery vehicles visiting the site based on the number of daily trips and vehicle miles traveled (VMT).
- **Waste:** The generation of municipal solid waste from day-to-day operational activities generally consists of product packaging, grass clippings, furniture, clothing, bottles, food scraps, newspapers, plastic, and other items routinely disposed of in trash bins. A portion of the solid waste is diverted to waste recycling and reclamation facilities. Waste that is not diverted is usually sent to local landfills for disposal, where the waste decomposes and results in GHG emissions of CO₂ and CH₄.
- **Water:** GHG emissions are also generated from the energy used to convey, treat, and distribute water and wastewater. As such, these emissions are **generally** indirect emissions from the production of electricity to power these systems. Three processes are necessary to supply potable water: 1) supply and conveyance of the water from the source; 2) treatment of the water to potable standards; and 3) distribution of the water to individual users. After use, energy is used as the wastewater is treated and reused as reclaimed water.

The burning of fossil fuels, such as coal and oil, especially for the generation of electricity and powering of motor vehicles, has led to substantial increases in CO₂ emissions (and thus substantial increases in atmospheric concentrations). In 2019, atmospheric CO₂ concentrations were 412 parts per million (ppm), which represented an increase of nearly 50 percent above the pre-industrial concentrations that were present prior to 1750 (National Aeronautics and Space Administration [NASA] 2019).

Global GHG Emissions

The IPCC was formed by the World Meteorological Organization in 1988 to provide governments at all levels with scientific information that they can use to develop climate policies. The IPCC is the United Nation's body for assessing the science related to climate change and is responsible for tracking and reporting global emissions of GHGs. The IPCC is in the process of preparing the Sixth Assessment Report, tentatively scheduled for publication in June 2022. IPCC's Fifth Assessment Report, which was published in 2014 reported that global GHG emissions were estimated at 49 billion MT CO₂e per year, with CO₂ making up 76 percent of the total anthropogenic GHG emissions. This is an overall increase in GHG emissions of 71 percent from the 28.7 billion MT CO₂e of emissions in 1970 (IPCC 2014). Annual anthropogenic GHG emissions have increased by 10 billion MT CO₂e between 2000 and 2010, with this increase directly coming from energy supply (47 percent), industry (30 percent), transport (11 percent), and buildings (30 percent) sectors (IPCC 2014).

U.S. GHG Emissions

The U.S. emitted 6.46 billion MT CO₂e in 2017. Total U.S. emissions have increased by 1.3 percent from 1990 to 2017, but decreased by nearly 7 percent from 2010 to 2017. Fossil fuel combustion accounted for 93 percent of CO₂ emissions and approximately 75 percent of total U.S. GHG emissions in 2017. Of the six major sectors generating emissions through direct fossil fuel combustion – electricity generation, transportation, industrial, agricultural, residential, and commercial – electricity generation accounts for approximately 28 percent and transportation accounts for 29 percent of these emissions. Of the energy consumed in the U.S. in 2018, approximately 80 percent was produced through combustion of fossil fuels, while the remaining 20 percent came from other energy sources such as hydropower, biomass, nuclear, wind, and solar energy. In 2017, total GHG emissions by sector were 28 percent for the electric power industry, 29 percent for transportation, 22 percent for industry, 9 percent for agriculture, 6 percent for commercial, and 5 percent for residential (USEPA 2020).

State of California GHG Emissions

In 2017, California generated approximately 424.1 million MT CO₂e, approximately 7 percent of total U.S. emissions. This is due primarily to the population and size of California compared to other states. Despite a population increase of 6.2 percent between 2000 and 2018, the State's gross per capita emissions were reduced 24 percent from the 14.1 MT CO₂e per person in 2001 to 10.7 MT CO₂e per person (U.S. Census Bureau 2019; CARB 2018). This reduction indicates the contributions that energy conservation as well as energy efficiency have in reducing per capita

emissions. Reductions in 2008 and 2009 have also been attributed to the economic recession and higher fuel prices, with marked declines in on-road transportation, cement production and electricity consumption (CARB 2014).

Redondo Beach GHG Emissions

The City of Redondo Beach, working in conjunction with the South Bay Cities Council of Governments (SBCCOG), prepared GHG inventories for 2005 and 2012. These inventories, which represent the most recent publicly available data, estimate emissions for on-road transportation, off-road equipment, residential and commercial energy use, solid waste generation, and water and wastewater emissions. The inventories were prepared consistent with industry protocols including the U.S. Community Protocol for Accounting and Reporting of GHG Emissions, the Local Government Operations Protocol, and the California Association of Environmental Professionals whitepapers on inventorying, forecasting, and setting targets for GHG emissions. Transportation sector emissions are the result of gasoline and diesel combustion in vehicles traveling to, from, or within Redondo Beach, but exclude emissions associated with vehicles that pass through the City without stopping. Estimates for residential and commercial energy use are calculated based on the emissions generated by electricity and natural gas consumed by residences and commercial businesses within Redondo Beach, while solid waste emissions are based on the amount of waste disposed in landfills, where it decomposes and generates methane. Water and wastewater emissions are calculated by determining the energy needed to extract, transport, treat, and dispose of the water resources consumed by the community (SBCCOG 2017a).

Table 3.7-1 summarizes Redondo Beach's GHG inventory for the years 2005 and 2012. In 2005, Redondo Beach generated approximately 522,168 MT CO₂e. On-road transportation, at 246,707 MT CO₂e, represented the largest share of emissions at greater than 47 percent. In 2012, Redondo Beach generated approximately 523,400 MT CO₂e, with on-road transportation emissions contributing to approximately 51 percent of total City-wide emissions. However, with emissions decreasing in most sectors (i.e., commercial energy, solid waste, water, off-road sources, and wastewater), total emissions increased by just 0.2 percent from 2005 to 2012.

On a per capita basis, Redondo Beach generated 7.81 MT CO₂e per year per resident in 2012, based on California Department of Finance estimates of 67,007 residents in 2012 (SBCCOG 2017a). These per capita estimates are substantially lower than the California average of 12.1 MT CO₂e per resident in 2012 (CARB 2014).

Table 3.7-1. City of Redondo Beach GHG Emissions Inventory

Emission Source	2005 (MT CO₂e)	2012 (MT CO₂e)	Percent Change from 2005 to 2012
On-Road Transportation	246,707	265,512	7.6%
Commercial Energy	142,679	137,031	-4.0%
Residential Energy	95,616	101,010	5.6%
Solid Waste	16,840	7,406	-56.0%
Water	15,576	10,332	-33.7%
Off-Road Sources	4,492	1,906	-57.6%
Wastewater	258	203	-21.3%
Total	522,168	523,400	0.2%

Source: SBCCOG 2017a.

City of Torrance GHG Emissions

The City of Torrance, working in conjunction with the SBCCOG, prepared GHG inventories for 2005, 2007, 2010, and 2012. As with the 2005 and 2012 inventories prepared by Redondo Beach, these inventories estimate emissions for on-road transportation, off-road equipment, residential and commercial energy use, solid waste generation, water, wastewater, and aviation emissions (SBCCOG 2017b). The inventories were prepared consistent with industry protocols including the U.S. Community Protocol for Accounting and Reporting of GHG Emissions, the Local Government Operations Protocol, and the California Association of Environmental Professionals whitepapers on inventorying, forecasting, and setting targets for GHG emissions (SBCCOG 2017b).

Table 3.7-2 below illustrates Torrance's GHG inventory for the years 2005 and 2012. In 2005, Torrance generated approximately 1,611,012 MT CO₂e. On-road transportation, at 670,670 MT CO₂e, represented the largest share of emissions at 41.6 percent. In 2012, the City generated approximately 675,221 MT CO₂e from on-road transportation, a 0.7-percent decrease from 2005. By 2012, the City had a reduction in emissions of 3 percent from the 2005 inventory, with emissions decreasing in most sectors (e.g., residential energy, solid waste, water, off-road sources, and wastewater). The largest increase in emissions between 2005 and 2012 was the 4.2 percent increase in aviation emissions (SBCCOG 2017b).

Table 3.7-2. City of Torrance GHG Emissions Inventory

Emission Source	2005 (MT CO₂e)	2012 (MT CO₂e)	Percent Change from 2005 to 2012
On-Road Transportation	670,670	675,221	0.7%
Commercial Energy	617,177	620,690	0.6%
Residential Energy	198,158	192,804	-2.7%
Solid Waste	66,013	39,906	-39.5%
Water	51,287	29,906	-41.7%
Off-Road Sources	3,875	1,018	-73.7%
Wastewater	562	443	-21.2%
Aviation	3,270	3,406	4.2%
Total	1,611,012	1,563,394	-3.0%

Source: SBCCOG 2017b.

On a per capita basis, Torrance generated 10.7 MT CO₂e per year per resident in 2012, based on California Department of Finance estimates of 146,115 residents in 2012 (SBCCOG 2017b). These per capita estimates are lower than the California average of 12.1 MT CO₂e per resident in 2012 (CARB 2014).

Project Site GHG Emissions

The primary source of GHG emissions within the vicinity of the Project site are exhaust emissions from motor vehicles. GHG emissions also occur from various stationary sources, such as mechanical equipment (e.g., heating, ventilation, and air conditioning [HVAC] systems) associated with buildings, the operation of various types of commercial restaurant and retail businesses, and industrial land uses. As described in Section 2.2.3, *Existing Project Site*, the Project site is currently occupied by Beach Cities Health Center, an attached maintenance building, two medical office buildings, two surface parking lots, and an above ground parking structure, each of which is a minor source of GHG emissions.

As described in Section 3.7.3, *Impact Assessment and Methodology*, existing operational GHG emissions at the Project site were modeled using California Emission Estimator Model (CalEEMod) Version 2016.3.2 based on the existing land uses currently on-site. The Project site currently contributes approximately 13,292 MT CO₂e per year (see Table 3.7-3).

Table 3.7-3. Existing Annual GHGs Emissions at the BCHD Campus

Category	Source	Annual GHG Emissions (MT CO ₂ e/year)
Area	Landscaping Equipment	0.7
Energy	Electricity and Natural Gas	704.1
Mobile	On-road Transportation	12,459.0
Waste	Solid Waste Generation and Disposal	580.3
Water	Water Usage and Wastewater Generation	128.7
Total		13,873

Note: Mobile emissions were calculated outside of CalEEMod, based on trip generation rates from the Transportation Study (see Appendix K). The CalEEMod evaluates only non-traffic operational emissions from the Beach Cities Health Center and Beach Cities Advanced Imaging Building. The Providence Little Company of Mary Medical Institute Building would remain in place under the proposed Project, and therefore is not included in this analysis. Totals may differ slightly from CalEEMod output sheets due to rounding.

Refer to Appendix B for detailed CalEEMod output sheets.

3.7.2 Regulatory Setting

Global climate change is addressed through the efforts of various Federal, State, regional, and local government agencies. These agencies work jointly and individually to understand and regulate the effects of GHG emissions and resulting climate change through legislation, regulations, planning, policymaking, education, and a variety of programs. The significant agencies, conventions, and programs focused on global climate change are discussed below.

Federal Regulations

Federal Clean Air Act

The U.S. Supreme Court ruled on April 2, 2007, in *Massachusetts v. U.S. Environmental Protection Agency* that CO₂ is an air pollutant, as defined under the Clean Air Act Amendments, and that the USEPA has the authority to regulate emissions of GHGs. On May 13, 2010, the USEPA issued a Final Rule that took effect on January 2, 2011, setting a threshold of 75,000 MT CO₂e per year for GHG emissions from major industrial facilities. The USEPA has not yet adopted thresholds for other GHG sources.

State Regulations

Executive Order S-3-05 and Assembly Bill 32

Executive Order S-3-05, established the following GHG emission reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and

- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

The Secretary of California Environmental Protection Agency (CalEPA) has been charged with coordination of efforts to meet these targets and formed the Climate Action Team (CAT) to implement the Executive Order. The CAT also provided strategies and input to the CARB Scoping Plan.

In 2006, the California State Legislature adopted Assembly Bill (AB) 32, California Global Warming Solutions Act, to codify the targets in Executive Order S-3-05 of reducing GHG emissions in California to 1990 levels by 2020. The California Global Warming Solutions Act requires that CARB to adopt rules and regulations directing State actions that would achieve GHG emissions reductions equivalent to 1990 Statewide levels by 2020.

Executive Order B-30-15 and Senate Bill 32

Executive Order B-30-15 established a new State-wide policy goal to reduce GHG emissions 40 percent below their 1990 levels by 2030. This Executive Order acts as an intermediate goal to achieving 80 percent reductions by 2050 as outlined in Executive Order S-3-05. Additionally, this Executive Order aligns California's GHG reduction targets with those of leading international governments, including the 28 nations comprising the European Union. California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal established by Executive Order S-3-05 of reducing emissions 80 percent under 1990 levels by 2050.

Executive Order B-55-18

Executive Order B-55-18 establishes a State-wide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This Executive Order demonstrates the State's continued commitment to address climate change.

CARB Scoping Plan

CARB is responsible for the coordination and administration of both Federal and State air pollution control programs within California. In this capacity, CARB conducts research, sets State ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs.

As directed by AB 32, CARB adopted the first Scoping Plan, which presented a set of actions designed to reduce overall GHG emissions in California (CARB 2008). This initial Scoping Plan provided an economy-wide approach to reducing emissions and highlighted the value of

combining carbon pricing with other complementary programs to meet California’s 2020 GHG emissions target while ensuring progress in all sectors. Relative to transportation, the Scoping Plan included nine measures or recommended actions related to reducing VMT and transportation-related GHGs through fuel and efficiency measures. These measures would be implemented State-wide rather than on a project-by-project basis.

AB 32 requires CARB to update the scoping plan at least every 5 years. CARB released the First Update to the Climate Change Scoping Plan in May 2014 to provide information on the development of specific regulations and to adjust projections in consideration of the economic recession. The 2014 Update to the Scoping Plan presented an update on the program and its progress toward meeting the 2020 limit. It also developed the first vision for long-term progress beyond 2020. It also identified the need for a 2030 mid-term target to establish a continuum of actions to maintain and continue reductions, rather than only focusing on targets for 2020 or 2050.

In response to Executive Order B-30-15 and Senate Bill (SB) 32, all state agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. CARB was directed to update the Scoping Plan to reflect the 2030 target. The 2017 Update to the Climate Change Scoping Plan was approved by CARB on December 14, 2017 (CARB 2017). The 2017 Scoping Plan builds upon the framework established by the initial 2018 Scoping Plan and 2014 Update, while identifying new, technologically feasible, and cost-effective strategies to ensure that the state meets its GHG reduction targets.

Subsequent to the 2017 Scoping Plan, CARB adopted more aggressive SB 375 targets in 2018 as one measure to support progress toward the Scoping Plan goals, which encourage Sustainable Communities Strategies (SCSs) that plan to achieve, in aggregate, a 19 percent reduction in Statewide per capita GHG emissions reductions relative to 2005 by 2035 from passenger vehicles. However, CARB recognized that additional State and local actions are needed to achieve the transportation system reductions necessary to meet our climate goals, which is approximately 25 percent reduction in State-wide per capita GHG emissions by 2035 relative to 2005. In 2019, CARB released a 2017 Scoping Plan Update which includes a discussion of the relationship between local government actions and achievement of the State’s long-term GHG emissions reduction goals, and non-binding recommendations to support local governments in their efforts to reduce GHG emissions. The 2017 Scoping Plan Update also identifies that slower growth in VMT from more efficient land use development patterns would promote achievement of the State’s climate goals.

Senate Bill 375, Sustainable Communities and Climate Protection Act

The adoption of SB 375 created a process whereby local governments and other stakeholders must work together within their region to achieve the GHG reductions specified in AB 32 through integrated development patterns, improved transportation planning, and other transportation measures and policies. Under SB 375, the CARB is required to set regional transportation-related GHG reduction targets for 2020 and 2035. Additionally, SB 375 required that those targets be incorporated within a SCS, a required element within the Metropolitan Planning Organization's (MPO's) Regional Transportation Plan (RTP).

On September 23, 2010, CARB adopted transportation-related GHG emissions reduction targets that require a 7 percent to 8 percent reduction by 2020 and between 13 percent and 16 percent reduction by 2035 compared to emissions in 2005 for each MPO. SCAG is the MPO for the Southern California region and is required to work with local jurisdictions, including the City of Redondo Beach and the City of Torrance. CARB has determined SCAG's reduction target for per capita transportation-related GHG emissions to be 13 percent by 2035.

Senate Bill 97

SB 97, adopted in 2007, amended CEQA to establish that GHG emissions and their effects are appropriate subjects for CEQA analysis, and directed the Governor's Office of Planning and Research (OPR) to develop CEQA Guidelines for evaluating and mitigating GHG emissions and global climate change effects. In March 2010, the California Office of Administrative Law adopted amendments to the CEQA Guidelines that provide regulatory guidance with respect to the analysis and mitigation of the potential effects of GHG emissions, as found in CEQA Guidelines Section 15183.5. The California Resources Agency adopted the Guidelines in January 2009.

However, neither a threshold of significance nor any specific mitigation measures are included or provided in these amendments to the CEQA Guidelines. See Section 3.7.3, *Impact Assessment and Methodology* for further discussion of accepted methodology for evaluating the significance of GHG emissions.

Senate Bill 350, Clean Energy and Pollution Reduction Act

SB 350 establishes California's 2030 GHG reduction target of 40 percent below 1990 levels and sets out to help the State achieve this goal by setting ambitious 2030 targets for energy efficiency and renewable electricity (California Energy Commission [CEC] 2017).

California Energy Efficiency Standards

Title 24 of the California Code of Regulations (CCR) Part 6 comprises California's Energy Efficiency Standards for Residential and Nonresidential Buildings, which was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to increase the baseline energy efficiency requirements. Although the Energy Efficiency Standards were not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions. The 2019 standards are the most recent version, which went into effect on January 1, 2020.

California Green Building Standard Code

Title 24 of the CCR Part 11 comprises CALGreen, which was adopted in 2019 and went into effect January 1, 2020. CALGreen is the first State-wide mandatory green building code and significantly raises the minimum environmental standards for construction of new buildings in California. CALGreen establishes mandatory green building code requirements as well as voluntary measures (Tier 1 and Tier 2) for new buildings in California. The mandatory provisions in CALGreen will reduce the use of volatile organic compound (VOC) emitting materials, strengthen water efficiency conservation, increase construction waste recycling, and increase energy efficiency. Tier 1 and Tier 2 are intended to further encourage building practices that minimize the building's impact on the environment and promote a more sustainable design.

Regional Regulations

South Coast Air Quality Management District

The SCAQMD is the agency principally responsible for comprehensive air pollution control in Los Angeles County. In order to provide GHG emissions guidance to local jurisdictions within the South Coast Air Basin, the SCAQMD has organized a Working Group to develop GHG emission analysis guidance and thresholds.

As of the present date, the only regulation adopted by the SCAQMD addressing the generation of GHG emissions is the establishment of a 10,000 MT CO₂e per year screening level threshold of significance for stationary/source/industrial projects for which the SCAQMD is the lead agency.

SCAQMD released a draft guidance document regarding interim CEQA GHG significance thresholds in October 2008. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for stationary sources (i.e., industrial

projects) where the SCAQMD is lead agency. SCAQMD proposed a tiered approach, whereby the level of detail and refinement needed to determine significance increases with a project's total GHG emissions. The tiered approach defines projects that are exempt under CEQA and projects that are within the jurisdiction of, and subject to the policies of, a GHG Reduction Plan as less than significant. This tiered approach is discussed in Section 3.7.3, *Impact Assessment and Methodology*.

SCAG's Regional Transportation Plan / Sustainable Communities Strategy

As required by SB 375, SCAG has adopted the RTP/SCS, which is the culmination of a multi-year effort involving stakeholders from across the SCAG region. The SCS is a newly required element of the RTP that provides a plan for meeting GHG emissions reduction targets set forth by CARB. SCAG's 2016-2040 RTP/SCS provides growth forecasts that are used in the development of air quality-related land use and transportation control strategies by the SCAQMD. The RTP/SCS includes a strong commitment to reducing emissions from transportation sources and emphasizes the crucial linkages and interrelationships between the economy, the regional transportation system, and land use. Strategies for achieving goals of available, safe, sustainable, and affordable transportation include: 1) investing in bus, light rail, and heavy rail transit, passenger and high-speed rail, pedestrian and bicycle transportation corridors, infrastructure, and transportation demand management (e.g., carpooling to reduce demand for individual transport); 2) encouraging public participation in the planning processes; and 3) educating the public about available transportation methods available in the region. As discussed above, the CARB has determined SCAG's reduction target for per capita vehicular emissions to be 13 percent by 2035 relative to the 2005 baseline. In June 2016, CARB determined that SCAG's 2016-2040 RTP/SCS is consistent with their GHG reduction targets. Specifically, SCAG's plan is expected to help California meet and exceed its GHG reduction goals, with estimated reductions in per capita transportation emissions of 18 percent by 2035.

On September 3, 2020, SCAG's Regional Council unanimously voted to approve and fully adopt the 2020-2045 RTP/SCS (Connect SoCal) (SCAG 2020). The 2020-2045 RTP/SCS includes more than 3 years of consultation with stakeholders and the public to capture the goals and objectives of the people within the region and capture the most current available data for determining future demographic projections. The intent of the plan is to build upon and expand land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. The Connect SoCal plan achieves per capita GHG emissions reductions relative to 2005 of 19 percent in 2035 (SCAG 2020).

Beach Cities Livability Plan

In 2011, the Hermosa Beach, Redondo Beach and Manhattan Beach City Councils adopted the Beach Cities Livability Plan. The Plan analyzes the built environment and provides a framework to improve livability and well-being through land use and transportation systems. The Plan consists of goals and recommendations for safe walking and biking conditions and sustainable transportation choices. Implementation of this Plan not only improves support for walking and biking, but also reduces congestion and improves air quality.

South Bay Bicycle Master Plan

The South Bay Bicycle Master Plan is intended to guide the development and maintenance of a comprehensive bicycle network and develop a set of programs and policies throughout the South Bay Region. The participating cities are El Segundo, Gardena, Hermosa Beach, Lawndale, Manhattan Beach, Redondo Beach, and Torrance. The multi-city bicycle master plan encourages the replacement of vehicular trips with bicycle trips, which has a measurable impact on reduced fuel consumption and subsequently fewer mobile source pollutants.

City of Redondo Beach Local Policies and Regulations

As a local jurisdiction, the City of Redondo is responsible for the assessment and mitigation of GHG emissions resulting from its land use decisions. The City of Redondo Beach is also responsible for the implementation of transportation control measures as outlined in the Air Quality Management Plan (AQMP). Examples of such measures include development of bus turnouts to reduce traffic congestion, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the City of Redondo Beach must consider the air quality impacts of new development projects for which the City is the lead agency, and require mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitoring and enforcing mitigation.

Many other proposed policies, as set forth in Section 3.2, *Air Quality* and Section 3.14, *Transportation*, also have the practical effect of reducing GHG emissions by reducing criteria air pollutant emissions, VMT, and fossil fuel, water, and energy consumption.

Redondo Beach General Plan Transportation and Circulation Element

Goal G2: Reduce Year 2030 trip generation by 25 percent compared to 2007 levels.

Goal G4: Residents and visitors should be able to safely and conveniently walk, bike, or take transit in Redondo Beach, as they prefer.

Goal G5: Expand Transportation Demand Management (TDM) programs that decrease the number of single-occupant vehicles on the road.

Goal G6: Redondo Beach favors development that purposefully integrates itself with surrounding transportation facilities.

Policy 1 Support transit-oriented development that reduces current automobile trips.

Policy 4 Encourage mixed-use development that incentivizes residents to support nearby land uses by minimizing travel distance.

Goal G12: Encourage all employers to pursue successful TDM measures demonstrated in South California.

Policy 17 Provide incentives for employer-based vanpools.

Policy 20 Investigate the use of shared transportation vehicles.

Policy 21 Work with adjacent cities to coordinate incentives for carpools, vanpools, and other measures for Redondo Beach residents.

Goal G13: Link existing and proposed bicycle facilities.

Goal G14: Increase the provision of bike lockers, bike racks, and lighting for bike facilities.

Goal G15: Ensure that residents will be able to walk or bicycle to destinations such as the beach, the Civic Center, Redondo Beach Pier, Riviera Village, and other activity centers.

Policy 28 Close existing gaps in sidewalk infrastructure where necessary, maintain existing sidewalks in good repair, and require sidewalks with all new development.

Policy P29 Provide climate-appropriate landscaping, adequate lighting, and street amenities to make walking safe, interesting, and enjoyable.

Policy P30 Promote use of alternative transportation for short trips and conduct periodic bicycle and pedestrian counts to assess whether alternative mode use is increasing.

Goal G16: Provide reliable, safe fixed-route transit.

Policy P37 Provide shuttle service to activity areas.

General Plan Housing Element

Goal 1.0: Maintain and enhance the existing viable housing stock and neighborhoods within Redondo Beach.

Policy 1.7 Promote the use of energy conservation techniques and features in the rehabilitation of existing housing.

Goal 2.0: Assist in the provision of housing that meets the needs of all economic segments of the community.

Policy 2.5 Promote the use of energy conservation features in the design of residential development to conserve natural resources and lower energy costs.

Redondo Beach Climate Action Plan

The City of Redondo Beach, in concert with the SSBCOG, prepared the Climate Action Plan, which was adopted in 2017. The Climate Action Plan includes a list of non-binding goals and strategies in the following five categories (SBCCOG 2017a):

- **Land Use and Transportation:** Facilitate pedestrian and neighborhood development and identify ways to reduce automobile emissions including supporting zero emission vehicle infrastructure, improving pedestrian and bicycle infrastructure, enhancing public transit service, and supporting reductions in single-occupancy vehicle use.
- **Energy Efficiency:** Emphasize energy efficiency retrofits for existing buildings, energy performance requirements for new construction, water efficient landscaping, financing programs that will allow home and business owners to obtain low-interest loans for implementing energy efficiency in their buildings.
- **Solid Waste:** Focus on increasing waste diversion and encouraging participation in recycling and composting throughout the community.
- **Urban Greening:** Create carbon sinks as they store GHG emissions that are otherwise emitted into the atmosphere as well as support health of the community.
- **Energy Generation:** Demonstrate the City's commitment to support the implementation of clean, renewable energy while decreasing dependence on traditional, GHG emitting power sources.

Redondo Beach Municipal Code

The Redondo Beach Municipal Code (RBMC) establishes green building standards, including water conservation measures.

Section 9-23.01 – Adoption of 2019 California Green Building Standards Code: The City adopted a Green Building Ordinance in 2008, with updates in 2019. This ordinance requires the use of highly efficient plumbing fixtures, irrigation, and landscaping for new construction, major remodels, and new or remodeled landscapes.

City of Torrance Local Policies and Regulations

The Torrance General Plan includes various goals and policies designed to reduce GHG emissions within the City of Torrance (City of Torrance 2010). Climate change and GHG reduction policies are addressed in multiple chapters of the General Plan.

General Plan Circulation and Infrastructure Element

Objective CI.8: To maintain a comprehensive system of pedestrian pathways and bicycle routes that provide viable options to travel by automobile.

- Policy CI.8.1 Provide and maintain safe, efficient, and convenient pedestrian pathways that offer access to major activity centers, recreation facilities, schools, community facilities, and transit stops.
- Policy CI.8.5 Promote the provision of reasonable and secure bicycle storage and shower and locker facilities at major commercial developments and employment centers.
- Policy CI.8.9 Promote the use of compact electric or similar powered vehicles for local trips.

Torrance General Plan Community Resource Element

Objective CR.13: To contribute to the improvement of local and regional ambient air quality to benefit the health of all.

- Policy CR.13.2 Work with neighboring cities to implement local and regional projects that improve mobility on freeways and railways, reduce emissions, and improve air quality.
- Policy CR.13.5 Support air quality and energy and resource conservation by encouraging alternative modes of transportation such as walking, bicycling, transit, and carpooling.
- Policy CR.13.7 Encourage the use of alternative fuel vehicles and re-refined oil.

Policy CR.13.8 Promote energy-efficient building construction and operation practices that reduce emissions and improve air quality.

Objective CR.14: To reduce the City of Torrance's overall carbon footprint and counteract the effects of global warming through a reduction in the emissions of GHGs within Torrance.

Policy CR.14.1 Support the CARB in its ongoing plans to implement AB 32, and fully follow any new AB 32-related regulations.

Policy CR.14.2 Develop and implement GHG emissions reduction measures, including discrete, early-action GHG-reducing measures that are technologically feasible and cost-effective.

Policy CR.14.3 Pursue actions recommended in the U.S. Mayors Climate Protection Agreement to meet AB 32 requirements.

Policy CR.14.4 Act as a leader and example in sustainability and reduction in GHG emissions by conducting City business in the most GHG-sensitive way.

Objective CR.21: The efficient use and conservation of energy resources to reduce consumption of natural resources and fossil fuels.

Policy CR.21.1 Promote and encourage energy resource conservation by the public sector, private sector, and local school district.

Policy CR.21.3 Support the development and use of non-polluting, renewable energy resources.

Policy CR.21.6 Promote energy-efficient design features, including appropriate site orientation, use of light-colored roofing and building materials, and use of trees to reduce fuel consumption for heating and cooling.

Policy CR.21.7 Encourage owners to retrofit existing buildings with energy-conserving lighting fixtures. Also encourage owners to equip new buildings with energy-efficient lighting devices and to design projects to take full advantage of natural lighting.

Torrance Climate Action Plan

The City of Torrance, in coordination with SBCCOG, prepared the City of Torrance Climate Action Plan in order to reduce GHG emissions within Torrance (SBCCOG 2017b). The Torrance City Council adopted the City of Torrance Climate Action Plan on December 12, 2017. The City has established GHG reduction goals for year 2020 (15 percent below 2005 levels) and for year 2035 (49 percent below 2005 levels). The Climate Action Plan includes a list of non-binding goals and strategies in the following the same five general categories as the Redondo Beach Climate Action Plan described above (SBCCOG 2017b).

Torrance Municipal Code

Section 8.113 – California Green Building Code: Torrance Municipal Code (TMC)
Chapter 8.113 adopts by reference the CALGreen requirements with the local amendments that require reuse or recycling of all trees, stumps, rocks and associated vegetation and soils removed from land clearing.

3.7.3 Impact Assessment and Methodology

Thresholds of Determining Significance

Due to the global effects of GHG emissions, impacts associated with GHG emissions are typically based on their cumulative effects. Appendix G of the 2020 CEQA Guidelines provides a set of screening questions that address impacts with regard to GHG emissions. Specifically, the CEQA Guidelines state that a proposed project may have a significant adverse impact related to GHG if:

- a) The project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- b) The project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

According to the CAPCOA, “*GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective*” (CAPCOA 2008). Due to the complex physical, chemical, and atmospheric mechanisms involved in global climate change, there is no basis for concluding that a single project’s increase in annual GHG emissions would cause a measurable change in global GHG emissions necessary to influence global climate change. CEQA Guidelines Section 15064.4(b) states that “*in determining the significance of a project’s greenhouse gas emissions, the lead agency should focus its analysis on the reasonable foreseeable incremental contribution of the project’s emissions to the effects of climate change. A project’s*

incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions.”

Generally, the evaluation of an impact under CEQA involves comparing the project’s effects against a threshold of significance. The CEQA Guidelines clarify that “*when adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.*” For GHG emissions and global climate change, there is not, at this time, one established quantitative threshold of significance for GHG impacts. Instead, lead agencies have the discretion to establish significance thresholds for their respective jurisdictions. A lead agency may look to thresholds developed by other public agencies or other expert entities, so long as the threshold chosen is supported by substantial evidence.

The CEQA Guidelines Section 15064.4(b) recommend considering certain factors when determining the significance of a project’s GHG emissions, including: 1) the extent to which the project may increase or reduce GHG emissions as compared to the existing conditions; 2) whether the project’s GHG emissions exceeds a significance threshold that the lead agency determines applies to the project; and 3) extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHGs.

Even in the absence of adopted, clearly defined thresholds for GHG emissions, CEQA requires that an agency makes a good faith effort to disclose the GHG emissions from a project and mitigate to the extent feasible whenever the lead agency determines that the project contributes to a cumulatively substantial climate change impact. Regardless of which threshold(s) are used, the agency must support its analysis and significance determination with substantial evidence (CEQA Guidelines Section 15064.7).

Although the GHG emissions associated with the proposed Project emissions have been quantified (see Table 3.7-4 through Table 3.7-6), neither CARB, SCAQMD, SCAG, the City of Redondo Beach, nor the City of Torrance have adopted a GHG significance threshold(s) applicable to the development of mixed-use infill projects. Further, CEQA Guidelines Section 15183.5 allows lead agencies to choose to analyze GHG emissions of a project at a programmatic level, tiering from a plan for the reduction for GHG emissions or similar document, such as a Climate Action Plan. Plans used for tiering must include all of the plan elements identified in CEQA Guidelines Section 15183.5(b)(1). While the City of Redondo Beach and the City of Torrance completed their Climate Action Plans in 2017, neither of the Climate Action Plans qualify for tiering pursuant to CEQA Guidelines Section 15183.5 because the Climate Action Plans have not undergone CEQA review

per the tiering requirements from CEQA Guidelines Section 15183.5. Therefore, the analysis herein cannot rely on a qualitative tiering analysis with the local Climate Action Plans.

While no GHG significance threshold(s) have been adopted by the SCAQMD, the SCAQMD has been evaluating proposed GHG significance thresholds since April 2008. Most recently, in September 2010, the SCAQMD proposed a tiered efficiency target approach to evaluate potential GHG impacts from various uses. This tiered approach allowed for flexibility when analyzing GHG emissions based on project size, land use type, or other characteristics. The various tiers include: 1) potential CEQA exemptions for certain projects; 2) compliance with a qualified GHG reduction strategy; 3) comparison with separate screening level thresholds for industrial (10,000 MT CO₂e/year), commercial (1,400 MT CO₂e/year), residential (3,500 MT CO₂e/year), and mixed-use (3,000 MT CO₂e/year) projects or comparison against a single numerical screening threshold of 3,000 MT CO₂e/year for all non-industrial projects; 4) consistency with compliance options, including a performance-based reduction analysis (i.e., compare with a Business-As-Usual level), compliance with AB 32, and/or comparison with efficiency-based thresholds (i.e., quantitative thresholds that are based on a per capita efficiency metric; 4.8 MT CO₂e/service population/year for project level analysis and 6.6 MT CO₂e/service population/year for plan level analysis); and/or 5) implement off-site mitigation to reduce GHG emission impacts to a less-than-significant level. The Draft GHG guidance is included as part of the periodic updates to SCAQMD's Air Quality Handbook; however, the SCAQMD draft interim guidance was never officially adopted, and the proposed thresholds were not designed for versatile application to unique project types such as the proposed Project. These proposed targets have not been adopted by the SCAQMD or distributed for widespread public review and comment, and the working group tasked with developing the targets has not met since September 2010.

Additionally, the efficiency targets proposed under SCAQMD's proposed Tier 4 threshold are no longer applicable as they were specific to outdated AB 32 goals and do not consider the recently adopted 2030 GHG reduction targets contained in SB 32 and EO B-30-15. Instead, the 2017 Scoping Plan was recently approved by CARB on December 14, 2017, and sets the State on a course to reduce GHG emissions an additional 40 percent below 1990 levels by 2030 under SB 32 (CARB 2017). Under the 2017 Climate Scoping Plan, CARB recommends State-wide efficiency targets of no more than 6.0 MT CO₂e/service population/year by 2030 and no more than 2.0 MT CO₂e/service population/year by 2050; however, it is important to note that these efficiency targets are intended to apply to the sum of all sectors and are not appropriate for evaluating GHG emissions specific to the land use sector, such as the proposed Project.

To date, CARB, SCAQMD, SCAG, and the City of Redondo Beach and the City of Torrance have not adopted new efficiency targets established consistent with SB 32 for each sector for the 2030 and 2050 target years; however, various other organizations have published technical guidance evaluating potential 2030 efficiency metrics.

In addition to evaluation of a project's impacts against a quantifiable significant threshold, per to CEQA Guidelines Section 15064(h)(3), a project's contribution to a cumulatively considerable impact would not be substantial if the project would comply with an approved plan or mitigation program that provides specific requirements to avoid or substantially reduce the cumulative impact within the geographic area of the proposed Project. To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include “[a] *water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, [and] plans or regulations for the reduction of greenhouse gas emissions.*” Thus, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of non-significance for GHG emissions if a project complies with programs and/or other regulatory schemes to reduce GHG emissions.

In light of this shifting regulatory environment and available threshold concepts recommended by expert agencies, the determination of whether the proposed Project would result in a cumulatively considerable contribution to the cumulative impacts of global climate change is based on the following:

- Whether the proposed Project would conflict with (and thereby be inconsistent with) the applicable regulatory plans and policies to reduce GHG emissions, which include the Redondo Beach General Plan and Climate Action Plan, the Torrance General Plan and Climate Action Plan; SCAG's 2020-2045 RTP/SCS (Connect SoCal); AB 32, SB 32, and SB 375; the OPR and Climate Action Team recommendations; and CARB's 2017 Scoping Plan Update.

Methodology

CEQA Guidelines Section 15064.4 gives lead agencies the discretion to determine whether to assess the significance of GHG emissions quantitatively or qualitatively. Under either approach, the lead agency's analysis must demonstrate a good faith effort to disclose the amount and significance of GHG emissions resulting from a project, based to the extent possible on scientific and factual data (CEQA Guidelines Section 15064.4[a]). BCHD has chosen to provide both a

quantitative and qualitative GHG analysis for full disclosure of potential impacts related to GHG emissions and global climate change.

Conflict with GHG Reduction Plans

The analysis of potential conflicts with an adopted GHG reduction plan reviews whether the proposed Project would be consistent with applicable GHG plans at the State, regional, and local levels. At the State level, the CARB's 2017 Scoping Plan Update provides strategies and recommendations for achieving the meet the State's 2020, 2030, and 2050 GHG reduction targets. Additionally, the 2017 Scoping Plan Update specifically addresses transportation-related GHG emissions, and provides technical information on what level of Statewide VMT reduction would promote achievement of Statewide GHG emissions reduction targets and the 2017 Scoping Plan Update. Further, the California CAT Report provides recommendations for specific emission reduction strategies for reducing GHG emissions and reaching the targets established in AB 32 and Executive Order S-3-05.

Locally, the City of Redondo Beach's and City of Torrance's GHG reduction goals are contained within the respective General Plans and Climate Action Plans. The intent of a Climate Action Plan is to provide overarching policy direction with respect to climate change through City-wide objectives and broad strategies to reduce GHG emissions. The Climate Action Plan is not a regulatory plan to be applied directly to individual development projects. Rather, the cities recognize that GHG reduction goals cannot be achieved by individual projects alone, but instead requires a comprehensive approach that would include the enactment of future plans, changes to existing ordinances, and an integrated and sustainable approach to land use/transportation planning. For this EIR, the analysis is focused on whether the proposed Project would support, and not hinder, the City-wide objectives and goals of the Redondo Beach and Torrance Climate Action Plans. Thus, if the proposed Project is consistent with these policies and regulations, it would result in a less than significant impact, because it would be consistent with the overarching local and State regulations on GHG reduction.

Net GHG Emissions Estimate

Total GHG emissions (i.e., construction and operation) associated with the proposed Project were quantified to provide information to decision makers and the public regarding the level of the annual GHG emissions associated with the proposed Project. GHG emissions are typically separated into three categories that reflect different aspects of ownership or control over emissions:

- **Scope 1:** Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).

- **Scope 2:** Indirect, off-site emissions associated with purchased electricity or purchased steam.
- **Scope 3:** Indirect emissions associated with other emissions sources, such as energy required to transport solid waste, water, and wastewater.

The proposed Project would result in net GHG operational emissions directly from on-road mobile vehicles, electricity, and natural gas, and indirectly from water conveyance, wastewater generation, and solid waste handling. In addition, construction activities such as demolition, hauling, and construction worker trips would generate GHG emissions. Since potential impacts resulting from GHG emissions are long-term rather than acute, GHG emissions are calculated on an annual basis.

GHG emissions associated with the construction and operation of the proposed Project were estimated using the CalEEMod Version 2016.3.2. CalEEMod is a State-wide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects (CAPCOA 2017). CalEEMod was developed in collaboration with the air districts of California and is recommended by SCAQMD. Regional data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts and SCAG to account for local requirements and conditions. The model quantifies direct emissions from construction and operations (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. CalEEMod output sheets and detailed calculations are provided in Appendix B.

The quantification of GHGs from any project involves many uncertainties. For example, newer construction materials and practices, future energy efficiency requirements, future mobile source emission standards, and advances in technology would likely reduce future levels of air pollutant emissions, including GHGs. However, the net effect is difficult to quantify due to the difficulty in predicting future standards and requirements. Since CalEEMod does not take these future energy-reducing practices, requirements, standards, and technology into account, the estimated net increase in emissions resulting from implementation of the proposed Project are conservative. These same uncertainties and assumptions exist throughout the accepted analytical methodologies for quantifying GHG emissions.

Construction GHG Emissions

For the purposes of this EIR, construction work is assumed to begin Spring 2022 and would take place over two implementation phases, of approximately 29 months and 28 months, respectively (refer to Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*). Construction equipment generates GHGs such as CO₂, CH₄, and N₂O through the combustion of fossil fuels. CH₄ may also be emitted during the fueling of heavy equipment.

The construction GHG emissions modeling considers the anticipated Project construction schedule and construction equipment mix. CalEEMod input values are adjusted to reflect these specific construction characteristics to estimate construction GHG emissions associated with the proposed Project. These values were applied to the same construction phasing assumptions used in the air quality criteria pollutant analysis (refer to Section 3.2, *Air Quality*) to generate annual GHG emissions for each construction year. Construction-related GHG emissions are then amortized over 30 years pursuant to current SCAQMD methodology. This means that the total construction emissions are divided by the lifetime of the project, which is generally assumed to be 30 years (SCAQMD 2008).

Operational GHG Emissions

Operation of the proposed Project would generate GHG emissions from on-site operations such as natural gas combustion for heating/cooking, landscaping equipment and the use of consumer products. GHG emissions would also be generated by vehicle trips associated with the proposed Project.

For operational emissions of GHG emissions, CalEEMod was used to estimate GHG emissions from natural gas, solid waste, water and wastewater, and landscaping equipment. Operational impacts were assessed for the full buildout under Phase 1 and Phase 2. CalEEMod was used to analyze operational GHG emissions from the operation of the proposed residential, medical office, community service, office, gym, restaurant, and open space land uses:

- **Vehicular Trips.** Vehicle trips generated as a result of the proposed Project would result in GHG emissions through combustion of fossil fuels. In calculating mobile-source GHG emissions, emissions are estimated based on the predicted number of trips to and from the Project site as determined in the Transportation Study (see Section 3.14, *Transportation* and Appendix K). Daily vehicle trips under existing baseline conditions and in 2024 and 2029 were multiplied by corresponding GHG emission factors produced by CARB's mobile source emissions model named Emissions FACtor (EMFAC2017; see Appendix

B). Trip lengths for areas within the SCAQMD are generated based on the SCAG's Transportation Demand Model (SCAQMD 2020).

- **On-site Use of Natural Gas and Other Fuels.** Natural gas would be used by the proposed Project for heating of the Assisted Living and Memory Care units and for the restaurant and dining uses, resulting in a direct release of GHGs. Estimated emissions from the combustion of natural gas and other fuels is based on the number of Assisted Living and Memory Care units and square footage of kitchen space. CH₄ and N₂O emissions were estimated using the total VMT as determined by CalEEMod and USEPA emissions factors for on-road vehicles.
- **Electricity Use.** Use of electricity for the operation of the proposed Project would contribute to the indirect emissions associated with electricity production. Estimated emissions from the consumption of electricity are based on the number of dwelling units in the RCFE Building and square footage of residential, medical office, community service, office, gym, and restaurant space, using the standard electrical consumption rates from CalEEMod. This estimate is conservative in that the proposed Project would generate a percentage of its own energy using photovoltaic solar panels that would cover between 25 and 50 percent of the proposed roof space (refer to Section 2.5.15, *Sustainability Features*).
- **Water Use and Wastewater Generation.** The amount of water used and wastewater generated by a project has indirect GHG emissions as a result of the energy used to supply, distribute, and treat water and wastewater. In addition to the indirect GHG emissions associated with energy use, wastewater treatment can directly emit both CH₄ and N₂O depending on the treatment method. Estimated emissions from the consumption of potable water were estimated as part of the CalEEMod modeling output. Estimated emissions from the generation of wastewater were based on the consumption factors using Wastewater Generation Factors from Exhibit M.2-22 of the Los Angeles CEQA Thresholds Guide (2006), consistent with the analysis of wastewater generation in Section 3.15, *Utilities and Service Systems*, multiplied by the number of dwelling units and the square footage of medical office, community service, office, gym, restaurant, and open space.
- **Solid Waste.** Emissions calculated for solid waste reflect the indirect GHG emissions associated with waste that is disposed at a landfill. GHG emissions from solid waste disposal are also calculated using CalEEMod. Emissions are based on solid waste calculated for the proposed Project and the GHG emission factors for solid waste decomposition. The GHG emission factors, particularly for CH₄, depend on characteristics of the landfill, such as the presence of a landfill gas capture system and subsequent flaring or energy recovery. The default values, as provided in CalEEMod, for landfill gas capture

(e.g., no capture, flaring, energy recovery) are State-wide averages and are used in this assessment.

Other area sources of GHG emissions from operation of the proposed Project include equipment used to maintain landscaping, such as lawnmowers and trimmers. CalEEMod default emission rates were used in calculating GHG emissions from these additional area sources.

Project Construction and Operational GHG Emissions

Total annual GHG emissions for construction and operation of the proposed Project were estimated using CalEEMod (see Table 3.7-4 and Table 3.7-5; see Appendix B). It should be noted that the GHG emissions shown in Table 3.7-4 are based on construction equipment operating continuously throughout the work day. In reality, construction equipment operates periodically or cyclically throughout the work day. Therefore, the GHG emissions shown reflect a conservative, worst-case estimate. A complete listing of construction equipment by phase, emission factors, and calculation parameters used in this analysis is included within the emissions calculation worksheets provided in Appendix B of this EIR.

Table 3.7-4. GHG Emissions from Construction of the Proposed Project

Year	GHG Emissions (MT CO ₂ e)
<i>Phase 1</i>	
2022	715
2023	861
2024	286
<i>Phase 2</i>	
2029	404
2030	2,317
2031	1,670
Total	6,253
Amortized over 30 years	208.4 per year

Notes: See Appendix B.

As shown in Table 3.7-4 above, construction activities associated the proposed Project would result in temporary generation of GHG emissions totaling 6,253 MT CO₂e. As previously described, SCAQMD recommends that construction-related GHG emissions be amortized over a project's 30-year lifetime, beginning with the construction of Phase 1, to include these emissions as part of a project's annualized lifetime total emissions. Construction-related GHG emissions are divided by year and total construction GHG emissions are amortized over an anticipated 30-year

lifetime period to provide an average annual estimate of 208.4 MT CO₂e/year. In accordance with SCAQMD methodology, the amortized estimated construction GHG emissions are included in the annualized operational GHG emissions in Table 3.7-5 and Table 3.7-6 below.

Table 3.7-5. Annual Operational GHG Emissions for Phase 1 of the Proposed Project

Annual Emissions by Category	GHG Emissions (MT CO ₂ e)
Area	4
Energy	541
Mobile	4,884
Waste	220
Water	126
Phase 1 Operational Total	5,775
Construction (amortized)	208.4
Total Annual GHG Emissions	5,983.4

Notes: Mobile emissions were calculated outside of CalEEMod, based on trip generation rates from the Transportation Study (see Appendix K). Total annual GHG emissions are the sum of amortized construction and Phase 1 annual operational emissions. See Appendix B.

As described in Table 3.7-5 above, operational GHG emissions generated as a result of Phase 1 would be approximately 5,775 MT CO₂e/year. Pursuant to current SCAQMD methodology, the amortized construction GHG emissions are included in the total Phase 1 operational emissions. Therefore, total annual GHG emissions (i.e., amortized construction and operational) during Phase 1 of the proposed Project would be 5,983.4 MT CO₂e.

Table 3.7-6. Combined Annual Operational GHG Emissions for the Proposed Project

Annual Emissions by Category	GHG Emissions (MT CO ₂ e)
Area	4
Energy	1,682
Mobile	10,292
Waste	745
Water	201
Phase 1 and Phase 2 Operational Total	12,923
Construction (amortized)	208.4
Total Annual GHG Emissions	13,131.4

Notes: Mobile emissions were calculated outside of CalEEMod, based on trip generation rates from the Transportation Study (see Appendix K). Amortized construction and operational emissions are cumulative - they reflect total GHG emissions on-site following the buildout of Phase 2. Total annual GHG emissions are the sum of amortized construction and annual operational emissions. See Appendix B.

Cumulative operational GHG emissions following buildout of the proposed Project (both the Phase 1 preliminary site development plan and the more general Phase 2 development program) would be approximately 12,923 MT CO₂e/year (refer to Table 3.7-6). Pursuant to current SCAQMD methodology, the combination of amortized construction GHG emissions with operational GHG emissions would result in a combined total of approximately 13,131.4 MT CO₂e/year.

Table 3.7-7. Net Annual Operational GHG Emissions for the Proposed Project

Annual Emissions	GHG Emissions (MT CO ₂ e)
Proposed Project Annual GHG Emissions (refer to Table 3.7-6)	13,131.4
Existing Project Site Annual GHG Emissions (refer to Table 3.7-3)	13,873
Net GHG Emissions (Existing – Proposed)	-741.6

Notes: Total annual GHG emissions are the sum of amortized construction and annual operational emissions. See Appendix B.

As described in Table 3.7-7 above, the net annual GHG emissions associated with the proposed Project were calculated by subtracting the existing annual GHG emissions associated with the Beach Cities Health Center and Beach Cities Advanced Imaging Building on-site (refer to Table 3.7-3) from the total GHG emissions associated with the proposed Project (refer to Table 3.7-6). When total annual GHG emissions from the proposed Project are compared to existing annual GHG emissions generated by the Project site, the net change in GHG emissions is a net reduction of approximately 741.6 MT CO₂e/year (refer to Table 3.7-7).

The net reduction in annual operational-related GHG emissions is primarily attributable to decreases in mobile source GHGs. As shown in Table 3.7-3, the majority of the annual GHG emissions generated by the BCHD campus result from mobile sources. Similarly, the majority of the GHG emissions associated with the proposed Project would also result from mobile sources (refer to Table 3.7-6). Although the proposed Project is anticipated to generate a net increase of approximately 376 daily vehicle trips (see Section 3.14, *Transportation*), mobile source emissions calculated for the buildout of the proposed Project would be reduced as compared to existing mobile source emissions at the Project site. This reduction in mobile source emissions is due to the fact that Federal and State combustion emissions standards become more stringent in future years. Emissions from mobile sources would decline in future years as older vehicles are replaced

with newer vehicles resulting in a greater percentage of the vehicle fleet meeting more stringent combustion emissions standards, such as the model year 2017-2025 Pavley Phase II standards.¹

As previously described, no quantitative significance thresholds for GHG emissions have been adopted by CARB, SCAQMD, SCAG, or the City of Redondo Beach and the City of Torrance. Tier 4 of SCAQMD's outdated tiered approach addresses residential, commercial, or mixed-use projects with net new GHG emissions that generate more than 3,000 MT CO₂e/year, and considers whether a project generates GHG emissions in excess of applicable performance standards for the service population (i.e., population plus employment). Given that the buildout of the proposed Project would result in a net reduction in total annual GHG emissions as compared to existing conditions, the net GHG emissions associated with the proposed Project would be well below the SCAQMD's proposed 3,000 MT CO₂e per year target. As described above, the impact analysis below is based on consistency of the proposed Project with current State-wide and local policies, plans, and programs rather than outdated proposed thresholds.

It should also be noted that the operational emissions presented in Table 3.7-5 and Table 3.7-6 provide a conservative estimate of the actual GHG emissions, considering CalEEMod does not account for some of the sustainability and energy efficiency measures included as part of the proposed Project (e.g., photovoltaic solar panels, energy efficient HVAC systems, high-performance building envelope usage to maximize insulation, lighting systems designed with occupancy sensors and dimmers to minimize energy use, etc.).

3.7.4 Project Impacts and Mitigation Measures

Impact Description (GHG-1)

- a) The project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or*

¹ In 2012, the USEPA adopted Federal standards for model year 2017 through 2025 vehicles to promote a new generation of cleaner, more fuel-efficient trucks by encouraging the development and deployment of new and advanced cost-effective technologies. These standards are slightly different from the California emissions standards (referred to as the Pavley Phase II standards), which require additional reductions in CO₂ emissions beyond model year 2016, but the State of California agreed not to contest these standards, due to the fact that while the national standard would achieve slightly less reductions in California, it would achieve greater reductions nationally, and is stringent enough to meet state GHG emission reduction goals. In 2012, CARB adopted regulations that allow manufacturers to comply with the 2017 through 2025 national standards to meet State law.

- b) *The project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.*

GHG-1 **The proposed Project – including the Phase 1 preliminary site development plan as well as the more general Phase 2 development program – would not generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. Therefore, this impact would be *less than significant*.**

As shown in Table 3.7-6 and 3.7-7, the proposed Project would result in a net reduction in total annual GHG emissions when compared to existing annual GHG emissions generated at the Project site. As such, the proposed Project would not generate GHG emissions that may have a significant impact on the environment.

As described in detail below, the proposed Project complies with Connect SoCal, the Redondo Beach and Torrance General Plans and Climate Action Plans, the RBMC, the TMC, AB 32, and SB 32, and thus would ensure that the GHG emissions associated with the proposed Project would conform with State and local requirements (see Tables 3.7-8 through 3.7-10).

Project Consistency with City of Redondo Beach Policies and Regulations

The proposed Project has been designed to be consistent with the City of Redondo Beach's local policies and regulations, and includes several design measures intended to reduce overall GHG emissions (see Table 3.7-8). The proposed Project requires approval of a Building Plan and Landscape and Irrigation Plan, as well as building, grading, shoring, plumbing, electrical, and mechanical permits from the City of Redondo Beach (refer to Section 1.5, *Required Approvals*), which will require that the proposed Project meets the City's guidelines for transportation and sustainable design. The proposed Project also includes sustainable design features and characteristics, such as a photovoltaic solar panels, solar hot water systems, and energy efficient HVAC systems, intended to reduce overall GHG impacts (refer to Section 2.5.1.5, *Sustainability Features*). As required by RBMC, all new buildings on the site would conform to the California Title 24 Building Energy Efficiency Standards (Part 6) CALGreen (Part 11). The design of the proposed Project would optimize passive design strategies, which use ambient energy sources (e.g., daylight and wind) to supplement electricity and natural gas to increase the energy efficiency.

Further, the proposed Project would minimize employee, visitor, and resident VMT to and from the Project site by implementing a TDM plan with trip reduction strategies to reduce single-occupancy vehicle trips to the Project site. The TDM plan would include transit and carpool incentives for employees (see Section 3.14, *Transportation*). The proposed Project would also include sustainable transportation infrastructure, such as bicycle parking; employee shower and locker facilities; electric vehicle (EV) charging stations; designated parking for carpools and vanpools; and ride-share amenities to provide options to reduce internal-combustion vehicle usage for residents and visitors. BCHD would provide incentives to employees and visitors for hybrid and/or electric car parking and provide a bicycle sharing program for access to the adjacent bicycle paths and local surroundings. Additionally, the Assisted Living, Memory Care, and Program of All-Inclusive Care for the Elderly (PACE) services would also share and use vans to transport several participants at once, which would reduce vehicle trips to the BCHD campus (refer to Section 2.5.1.5, *Sustainability Features*).

The proposed Project would be consistent with the City of Redondo Beach's GHG reduction goals and policies established in the Redondo Beach General Plan Transportation and Circulation Element, General Plan Housing Element, and Climate Action Plan (see **Error! Reference source not found.**8). Therefore, the proposed Project would be consistent with applicable Redondo Beach plans, policies, and regulations related to GHG emissions and impacts would be *less than significant*.

Table 3.7-8. City of Redondo Beach General Plan and Climate Action Plan Policy Consistency Summary

Policy	Relationship to Project
Redondo Beach General Plan Transportation and Circulation Element	
G2. Reduce Year 2030 trip generation by 25 percent compared to 2007 levels.	Consistent. As described in Section 2.5.1.5, <i>Sustainability Features</i> and Section 3.14, <i>Transportation</i> , the proposed Project would develop a TDM plan that would include trip reduction strategies to reduce single-occupancy vehicle trips to the Project site and measures to encourage employees and visitors to travel to the campus via multi-modal or active transportation (e.g., walking or biking). For example, the proposed Project would develop employment opportunities within 0.1 miles of several Beach Cities Transit Line 102 bus stops located at the Project site and within the immediate vicinity. The proposed Project would provide bicycle parking, employee shower and locker facilities, and a bicycle program sharing program for access to the adjacent bicycle paths and local surroundings. The proposed Project would promote walkability by providing several publicly accessible, tree-lined pedestrian pathways that would cross the Project site and would provide connections to adjacent residential neighborhoods, neighborhood-serving commercial uses, and recreational uses (e.g., Dominguez Park). Additionally, the proposed Project would encourage ride-share by providing designated parking for carpools and vanpools; and ride-share amenities, such as seating areas for ride-share waiting and a large roundabout for drop-off and pick-up for ride-share services (e.g., Uber, Lyft, etc.). The TDM plan would include carpool incentives for employees. The Assisted Living, Memory Care, and PACE services would also share and use vans to transport several participants at once, which would reduce vehicle trips to the BCHD campus. The TDM plan and project design features would help to decrease the number of single-occupant vehicle trips to and from the Project site (see Section 3.14, <i>Transportation</i>).
G4. Residents and visitors should be able to safely and conveniently walk, bike, or take transit in Redondo Beach, as they prefer.	
G5. Expand TDM programs that decrease the number of single-occupant vehicles on the road.	
G6. Redondo Beach favors development that purposefully integrates itself with surrounding transportation facilities.	Consistent. The proposed Project would develop additional employment opportunities within 0.1 miles of several Beach Cities Transit Line 102 bus stops located at the Project site and immediate vicinity. The proposed Project would promote walkability by providing several publicly accessible, tree-lined pedestrian pathways that would cross the Project site and would provide connections to adjacent residential neighborhoods, neighborhood-serving commercial uses, and recreational uses (e.g., Dominguez Park). Additionally, the proposed Project would include bicycle facilities, such as bicycle parking, employee shower and locker facilities, and a bicycle program sharing program for access to the adjacent bicycle paths and local surroundings.
P1. Support transit-oriented development that reduces current automobile trips.	
P4. Encourage mixed-use development that incentivizes residents to support nearby land uses by minimizing travel distance.	Consistent. The proposed Project would establish residential, medical office, community service, office, gym, restaurant, and open space uses adjacent to single- and multi-family residences. The proposed Project would also provide community-serving activities and events, such as local farmers' markets, and fitness classes, that would be available to adjacent residents. The Project site is also located immediately adjacent to existing recreational amenities (e.g., Dominguez Park) and commercial uses (i.e., Redondo Village shopping center).
G12. Encourage all employers to pursue successful TDM measures demonstrated in South California.	Consistent. The proposed Project would include designated parking for carpools and vanpools; and ride-share amenities, such as seating areas for ride-share waiting and a large roundabout for drop-off and pick-up for ride-share services (e.g., Uber, Lyft, etc.). The TDM plan would include carpool incentives for employees. The proposed

Table 3.7-8. City of Redondo Beach General Plan and Climate Action Plan Policy Consistency Summary (Continued)

Policy	Relationship to Project
P17. Provide incentives for employer-based vanpools.	Project would also provide a bicycle sharing program for access to the adjacent bicycle paths and local surroundings. Additionally, the Assisted Living, Memory Care, and PACE services would also share and use vans to transport several participants at once, which would reduce vehicle trips to the BCHD campus (see Section 3.14, <i>Transportation</i>).
P20. Investigate the use of shared transportation vehicles.	
P21. Work with adjacent cities to coordinate incentives for carpools, vanpools, and other measures for Redondo Beach residents.	
G13. Link existing and proposed bicycle facilities.	Consistent. The Project site is located adjacent to existing Class II (i.e., striped) bicycle lanes along Diamond Street and Beryl Street east of Flagler Lane. Though not designated, Flagler Alley is also often used as an informal bicycle path. The proposed Project would include on-site bicycle facilities, such as bicycle parking and employee showers and lockers, to encourage active transportation to and from the Project site.
G14. Increase the provision of bike lockers, bike racks, and lighting for bike facilities.	
G15. Ensure that residents will be able to walk or bicycle to destinations such as the beach, the Civic Center, Redondo Beach Pier, Riviera Village, and other activity centers.	Consistent. The proposed Project would implement a program to encourage visitors to travel to the campus via multi-modal or active transportation (e.g., walking or biking). The proposed Project would include bicycle parking, employee shower and locker facilities, and a bicycle sharing program for access to the adjacent bicycle paths and local surroundings. The proposed Project would also promote active transportation by providing publicly accessible, pedestrian linkages through the Project site as well as on-site bicycle facilities, which would assist in reducing vehicle trips and VMT. For example, the proposed Project would include 114,830 sf of ground-level open space traversed with tree-lined pedestrian pathways which would provide on-site connectivity with the existing sidewalks adjacent to the Project site on North Prospect Avenue, Beryl Street, Flagler Lane and Flagler Alley, and Diamond Street. Given the Project site's location adjacent to existing Class II (i.e., striped) bicycle lanes along Diamond Street and Beryl Street, as well as Flagler Alley, which is often used as an informal bicycle path, the proposed on-site bicycle facilities (e.g., bicycle parking, employee showers and lockers, etc.) would encourage active transportation to and from the Project site.
P28. Close existing gaps in sidewalk infrastructure where necessary, maintain existing sidewalks in good repair, and require sidewalks with all new development.	Consistent. The proposed Project would include 114,830 sf of ground-level open space traversed with publicly accessible pedestrian pathways which would provide on-site connectivity with the existing sidewalks adjacent to the Project site on North Prospect Avenue, Beryl Street, Flagler Lane and Flagler Alley, and Diamond Street.
P29. Provide climate-appropriate landscaping, adequate lighting, and street amenities to make walking safe, interesting, and enjoyable.	Consistent. Plant species selection in the conceptual Landscape Plan – including drought-resistant grasses, shrubs, indigenous ground cover, and native shade trees – were based on their drought resistance and ability to withstand local conditions such as temperature and shade. The Project site would include 114,830 sf of ground-level open

Table 3.7-8. City of Redondo Beach General Plan and Climate Action Plan Policy Consistency Summary (Continued)

Policy	Relationship to Project
	space traversed with publicly accessible, tree-lined pedestrian pathways. Open space areas would include an entry plaza featuring directional signage, public art, shaded seating areas, and security lighting.
P30. Promote use of alternative transportation for short trips and conduct periodic bicycle and pedestrian counts to assess whether alternative mode use is increasing.	Consistent. The Project site is located adjacent to several stops along the Beach Cities Transit Line 102. The proposed Project would include designated parking for carpools and vanpools; and ride-share amenities, such as seating areas for ride-share waiting and a drop-off and pick-up zone for ride-share services (e.g., Uber, Lyft, etc.). The TDM plan would include carpool incentives for employees. The proposed Project would also provide a bicycle sharing program for access to the adjacent bicycle paths and local surroundings. Additionally, the Assisted Living, Memory Care, and PACE services would also share and use vans to transport several participants at once, which would reduce vehicle trips to the BCHD campus (see Section 3.14, <i>Transportation</i>).
G16. Provide reliable, safe fixed-route transit.	
P37. Provide shuttle service to activity areas.	
Redondo Beach General Plan Housing Element	
P1.7. Promote the use of energy conservation techniques and features in the rehabilitation of existing housing.	Consistent. The proposed Project would provide photovoltaic solar panels on campus to reduce the energy demand associated with the proposed Project. The design of the proposed Project would also optimize passive design strategies, which use ambient energy sources (e.g., daylight, wind, etc.) to supplement electricity and natural gas to increase the energy efficiency. The proposed Project would also incorporate several sustainable design features to reduce the power demand associated with the proposed Project, including installation of energy efficient HVAC systems, operable windows to increase air flow, high-performance building envelope to maximize insulation, lighting systems with occupancy sensors and dimmers, and water-efficient equipment and plumbing infrastructure.
P2.5. Promote the use of energy conservation features in the design of residential development to conserve natural resources and lower energy costs.	
Redondo Beach Climate Action Plan	
LUT A1.1. Offer free parking to EVs.	Consistent. The proposed Project would include designated free parking for EVs with EV charging stations.
LUT B1.1. Facilitate bike-sharing.	Consistent. The proposed Project would include designated parking for carpools and vanpools; and ride-share amenities, such as seating areas for ride-share waiting and a large roundabout for drop-off and pick-up for ride-share services (e.g., Uber, Lyft, etc.). The TDM plan would include carpool incentives for employees. The proposed Project would also provide a bicycle sharing program for access to the adjacent bicycle paths and local surroundings. Additionally, the Assisted Living, Memory Care, and PACE services would also share and use vans to transport several participants at once, which would reduce vehicle trips to the BCHD campus (see Section 3.14, <i>Transportation</i>).
LUT B1.2. Facilitate car-sharing.	
LUT B1.3. Facilitate ride-hailing and ride-sharing.	
LUT C2.10. Explore programs to offer discounted transit passes.	Consistent. The proposed Project would develop 157 new Assisted Living units, 60 replacement Memory Care units, and community service uses conveniently located adjacent to several stops along the Beach Cities Transit Line 102. The

Table 3.7-8. City of Redondo Beach General Plan and Climate Action Plan Policy Consistency Summary (Continued)

Policy	Relationship to Project
LUT C2.11. Fund transit services for the elderly and handicapped.	proposed Project would implement a TDM plan that would include transit and carpool incentives for employees. Additionally, the Assisted Living, Memory Care, and PACE services would also share and use vans to transport several participants at once, which would reduce vehicle trips to the BCHD campus (see Section 3.14, <i>Transportation</i>).
LUT D2.3. Require new developments to provide pedestrian, bicycle, and transit amenities.	Consistent. The proposed Project would implement a program to encourage visitors to travel to the campus via multi-modal and active transportation (e.g., walking or biking). The proposed Project would include 114,830 sf of ground-level open space traversed with publicly accessible, pedestrian pathways which would provide on-site connectivity with the existing sidewalks adjacent to the Project site on North Prospect Avenue, Beryl Street, Flagler Lane and Flagler Alley, and Diamond Street. The proposed Project would also include bicycle parking, employee shower and locker facilities, and ride-share amenities for residents and visitors. The proposed Project would also implement a TDM plan with transit and carpool incentives for employees. Given the Project site's location adjacent to existing Class II (i.e., striped) bicycle lanes along Diamond Street and Beryl Street, as well as Flagler Alley, which is often used as an informal bicycle path, the proposed on-site bicycle facilities (e.g., bicycle parking, employee showers and lockers, etc.) would encourage active transportation to and from the Project site.
LUT D2.4. Amend zoning ordinance to require shower facilities and dressing areas for new developments.	Consistent. The proposed Project would include employee shower and locker facilities and bicycle parking.
LUT D2.5. Require commercial and multi-family residential projects to provide permanent bicycle parking facilities.	
LUT D2.13. Construct or improve pedestrian infrastructure around transit.	Consistent. The Project site is located adjacent to several stops along the Beach Cities Transit Line 102. The proposed Project would promote multi-modal and active transportation (e.g., walking or biking) by providing pedestrian linkages through the site and bicycle facilities on-site. For example, the proposed Project would include 114,830 sf of ground-level open space traversed with publicly accessible, pedestrian pathways which would provide on-site connectivity with the existing sidewalks adjacent to the Project site on North Prospect Avenue, Beryl Street, Flagler Lane and Flagler Alley, and Diamond Street. Pedestrian-only open space on the ground level of the proposed Project would enhance active transportation usage in the Project vicinity. Given the Project site's location adjacent to existing Class II (i.e., striped) bicycle lanes along Diamond Street and Beryl Street, as well as Flagler Alley, which is often used as an informal bicycle path, the proposed on-site bicycle facilities (e.g., bicycle parking, employee showers and lockers, etc.) would encourage active transportation in the vicinity of transit.
LUT F2.4. Encourage employers to provide vanpools or shuttles from major stations.	Consistent. The proposed Project would implement a TDM plan that would include transit and carpool incentives for employees. Additionally, the Assisted Living, Memory Care, and PACE services would also share and use vans

Table 3.7-8. City of Redondo Beach General Plan and Climate Action Plan Policy Consistency Summary (Continued)

Policy	Relationship to Project
	to transport several participants at once, which would reduce vehicle trips to the BCHD campus (see Section 3.14, <i>Transportation</i>).
LUT G1.3. Increase housing density near transit.	Consistent. The proposed Project would develop 157 new Assisted Living units, 60 replacement Memory Care units, and community services uses located adjacent to several stops along the Beach Cities Transit Line 102. The proposed Project would implement a TDM plan that would include transit and carpool incentives for employees. Additionally, the Assisted Living, Memory Care, and PACE services would also share and use vans to transport several participants at once, which would reduce vehicle trips to the BCHD campus (see Section 3.14, <i>Transportation</i>).
LUT G2.4 Encourage mixed-use and infill development projects in key infill areas.	
LUT G2.7. Encourage new mixed-use development near transit.	
EE E2.1. Allow recycled or grey water for non-municipal uses.	Consistent. As described in Section 3.15, <i>Utilities and Service Systems</i> , the proposed Project may use recycled water from the West Basin Municipal Water District's (WBMWD's) Edward C. Little (ECL) Water Recycling Facility for operational landscaping irrigation.
UG A1.1. Establish/maintain a community garden – Investigate creating a new or maintain a current community garden.	Consistent. The proposed Project would upgrade BCHD's existing Demonstration Garden with demonstration vegetable garden plots, an orchard with citrus and other fruit trees, and a garden shed. The proposed Demonstration Garden would allow BCHD to continue its existing LiveWell Kids program, which delivers lessons in the gardens of all of the elementary schools within Redondo Beach as well as Hermosa View Elementary School. Students participate in hands-on gardening lessons about planting, composting, harvesting and mindful eating. The proposed Blue Zone Demonstration Kitchen would use produce grown in the proposed Demonstration Garden on campus. Further, the proposed Project would include a tree-lined promenade (also referred to as Main Street), which could support outdoor farmers' markets.
UG A1.2. Promote gardening and composting – Provide resources and information regarding community gardens and composting to educate the public on how to grow organic edible plants.	
UG A2.1. Establish a local farmers' market – Work with local organizations to establish farmers' markets in the community.	
EGS A2.2. Encourage and support on-site installation and use of renewable and alternative energy generation systems for residential, commercial, institutional, and industrial uses.	Consistent. The proposed Project would provide photovoltaic solar panels on campus to reduce the energy demand associated with the proposed Project. The design of the proposed Project would also optimize passive design strategies, which use ambient energy sources (e.g., daylight and wind) to supplement electricity and natural gas to increase the energy efficiency.

Project Consistency with City of Torrance Local Policies and Regulations

The proposed Project would support the City of Torrance’s GHG reduction goals and policies established in the Torrance General Plan Circulation and Infrastructure Element, General Plan Community Resource Element, and Climate Action Plan (see Table 3.7-9). Development of the proposed Project would be consistent the goals of General Plan and Climate Action Plan, which call for integration of land use and transportation to reduce GHGs by focusing new development near transit to create sustainable, active pedestrian-friendly development that decreases reliance on automobiles and increases walking, bicycling, and transit use. The proposed Project is a mixed-use infill development, which is located adjacent to existing neighborhood-serving commercial development, recreational uses (e.g., Entradero Park), multi-modal transit, and existing bicycle and pedestrian facilities. Directing growth to existing urbanized areas is an important strategy to reduce GHG emissions, largely due to reduced building energy and automobile use. These measures would ensure that the contribution of GHGs associated with the proposed Project would be reduced. The required sustainable features would also ensure that the proposed Project is consistent with local policies (see Table 3.7-9). Therefore, the proposed Project would be consistent with applicable City of Torrance plans, policies, and regulations, and impacts would be *less than significant*.

Table 3.7-9. City of Torrance General Plan and Climate Action Plan Policy Consistency Summary

Policy	Relationship to Project
<i>Torrance General Plan Circulation and Infrastructure Element</i>	
Policy CI.8.1. Provide and maintain safe, efficient, and convenient pedestrian pathways that offer access to major activity centers, recreation facilities, schools, community facilities, and transit stops.	Consistent. The proposed Project would promote walkability by providing several publicly accessible, tree-lined pedestrian linkages through the Project site and due to its location adjacent to multi- and single-family residences, neighborhood-serving commercial development, and recreational uses. For example, the proposed Project would include 114,830 sf of ground-level open space traversed with pedestrian pathways which would provide on-site connectivity with the existing sidewalks adjacent to the Project site on North Prospect Avenue, Beryl Street, Flagler Lane and Flagler Alley, and Diamond Street. Pedestrian-only open space on the ground level of the proposed Project would enhance active transportation vicinity of the Project site.
Policy CI.8.5. Promote the provision of reasonable and secure bicycle storage and shower and locker facilities at major commercial developments and employment centers.	Consistent. The proposed Project would include on-site bicycle facilities, such as secure bicycle parking and employee showers and lockers.
Policy CI.8.9. Promote the use of compact electric or similar powered vehicles for local trips.	Consistent. The proposed Project would include designated free parking for EVs with EV charging stations.
<i>Torrance General Plan Community Resource Element</i>	
Policy CR.13.2. Work with neighboring cities to implement local and regional projects that improve mobility on freeways and railways, reduce emissions, and improve air quality.	Consistent. The proposed Project would include bicycle parking, employee shower and locker facilities, and ride-share amenities for residents and visitors. The proposed Project would also implement a TDM plan with transit and carpool incentives for employees. The proposed Project would also implement a program to encourage visitors to travel to the campus via multi-modal and active transportation (e.g., walking or biking). BCHD would provide a bicycle sharing program for access to the adjacent bicycle paths and local surroundings (see Section 3.14, <i>Transportation</i>). The proposed Project would also promote multi-modal and active transportation by providing publicly accessible pedestrian linkages through the Project site and bicycle facilities on-site, which would assist in reducing vehicle trips and VMT. For example, the proposed Project would include 114,830 sf of ground-level open space traversed with pedestrian pathways which would provide on-site connectivity with the existing sidewalks adjacent to the Project site on North Prospect Avenue, Beryl Street, Flagler Lane and Flagler Alley, and Diamond Street. Pedestrian-only open space on the ground level of the proposed Project would enhance active transportation usage in the Project vicinity. Given the Project site's location adjacent to existing Class II (i.e., striped) bicycle lanes along Diamond Street and Beryl Street, as well as Flagler Alley, which is often used as an informal bicycle path, the proposed on-site bicycle facilities (e.g., bicycle parking, employee showers and lockers, etc.) would encourage active transportation to and from the Project site.
Policy CR.13.5. Support air quality and energy and resource conservation by encouraging alternative modes of transportation such as walking, bicycling, transit, and carpooling.	

Table 3.7-9. City of Torrance General Plan and Climate Action Plan Policy Consistency Summary (Continued)

Policy	Relationship to Project
Policy CR.13.7. Encourage the use of alternative fuel vehicles and re-refined oil.	Consistent. The proposed Project would include designated free parking for EVs with EV charging stations.
Policy CR.13.8. Promote energy-efficient building construction and operation practices that reduce emissions and improve air quality.	Consistent. The proposed Project would implement several design features and programs to increase energy efficiency, reduce energy demand, and reduce GHG emissions from vehicle trips to the Project site. As required by TMC, all new buildings on the site would conform to the California Title 24 Building Energy Efficiency Standards (Part 6) CALGreen (Part 11). The design of the proposed Project would optimize passive design strategies, which use ambient energy sources (e.g., daylight and wind) to supplement electricity and natural gas to increase the energy efficiency. The proposed Project would incorporate photovoltaic solar panels; energy efficient HVAC systems; operable windows; high-performance building envelope usage to maximize insulation; lighting systems designed with occupancy sensors and dimmers to minimize energy use; and water efficient equipment and plumbing infrastructure (e.g., sinks, toilets, etc.). The proposed Project would also implement a TDM program with trip reduction strategies to reduce single-occupancy vehicle trips to the Project site (see Section 3.14, <i>Transportation</i>).
Policy CR.14.1. Support the CARB in its ongoing plans to implement AB 32, and fully follow any new AB 32-related regulations.	
Policy CR.14.2. Develop and implement GHG emissions reduction measures, including discrete, early-action GHG-reducing measures that are technologically feasible and cost-effective.	
Policy CR.14.3. Pursue actions recommended in the U.S. Mayors Climate Protection Agreement to meet AB 32 requirements.	
Policy CR.14.4. Act as a leader and example in sustainability and reduction in GHG emissions by conducting City business in the most GHG-sensitive way.	
Policy CR.15.3. Maximize the use of local water resources to reduce imported water supplies.	Consistent. As described in Section 3.15, <i>Utilities and Service Systems</i> , the proposed Project may use recycled water from the WBMWD's ECL Water Recycling Facility for operational landscaping irrigation. The proposed landscaping plan would also incorporate drought-resistant vegetation and water efficient equipment and plumbing infrastructure (e.g., sinks, toilets, etc.) to reduce the water demand associated with the proposed Project.
Policy CR.15.4. Encourage residents and businesses in Torrance to practice water conservation through incentive programs and where necessary, programs that penalize wasteful practices.	
Policy CR.15.6. Reduce the amount of water used for landscaping through such practices as the planting of native and drought-tolerant plants, use of efficient irrigation systems, and collection and recycling of runoff.	
Policy CR.15.8. Expand the use of recycled water at schools, parks, at City facilities, and other potential irrigation or industrial use sites.	

Table 3.7-9. City of Torrance General Plan and Climate Action Plan Policy Consistency Summary (Continued)

Policy	Relationship to Project
Policy CR.15.9. Identify opportunities for increased use of reclaimed water.	
Policy CR.21.1. Promote and encourage energy resource conservation by the public sector, private sector, and local school district.	Consistent. The proposed Project would provide photovoltaic solar panels on the campus to reduce the energy demand associated with the proposed Project. The proposed design would also optimize passive design strategies, which use ambient energy sources (e.g., daylight, wind) to supplement electricity and natural gas to increase the energy efficiency. The proposed Project would also incorporate several sustainable design features to reduce the power demand associated with the proposed Project, including installation of energy efficient HVAC systems, operable windows to increase air flow, high-performance building envelope to maximize insulation, lighting systems with occupancy sensors and dimmers, and water-efficient equipment and plumbing infrastructure (refer to Section 2.8, <i>Sustainability Features</i>).
Policy CR.21.3. Support the development and use of non-polluting, renewable energy resources.	
Policy CR.21.6. Promote energy-efficient design features, including appropriate site orientation, use of light-colored roofing and building materials, and use of trees to reduce fuel consumption for heating and cooling.	Consistent. The design of the proposed project would optimize passive design strategies, which use ambient energy sources (e.g., daylight, wind) to supplement electricity and natural gas to increase the energy efficiency. The western and eastern border of the BCHD campus would be lined with intermittent large shade canopy trees and smaller shade trees. The campus's northern border would be lined with shade and flowering ornamental trees. Larger trees would also be planted within and adjacent to the proposed parking lots, open space, building footprints to provide shade.
<i>Torrance Climate Action Plan</i>	
LUT B1.1. Facilitate Bike-sharing.	Consistent. The proposed Project would include designated parking for carpools and vanpools; and ride-share amenities, such as seating areas for ride-share waiting and a large roundabout for drop-off and pick-up for ride-share services (e.g., Uber, Lyft, etc.). The TDM plan would include carpool incentives for employees. The proposed Project would also provide a bicycle sharing program for access to the adjacent bicycle paths and local surroundings. Additionally, the Assisted Living, Memory Care, and PACE services would also share and use vans to transport several participants at once, which would reduce vehicle trips to the BCHD campus (see Section 3.14, <i>Transportation</i>).
LUT B1.2. Facilitate Ride-hailing and Ride-sharing.	
LUT C2.10. Explore programs to offer discounted transit passes.	
LUT C2.11. Fund transit services for the elderly and handicap.	Consistent. The proposed Project would develop 157 new Assisted Living units, 60 replacement Memory Care units, and community service uses conveniently located adjacent to several stops along the Beach Cities Transit Line 102. The proposed Project would implement a TDM plan that would include transit and carpool incentives for employees. Additionally, the Assisted Living, Memory Care, and PACE services would also share and use vans to transport several participants at once, which would reduce vehicle trips to the BCHD campus (see Section 3.14, <i>Transportation</i>).

Table 3.7-9. City of Torrance General Plan and Climate Action Plan Policy Consistency Summary (Continued)

Policy	Relationship to Project
LUT D2.3. Require new developments to provide pedestrian, bicycle, and transit amenities.	Consistent. The proposed Project would include bicycle parking, employee shower and locker facilities, and ride-share amenities for residents and visitors. The proposed Project would also implement a TDM plan with transit and carpool incentives for employees. BCHD would provide a bicycle sharing program for access to the adjacent bicycle paths and local surroundings (see Section 3.14, <i>Transportation</i>). The proposed Project would also promote multi-modal and active transportation by providing pedestrian linkages through the site and bicycle facilities on-site, which would assist in reducing vehicle trips and VMT. For example, the proposed Project would include 114,830 sf of ground-level open space traversed with publicly accessible, pedestrian pathways which would provide on-site connectivity with the existing sidewalks adjacent to the Project site on North Prospect Avenue, Beryl Street, Flagler Lane and Flagler Alley, and Diamond Street. Pedestrian-only open space on the ground level of the proposed Project would enhance active transportation usage in the Project vicinity. Given the Project site's location adjacent to existing Class II (i.e., striped) bicycle lanes along Diamond Street and Beryl Street, as well as Flagler Alley, which is often used as an informal bicycle path, the proposed on-site bicycle facilities (e.g., bicycle parking, employee showers and lockers, etc.) would encourage active transportation to and from the Project site.
LUT D2.4. Require commercial and multi-family residential projects to provide permanent bicycle parking facilities.	Consistent. The proposed Project would include bicycle parking, employee shower and locker facilities, and a bicycle sharing program for access to the adjacent bicycle paths and local surroundings.
LUT D2.5. Provide short and long-term bicycle parking near key areas.	
LUT D2.11. Construct or improve pedestrian infrastructure around transit.	Consistent. The Project site is located adjacent to several stops along the Beach Cities Transit Line 102. The proposed Project would promote multi-modal and active transportation by providing pedestrian linkages through the site and bicycle facilities on-site. For example, the proposed Project would include 114,830 sf of ground-level open space traversed with publicly accessible pedestrian pathways which would provide on-site connectivity with the existing sidewalks adjacent to the Project site on North Prospect Avenue, Beryl Street, Flagler Lane and Flagler Alley, and Diamond Street. Given the location of the Project site adjacent to existing Class II (i.e., striped) bicycle lanes along Diamond Street and Beryl Street, as well as Flagler Alley, which is often used as an informal bicycle path, the proposed on-site bicycle facilities (e.g., bicycle parking, employee showers and lockers, etc.) would encourage active transportation in the vicinity of transit.
LUT F1.4. Encourage mixed-use and infill development projects in key in-fill areas.	Consistent. The proposed Project would develop 157 new Assisted Living units, 60 replacement Memory Care units, and community service uses located adjacent to several stops along the Beach

Table 3.7-9. City of Torrance General Plan and Climate Action Plan Policy Consistency Summary (Continued)

Policy	Relationship to Project
LUT F1.6. Encourage new mixed-use development near transit.	Cities Transit Line 102. The proposed Project would implement a TDM plan that would include transit and carpool incentives for employees. Additionally, the Assisted Living, Memory Care, and PACE services would also share and use vans to transport several participants at once, which would reduce vehicle trips to the BCHD campus (see Section 3.14, <i>Transportation</i>).
UG A1.1. Establish/maintain a community garden – Create a new or maintain a current community garden.	Consistent. The proposed Project would upgrade BCHD’s existing Demonstration Garden with demonstration vegetable garden plots, an orchard with citrus and other fruit trees, and a garden shed. The proposed Demonstration Garden would allow BCHD to continue its existing LiveWell Kids program, which delivers lessons in the gardens of all of the elementary schools within Redondo Beach as well as Hermosa View Elementary School. Students participate in hands-on gardening lessons about planting, composting, harvesting and mindful eating. The proposed Blue Zone Demonstration Kitchen would use produce grown in the proposed Demonstration Garden on campus.
UG A1.2. Promote gardening and composting – Provide resources and information regarding community gardens and composting to educate the general public on how to grow organic edible plants.	

Project Consistency with State-wide and Regional Mandates, Plans, Policies, and Regulations

The primary focus of many of the State-wide and regional mandates, plans, policies, and regulations is to address global climate change. A single source of GHG emissions does not cause global climate change by itself; rather GHG emissions, in their aggregate, contribute to global climate change.

In addition to assessing consistency with local policies and regulations, the significance of the GHG emissions associated with the proposed Project has also been evaluated based on whether the proposed Project is consistent with the relevant Statewide and regional mandates, plans, policies and regulations to reduce GHG emissions including AB 32 and SB 32 (Health and Safety Code [H&SC] Division 25.5), SB 375, Connect SoCal, and other State-wide and regional regulations and programs. Because the proposed Project incorporates physical and operational sustainability features that would promote a reduction in GHG emissions (refer to Section 2.5.1.5, *Sustainability Features*), the proposed Project would not substantially contribute to a cumulatively considerable global climate change effect and would not conflict with the GHG reduction goals of H&SC Division 25.5 and associated GHG reduction plans such as Connect SoCal. Connect SoCal also strives towards enhancing the existing transportation system and integrating land use into transportation planning. Connect SoCal recommends local jurisdictions accommodate future growth within existing urbanized areas to reduce VMT, congestion, and GHG emissions. Consistent with Connect SoCal's alignment of transportation, land use, and housing strategies, the proposed Project would accommodate increases in population, households, employment, and travel demand by implementing smart land use strategies. As discussed previously, the Project site is an infill location within close proximity to existing restaurants, grocery, entertainment, recreational, and residential uses and in close proximity to existing Beach Cities Transit Line 102 bus stops along North Prospect Avenue and Beryl Street. The proposed Project would implement a TDM plan with transit and carpool incentives for Project employees. The proposed Project would also implement a program to encourage people to visit the campus via multi-modal and active transportation (e.g., walking or biking). The proposed Project would include designated free parking for EVs with EV charging stations. The Assisted Living, Memory Care, and PACE services would also share and use vans to transport several participants at one time, which would reduce vehicle trips to the BCHD campus (refer to Section 2.5.1.5, *Sustainability Features*). The proposed Project – including the Phase 1 preliminary site development plan as well as the more general Phase 2 development program – would be consistent with all applicable goals of Connect SoCal intended to improve mobility and access to diverse destinations, promote smart growth, provide more transportation choices, and reduce vehicular demand and associated emissions. As such, the proposed Project would be consistent with regional plans to reduce VMT and associated GHG emissions, and impacts would be *less than significant*.

Table 3.7-10. Project Consistency Summary with Regional GHG Emissions Reduction Strategies

Strategy	Relationship to Project
<i>Connect SoCal Land Use Actions and Strategies</i>	
Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations	Consistent. The proposed Project would establish residential, medical office, community service, office, gym, restaurant, and open space uses located immediately adjacent to recreational amenities (e.g., Dominguez Park and Entradero Park) commercial uses and in close proximity to schools and multi-modal transportation options (i.e., Beach Cities Transit Line 102).
Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods	Consistent. The proposed Project would redevelop the existing BCHD campus to provide community services, activities, and events for the BCHD service population.
<i>Connect SoCal Transportation Network Actions and Strategies</i>	
Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets.	Consistent. The Project site is located in an urbanized area close to existing commercial and residential development. The proposed Project would develop additional housing and jobs within 0.1 miles of several Beach Cities Transit Line 102 bus stops located at the Project site and immediate vicinity (see Section 3.14, <i>Transportation</i>). The proposed Project would also develop a TDM plan that would include trip reduction strategies to reduce single-occupancy vehicle trips to the Project site and measures to encourage visitors to travel to the campus via multi-modal or active transportation (e.g., walking or biking). The proposed Project would ensure connectivity of the neighborhood to existing developed and recreational areas as well as provide bicycle parking to encourage bicycling and walking rather than driving. The proposed Project would promote walkability due to its location adjacent to residential neighborhoods, neighborhood-serving commercial uses, and recreational uses. Additionally, the proposed Project would include bicycle facilities, such as bicycle parking and employee shower and locker facilities, encouraging both patrons and employees to use alternative modes of transportation.
Plan for growth near transit investments and support implementation of first/last mile strategies.	
Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations).	
<i>Connect SoCal Sustainability Actions and Strategies</i>	
Integrate local food production into the regional landscape.	Consistent. The proposed Project would upgrade BCHD’s existing Demonstration Garden with demonstration vegetable garden plots, an orchard with citrus and other fruit trees, and a garden shed. The proposed Demonstration Garden would allow BCHD to continue its existing LiveWell Kids program, which delivers lessons in the gardens of all of the elementary schools within Redondo Beach as well as Hermosa View Elementary School. Students participate in hands-on gardening lessons about planting, composting, harvesting and mindful eating. The proposed Blue Zone Demonstration Kitchen would use produce grown in the proposed Demonstration Garden on campus.

Table 3.7-10. Project Consistency Summary with Regional GHG Emissions Reduction Strategies (Continued)

Strategy	Relationship to Project
<i>Connect SoCal Technology Actions and Strategies</i>	
Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space.	Consistent. The proposed Project would include sustainable transportation infrastructure, such as designated parking spaces for hybrid cars and EVs equipped with electrical charging stations, bicycle parking, and designated parking for carpools and vanpools. The TDM plan would include a bicycle sharing program for access to the adjacent bicycle paths and local surroundings. The proposed Project would also provide ride-share amenities to provide options to reduce internal-combustion vehicle usage for residents and visitors.
Identify ways to incorporate “micro-power grids” in communities, for example solar energy, hydrogen fuel cell power storage.	Consistent. The proposed Project would provide photovoltaic solar panels on campus to reduce the energy demand associated with the proposed Project. The design of the proposed Project would also optimize passive design strategies, which use ambient energy sources (e.g., daylight, wind) to supplement electricity and natural gas to increase the energy efficiency.

Source: SCAG 2020.

The proposed Project would also be consistent with the State's strategies in the 2017 Scoping Plan to reduce GHG emissions (see Table 3.7-11). The 2017 Scoping Plan relies on a broad array of GHG reduction strategies, which include direct regulations, alternative compliance mechanisms, incentives, voluntary actions, and market-based mechanisms, such as the Cap-and-Trade Program. These potential strategies include increasing the fuel economy of vehicles and the number of zero-emission or hybrid vehicles, reducing the rate of growth in VMT, supporting high speed rail and other alternative transportation options, and use of high efficiency appliances, water heaters, and HVAC systems. The proposed Project would benefit from State-wide, regional, and local efforts towards increasing the portion of electricity provided from renewable resources. The proposed Project would also benefit from State-wide efforts towards increasing the fuel economy standards of vehicles. The proposed Project would utilize energy efficiency appliances and equipment, as well as encourage the use of public transportation through its TDM plan and the use of electric-powered vehicles by providing EV vehicle spaces. While CARB is in the process of developing a framework for the 2030 reduction target in the 2017 Scoping Plan, the proposed Project would support, or at a minimum not impede, implementation of these potential reduction strategies identified by the CARB.

Further, CARB's 2017 Scoping Plan Update (released in January 2019) states *"in many instances, achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an inappropriate overall objective for new development"* and also recognizes that *"achieving a net zero increase in GHG emissions may not be appropriate or feasible for every project. Indeed, there are circumstances when certain types of development projects, by virtue of their location and land use context, are likely consistent with state climate goals, when considered on a per capita VMT basis."* The 2017 Scoping Plan Update further provides that VMT is a proxy for transportation-related GHG emissions and the associated effect on the climate. Based on the 2017 Scoping Plan Update, land use development projects in areas that would produce rate of light-duty VMT per capita that are approximately 16.8 percent lower than existing conditions (either lower than regional average or other appropriate context) could be, by virtue of their location and land use context, interpreted to be consistent with the transportation assumptions embedded in the 2017 Scoping Plan and with 2050 State climate goals. As discussed in detail in Section 3.14, *Transportation*, the home-based VMT per capita associated with the proposed Project would be 5 percent lower than existing regional averages and the home-based work VMT per employee calculated for the proposed Project would be 19 percent lower than existing regional averages. Therefore, when reviewing the proposed land use characteristics and associated VMT, the proposed Project would be in support of GHG reduction goals.

Based on the above, the proposed Project would be consistent with the California Renewables Portfolio Standard, SB 350, SB 100, Title 24 of the CCR, CalGreen, SB 375, and recommendations of the State Attorney General, OPR and Climate Action Team (see Table 3.7-11). Therefore, the proposed Project would be consistent with applicable plans, policies, and regulations and impacts would be *less than significant*.

Table 3.7-11. Project Consistency Summary with State GHG Emissions Reduction Strategies

Strategy	Relationship to Project
<i>California Renewables Portfolio Standard and SB 350 and SB 100</i>	
Increases the proportion of electricity from renewable sources to 33 percent renewable power by 2020. SB 350 requires 50 percent by 2030. It also requires the State Energy Resources Conservation and Development Commission to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation. SB 100 accelerates the Renewables Portfolio Standard Program goals as follows: 1) 50 percent renewable resources target by December 31, 2026; and 2) 60 percent renewable resources target by December 31, 2030. SB 100 also establishes a state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045.	Consistent. While this measure does not directly apply to the proposed Project, the proposed Project would be consistent with and would not conflict with this strategy because Southern California Edison (SCE) is required to meet the State's Renewable Portfolio Standard, including SB 100. SoCal Edison would also be required to meet the 60 percent renewable target in 2030. Additionally, the proposed Project would include the installation of solar photovoltaic panels.
<i>Title 24 of the CCR</i>	
Energy Efficiency Standards for Residential and Nonresidential Buildings	Consistent. The proposed Project would comply with the Title 24 Building Energy Efficiency Standards at the time of building permit issuance and would incorporate solar photovoltaic panels as well as energy-efficient HVAC and lighting systems, thereby reducing energy use, air pollutant emissions, and GHG emissions.
Title 24 includes water efficiency requirements for new residential and non-residential uses.	Consistent. The proposed Project would meet this requirement as part of its compliance with the RBMC, TMC, and CALGreen. The proposed Project would include water efficient equipment and plumbing infrastructure. As described in Section 3.15, <i>Utilities and Service System</i> , with regard to operational landscaping irrigation, the proposed Project may use recycled water from the WBMWD's ECL Water Recycling Facility. These options would be explored as final design plans are further developed.
<i>California Green Building Standards Code Requirements</i>	
All bathroom exhaust fans shall be ENERGY STAR compliant.	Consistent. The proposed Project would utilize energy efficiency appliances and equipment and would meet or exceed the energy standards in Title 24.
HVAC Systems will be designed to meet ASHRAE standards.	Consistent. The proposed Project would utilize energy efficiency appliances and equipment and would meet or exceed the energy standards in Title 24.

Table 3.7-11. Project Consistency Summary with State GHG Emissions Reduction Strategies (Continued)

Strategy	Relationship to Project
Energy commissioning shall be performed for buildings larger than 10,000 sf.	Consistent. The proposed Project would meet this requirement as part of its compliance with RBMC Section 9-23.01.
Air filtration systems are required to meet a minimum of MERV 8 or higher.	Consistent. The proposed Project would meet or exceed this requirement as part of its compliance with the RBMC, TMC, and CALGreen.
Refrigerants used in newly installed HVAC systems shall not contain any CFCs.	Consistent. The proposed Project would meet or exceed this requirement as part of its compliance with the RBMC, TMC, and CALGreen.
Parking spaces shall be designed for carpool or alternative fueled vehicles. Up to eight percent of total parking spaces will be designed for such vehicles.	Consistent. The proposed Project would meet or exceed this requirement as part of its compliance with RBMC, TMC, and CALGreen.
Long-term and short-term bike parking shall be provided for up to five percent of vehicle trips.	Consistent. The proposed Project would meet or exceed this requirement as part of its compliance with the RBMC, TMC, and CalGreen by including bicycle parking at the main entrance, with the final number determined through the TDM plan.
Stormwater Pollution Prevention Plan (SWPPP) required.	Consistent. The proposed Project would meet this requirement as part of its compliance with the Redondo Beach Stormwater and Urban Runoff Pollution Control Regulations as well as CALGreen.
Indoor water usage must be reduced by 20% compared to current California Building Code Standards for maximum flow.	Consistent. Refer to the consistency discussion under Title 24 of the CCR Title 24.
All irrigation controllers must be installed with weather sensing or soil moisture sensors.	Consistent. The proposed Project would meet or exceed this requirement as part of its compliance with RBMC, TMC, and CALGreen.
Wastewater usage shall be reduced by 20 percent compared to current California Building Standards.	Consistent. The proposed Project would meet or exceed this requirement as part of its compliance with RBMC, TMC, and CALGreen.
Requires a minimum of 50 percent recycle or reuse of nonhazardous construction and demolition debris.	Consistent. The proposed Project would exceed this requirement as part of its compliance with RBMC, TMC, and CALGreen. BCHD would submit a waste management plan to the City of Redondo Beach and diverting at least 50 percent of construction and demolition debris from landfills. As described in Section 3.15, <i>Utilities and Service System</i> , the proposed Project would also be served by Athens Services, which has already achieved a diversion rate of 75 percent through its contract with Athens Services that is in excess of the requirements of AB 939 and AB 341 to achieve a 50 percent diversion by 2020.
Requires documentation of types of waste recycled, diverted or reused.	Consistent. The proposed Project would meet or exceed this requirement as part of its compliance with RBMC, TMC, and CALGreen.

Table 3.7-11. Project Consistency Summary with State GHG Emissions Reduction Strategies (Continued)

Strategy	Relationship to Project
Requires use of low VOC coatings consistent with AQMD Rule 1168.	Consistent. The proposed Project would be consistent with this regulation and would meet or exceed the low VOC coating requirements.
100 percent of vegetation, rocks, soils from land clearing associated with new non-residential developments shall be reused or recycled. Phased projects can stockpile onsite.	Consistent. The proposed Project would meet or exceed this requirement as part of its compliance with the RBMC, TMC, and CALGreen. Usable fill material would be taken to certified construction and demolition waste processors where it would be recycled as feasible.
<i>Mobile Source Strategy (Cleaner Technology and Fuels)</i>	
Reduce GHGs and other pollutants from the transportation sector through transition to zero emission and low-emission vehicles, cleaner transit systems and reduction of VMT.	Consistent. While this measure does not apply to individual projects, the proposed Project would be consistent and would not conflict with this strategy by supporting the use of zero-emission and low-emission vehicles through the on-site provision of EV parking spaces. Further, the proposed Project would reduce VMT as a result of its urban infill location, with access to public transportation within a 0.25-mile radius of the Project site.
<i>AB 1493 (Pavley Regulations)</i>	
Reduces greenhouse gas emissions in new passenger vehicles from model year 2012 through 2016 (Phase I) and model year 2017-2025 (Phase II). Also reduces gasoline consumption to a rate of 31 percent of 1990 gasoline consumption (and associated GHG emissions) by 2020.	Consistent. The proposed Project would not conflict with implementation of the vehicle emissions standards.
<i>Low Carbon Fuel Standard (Executive Order S-01-07)</i>	
Establishes protocols for measuring life-cycle carbon intensity of transportation fuels and helps to establish use of alternative fuels.	Consistent. The proposed Project would be consistent with this regulation and would not conflict with implementation of the transportation fuel standards.
<i>SB 375</i>	
SB 375 establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. Under SB 375, CARB is required, in consultation with the state's MPOs, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035.	Consistent. While this measure does not directly apply to the proposed Project, the proposed Project would be consistent with and would not conflict with this strategy because the Project would be consistent with Connect SoCal goals and objectives under SB 375 to implement infill development and reduce regional VMT. The Project site is located within walking distance of public transportation.
<i>SB X7-7</i>	
The Water Conservation Act of 2009 sets an overall goal of reducing per capita urban water use by 20 percent by	Consistent. Refer to the consistency discussion under Title 24 of the CCR Title 24.

Table 3.7-11. Project Consistency Summary with State GHG Emissions Reduction Strategies (Continued)

Strategy	Relationship to Project
December 31, 2020. Each urban retail water supplier shall develop water use targets to meet this goal.	
<i>California Integrated Waste Management Act of 1989 and AB 341</i>	
The IWMA mandated that state agencies develop and implement an integrated waste management plan which outlines the steps to be taken to divert at least 50 percent of their solid waste from disposal facilities. AB 341 directs CalRecycle to develop and adopt regulations for mandatory commercial recycling and sets a statewide goal for 75 percent disposal reduction by the year 2020.	Consistent. While this measure does not apply to individual projects, the proposed Project would be served by a solid waste collection and recycling service, approved or licensed to collect solid waste in Redondo Beach, that may include mixed waste processing, and that yields waste diversion results comparable to source separation and consistent with and would not conflict with City-wide recycling targets. The proposed Project would incorporate sustainability waste diversion measures and performance standards to increase recycling and minimize waste disposal, consistent with the Redondo Beach and Torrance General Plans. These include implementing a construction waste management plan to divert 50 percent of all mixed construction and demolition debris a certified waste processor. During operation, the proposed Project would provide easily accessible recycling areas dedicated to the collection and storage of non-hazardous materials such as paper, corrugated cardboard, glass, plastics, metals, and landscaping debris (trimmings). Provision of on-site recycling containers and waste reduction programs would support the measures to divert waste from landfills.
<i>Climate Action Team</i>	
Reduce diesel-fueled commercial motor vehicle idling.	Consistent. The proposed Project would comply with the CARB Air Toxics Control Measure to limit heavy duty diesel motor vehicle idling to no more than 5 minutes at any given time.
Achieve California's 50 percent waste diversion mandate (Integrated Waste Management Act of 1989) to reduce GHG emissions associated with virgin material extraction.	Consistent. Refer to the discussion under California Integrated Waste Management Act above.
Plant five million trees in urban areas by 2020 to effect climate change emission reductions.	Consistent. The proposed Project would provide appropriate landscaping on the Project site including drought-resistant vegetation and trees as required by City of Redondo Beach and City of Torrance regulations.
Implement efficient water management practices and incentives, as saving water saves energy and GHG emissions.	Consistent. The proposed Project would meet or exceed this requirement as part of its compliance with RBMC, TMC, and CALGreen. Refer to the consistency discussion under Title 24 of the CCR Title 24.
Reduce GHG emissions from electricity by reducing energy demand. The California Energy Commission updates appliance energy efficiency standards that apply to electrical devices or equipment sold in California. Recent policies have	Consistent. The proposed Project would utilize energy efficiency appliances and equipment and would meet or exceed the Title 24 Building Energy Efficiency Standards.

Table 3.7-11. Project Consistency Summary with State GHG Emissions Reduction Strategies (Continued)

Strategy	Relationship to Project
established specific goals for updating the standards; new standards are currently in development.	
Apply strategies that integrate transportation and land-use decisions, including but not limited to promoting jobs/housing proximity, high-density residential/ commercial development along transit corridors, and implementing intelligent transportation systems.	Consistent. The proposed Project would locate residential, medical office, community service, office, gym, restaurant, and open space uses in close proximity to multi- and single-family residential uses as well as recreational and commercial uses. The Project site is also within walking distance to several stops along the Beach Cities Transit Line 102. The area surrounding the Project site also provides an extensive network of sidewalks, pedestrian paths, and a bicycle route.

Cumulative Impacts

As previously described, the analysis of GHG emissions is cumulative in nature because global climate change impacts are caused by cumulative GHG emissions. Additionally, physical impacts related to global climate change do not necessarily occur in the same area as the source of the GHG emissions. The preceding analysis, which describes the cumulative impacts of GHG emissions associated with the proposed Project, has found that the proposed Project would not conflict with (and thereby be inconsistent with) the applicable regulatory plans and policies to reduce GHG emissions. Therefore, the proposed Project would not substantially contribute to a cumulatively considerable impact related to GHG emissions and global climate change.

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3.8 HAZARDS AND HAZARDOUS MATERIALS

This section of the Environmental Impact Report (EIR) describes the existing conditions related to hazards and hazardous materials at the Beach Cities Health District (BCHD) campus and assesses the potential for impacts that could result from the implementation of the proposed BCHD Healthy Living Campus Master Plan (Project). A range of other types of hazards are addressed in other sections of this EIR, including: hazardous air pollutants (e.g., toxic air contaminants [TACs] and diesel particulate matter [DPM]) addressed in Section 3.2, *Air Quality*; geologic hazards (e.g., earthquakes) addressed in Section 3.6, *Geology and Soils*; urban fire protection services and response/suppression systems discussed in Section 3.13, *Public Services*; and transportation-related hazards (e.g., pedestrian and bicycle safety) discussed in Section 3.14, *Transportation*.

Hazardous materials are defined as substances with physical and chemical properties of flammability, corrosivity, reactivity, or toxicity, which may pose a threat to human health or the environment. The term “*hazardous materials*” is used in this section to refer to chemicals such as petroleum products, solvents, agricultural pesticides, herbicides, paints, metals, asbestos-containing material (ACM), lead-based paint (LBP), and other regulated materials (e.g., polychlorinated biphenyls [PCBs]). Additionally, the term “*release*” as used in this section includes known historical spills, leaks, illegal dumping, or other methods of release of hazardous materials to soil, sediment, groundwater, or surface water.

The analysis of potential impacts associated with hazards and hazardous materials is based the findings of a Phase I Environmental Site Assessment (ESA) (2019) and a Phase II ESA (2020) prepared by Converse Consultants (see Appendix G). The Phase I ESA included an environmental regulatory database search as well as visual inspection of the Project site and the adjacent properties (e.g., Redondo Village Shopping Center, Dominguez Park, etc.). Based on the findings of the Phase I ESA, which identified potential sources of contamination including a previously abandoned and plugged oil and gas well located on the Flagler Lot as well

- **PHASE I ESA:** Phase I ESAs are due diligence reports prepared in advance of real estate transactions to identify existing or potential environmental contamination liabilities. The scope and requirements of a Phase I ESA are described in American Standard for Testing and Materials (ASTM) E-1527-13. Phase I ESAs generally rely on a site inspection, interviews, and database searches to identify the potential for Recognized Environmental Conditions (RECs) (i.e., potential sources of environmental contamination) associated with the underlying land as well as the physical improvements to the property.
- **PHASE II ESA:** If the Phase I ESA determines that there are RECs (i.e., potential sources of environmental contamination), then a Phase II ESA may be conducted. Phase II ESAs include targeted sampling, investigation, and analysis of the potential soil and/or groundwater contamination identified in the Phase I ESA.

as a former dry cleaner located within the Redondo Village Shopping Center, a Phase II ESA was prepared. The Phase II ESA included the collection of soil borings to test for soil contaminants and soil vapor on the Project site. Based on the results of the soil testing, ambient indoor and outdoor air samples were also collected.

3.8.1 Environmental Setting

Historic Land Uses at the Project Site and within the Surrounding Vicinity

A review of available data – including aerial photographs, Sanborn Fire Insurance Maps, topographic maps, and local directories – indicates that the BCHD campus was historically developed as an agricultural use before its redevelopment as the South Bay Hospital beginning in 1958. Surrounding properties were similarly originally developed for agricultural uses and later converted in the 1960s to residential and commercial uses (see Table 3.8-1).

Table 3.8-1. Summary of Aerial Photographs Depicting Previous Development on the Project Site and within the Surrounding Vicinity

Year	Previous Development
1924	The Project site is developed for agriculture uses with a small pond located on-site. The adjacent properties are similarly developed for agricultural uses.
1947	The Project site is vacant with the exception of a second pond located on the vacant Flagler Lot. The adjacent properties are primarily developed for agricultural uses.
1951	The Project site is partially graded; however, there are no substantial changes in development. The adjoining properties are primarily vacant; however, the adjoining property to the northeast appears to be developed as a landfill.
1956	The Project site is developed with a baseball field. There are no substantial differences in development at the surrounding properties.
1963	Former South Bay Hospital (currently Beach Cities Health Center; 514 North Prospect Avenue) is developed; however, adjacent Flagler Lot remains vacant.
1972	There are no substantial changes in development at the Project site. The adjoining properties are developed for residential uses and the property to the northwest is developed as a commercial shopping center with a gas station. The property to the northeast is developed with a park.
1976	The Beach Cities Advanced Imaging Building (510 North Prospect Avenue) has been developed on the Project site.
1989	The Providence Little Company of Mary Medical Institute Building (520 North Prospect Avenue) and an aboveground parking structure are developed on the Project site.

Notes: Available building permits, maintained by the Redondo Beach Building & Safety Division, were reviewed and are described in detail in Appendix G. These permits more specifically describe the timeline of development at 510, 512, 514, and 520 North Prospect Avenue

Source: Converse Consultants 2019, 2020.

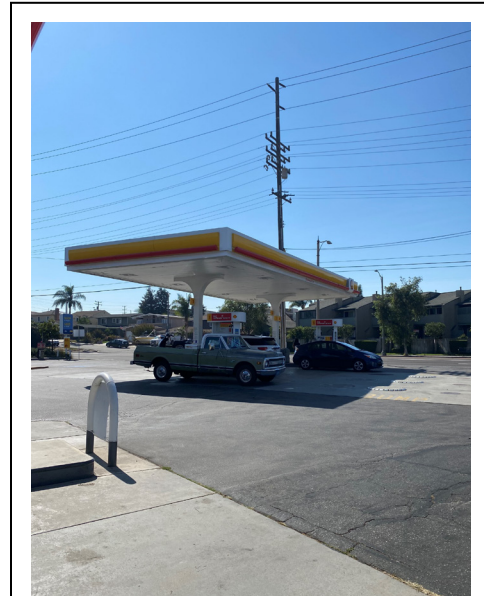
Potential Presence of Hazardous Materials

As previously described, a Phase I ESA was prepared for the proposed Project by Converse Consultants in May 2019 to evaluate current environmental conditions at the Project site (Converse Consultants 2019; see Appendix G). Consistent with the requirements of ASTM E-1527-13, the Phase I ESA included an environmental regulatory database search (e.g., Department of Toxic Substances Control [DTSC] EnviroStor [Cortese List] and the State Water Resources Control Board [SWRCB] GeoTracker databases) as well as a visual inspection of the Project site and the adjacent properties.

Potential Sources of Contamination within the Vicinity of the Project Site

The Phase I ESA identified several potential environmental concerns adjacent to the Project site including:

- **Shell Gas Station at 1200 Beryl Street.** The existing Shell gas station is located adjacent to the northwest of the Project site within the Redondo Village Shopping Center. This site has been listed in various environmental regulatory databases for violations related to improper paperwork, improper monitoring, failure to maintain copies of relevant permits/plans on-site, failure to maintain an approved response plan, and other miscellaneous regulatory violations. However, each of these violations has been addressed and the site is currently in compliance (Converse Consultants 2019). This site is also listed in the Leaking Underground Storage Tank (LUST) database for an unauthorized release that was discovered in 2004. However, this release was remediated and a No Further Action was letter was issued by the Los Angeles Regional Water Quality Control Board (RWQCB) on April 12, 2012 (Converse Consultants 2019).



The Redondo Village Shopping Center, located immediately north of the Project site along Beryl Street, includes a Shell gas station, which regularly handles and stores petroleum and diesel products. The Shell gas station was previously listed as a LUST Cleanup Site but has since been remediated with no further action required.

- **Former Dry Cleaner at 1232 Beryl Street.** This site is listed in the Federal Drycleaners Database and appears to have operated from as early as 1990 to 2018 (Converse Consultants 2019). More recently, the location was operated as Coury & Son Cleaners; however, this business permanently closed in January 2018 (Converse Consultants 2019). As described in further detail below, the former dry cleaner that operated at the Redondo Village Shopping Center is suspected to be a source of tetrachloroethylene (PCE) soil contamination at the Project site and the neighboring properties (Converse Consultants 2020). Beginning in the mid-1930s, the dry cleaning industry began to use PCE as a primary solvent due to its cleaning power and compatibility with most clothing. Machines of this era were “*vented*,” meaning that their exhaust was expelled to the atmosphere, much like modern day tumble-dryer exhausts. Much stricter controls on solvent emissions have ensured that modern-day dry cleaning machines are now fully enclosed so no solvent fumes are vented to the atmosphere. PCE is a liquid that has the potential to enter into groundwater and/or volatilize (i.e., to become a vapor) and permeate building foundations. The effects of PCE on human health depend greatly on the length and frequency of exposure. Short-term, high-level inhalation exposure (i.e., in confined spaces) can result in irritation of the upper respiratory tracts and eyes, kidney dysfunction, and neurological effects. Long-term exposure (e.g., in confined spaces) can result in neurological impacts including impaired cognitive and motor neurobehavioral performance as well as adverse effects in the kidney, liver, immune system and hematologic system, and on development and reproduction (U.S. Environmental Protection Agency [USEPA] 2016). In contrast exposure to PCE in unconfined spaces presents very limited risk given its rapid volatilization (i.e., evaporation or dispersal in vapor form). As described in further detail below a Phase II ESA – including soil sampling and indoor ambient air quality testing – was conducted at the Project site to determine the extent of PCE contamination as well as the potential for exposure to unsafe levels of PCE within confined spaces (i.e., buildings) on the campus.

- Former Landfill at 200 Flagler Lane.** This landfill operated from 1904 to 1967, during which time it accepted “inert, residential” waste. The landfill was closed and underwent cleanup beginning in January 1989, after which it was issued a “completed-case closed” designation by the Los Angeles RWQCB on October 1, 2012 (Converse Consultants 2019). The property is currently developed as Dominguez Park, a 24-acre park with grass and trees, picnic areas and play equipment, a dog park, Heritage Court, and two Little League fields.



Dominguez Park, which is located immediate adjacent to the northeast of the Project site, was formerly a landfill that was operated from 1904 to 1967.

- Redondo Village Shopping Center.** Multiple retail store/grocery store listings from within the shopping center were identified in the report as sources of small quantities of hazardous wastes (Converse Consultants 2019). However, no evidence suggesting any unauthorized releases was identified during the Phase I ESA, including the visual site inspection (Converse Consultants 2019).

Potential Sources of Contamination at the Project Site

The Phase I ESA identified several potential environmental concerns at the Project site including:

- Underground Storage Tank.** One 10,000-gallon underground storage tank (UST) was identified on the existing BCHD campus. This UST, which is located beneath the northern surface parking lot, is plumbed to three back-up generators located within the Maintenance Building at 514 North



One 10,000-gallon UST is located beneath the existing north surface parking lot on the BCHD campus and is associated with back-up generators located within the attached maintenance building.

Prospect Avenue. One transformer was observed in the Maintenance Building and three pad-mounted transformers were observed outdoors adjacent to the building. However, the Phase I ESA determined that neither the UST nor the transformers would be considered hazardous (Converse Consultants 2019).

- **Former Oil and Gas Well.** The Phase I ESA also identified a former oil and gas well (Simmons Well #2) located on the vacant Flagler Lot (Converse Consultants 2019). The well was drilled in the 1930s and, according to production data, was in operation by Decalta International Corporation from July 1977 to October 1989. The well was no longer in production in November 1989 and has been listed by the California Geologic Energy Management Division (CalGEM; formerly the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources [DOGGR]) as “*abandoned and plugged*” (Converse Consultants 2019). CalGEM requires that all well casings shall be cut off at least 5 feet but no more than 10 feet below the surface of the ground. According to available records, it appears that the top of the well casing was cut off at a depth of approximately 6 feet below grade at the time it was abandoned (Converse Consultants 2019, 2020). As described in further detail below a Phase II ESA – including soil sampling – was conducted at the vacant Flagler Lot to determine the potential for soil contamination associated with the former oil and gas well (Converse Consultants 2020).

Hazardous Building Materials at the Project Site

Based on aerial photographs, Sanborn Fire Insurance Maps, and other real estate documents, it was determined that construction of the existing buildings at the Project site occurred between 1958 and 1995. Based on the age of the buildings, the following hazardous building materials may be present on the BCHD campus:

- **Asbestos-Containing Material** – Asbestos is a naturally occurring carcinogenic fiber that was widely used in a variety of building materials as well as in friction and heat-resistant products. The use and manufacturing of ACM was banned in 1977 in California; however, older buildings constructed prior to 1978 may still contain ACM. Materials typically suspected of containing asbestos include drywall, floor tile and mastic, drywall joint compound, drop ceiling tile, stucco, window putty, and roofing materials. Asbestos release can occur after ACMs are disturbed by cutting, sanding or other remodeling activities. Improper attempts to remove ACM can release asbestos fibers into the air, increasing asbestos levels and affecting human respiratory health. The USEPA recommends removal of all ACM prior to renovation or demolition activities (USEPA 2017). Additionally, the

South Coast Air Quality Management District (SCAQMD) has specific regulations concerning demolition and renovation activities involving ACM. Under SCAQMD Rule 1403, Asbestos Emissions from Demolition/Renovation Activities (see Section 3.8.2, *Regulatory Setting*), if renovation or demolition would disturb any suspected ACM a licensed California Certified Asbestos Consultant must first survey the materials for asbestos. If asbestos is found, an asbestos abatement contractor must remove the ACM prior to the renovation or demolition. Physical sampling of ACM was not included in the scope of the Phase I ESA. However, due to the age of the existing buildings on-site it is assumed that ACM is present in one or more of the buildings (Converse Consultants 2019, 2020).

- Lead-Based Paint** – Lead is a recognized harmful environmental pollutant exposed through air, drinking water, food, contaminated soil, deteriorating paint, and dust. Before the dangers of lead were documented, it was widely used in paint. In 1978, the State of California banned the use of LBP. However, older buildings constructed prior to 1978 may still contain LBP. If LBP is improperly removed from surfaces by dry scraping or sanding, LBP can be absorbed into the body and could pose a potential health risk. Physical sampling of LBP was not included in the scope of the Phase I ESA. However, due to the age of the existing buildings on-site it is assumed that LBP is present in one or more of the buildings (Converse Consultants 2019, 2020).
- Polychlorinated biphenyls** – PCBs are a group of man-made compounds that were widely used in the past (e.g., in electrical equipment such as transformers and used as hydraulic fluid in older elevators), but which were banned at the end of the 1970s because of environmental concerns. During the visual site inspection associated with the Phase I ESA, one transformer was observed in the Maintenance Building and three pad-mounted transformers were observed outdoors adjacent to the building (Converse Consultants 2019). No leaking or



The former South Bay Hospital was developed by 1963 and the Beach Cities Advanced Imaging Building was developed by 1976, before regulations banned use of ACM, LBP, and PCBs in construction materials. Due to the age of the structures and their location in a coastal area the existing buildings may contain hazardous materials or mold.

staining was observed (Converse Consultants 2019). Because the buildings currently located on the Project site were constructed prior to the 1960s, the florescent light ballasts may also contain PCBs. However, there was no evidence of leaks from the ballasts and therefore, the potential for hazards associated with PCBs at the BCHD campus is low (Converse Consultants 2019, 2020).

The Phase I ESA prepared for the proposed Project identified the potential for PCE contamination on the BCHD campus, due to former dry cleaner located at 1232 Beryl Street as well as the potential for soil contamination as a result of the previously abandoned and plugged oil and gas well located on the vacant Flagler Lot. These issues were investigated further in a Phase II ESA prepared by Converse Consultants in February 2020. The Phase II ESA included the collection of soil borings to test soil and soil vapor on the Project site. Based on the results of soil testing ambient air samples were also collected.

Soil Samples

During preparation of the Phase II ESA, a total of 15 soil borings were collected throughout the Project site, including 10 borings on the existing BCHD campus and 5 soil borings within the vacant Flagler Lot (see Figure 3.8-1). Of the 10 soil borings located on the existing BCHD campus, 9 were completed to a depth of 15 feet below ground surface (bgs). The other soil boring, which was located within the northern surface parking lot along the border with the Redondo Village Shopping Center, was completed to a depth of 30 feet bgs. This soil boring (i.e., B-1; see Figure 3.8-1) was completed to a greater depth in order to investigate the potential for the migration of potential PCE contamination from the former dry cleaner at 1232 Beryl Street. The 5 soil borings within the vacant Flagler Lot were completed to a depth of 15 feet bgs.

- **SCREENING LEVELS:** Phase II Environmental Screening Levels are comparative concentrations of chemicals in soil or soil-gas, which represent a threshold for human health concern. In a Phase II ESA, these numbers are tools to compare directly with the contaminant detection on site. The Phase II prepared for the Project site used RWQCB Environmental Screening Levels (August 2019), DTSC Human Health Risk Assessment Note 3 Screening Levels (April 2019), and/or USEPA Regional Screening Levels (November 2019), as appropriate.
- **RESIDENTIAL SCREENING LEVEL:** There is a higher anticipation of exposure to toxic vapors at residential properties. This is because occupants are normally present 168 hours a week. As a result, residential screening levels tend to be more conservative (i.e., have a lower threshold limit). During a Phase II ESA, if the existing development includes residential land-use, it is most appropriate to compare results to residential screening levels, and secondarily to commercial screening levels.
- **COMMERCIAL SCREENING LEVEL:** There is a lower anticipation of exposure to subsurface vapors at commercial properties. This is because occupants are normally present approximately 40 hours a week. Thus, commercial environmental screening levels generally have a higher threshold limit.



wood.

Soil Boring Sample Locations

**FIGURE
3.8-1**

- **Metals.** Ten metals were reported in the soil samples: barium, cadmium, chromium, cobalt, copper, lead, mercury, nickel, vanadium, and zinc. Each of these the metals were reported at concentrations less than their respective DTSC and USEPA residential screening levels (Converse Consultants 2020).
- **Total Petroleum Hydrocarbons.** Total Petroleum Hydrocarbons (TPH) in the heavy oil range was detected in two samples at boring locations within the vacant Flagler Lot (i.e., B-14 and B-15; refer to Figure 3.8-1) at concentrations of 20.9 and 123 milligrams per kilogram (mg/kg), respectively, which are well below the DTSC and USEPA residential screening level of 180,000 mg/kg. These concentrations are most likely related to the previously abandoned and plugged oil and gas well located at this site (Converse Consultants 2020). TPH in the gasoline and diesel ranges was not detected in any of the samples (Converse Consultants 2020).
- **Organochlorine Pesticides.** Concentrations of 4,4'-dichlorodiphenyldichloroethylene (DDE) and dichlorodiphenyltrichloroethane (DDT) were detected at concentrations of 254 and 30 micrograms per kilogram (µg/kg), respectively, near the entrance to the Beach Cities Health Center (i.e., B-10). These concentrations, which likely result from the historic agricultural use of the Project site, are well below their DTSC and USEPA residential screening levels of 2,000 mg/kg, and 1,900 µg/kg, respectively. No other organochlorine pesticides were identified in any of the samples analyzed.

Soil Vapor Samples

Soil vapor samples were also collected from the boreholes associated with each of the soil borings. The following 16 volatile organic compounds (VOCs) were detected in one or more of the soil vapor samples: benzene; PCE; chloroform; toluene; dichlorodifluoromethane; trichloroethylene (TCE); 1,1-dichloroethene; trichlorotrifluoromethane; ethylbenzene; 1,2,4-trimethylbenzene; 4-isopropyltoluene 1,3,5-trimethylbenzene; n-propylbenzene; m,p-xylene; styrene; and o-xylene. Of the 16 VOCs detected, 13 were detected at levels below their residential screening levels. Only three were reported at concentrations in excess of their respective residential screening levels: PCE, benzene, and chloroform.

- **PCE.** PCE was detected in 24 of the 30 samples at concentrations in excess of the RWQCB Environmental Screening Levels (August 2019) residential screening level. The former dry cleaner that operated at the Redondo Village Shopping Center is suspected to be the source of the PCE, because concentrations generally decrease to the south across the Project site with distance from the historical dry cleaner location. As previously described, PCE is a

liquid that has the potential to enter into groundwater and/or volatilize and permeate building foundations. This is considered a potential risk to human health.

BCHD notified the Los Angeles County Fire Department (LACoFD) Health Hazardous Materials Division, which is the Certified Unified Program Agency (CUPA) for Redondo Beach,¹ as well as the Los Angeles Regional Water Quality Control Board (RWQCB). BCHD also notified the owners at 1232 Beryl Street, where the historical dry cleaner was located (BCHD 2020). BCHD is working with these entities (e.g., City of Redondo Beach and City of Torrance) to address the sampling results and identify the responsible party. As the CUPA for Redondo Beach, LaCoFD will be responsible for overseeing the required remediation activities by the responsible landowner. The responsible landowner will be required to determine the extent of the PCE contamination, develop a treatment plan, notify surrounding landowners, and implement the cleanup. The most common remediation method for PCE is vapor extraction, which involves drilling wells and installing carbon filtration systems. The PCE gets stuck on the carbon filter and clean air is discharged.

- **Benzene.** Benzene was detected in two of the 30 samples, in excess of the RWQCB Environmental Screening Levels (August 2019) residential screening levels, at a depth of up to 15 feet. Because these detections were taken from samples in the north-central portion of the Project site, the Shell gas station located at the adjoining property to the northwest does not appear to be the source. Leaks from vehicles in the surface parking lots on the existing BCHD campus are a potential source of benzene (Converse Consultants 2020).
- **Chloroform.** Chloroform was detected in four of the 30 samples, one of which exceeded the RWQCB Environmental Screening Levels (August 2019) residential screening levels and three of which exceeded the less conservative commercial screening levels. These four samples were taken in the southern portion of the Project site. Sources of the detected chloroform are unknown but potentially include leaky water pipes, because chloroform is a byproduct of the chlorination process used in most municipally supplied drinking water.

Methane was not detected in any of the probes at concentrations greater than the background concentration of 0.1 parts per million by volume (ppmv); therefore, neither the existing BCHD

¹ As described in Section 3.8.2, *Regulatory Setting* SB 1082 created the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program), which requires the administrative consolidation of six hazardous waste and hazardous materials programs under the California Unified Program Administrator (CUPA). These programs include: Hazardous Materials Disclosure Program (Article 1 Chapter 6.95 Health & Safety Code [H&SC]); California Accidental Release Program (Article 2 Chapter 6.95 H&SC); Underground Storage Tank Program, (Chapter 6.7 H&SC); California Fire Code dealing with Hazardous Materials Management Plans; Hazardous Waste (Chapter 6.5 H&SC); and Tiered Permitting (Chapter 6.5 H&SC).

campus, nor the vacant Flagler Lot appear to be impacted as a result of being located in the Torrance Oil Field or adjacent to the former landfill at Dominguez Park (Converse Consultants 2020). Additionally, the Phase II ESA soil and soil vapor sampling found no evidence of impacts from the 10,000-gallon diesel fuel UST currently operating on-site or from the Shell gas station (Converse Consultants 2020).

Indoor Air Quality Samples

Based on the VOC concentrations in the soil vapor samples – particularly the PCE concentrations, which exceeded the RWQCB Environmental Screening Levels (August 2019) residential screening levels – five ambient air quality samples were collected to evaluate the potential vapor intrusion. Indoor air quality samples were collected at Beach Cities Health Center (514 North Prospect Avenue) and the attached Maintenance Building as well as Beach Cities Advanced Imagine Building (510 North Prospect Avenue) and Providence Little Company of Mary Medical Institute Building (520 North Prospect Avenue). Additionally, an outdoor ambient air quality sample was collected in close proximity to the Maintenance Building (Converse Consultants 2020).

- **PCE** was reported at a maximum concentration less than the residential screening level for indoor air. All reported concentrations of PCE in indoor air quality samples were generally consistent with the concentration reported in the outdoor ambient air quality sample. Therefore, the concentration of PCE detected in indoor air quality samples were determined to be related to background levels present in the ambient air rather than from concentrations in the subsurface that may have intruded through the building foundation (Converses Consultants 2020).
- **Benzene and Chloroform** were detected in excess of their residential screening levels for indoor air in all samples. However, all but one sample in the parking garage storage room were generally similar to the background concentrations reported in the outdoor air quality sample. The elevated concentrations of benzene and chloroform in the sample from the parking garage storage room are likely related to exhaust from vehicles or disinfection/cleaning products. The concentrations detected in all other indoor air quality samples are likely to be related to background levels present in the ambient air rather than from concentrations in the subsurface that may have intruded through the building foundation.

Excavation of Former Oil and Gas Well

In August 2020, following the completion of the Phase II ESA soil and soil vapor sampling, Converse Consultants attempted to identify the location of the abandoned oil and gas well. Converse Consultants used aerial photographs to determine the approximate location of the well, but were unable to confirm the precise location in the field with an excavator. Terra-Petra Environmental Engineering (Terra-Petra) conducted a geophysical survey of the Project site in September 2020 using a magnetometer for the purpose of locating the former oil and gas well on the property. A significant magnetic anomaly suspected to be the oil and gas well was identified approximately 30-feet east of the western fence boundary and approximately 30 feet north of the toe of the slope at the vacant Flagler Lot. Terra-Petra excavated the well to physically locate it and completed a leak test, which was negative (i.e., no leaks were detected). Terra-Petra is preparing a summary report to be shared with CalGEM, the responsible oversight agency. The report shall summarize all of the activities completed to date including a copy of the geophysical survey, results of the leak test, and a map illustrating the location of the well based on the survey.



This historic aerial image taken in 1960 depicts the hospital building (lower right corner) as well as the oil and gas well located on the vacant Flagler Lot.

Terra-Petra will also initiate the Construction Site Plan Review process to be completed with CalGEM, which will conclude with the issuance of a Well Review letter describing CalGEM's recommendations. The Construction Site Plan Review shall include the following:

- A completed and signed Construction Site Plan Review application form;
- A completed supplemental real property form;
- An Assessors/Tract Map showing street names, lot dimensions and lot numbers for the property;
- Geophysical Survey Site plan showing well names and well locations with distance from proposed property structures and property lines. The plan will overlay any known oil well locations and/or metallic anomalies with oil well signatures as well as the proposed development;
- Table with basic well information: well name, lease, operator, etc.

Terra-Petra will also initiate permitting process with CalGEM to procure procuring all necessary permit forms and applications to successfully survey and decommission the former oil and gas well.

3.8.2 Regulatory Setting

Several Federal, State, and local regulations limit the risk of upset during the use, transport, handling, storage, and disposal of hazardous materials. The agencies responsible for enforcing these regulations have developed standards for the handling and cleanup of specific materials, which are determined to pose a risk to human health or the environment. The Federal enforcement agency is the USEPA. Enforcement agencies at the State level include two branches of the California Environmental Protection Agency (CalEPA): DTSC and SWRCB. In addition, CalEPA administers the “Unified Program,” which helps businesses comply with administrative requirements, permits, inspections and enforcement activities required by environmental and emergency management programs. The Unified Program is enforced, at the local level, by the CUPA. The CUPA is responsible for protecting the public and environment by overseeing uniform fire code plans, hazardous waste, underground storage tanks, above-ground tanks, hazardous materials, community right-to-know, and accidental release prevention programs. The CUPA for the Redondo Beach and Torrance is the LACoFD Health Hazardous Materials Division with the RBFD authorized as a participating agency for Redondo Beach.

Federal Regulations

Federal agencies that regulate hazardous materials include the USEPA, U.S. Department of Labor Occupational Safety and Health Administration (OSHA), and the U.S. Department of Transportation (DOT). Applicable Federal regulations are contained primarily in Titles 10, 29, 40, and 49 of the Code of Federal Regulations (CFR). In particular, Title 49 of the CFR governs the transport of hazardous materials, and Title 42 of the CFR, Chapter 82 governs solid waste disposal and resource recovery. Some of the major Federal laws include the following:

- Resource Conservation and Recovery Act of 1976 (RCRA);
- Emergency Prevention and Community Right to Know Act of 1986 (EPCRA);
- Toxic Substances Control Act of 1976 (TSCA);
- Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA);
- Clean Water Act of 1977 (CWA);

- Clean Air Act of 1963 (CAA);
- Asbestos Hazard Emergency Response Act of 1986 (AHERA);
- Hazardous Materials Transportation Action of 1975;
- Federal Insecticide, Fungicide, and Rodenticide Act of 1947;
- National Emission Standard for Hazardous Air Pollutants (NESHAP) - 40 CFR 61 Subpart M;
- Process Safety Management of Highly Hazardous Chemicals (29 CFR §1910.119) and Hazardous Waste Operations and Emergency Response (29 CFR §1910.120); and
- Residential Lead-Based Paint Hazard Reduction Act (1992), also known as Title X.

State Regulations

Primary State agencies with jurisdiction over hazardous materials management – including spill responses and remediation – include DTSC and the SWRCB. Other State agencies involved in hazardous materials management are the California Department of Industrial Relations Occupational Health and Safety Administration (CalOSHA), California Office of Emergency Services (CalOES) – California Accidental Release Prevention implementation, California Department of Fish and Wildlife (CDFW), California Air Resources Board (CARB), California Department of Transportation (Caltrans), California Office of Environmental Health Hazard Assessment (OEHHA) – Proposition 65 Implementation, the California Department of Health Services (DHS), and the California Integrated Waste Management Board (CIWMB). The enforcement agencies for hazardous materials transportation regulations are the California Highway Patrol (CHP) and Caltrans. Hazardous materials waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations.

Hazardous chemical and biohazardous materials management laws in California include the following statutes:

- Hazardous Waste Control Act;
- Medical Waste Management Act;
- Hazardous Materials Release Response Plans and Inventory Act;
- Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65);
- Hazardous Substances Act;
- Hazardous Waste Management Planning and Facility Siting (Tanner Act);
- Porter Cologne Water Quality Control Act;

- Title 23 of the California Code of Regulations (CCR) Division 6, Chapter 16: Underground Storage Tank Regulations;
- Title 22 of the CCR: Hazardous Waste;
- Title 8 of the CCR, Section 1529: Asbestos;
- California Public Resources Code (PRC) – Article 4.2 Hazardous Wells Section 3255; and
- SCAQMD Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities.

Government Code Section 65962.5 – DTSC EnviroStor Database (Cortese List)

The DTSC maintains a database that contains information on properties in California where hazardous substances have been released, or where the potential for a release exists. This database is known as EnviroStor (formerly CalSites) and is one of a number of databases that comprise the Cortese List and Spills, Leaks, Investigations, and Cleanups (SLIC) List. The EnviroStor Database provides a brief history of cleanup activities, contaminants of concern, and scheduled future cleanup activities. The EnviroStor Database also includes properties that have been remediated and certified by DTSC.

California Public Resource Code Section 3255

PRC Section 3255 designates authority to CalGEM (formerly DOGGR) to require the inspection, abandonment, re-abandonment, drilling, re-drilling, and production for the purpose of remedying, mitigating, minimizing, or eliminating danger to life, health, and natural resources, the decommissioning of hazardous or deserted facilities, or any other remedy or oilfield operation of on any property in the vicinity of which, or on which, is located any well or facility that the supervisor determines to be a hazardous well, an idle-deserted well, a hazardous facility, or a deserted facility.

California Code of Regulations– Asbestos and Lead

The CCR regulate potential asbestos exposure in construction when construction, alteration, repair, maintenance, renovation or demolition of structures, substrates, or portions thereof contain asbestos (8 CCR Section 1529 [a][1][C]). Additionally, in California, materials containing greater than 0.1 percent asbestos by weight are regulated as ACM.

The Title 17 of the CCR, Division 1, and Chapter 8 pertains to all public and residential buildings in California. Pursuant to Title 17 and USEPA regulations, LBP is defined as paint or other surface

coatings containing an amount of lead equal to or greater than 1 milligram per square centimeter (mg/cm²) or more than 0.5 percent (5,000 parts per million [ppm]) by weight. Title 17 also defines a lead hazard as deteriorated LBP, disturbance of LBP or presumed LBP without containment, or any other nuisances which may result in persistent or quantifiable lead exposure. Additionally, worker exposure to materials containing lead during construction work is regulated by 8 CCR Section 1532.1(a). These regulations require worker protection during construction “*where lead or materials containing lead are present.*”

Regional Policies and Regulations

South Coast Air Quality Management District (SCAQMD)

The SCAQMD regulates asbestos through Rule 1403, Asbestos Emissions from Renovation/Demolition Activities. Rule 1403 defines asbestos as a toxic material and controls the emissions of asbestos from demolition and renovation activities by specifying agency notifications, appropriate removal procedures, and handling/cleanup procedures. Rule 1403 applies to owners and operators involved in the demolition or renovation of asbestos-containing structures, asbestos storage facilities, and waste disposal sites.

The SCAQMD also regulates VOC emissions from contaminated soil through Rule 1166, Volatile Organic Compound Emissions from Decontamination of Soil. Rule 1166 sets requirements to control the emission of VOCs from excavating, grading, handling, and treating soil contaminated with volatile organic compounds as a result of leakage from storage or transfer operations, accidental spillage, or other deposition, including hydrocarbons.

Los Angeles County Integrated Waste Management Plan and Hazardous Waste Management Plan

The Los Angeles County Department of Public Works (DPW), Environmental Programs Division (EPD), prepares and administers the Los Angeles County Integrated Waste Management Plan and Hazardous Waste Management Plan, which provide direction for proper management of all waste generated within the County. As the County’s Lead Agency, it advises the Los Angeles County Board of Supervisors regarding all waste management issues. EPD implements numerous programs to meet State-mandated solid waste reduction goals, including recycling, composting, source-reduction, household hazardous waste management, and public education programs. These programs regulate USTs in the County’s unincorporated areas and 77 cities, including Redondo Beach, to protect groundwater resources.

City of Redondo Beach Local Policies and Regulations

The primary local agency, known as the CUPA, with responsibility for implementing Federal and State laws and regulations pertaining to hazardous materials management is LACoFD Health Hazardous Materials Division with RBFD authorized as a participating agency. LACoFD Health Hazardous Materials Division and RBFD work together to implement the Redondo Beach Local Hazard Mitigation Plan that addresses the City's planned response to emergencies. The CUPA is certified by CalEPA to implement the six State environmental programs within the local agency's jurisdiction. This program was established under the amendments to the California Health and Safety Code made by Senate Bill (SB) 1082 in 1994. The six consolidated programs are as follows:

- Hazardous Materials Reporting and Response Planning;
- Uniform Fire Code Business Plan;
- Hazardous Waste Generation and On-site Treatment;
- Accidental Release Prevention;
- Aboveground Storage Tank; and
- Underground Storage Tank.

As the designated CUPA for the City, LACoFD Health Hazardous Materials Division maintains the records regarding location and status of hazardous materials sites in the City and administers programs that regulate and enforce the transport, use, storage, manufacturing, and remediation of hazardous materials.

Redondo Beach General Plan Environmental Hazards/Natural Hazards Element

The Redondo Beach Environmental Hazards/Natural Hazards Element of the General Plan (1993) contains several policies regarding fire hazards and emergency management. Specifically, it contains safety goals and objectives that create a framework for implementation policies, which relate to the Redondo Beach Local Hazard Mitigation Plan. The objectives that are applicable to the proposed Project and hazardous materials are listed below:

- Objective 11.1: Promote and assist in the oversight of the proper operation and upkeep of local hazardous waste facilities, as well as the safe management, handling, and transportation of toxic and hazardous materials through the enforcement of applicable state and local regulations.

City of Torrance Beach Local Policies and Regulations

Torrance General Plan Safety Element

The Torrance General Plan Safety Element (2010) sets forth policies designed to minimize threats from natural and human-caused hazards. By implementing the Safety Element, the City of Torrance can deliver timely emergency service delivery and focus on the expansion of such services throughout the City. The objectives that are applicable to the proposed Project and hazardous materials are listed below:

Objective S.3: To protect the community from hazards associated with the production, transmission, and processing of petroleum products.

Policy S.3.1 Take appropriate measures to protect citizens from the hazards of oil and gas recovery, production, and transmission.

Policy S.3.2 Require that oil well abandonment and construction near abandoned oil wells comply with the most current local, State, and Federal abandonment standards.

Policy S.3.3 Require all secondary recovery projects to comply with all applicable regulations regarding health, safety, and aesthetics as a condition of approval.

Policy S.3.4 Maintain comprehensive regulations in the Municipal Code that address all aspects of oil and gas recovery, production, and transmission activities.

Policy S.3.5 Ensure the compatibility of land uses near new and future oil recovery activities.

Objective S.4: To reduce the risk associated with the use, storage, transport, or disposal of hazardous waste.

Policy S.4.1 Adopt and strictly enforce the most current regulations governing hazardous waste management.

Policy S.4.2 Minimize exposure of critical facilities and residences to hazardous materials.

Policy S.4.3 Avoid locating new residential development adjacent to or near potentially hazardous industrial activities.

City of Torrance 2017-2022 Local Hazard Mitigation Plan (2017)

The City developed the 2017-2022 Local Hazard Mitigation Plan to Potential to prevent against, prepare for, respond to and recover from both natural and man-made emergencies and disasters. The Hazard Mitigation Plan was designed be consistent with Federal Emergency Management Agency (FEMA) requirements.

Following approval of the plan by FEMA, the City of Torrance adopted the Local Hazard Mitigation Plan in October 2017, by resolution of the City Council. The plan identifies and describes the hazards that threaten Torrance, and how these hazards were selected and prioritized. For each hazard, the plan discusses hazard history, the risk of future hazards, potential impacts of climate change on the hazard, and the vulnerability of the community to the hazard. The Local Hazard Mitigation Plan also provides the mitigation measures to reduce potential risks from hazards, identifies evacuation routes, and provides an overview of the City's existing capabilities to improve resiliency to hazard events.

3.8.3 Impact Assessment and Methodology

Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the 2020 California Environmental Quality Act (CEQA) Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact from hazards or hazardous materials if it would do any of the following:

- a) The project would create a significant hazard to the public or the environment through the temporary or routine transport, use, or disposal of hazardous materials.
- b) The project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

- c) The project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within a 0.25-mile radius of an existing or proposed school.
- d) The project would be located on a site which is included on a list of hazardous materials sites compiled pursuant of Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
- 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, the project would result in a safety hazard or excessive noise for people residing or working in the project area.
- f) The project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- g) The project would expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires.

Screened-Out Threshold(s):

Threshold (e) (*Public Airport*): The Project site is located approximately 5.75 miles to the south of Los Angeles International Airport (LAX) and is not located within an Airport Land Use Plan. Accordingly, the proposed Project would not result in a safety hazard for people residing in, working in, or visiting the BCHD campus. Therefore, for the reasons stated above and as discussed in Section IX, *Hazards and Hazardous Materials* of the Initial Study (IS), this issue will not be analyzed further in this EIR.

Threshold (g) (*Wildfire*): The Project site is located in a highly urbanized area, surrounded by residential and commercial development. The Project site is located approximately 3.3 miles north of the nearest designated Very High Fire Hazard Severity Zone. As described further in Section 4.0, *Other CEQA* within the *Wildfire* discussion, redevelopment of the existing BCHD campus would not exacerbate wildfire risks or otherwise increase public exposure to wildfires. Therefore, for the reasons stated above and as discussed in Section IX, *Hazards and Hazardous Materials* of the IS, this issue will not be analyzed further in this EIR.

Methodology

As previously described, this analysis is based on a Phase I ESA (2019) and a Phase II ESA (2020) prepared by Converse Consultants (see Appendix G). The Phase I ESA included an environmental

regulatory database search as well as visual inspection of the Project site and the surrounding vicinity. The Phase II ESA included the collection of soil borings to test for soil and soil vapor on the Project site. Based on the results of the soil testing, ambient air samples were also collected during the Phase II ESA.

3.8.4 Project Impacts and Mitigation Measures

Impact Description (HAZ-1)

- a) *The project would create a significant hazard to the public or the environment through the temporary or routine transport, use, or disposal of hazardous materials.*

HAZ-1 The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not create a hazard to the environment or public health through the temporary or routine transport, use, or disposal of hazardous materials. Compliance with Federal, State, and local regulations would ensure that any such impact would be *less than significant*.

Construction

As described in Section 2.0, *Project Description*, the proposed Project involves two phases of development that would demolish and replace the Beach Cities Health Center with new, purpose-built facilities on the existing BCHD campus and the vacant Flagler Lot. Construction activities during each phase of development would require transportation, use, storage, and disposal of small quantities of commercially available hazardous materials, including vehicle fuels, oils, transmission fluids, and hydraulic fluids. However, the use of such materials would be in limited quantities (i.e., not commercially reportable) and would be handled in compliance with Federal, State, and local regulations pertaining to their transport, use, or disposal (e.g., Los Angeles County Integrated Waste Management Plan and Hazardous Waste Management Plan as well as the applicable hazardous materials programs administered by LACoFD; refer to Section 3.8.2, *Regulatory Setting*). As such, the potential for hazardous materials release associated with the transport, use, or disposal would be limited to the accidental spill of chemicals, petroleum, oils, and lubricants within the on-site construction staging areas or along the proposed haul routes. (Potential hazards associated with the disturbance of contaminated soils at the Project site are discussed in Impact HAZ-2.)

The primary construction staging areas for equipment and materials would be the vacant Flagler Lot and the existing north surface parking lot, and a temporary unpaved road may be constructed between the two staging areas. However, the staging areas would likely move between construction phases depending on the available area. As described in Section 2.5.1.6, *Construction Activities* the development application(s) for the proposed Project would include a comprehensive Construction Management Plan, to be submitted for review and approval by the Redondo Beach and Torrance Building & Safety Divisions prior to the issuance of demolition, grading, or building permits. In addition to further defining the construction staging agencies the Construction Management Plan would also provide a detailed description of requirements for storage of hazardous materials, construction fueling areas, and spill kits and secondary containment consistent with all applicable Federal, State, and local regulations.

The transport of large quantities of hazardous materials to the Project site, if any, would be subject to applicable Federal, State, and local regulations intended reduce the risk of accidental spills, leaks, fire, or other hazardous conditions. The DOT, Office of Hazardous Materials Safety prescribes strict regulations for the safe transportation of hazardous materials, as enforced by the CHP and Caltrans (refer to Section 3.8.2, *Regulatory Setting*). Compliance with applicable regulations as well as oversight by the appropriate Federal, State, and local agencies would minimize the risk of hazardous materials exposure during transport. Therefore, the proposed Project would result in a *less than significant* impact with regard to the transport of hazardous materials.

Operation

Operation of the proposed Project would include limited use and storage of hazardous materials including chemicals such as cleaners, paints, solvents, chlorinated products, vehicle fuels, etc. However, similar to existing conditions, the use of these chemicals of the Project site would be in limited quantities (i.e., not commercially reportable quantities).

The proposed Residential Care for the Elderly (RCFE) Building constructed during Phase 1 would also be a small quantity generator of medical waste (e.g., used syringes, biohazards, etc.), similar to the existing memory care and outpatient medical uses on the BCHD campus. Medical wastes generated on-site would continue to be disposed of in special containers located in a secure area of the facility and would be collected regularly. All hazardous materials used on-site would be subject to all appropriate regulation and documentation for the handling, use, and disposal of such materials consistent with all appropriate Federal, State, and local regulations. The proposed Project

would be subject to all of the requirements set forth in Chapter 4 (Small Quantity Generator Requirements) of the H&SC Medical Waste Management Act. Adherence to medical waste regulations for small quantity generators would ensure that impacts related to the storage, transport, and disposal of medical waste would be *less than significant*.

Impact Description (HAZ-2)

- b) *The project would 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.*

HAZ-2 The proposed Project – including the Phase 1 preliminary site development plan as well as the more general Phase 2 development program – could create a hazard to the environment or public health through reasonably foreseeable upset and accident conditions involving the disturbance of hazardous materials during demolition as well as excavation, trenching, and grading. Impacts would be *less than significant with mitigation*.

Hazardous Building Materials

As previously described, the Beach Cities Health Center was originally developed as the South Bay Hospital in 1958. Additionally, the Beach Cities Advanced Imaging Building and the existing parking structure located at 512 North Prospect Avenue were constructed in 1989. Physical sampling of ACM and LBP at these buildings was not included in the scope of the Phase I or Phase II ESA. However, due to the age of the existing buildings on-site it is assumed that ACM and LBP are present in the Beach Cities Health Center and the associated Maintenance Building (Converse Consultants 2019, 2020). Similarly, ACM and LBP may be present within the Beach Cities Advanced Imaging Building and the existing parking structure. During the visual site inspection associated with the Phase I ESA, one transformer was observed in the Maintenance Building and three pad-mounted transformers were observed outdoors adjacent to the building. As such, construction workers, campus residents (e.g., Memory Care and Assisted Living residents), employees, and visitors, and other members of the public could be exposed to these hazardous materials during demolition of the existing buildings and hauling of demolition debris from Project site.

A comprehensive survey of ACM, LBP, and PCBs would be conducted by a licensed California Asbestos Consultant prior to and during the demolition activities as required by MM HAZ-1. If

ACM is detected during the survey, mandatory compliance with SCAQMD Rule 1403 would require abatement by a licensed California Asbestos Consultant prior to demolition. Asbestos abatement generally includes sealing off an area with plastic and filtering the affected air to ensure that no asbestos fibers are let out into the surrounding environment. Similarly, Title 8 of the CCR, Industrial Relations, would require the abatement of LBP prior to demolition. (LBP abatement procedures are similar to those described for asbestos abatement.) PCBs located in the transformers at the Project site would be disposed of in accordance with USEPA Region 9's PCB Program. These transformers would be replaced with PCB-free equipment in the Southern California Edison (SCE) Substation Yard and generator yard, which would be located along the eastern perimeter of the Project site, immediately east of the pedestrian promenade (refer to Figure 2-5 and Figure 2-7).

Mold could also potentially occur within the Beach Cities Health Center and the attached Maintenance Building as well as the Beach Cities Advanced Imaging Building and the parking structure located at 512 North Prospect Avenue. Mold growth within the interior or other inaccessible areas of buildings may be released during demolition activities and result in exposure of construction workers, campus residents, employees, and visitors as well as other members of the public. As with ACM and LBP, the Phase I and Phase II ESAs did not conduct physical sampling of mold, so it cannot be conclusively determined whether active mold growth is present within the existing structures at the BCHD campus (Converse Consultants 2019, 2020). In addition to testing for ACM and LBP, MM HAZ-1 would require also physical sampling for mold prior to and during demolition activities. If mold is encountered, the construction contractor would follow standard best management practices (BMPs) to remove the affected building using safe and appropriate methods to minimize potential exposure to high concentrations of spores. Some situations would require extra precautions – similar to those used for handling ACM or LBP (i.e., temporary plastic enclosures and air filtering) – to limit the distribution of airborne mold spores.

If not properly abated, the accidental release of ACM, LBP, PCBs, and/or mold could pose a hazard to the environment and public health. However, implementation of MM HAZ-1 and compliance with existing mandatory regulations and abatement procedures for the treatment, handling, and disposal of ACM, LBP, PCBs and mold, would ensure that impacts associated with the proposed Project would be *less than significant with mitigation*.

Soil Contamination

Construction of the proposed Project would involve the excavation of substantial amounts of soil and additional earthwork associated with trenching and grading. As described in Section 2.5.1.6, *Construction Activities*, Phase 1 would involve the excavation of approximately 20,000 cubic yards (cy) of soil, necessary to facilitate construction of the proposed subterranean service area and loading dock. Trenching would be required for utilities work, providing connections between the SCE Substation Yard and generator yard. Additional grading would be required to backfill the basement associated with the Beach Cities Health Center and to level the other areas of the Project site. Phase 2 would include the excavation of approximately 11,000 cy of soil, necessary to facilitate the construction of the basement levels of the proposed parking structure and other service areas. Additional trenching would be required for utility work and grading would be required for site preparation for the proposed building footprints and open space areas. Soil disturbance during excavation, trenching, and grading at the Project site would result in the disturbance of potentially contaminated soil.

Ground disturbing activities (e.g., excavation, trenching, and grading) during Phase 1 and Phase 2 would disturb PCE-contaminated soils, beginning with the excavation of the subterranean levels of the RCFE Building to a depth of 26 feet during Phase 1. Similarly, grading within the vacant Flagler Lot would also encounter PCE-contaminated soils. The soil samples on the vacant Flagler Lot (i.e., BC-14 and BC-15; refer to Figure 3.8-1) had the great concentrations of PCE on the Project site (Converse Consultants 2020; see Appendix G). During Phase 2 excavation for the subterranean levels of the proposed parking structure, service areas, and other trenching and grading activities during Phase 2 would encounter PCE-contaminated soils. Disturbance of benzene-contaminated soil could occur during Phase 1 with the removal of the existing northern surface parking lot and subsequent excavation and construction activities associated with the proposed RCFE Building. Disturbance of chloroform concentrations could occur during Phase 2 when demolition of the existing parking structure and potentially the Beach Cities Advanced Imaging Building as well as subsequent excavations, grading, and construction activities.

The implementation of MM HAZ-2a through -2d would ensure VOC compounds and contaminated soils are properly detected, removed, and handled during ground disturbing activities. Therefore, the risk of an accidental release of hazardous materials into the environment during construction of the proposed Project would be *less than significant with mitigation*.

Abandoned Oil and Gas Well

As previously described, the Phase I ESA identified a previously abandoned and plugged oil and gas well located on the vacant Flagler Lot. The well was drilled in the 1930s and, according to production data, was in operation by Decalta International Corporation from July 1977 to October 1989. The well was no longer in production in November 1989 and is listed by CalGEM as “*abandoned and plugged*” (Converse Consultants 2019). TPH in the heavy oil range was detected in two samples at boring locations within the vacant Flagler Lot. These concentrations are most likely related to the abandoned oil and gas well located at this site (Converse Consultants 2020). (i.e., B-14 and B-15); however, they were well below the DTSC and USEPA residential screening level and do not represent a potential hazard to the environment or public health. Terra-Petra excavated the well to physically locate it and completed a leak test, which was negative (i.e., no leaks were detected). Terra-Petra is preparing a summary report to be shared with CalGEM, the responsible oversight agency. Following testing of the well, BCHD would enroll into the CalGEM Well Review Program, which provides guidance, assistance, and recommendations for projects in the vicinity of oil and gas wells to avoid future liabilities.

The proposed Project has been designed to comply with all applicable CalGEM recommendations including avoiding construction of permanent structures in close proximity to a well. CalGEM defines “*close proximity*” as being within 10 feet from a well. To be considered outside of close proximity, two adjacent sides of a development (e.g., a building) should be no less than 10 feet from the well, with the third side the development no less than 50 feet from the well. The third side should be no less than 50 feet from the well to allow room for the 30 to 40 feet lengths of tubing required for re-abandonment operations. The fourth side shall remain open to the well to allow for rig access in the event that the well requires maintenance or potential re-abandonment. The proposed Project has been designed to meet these criteria by restricting development in this area on the vacant Flagler Lot to the one-way driveway and pick-up/drop-off zone rather than a habitable structure. Through enrollment in CalGEM’s Well Review Program and compliance with CalGEM’s advisory information to address significant and potentially dangerous issues associated with development near oil or gas wells, impacts to *less than significant with mitigation*.

Operation

As previously described in Section 3.8.1, *Environmental Setting*, BCHD has previously notified the LACoFD Health Hazardous Materials Division and the Los Angeles RWQCB of the recently

discovered PCE contamination and is working with these the agencies and other public entities (i.e., City of Redondo Beach and City of Torrance) to address the sampling results and identify the responsible party. The indoor air quality sampling conducted during the Phase II ESA determined that the existing buildings on the BCHD campus have not experienced vapor intrusion. The foundations of all newly proposed structures – including the RCFE Building as well as the buildings constructed as a part of the Phase 2 development program – would be constructed over a gravel layer which would be topped by a thick (40 to 100 millimeter) vapor-intrusion barrier system to prevent subsurface contaminated vapors from entering an overlying structure. Additionally, the foundations would be designed with subgrade piping to convey volatilized PCE through carbon filters before outgassing the vapor at a controlled rate. Because PCE is generally only hazardous when encountered in a confined space where it can exceed the CAA limits and OSHA exposure limits (Centers for Disease Control and Prevention [CDC] 2020; Agency for Toxic Substances and Disease Registry [ATSDR] 2019), outgassing vapor to the ambient air would not create a hazardous impact to the surrounding environment. Therefore, with the implementation of this standard construction technique for addressing vapor intrusion, operational impacts associated with PCE and would be *less than significant*.



The vacant Flagler Lot, which includes a previously abandoned and plugged oil and gas well would be redeveloped as a one-way driveway and pick-up/drop-off zone during Phase 1 of the proposed Project.

Mitigation Measures (MMs)

MM HAZ-1 Asbestos-Containing Material (ACM), Lead-Based Paint (LBP), polychlorinated biphenyls (PCBs), and Mold Surveys. Prior to the issuance of a demolition permit by the Redondo Beach Building & Safety Division, Beach Cities Health District (BCHD) shall retain a licensed contractor to conduct a comprehensive survey of ACM, LBP, PCBs, and mold, including invasive physical testing within the buildings proposed for demolition including the Beach Cities Health Center during Phase 1 as well as the existing parking structure and potentially the Beach Cities Advanced Imaging Building during Phase 2. If such hazardous materials are found to be present, BCHD the licensed contractor shall follow all applicable Federal,

State, and local codes and regulations (e.g., Rule 1403, Asbestos Emissions from Renovation/Demolition Activities), as well as applicable best management practices (BMPs), related to the treatment, handling, and disposal of ACM, LBP, PCBs, and molds to ensure public safety. This generally includes sealing off an area with plastic and filtering air to ensure that hazardous building materials are let out into the surrounding environment. During construction the licensed contractor shall conduct additional surveys as new areas (e.g., interior portions) of the buildings become exposed.

MM HAZ-2a Soils Management Plan: *Prior to approval of issuance of demolition, grading, or building permit by the Redondo Beach Building & Safety Division and/or approval of a grading plan by the City of Redondo Beach Building & Safety Division and the City of Torrance Building & Safety Division, Beach Cities Health District (BCHD) shall prepare and submit a Soils Management Plan and a Transportation Plan to the Los Angeles County Fire Department (LACoFD) Health Hazardous Materials Division and Los Angeles Regional Water Quality Control Board (RWQCB) as well as the City of Redondo Beach and City of Torrance, for review. The Soils Management Plan and Transportation Plan shall include, but shall not be limited to the following:*

Soils Management Plan

Affected soils shall be either directly loaded into awaiting trucks for immediate off-site disposal or temporarily stockpiled on plastic sheeting prior to load-out and off-site disposal. If temporarily stockpiled, soil removed from the excavations shall be placed next to or as close as possible to the excavation from which it came.

Prior to load-out, the construction contractor shall prepare waste profiles and example waste manifests for approval by the receiving facilities. Soil and material segregation, stockpile handling, truck loading, and storm water management practices shall be followed during the remedial action according to the following:

Soil and Material Segregation

Overburden soils shall be screened with an Organic Vapor Analyzer (OVA) in accordance with South Coast Air Quality Management District (SCAQMD) Rule

1166. Any significant quantities of construction debris encountered during excavation shall be segregated and disposed of in accordance with Federal, State, and local regulations. Soil cuttings during the excavation and installation of soldier piles shall be disposed of off-site with any affected soils from the deep excavation.

Stockpile Management

The stockpiled soils for load-out shall be segregated by waste classification:

- Non-hazardous waste.*
- Volatile organic compound (VOC)-contaminated non-hazardous waste with OVA readings greater than 50 parts per million (ppm) but less than 1,000 ppm.*
- VOC-contaminated non-hazardous waste with OVA readings of 1,000 ppm or greater. These soils shall be immediately sprayed with water or suppressant and placed in a sealed container (roll-off bin) or directly loaded into a suitable transport truck, moistened with water, and covered with a tarp for off-site transportation to the appropriate disposal facility, as specified in the SCAQMD Rule 1166 Mitigation Plan.*

The temporary stockpiles containing affected soils shall be managed as follows:

- The temporary stockpiles for non-VOC contaminants shall be placed on plastic sheeting and kept moist during working hours and covered with plastic sheeting at the end of the day to control dust.*
- The VOC-contaminated stockpiles shall be placed on plastic sheeting and immediately covered with plastic sheeting. The edges of the plastic shall have an overlap of at least 24 inches. The plastic shall be secured at the base of the stockpile and along the seams of overlapping plastic sheeting with sandbags or equivalent means. The stockpiles shall remain covered until load-out.*
- Daily inspections of the stockpiles shall be conducted to verify the integrity of the stockpile covers. Any gaps, tears, or other deficiencies shall be corrected immediately. Daily records shall be kept of stockpile inspections and any repairs made.*
- If necessary, commercial vapor suppressants and sealants shall be prepared and applied to VOC-contaminated soil in accordance with the manufacturer's recommendations.*

- *During stockpile generation and removal, only the working face of the stockpile shall be uncovered.*

Decontamination Methods and Procedures

Each piece of equipment used for the excavation of affected soils shall have a clean-out bucket or continuous edge across the cutting face of its bucket. No excavation of affected soil shall be permitted with equipment utilizing teeth across the cutting edge of its bucket.

Entry to the contaminated areas (i.e., work exclusion zones) shall be limited to avoid unnecessary exposure and related transfer of contaminants. In unavoidable circumstances, any equipment or truck(s) that come into direct contact with affected soil shall be decontaminated to prevent the on- and off-site distribution of contaminated soil. The decontamination shall be conducted within a designated area by brushing off equipment surfaces onto plastic sheeting. Trucks shall be visually inspected before leaving the site, and any dirt adhering to the exterior surfaces shall be brushed off and collected on plastic sheeting. The storage bins or beds of the trucks shall be inspected to ensure the loads are properly covered and secured. Excavation equipment surfaces shall also be brushed off prior to removing the equipment from contaminated areas.

Movement of affected soils from the excavation area to temporary stockpiles shall be conducted using enclosed transfer trucks, if possible. If affected soils must be moved within an open receptacle (e.g., loader bucket), the travel path for the loader shall be scraped following this activity, with scraped soils placed in the temporary stockpile for load-out.

Sampling equipment that comes into direct contact with potentially contaminated soil or water shall be decontaminated to assure the quality of samples collected and/or to avoid cross-contamination. Disposable sampling equipment intended for one-time use shall not be decontaminated, but shall be packaged for appropriate off-site disposal. Decontamination shall occur prior to and after each designated use of a piece of sampling equipment, using the following procedures:

- *Non-phosphate detergent and tap-water wash, using a brush if necessary.*

- *Tap-water rinse.*
- *Initial deionized/distilled water rinse.*
- *Final deionized/distilled water rinse.*

Truck Loading

Trucks may be loaded directly from the excavation or temporary stockpile based on truck availability and excavation logistics. Trucks shall be routed, and stockpile areas shall be located so as to avoid having trucks pass through impacted areas. The truckloads shall be wetted and tarped prior to exiting the site. All soil hauled from the site shall comply with the following:

- *Materials shall be transported to an approved treatment/disposal facility.*
- *No excavated material shall extend above the sides or rear of the truck/trailer.*
- *Trucks/trailers carrying affected soils shall be completely tarped/covered to prevent particulate emissions to the atmosphere. Prior to covering/tarping, the surface of the loaded soil shall be moistened.*
- *The exterior of the trucks/trailers shall be cleaned off prior to leaving the site to eliminate tracking of material off-site.*

Storm Water Management

General construction best management practices (BMPs) identified by the Los Angeles RWQCB shall be implemented during soil excavation activities to contain and control storm water runoff that might convey contaminated or excessive sediments. If rainfall is expected, the areas around open excavations shall be graded and bermed to prevent storm water from flowing into the excavation. Any standing water that collects in the bottom of the excavations shall be removed and handled in accordance with Federal, State, and local regulations. The water shall be sampled and analyzed either as standing water in the excavation or following containment in a temporary above-ground storage tank. Depending on the volume of water and the sampling results, options for handling the standing water could include:

- *Pumping the standing water into temporary aboveground storage tanks for reuse on-site for dust suppression.*
- *Pumping the standing water through filters and a carbon adsorption filter (if required based on analytical results) prior to discharge to a storm drain.*
- *Pumping the standing water into vacuum trucks for transport and disposal at a recycling facility.*

Transportation Plan

All affected soils shall be transported off-site for lawful management and disposal. Prior to load-out, the construction contractor shall prepare waste profiles for the receiving facility using analytical data from the previous environmental site assessment.

MM HAZ-2b Soil Vapor Monitoring. *During soil disturbance activities with the potential to disturb tetrachloroethylene (PCE)-contaminated soil, soil vapor monitoring shall be conducted by the construction contractor using a photoionization detector (PID) 10.6 or 11.7 eV lamp. Use of the PID shall ensure that the Occupational Safety and Health Administration (OSHA) exposure limits for PCE and other volatile organic compounds (VOCs) are maintained. In the event that the OSHA exposure limits are exceeded, work within the confined space would be temporarily stopped until the use of a Soil Vapor Extraction (SVE) vacuum blower reduces it to below this limit (see MM HAZ-2c)*

MM HAZ-2c Soil Vapor Extraction (SVE) Equipment. *Use of an SVE vacuum blower (e.g., regenerative blowers, rotary lobe blowers, rotary claw blowers, centrifugal fan blowers, etc.) shall be implemented during construction within confined spaces, as necessary, to maintain Occupational Safety and Health Administration (OSHA) exposure limits or trichloroethylene (PCE) and other volatile organic compounds (VOCs).*

MM HAZ-2d Discovery of Contamination. *In the event that previously unknown or unidentified soil and/or groundwater contamination that could present a threat to human health or the environment is encountered during construction at a development site, construction activities in the immediate vicinity of the contamination shall cease immediately. A qualified environmental specialist (e.g., a licensed Professional*

Geologist, a licensed Professional Engineer, or similarly qualified individual) shall conduct an investigation to identify and determine the level of soil and/or groundwater contamination. If contamination is encountered, a Human Health Risk Management Plan shall be prepared and implemented that: 1) identifies the contaminants of concern and the potential risk each contaminant would pose to human health and the environment during construction and post-development; and 2) describes measures to be taken to protect workers, and the public from exposure to potential site hazards. Such measures could include a range of options, including, but not limited to, physical site controls during construction, remediation, long-term monitoring, post-development maintenance or access limitations, or some combination thereof. Depending on the nature of contamination, if any, appropriate agencies shall be notified (e.g., Los Angeles County Fire Department [LACoFD] and Los Angeles Regional Water Quality Control Board [RWQCB]). If needed, a Site Health and Safety Plan that meets Occupational Safety and Health Administration (OSHA) requirements shall be prepared and in place prior to commencement of work in any contaminated area.

MM HAZ-3 Well Review Program. *Prior to demolition or ground-disturbing activities on the vacant Flagler Lot, Beach Cities Health District (BCHD) shall enroll in the California Geologic Energy Management Division's (CalGEM's) Well Review Program. Following enrollment in the Well Review Program CalGEM would:*

- *Identify/confirm the location of the previously abandoned and plugged oil and gas well on the property.*
- *Provide a review of the previously abandoned and plugged oil and gas well located on the Project site. The review process shall consist of determining the abandonment status of the well by examining past plugging operations, and then comparing the abandonment status with current abandonment standards.*
- *Provide an evaluation of all known wells located on the development site property. The evaluation process will consist of: 1) verifying that the previously abandoned and plugged oil and gas well has a competent surface plug; and 2) verifying the wells are not leaking any fluids or gas. BCHD shall be responsible for the removal of all metal plates attached to the top of casings of the well prior to the evaluation to prevent the buildup of methane gas underneath metal plates. Following evaluation, a metal identification plate shall be welded (without full bead) to the top of the well casing to allow any potential gas leakage to vent out of the casing and prevent pressure from*

building up in the wellhead. For identification purposes, the metal identification plate shall show the well's name and Assessor Parcel Identification number.

- *Ensure proper well restoration following evaluation. Proper well site restoration shall include the removal of all associated well equipment, junk, and debris and any well excavation needs to be filled with earth, compacted properly to prevent settling, and graded over. Pursuant to CCR Section 1776, well site restoration must be completed within 60 days following the evaluation of a well.*
- *Issue a Well Review Letter to BCHD and local permitting agencies (i.e., the City of Redondo Beach and the City of Torrance. The Well Review Letter will list the current status of all known wells located on the development site property, and it will provide other important information associated with development near oil or gas wells.*

BCHD shall adhere to all recommendations provided by CalGEM, which may include maintaining rig access to the well, avoiding building over or in close proximity to the well, and implementing surface mitigation measures are determined necessary by CalGEM. Surface mitigation measures may include installation of venting systems for wells, venting systems for parking lots, patios, and other hardscape, methane barriers for building foundations, methane detection systems, and collection cellars for well fluids by a licensed Professional Engineer. The permitting of surface mitigation measures shall fall under the authority of the City of Redondo Beach and the City of Torrance.

Residual Impacts

With implementation of standard regulatory measures, standard BMPs, MM HAZ-1, MM HAZ-2a through -2d, and MM HAZ-3, potential impacts related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be *less than significant*.

Impact Description (HAZ-3)

- c) *The project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within a 0.25-mile radius of an existing or proposed school.*

HAZ-3 The proposed Project could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within a 0.25-mile radius of an existing or proposed school. Compliance with Federal, State, and local regulations would ensure that any such impact would be *less than significant*.

As described in Section 2.2.1, *Project Location*, Towers Elementary School and Beryl Heights Elementary School are located within a 0.25-mile radius of the Project site. In particular, Towers Elementary School is located approximately 300 feet to the east of the existing BCHD campus. Based on a review of the Los Angeles Unified School District (LAUSD) website, no new schools are proposed within the vicinity of the BCHD campus.



Multiple schools are located in the vicinity of the Project site, the nearest of which is Towers Elementary School (pictured above), located approximately 300 feet east of the BCHD campus.

Construction

As described in Impact HAZ-1, each phase of construction would require transportation, use, storage, and disposal of small quantities of commercially available hazardous materials, including vehicle fuels, oils, transmission fluids, and hydraulic fuels. However, the use of such materials would likely be in limited quantities (i.e., not commercially reportable) and would be handled in compliance with Federal, State, and local regulations pertaining to their transport, use, or disposal (e.g., Los Angeles County Integrated Waste Management Plan and Hazardous Waste Management Plan as well as the hazardous materials programs administered by LACoFD; refer to Section 3.8.2, *Regulatory Setting*). As such, the potential for hazardous materials release associated with the transport, use, or disposal would be limited to the accidental spill of chemicals, petroleum, oils, and lubricants within the construction staging areas on the Project site or along the proposed haul routes (refer to Section 2.5.1.6, *Construction Activities*). As described in Section 2.5.1.6, *Construction Activities* the development application(s) for the proposed Project would include a comprehensive Construction Management Plan, to be submitted for review and approval by the Redondo Beach and Torrance Building & Safety Divisions prior to the issuance of demolition, grading, or building permits. In addition to further defining the construction staging agencies the Construction Management Plan would also provide a detailed description of requirements for

storage of hazardous materials, construction fueling as well as spill kits and secondary containment.

Compliance with applicable regulations as well as oversight by the appropriate Federal, State, and local agencies would minimize the risk of hazardous materials exposure during transport. Therefore, the proposed Project would result in a *less than significant* impact.

Operation

After construction is complete and the heavy equipment is removed from the Project site, the potential for hazardous spills would be similar to existing conditions at the Project site. As described in Impact HAZ-1, BCHD would continue to use, store, and dispose of hazardous materials, substances, and waste in accordance with applicable Federal, State, regional, and local policies and regulations. Therefore, operational impacts related to hazardous emissions and hazardous materials, substances, and waste within a 0.25-mile radius of a school would be *less than significant*.

Impact Description (HAZ-4)

- d) *The project would be located on a site which is included on a list of hazardous materials sites compiled pursuant of Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.*

HAZ-4 The proposed Project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant of Government Code Section 65962.5, which could create a significant hazard to the public or the environment. Compliance with all applicable regulations and mitigation measures would reduce this impact to *less than significant with mitigation*.

The Project site is located in proximity to one hazardous waste site listed in the DTSC EnviroStor Database (i.e., Edison Pipeline and Terminal Company Redondo) located approximately 1 mile west of the Project site at 1100A Harbor Drive (Converse Consultants 2019, 2020; DTSC 2020; see Appendix G). However, this site is currently undergoing closure and, given the distance as well as the existing development separating the hazardous waste site from the Project site, implementation of the proposed Project would not upset the hazardous waste site or create a significant hazard to the public or environment (Converse Consultants 2020). The only DTSC-

listed cleanup site requiring further action and located within 1 mile of the Project site is the former Redondo Beach Police Department shooting range off-site property. However, given the distance hydraulic gradient in relation to the Project site, potentially occurring contaminants at this site are unlikely to affect the Project site (Converse Consultants 2020). The Shell gas station located at 1200 Beryl Street is listed as a LUST cleanup site due to gasoline contamination. However, the site has been designated as “completed-case closed.”

Additionally, the former dry cleaner site located at 1232 Beryl Street is listed in the GeoTracker database as “open-inactive,” which means no regulatory oversight activities are being conducted by the Lead Agency (SWRCB 2020b). However, as described in Impact HAZ-2, the Phase II ESA, which involved soil sampling and indoor air quality sampling, determined that the former dry cleaner is suspected to be the source of the detected PCE, as concentrations of PCE generally decrease to the south with distance from the cleaners’ location (Converse Consultants 2020). BCHD notified the LACoFD Health Hazardous Materials Division and the Los Angeles RWQCB and will work with the agencies and other public entities to address these sampling results and identify the responsible party. Long-term clean-up of PCE by the responsible party will occur as a separate remediation project. Nevertheless, the implementation of MM HAZ-2a through -2d would ensure VOC compounds and contaminated soils are properly detected, removed, and handled during ground disturbing activities associated with the proposed Project.

While the Project site is included on several databases for its operation as a small quantity generator of hazardous waste, the BCHD campus is not included in the DTSC EnviroStor Database or on the SWRCB GeoTracker databases compiled pursuant to Government Code Section 65962.5. The vacant Flagler Lot is listed on the California Water Board’s GeoTracker database due to a LUST cleanup site, with diesel being the contaminant of concern. However, the site is designated as “completed-case closed,” which means a closure letter or other formal closure decision document has been issued for the site (SWRCB 2020a).

Residual Impacts

With implementation of MM-HAZ-2a through -2d, impacts to sites listed of hazardous materials sites complied pursuant to Government Code Section 65962.5, and as such, would not create a significant hazard to the public or the environment.

Impact Description (HAZ-5)

- f) The project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.*

HAZ-5 The proposed Project would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts would be *less than significant*.

The Project site is located within the service area of the RBFD and Redondo Beach Police Department (RBPd) (see Section 3.13, *Public Services*). The proposed Project would be built in accordance with the applicable State and local building codes (refer to Section 3.6, *Geology and Soils*) as well as all appropriate fire codes. For example, RBFD would review the proposed Project using the Building Plan Fire Code Checklist.

State Route (SR-) 1 and SR-107, located approximately 0.5 miles west and 1.5 miles east of the Project site, respectively, are designated Primary Disaster Routes by the County of Los Angeles (County of Los Angeles Department of Public Works 2013). The proposed Project does not propose changes in, obstructions to, or reconfigurations of public evacuation routes. Therefore, the proposed Project would not result in physical interference or impairment to implementation of this existing emergency and evacuation plan.

Construction activities associated development during Phase 1 and Phase 2 of the proposed Project would add vehicles (e.g., construction deliveries, construction worker vehicles, etc.) to regional and local roads that could increase congestion. Construction trucks would access the site from one of the existing driveways along North Prospect Avenue. Haul trucks would exit the Interstate (I-) 405 freeway on 190th Street or Hawthorne Avenue to 190th Street and reach the site using Del Amo Street to North Prospect Avenue. Construction entry to the Project site would be provided along North Prospect Avenue where construction flaggers would be stationed to direct construction traffic and maintain public safety. Additionally, emergency services vehicle access points would be maintained at North Prospect Avenue and Beryl Street. Fire lanes would be maintained at all times during construction work. The RBFD and RBPd would also have access to the Project site 24 hours per day via fence-mounted lockboxes to open gates securing the Project site. As described further in Section 2.5.1.6, *Construction Activities*, all work would be subject to a Construction Traffic Control Plan to be approved by the Redondo Beach and Torrance Building & Safety Divisions (see MM T-1 in Section 3.14, *Transportation*). The Construction Traffic Control Plan

would identify designated haul routes and construction staging areas, traffic control procedures, emergency access provisions, construction crew parking, and avoidance of traffic impacts during construction. Therefore, impacts related to emergency access would be *less than significant* (see Section 3.14, *Transportation*).

Operation

As described in Section 2.5.1.3, *Proposed Access, Circulation, and Parking*, in the event of an emergency on the campus, the Project site could be accessed from the existing driveways along North Prospect Avenue, the proposed one-way driveway off of Beryl Street, and the proposed service vehicle entrance off of Flagler Lane. Similar to the existing perimeter road that borders the BCHD campus, the proposed pedestrian promenade would wrap around the campus and would provide emergency vehicle access. The pedestrian promenade would connect the existing southern and northern driveways and would provide direct access to the southern side of the RCFE Building. Secondary emergency access would be provided to the north of the RCFE Building using “grass-crete” (i.e., permeable pavers with space for grass to grow).

Prior to operation, BCHD would coordinate with the RBFD and RBPD to prepare an Emergency Plan for the campus. Additionally, BCHD would utilize training procedures and an operational handbook that provides processes and procedures for BCHD staff to provide the first responder services.

Therefore, implementation of the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and impacts would be *less than significant*. See also Section 3.13, *Public Services* for analysis of increased demand on emergency response services (e.g., fire and police protection).

Cumulative Impacts

Cumulative development within the Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach would have the potential to expose the surrounding public to hazards and hazardous materials through development or redevelopment of properties that may be contaminated from either historical or ongoing uses. Approved and pending projects in the vicinity (refer to Figure 3.0-1) are expected to transport, use, and store hazardous materials. However, the severity of potential hazards for individual projects would depend upon the location, type, and size of development and the specific hazards associated with individual sites. The majority of projects

located in close proximity to the Project site are small scale redevelopments (e.g., 1- to 2-unit additions to existing residential uses). Therefore, the potential for exposure to hazards and hazardous materials would be minimal. Additionally, large-scale cumulative projects, or cumulative projects that could affect a site listed in the DTSC EnviroStor Database (Cortese List) would be required to undergo individual environmental review, including review of potential impacts related to hazards and hazardous materials that are applicable to that particular development site and proposed use.

If ACM, LBP, PCBs, or mold are found to be present in buildings planned for demolition or renovation, or if soil and groundwater contamination are found to be present on sites of planned and future development, these conditions would require appropriate abatement and/or remediation consistent with all applicable Federal, State, and local regulations. Similarly, the transport of hazardous materials would be subject to applicable Federal, State, and local regulations intended reduce the risk of accidental spills, leaks, fire, or other hazardous conditions. With implementation of MM HAZ-1, HAZ-2a through -2d, and HAZ-3, potential impacts associated with hazards and hazardous materials would be reduced to less than significant. Therefore, the proposed Project *would not substantially contribute to cumulatively considerable impacts.*

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3.9 HYDROLOGY AND WATER QUALITY

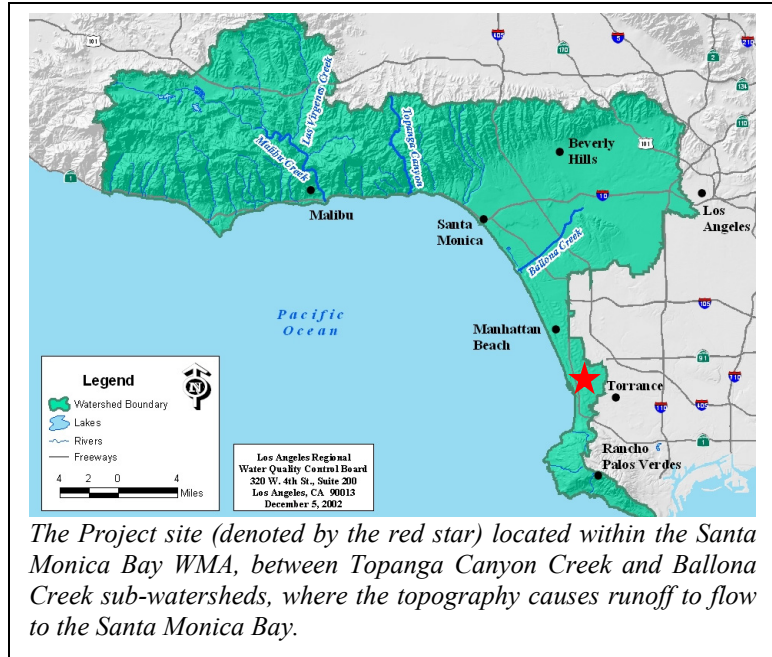
This section of the Environmental Impact Report (EIR) discusses the potential impacts of the proposed Beach Cities Health District (BCHD) Healthy Living Campus Master Plan (Project) on surface water and groundwater resources Redondo Beach and Torrance in the immediate vicinity of the Project site. The discussion focuses on surface water, groundwater, flooding, coastal processes and hazards (e.g., sea level rise and coastal flooding), and other drainage conditions on the Project site and in the surrounding watersheds. Related issues addressed in other sections of this EIR include: domestic water infrastructure and supply in Section 3.15, *Utilities and Service Systems*; groundwater basin geology and groundwater-related geotechnical hazards in Section 3.6 *Geology and Soils*; and the potential for groundwater contamination from hazardous materials in Section 3.8, *Hazards and Hazardous Materials*.

3.9.1 Environmental Setting

Watershed and Regional Setting

Redondo Beach and Torrance – including the BCHD campus – are located within the West Coast Subbasin of the Coastal Plain of Los Angeles County Watershed Basin, commonly referred to as the “West Coast Basin.” The West Coast Basin encompasses 91,300 acres and is bounded on the north by the Ballona Escarpment (a bluff just south of Ballona Creek), on the east by the Newport-Inglewood fault zone, on the south by the Palos Verdes hills, and on the west by the Pacific Ocean (California Department of Water Resources [DWR] 2004). The Los Angeles River crosses the West Coast Basin through the Dominguez Gap and the San Gabriel River crosses the West Coast Basin through the Alamitos Gap; both rivers then outlet into San Pedro Bay (DWR 2004).

Redondo Beach and Torrance are located within the Santa Monica Bay Watershed Management Area (WMA) and the Dominguez Channel WMA of the Los Angeles Regional Water Quality Control Board (RWQCB). The southern portion of Redondo Beach (i.e., south of Grant Avenue) and western portions of Torrance – including the BCHD campus – are located within the Santa Monica Bay WMA. The northern portion of Redondo Beach and the majority of Torrance are located within the Dominguez



The Project site (denoted by the red star) located within the Santa Monica Bay WMA, between Topanga Canyon Creek and Ballona Creek sub-watersheds, where the topography causes runoff to flow to the Santa Monica Bay.

Channel WMA. These two WMAs are included in the Beach Cities Enhanced Watershed Management Program (EWMP). Management groups of the Beach Cities EWMP include the cities of Manhattan Beach, Hermosa Beach, Redondo Beach, Torrance, and the Los Angeles County Flood Control District (LACFCD).

The Santa Monica Bay WMA encompasses an area of 414 square miles and includes several watersheds between the southern Ventura-Los Angeles County line and downtown Los Angeles (State Water Resources Control Board [SWRCB] 2014, 2018). The Santa Monica Bay WMA drains the Santa Monica Mountains and coastal portions of the cities located along the Santa Monica Bay, including the cities of Malibu, Santa Monica, Los Angeles, El Segundo, Manhattan Beach, Hermosa Beach, Redondo Beach, Palos Verdes Estates, and Rancho Palos Verdes. Headwaters of the Santa Monica Bay Watershed originate from the crest of the Santa Monica Mountains and are conveyed throughout the watershed by Ballona Creek, Malibu Creek, Topanga Creek, and numerous tributaries (Los Angeles RWQCB 2014). In the southern and eastern parts of the watershed, surface water is also generated as runoff and transported through storm drains and channels because these areas are highly urbanized. The Santa Monica WMA drains generally to the southwest and discharges directly to the Santa Monica Bay and Pacific Ocean (SWRCB 2014, 2018). The Santa Monica Bay is located adjacent to one of the most populated and urbanized coastal metropolitan areas in the U.S., and discharge of treated municipal, commercial, and industrial runoff, cooling water, and wastewater impacts regional water resources, including inland

surface waters, estuarine waters, and marine waters, such as wetlands, lakes, rivers, estuaries, lagoons, harbors, bays, and beaches.

Local Surface Water Hydrology and Drainage

Portions of both Redondo Beach and Torrance are bounded to the west by the Pacific Ocean. Except for parks, landscaping, and active construction sites with exposed soils, the Project site and vicinity are largely developed with buildings, roadways, and paved surface parking lots that prevent natural infiltration. Surface water within the cities is generally limited to sheet flow (i.e., overland flow or downslope movement of water taking the form of a thin, continuous film) to curbed gutters, which empty into the municipal storm drain system. The nearest waterbodies to the Project site are the Dominguez Channel, a major regional drainage facility located approximately 5.5 miles to the east, Ballona Creek, located approximately 9 miles to the north, and the Santa Monica Bay of the Pacific Ocean, located approximately 1 mile to the east.

Stormwater Drainage and Infrastructure

The stormwater drainage infrastructure network within Redondo Beach is comprised of a cooperative multi-jurisdictional system with approximately 25 percent of the facilities operated and maintained by the City of Redondo Beach Department of Public Works (DPW) and the remaining 75 percent of facilities maintained by the LACFCD. The storm drain network includes catch basins at street level and storm drains beneath local streets that collect and convey stormwater and dry weather (i.e., non-stormwater) runoff within Redondo Beach to one or more of 13 ocean drainage outfall pipes along the shoreline. The majority of the storm drains are located in northern portion of Redondo Beach as the elevated topography of portions of the southeastern portion of Redondo Beach allows for better natural drainage and discharge to water bodies. Stormwater and dry weather runoff collected within Redondo Beach follow three general patterns:

1. Stormwater collected from the north and northeastern portions Redondo Beach is carried out of the City through the storm drain system into Dominguez Channel to the east;
2. Stormwater collected from the southern portion Redondo Beach is conveyed directly to the Pacific Ocean through one of 13 drainage outfalls located along the southwestern shoreline of the City (south of Hermosa Beach); and
3. Water that is collected in one of five different sumps or sump pumps located throughout the City that is force-pumped back into and through the system and drained through one of the ocean drainage outfall pipes.

In addition to the storm drain network, there are three City-operated sumps and pump stations and two City-operated independent sump pumps that collect stormwater and dry weather runoff into sumps throughout Redondo Beach (City of Redondo Beach 1993). This excess water is then pumped up into gravity drains convey the water directly to the Pacific Ocean through the drainage outfalls. Pollution of the Redondo Beach storm drain system is prevented through implementation of the City's National Pollutant Discharge Elimination System (NPDES) permit, which includes stormwater and urban runoff discharge into municipal storm drain systems (refer to Section 3.9.2, *Regulatory Setting*).

Water Quality

Urban runoff – including stormwater and dry weather runoff – contains a wide range of debris and pollutants. Impervious surfaces increase the volume and rate of urban runoff and can result in degraded surface water quality. Stormwater and dry weather runoff carrying increased concentrations of surface water pollutants can have harmful effects on drinking water, recreational water, and wildlife.

Surface water pollutants originate from two types of sources:

- **Point Sources** refer to discrete discharges of surface water pollutants from specific generators into receiving waters, including pipes or man-made ditches. Point sources are regulated in accordance with the National Pollutant Discharge Elimination System (NPDES) program (see Section 3.9.2, *Regulatory Setting*).
- **Non-Point Sources** refer to stormwater and dry weather runoff that washes, scours, and intercepts pollutants from the air and ground, including solid waste, leaked motor oil, or heavy metals or chemicals deposited on pavements or vegetation. Urban runoff includes all surface water draining from streets, parking lots, driveways, and landscaping that flows through the storm drain system to treatment facilities and ultimately to Santa Monica Bay.

Two principal water quality plans are applicable to Redondo Beach and the Santa Monica Bay: the California Ocean Plan (Ocean Plan) (2019) and the Water Quality Control Plan for the Los Angeles Basin (Los Angeles Basin Plan) (2014). For coastal sites, the Ocean Plan includes objectives for the protection of marine water quality. Under the Los Angeles Basin Plan, urban runoff must meet guidelines set by the Los Angeles Regional RWQCB to retain the beneficial use of the receiving water bodies. The Los Angeles Basin Plan defines beneficial uses within Redondo Beach as industrial service supply, navigation, commercial and sport fishing, marine and wildlife habitat including rare, threatened, or endangered species, migration of aquatic organisms, shellfish harvesting, and spawning, reproduction, and/or early development habitat for fish (Los Angeles

RWQCB 2019b). The Los Angeles Basin Plan also defines beneficial uses of Santa Monica Bay as industrial service supply; navigation; contact and noncontact water recreation; commercial and sport fishing; estuarine habitat; marine and wildlife habitat; preservation of biological habitats; migration of aquatic organisms; rare, threatened or endangered species; shellfish harvesting, spawning, reproduction, and/or early development of fish (Los Angeles RWQCB 2019b).

The location of the Santa Monica Bay downstream of the Los Angeles metropolitan area has resulted in adverse impacts to water quality. In response to these conditions and subsequent lawsuits, a consent decree was issued in 1999 between the U.S. Environmental Protection Agency (USEPA), Heal the Bay, Inc., and BayKeeper, Inc. to establish Total Maximum Daily Loads (TMDLs) for pollutants in the Santa Monica Bay, necessary to meet Federal water quality standards. The consent decree also mandated the establishment of best management practices (BMPs) to address water quality concerns in the Santa Monica Bay. In order to address water quality impairments in the Santa Monica Bay, the Los Angeles RWQCB and USEPA developed two TMDLs: the Santa Monica Bay Bacteria Dry Weather TMDL (2002) and the Santa Monica Bay Bacteria Wet Weather TMDL (2002).¹ Two additional TMDLs were approved by Los Angeles RWQCB and the USEPA, Santa Monica Bay Total Maximum Daily Loads for Dichlorodiphenyltrichloroethanes (DDTs) and PCBs (2012) and Santa Monica Bay Nearshore and Offshore Debris TMDL (2010). Revisions to the Santa Monica Bay Nearshore and Offshore Debris TMDL were made in 2019 and adopted by the Los Angeles RWQCB.

To improve the condition of the Santa Monica Bay and meet TMDLs, applicants of projects and activities that may result in pollutant discharges are required to achieve pollutant load reduction targets through various means, including implementation of projects identified in the Watershed Management Plans (WMPs) and EWMPs under the stormwater discharge permits. There are also collaborative and integrated watershed-wide planning and implementation efforts, such as the Storm Water Strategy, an effort led by the SWRCB to sustainably manage and utilize stormwater in California to support water quality and water availability, and the Integrated Water Resource Management Plan (IRWMP) for the Los Angeles metropolitan area, including the availability and allocation of bond funding to facilitate and contribute to water quality improvement planning and implementation efforts in the region.

The Santa Monica Bay Restoration Commission (SMBRC) 2018 Update of the Bay Restoration Plan notes that substantial progress had been made in the last 30 years in improving water quality

¹ A Total Maximum Daily Load (TMDL) is a regulatory term in the Clean Water Act (CWA), describing a plan for restoring impaired waters that identifies the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards.

The Santa Monica Bay Restoration Commission (SMBRC) 2018 Update of the Bay Restoration Plan notes that substantial progress had been made in the last 30 years in improving water quality in the Santa Monica Bay. However, both Redondo Beach and the Santa Monica Bay are identified as impaired water bodies under Clean Water Act (CWA) Section 303(d) (SWRCB 2016). As listed in **Error! Reference source not found.**, there are impairments related to three types of pollutants in Redondo Beach and five types of pollutants in Santa Monica Bay.

Table 3.9-1. Impaired Water Bodies within the Vicinity of the Project Site

Water Body Name	Water Body Extent	Listing Category	Pollutant	Potential Source
Redondo Beach – Coastal & Bay Shoreline	1.49 miles	4A	DDT (tissue)	Source Unknown
			Indicator Bacteria	Nonpoint
			PCB (tissue)	Source Unknown
Santa Monica Bay Offshore/Nearshore – Bay & Harbor	146,645 acres	5	Arsenic	Source Unknown
			DDT (tissue)	Source Unknown
			Mercury	Source Unknown
			PCBs (sediment)	Source Unknown
			Trash	Source Unknown

Notes: DDT = Dichlorodiphenyltrichloroethane; PCBs = Polychlorinated biphenyls; Category 4A means the item on the 303(d) list is being addressed by an USEPA approved TMDL; Category 5 means the item on the 303(d) list has listed pollutants that require the development of a TMDL.
Source: SWRCB 2017.

In addition, the 2018 Update of the Bay Restoration Plan observed that while existing water quality improvement programs have achieved significant reduction of pollutant loading, many new contaminants are emerging and causing concern. The emerging contaminants include, but are not limited to, polybrominated diphenyl ethers (PBDEs), which are used primarily as flame retardants, perfluorinated chemicals that are used as stain repellants, and other pharmaceuticals or other personal care products that may harm aquatic life or the environment (SMBRC 2018).

Groundwater

As described in Section 3.6, *Geology and Soils*, Redondo Beach and Torrance are located within the West Coast Groundwater Basin (Basin), a subbasin of the Los Angeles Groundwater Basin. The Basin underlies 160 square miles and extends in a southwesterly direction along the coast from the Newport-Inglewood Uplift to the Santa Monica Bay. The principal aquifers present in the Basin include: Semiperched; Bellflower; Gaspar; Bellflower; Gardena; Gage; Lynwood; Silverado; and Unammed (DWR 2004). Depth to groundwater within the Semiperched Aquifer ranges from nearly 10 feet above mean sea level (MSL) to more than 60 feet below MSL (DWR

2004; Water Replenishment District of Southern California [WRD] 2020). (The Semiperched Aquifer is located closest to the ground surface and is characterized by a semi-pervious layer, through which flow into or out of the aquifer can take place.) The highest water levels are along the West Coast Basin Seawater Intrusion Barrier; they decrease to the east where they are at their lowest elevations in the City of Gardena between the Charnock Fault and Newport-Inglewood Uplift, both of which are geologic structural features that partially restrict groundwater flow.

In 1961, the Basin was adjudicated, which limits the allowable annual extraction of groundwater per water rights holder within the Basin in order to prevent seawater intrusion and an unhealthy groundwater level. As part of the adjudication, the court appointed the DWR to serve as Watermaster to account for all water rights and groundwater extraction amounts per year. Since the adjudicated groundwater production is substantially higher than the natural recharge of the Basin, the California State Legislature created the WRD to manage, regulate, and replenish the Basin. Each year WRD determines the amount of supplemental recharge that is needed for the Basin based upon annual groundwater extractions and groundwater levels. As part of the recharge and protective duties, WRD procures imported water and recycled water for the West Coast Basin Barrier Project and Dominguez Gap Barrier Project to prevent seawater intrusion. Following its inception, WRD implemented the Regional Groundwater Monitoring Program (RGWMP) as a program designed to track groundwater levels and groundwater quality in the WRD service area in the effort to ensure the sustainability of groundwater as a reliable resource.

Groundwater Recharge

Groundwater recharge to the Basin generally occurs through natural underflow from the Central Basin through and over the Newport-Inglewood fault zone as well as through injection of imported water and recycled water into wells of the seawater intrusion barrier (DWR 2004; U.S. Geological Survey [USGS] and SWRCB 2012). The general regional groundwater flow pattern is southward and westward from the Central Coastal Plain toward the Pacific Ocean (DWR 2004). However, groundwater flow directions are controlled by the engineered recharge and by groundwater pumping from the many hundreds of wells distributed across the region (USGS and SWRCB 2012). Minor replenishment to the Basin occurs from infiltration of surface inflow from both the Los Angeles and San Gabriel Rivers into the uppermost aquifers. Other minor sources of recharge by infiltration from the surface include return irrigation water from fields and lawns, industrial waters, and other applied surface waters (DWR 2004). Surface water flows from upland areas do not substantially contribute to recharge in the immediate vicinity of Redondo Beach and Torrance, however, because the water is generally directed through storm drains or other channelized features that do not allow the water to infiltrate permeable soils.

Groundwater Quality

In the West Coast Basin, the most critical issue related to groundwater quality is high total dissolved solids (TDS) along the Pacific Ocean due to seawater intrusion as identified by DWR. Seawater intrusion occurs if too much freshwater is pumped from the aquifer system, allowing saltwater to migrate landward and potentially infiltrate the Basin. If a pumping well is close to the landward migrating freshwater/saltwater interface, saltwater could enter the well and contaminate the water supply. Seawater intrusion occurs in the Basin zone along the Santa Monica Bay. Two seawater barrier projects are currently in operation to address and prevent seawater intrusion. The West Coast Basin Barrier Project runs from the Los Angeles Airport to the Palos Verdes hills. The Dominguez Gap Barrier Project covers the area of the Basin bordering San Pedro Bay. Injection wells along these barriers create a groundwater ridge, which inhibits the inland flow of salt water into the subbasin to protect and maintain groundwater elevations (DWR 2004).

Groundwater quality is addressed at a state level through the DWR Sustainable Groundwater Management Act (SGMA) and at a local level through the Los Angeles Basin Plan. Enacted in 2014, SGMA evaluated and prioritized California's basins and subbasins for groundwater management requirements based on several criteria including but not limited to groundwater overdraft, water quality, irrigated acres, population, and groundwater reliance. The West Coast Basin was determined to be "very low" priority by DWR due to its low levels of criteria pollutants and relatively stable groundwater levels; therefore, the Basin is not subject to a sustainable groundwater management plan under SGMA. The Los Angeles Basin Plan addresses groundwater issues within the Basin as part of the Coastal Plain of Los Angeles Groundwater Basin. In order to meet drinking water standards, the Los Angeles Basin Plan sets forth groundwater quality parameters for four primary constituents of concern in the Basin: 1) TDS; 2) sulfates; 3) chloride; and 4) boron. The groundwater quality objectives assigned to the Basin by the Los Angeles RWQCB are outlined in Table 3.9-12.

Table 3.9-2. Groundwater Quality Objectives for the West Coast Basin (No. 4-11.03)

Pollutant (mg/L)			
TDS	Sulfate	Chloride	Boron
800	250	250	1.5

Notes: TDS = total dissolved solids; mg/L = milligrams per liter.

Source: Los Angeles RWQCB 2019b.

- **TDS** are dissolved solids plus suspended and settleable solids in water consisting of calcium, chlorides, nitrate, phosphorus, iron, sulfur, and other ion particles that will pass through a filter. Higher concentrations of TDS can affect water clarity, diminish

photosynthesis, lead water sources to retain heat, and adversely affect the taste of drinking water. Sources of TDS include industrial discharges, sewage, fertilizers, urban runoff, soil erosion, and saltwater intrusion to the basin.

- **Sulfates** are found almost universally in natural waters at concentrations ranging from a few tenths to several thousand milligrams/liter (mg/L). The highest concentrations are usually found in groundwater and are considered to be a mixture of sulfates from atmospheric, geochemical, and biological sources. Sulfates are discharged into surface water through industrial wastes and atmospheric deposition of sulfur dioxide (USEPA 2003). Consumption of high sulfate concentrations in drinking water can cause cathartic effects or dehydration.
- **Chloride** in drinking water is not harmful but can adversely affect taste in drinking water. Chloride in surface and groundwater originates from both natural and anthropogenic sources, such as run-off containing road de-icing salts, the use of inorganic fertilizers, landfill leachates, septic tank effluents, animal feeds, industrial effluents, irrigation drainage, and seawater intrusion in coastal areas (World Health Organization 2003).
- **Boron** is a naturally occurring element that is present in groundwater primarily as a result of leaching from rocks and soils containing borates and borosilicates but can also enter the environment through man-made processes such as manufacturing. High concentrations of Boron can have toxic effects on aquatic life and terrestrial plants. Exposure to high levels of boron can also adversely affect fetal development (World Health Organization 1998).

Flooding and Sea Level Rise

The Project site is not located within the immediate vicinity of any major creeks, rivers, or other watercourses that may pose a threat from riverine flooding. Portions of Redondo Beach, primarily along the coastline, are located within the 100-year flood plain and therefore are at risk for coastal flooding (Federal Emergency Management Agency [FEMA] 2020). However, the Project site is located approximately 1.2 miles inland from the Pacific Ocean and within the FEMA Flood Zone X, which denotes an area where the potential for flooding is minimal (FEMA 2020). Due to its inland location, the Project site is not within a mapped tsunami inundation hazard area and is not at risk for tsunami inundation (California Department of Conservation 2009).

Coastal stormwater and sewer infrastructure within Redondo Beach and Torrance is vulnerable to sea level rise. As groundwater elevations increase due to sea level rise, saltwater intrusion could occur and reduce stormwater capacity, which could lead to localized flooding (County of Los Angeles 2016). However, given that the Project site is located approximately 1.2 miles inland from

the shoreline of the Pacific Ocean and approximately 146 to 166 feet MSL, stormwater and sewer infrastructure serving the Project site are not at risk of damage from projected sea level rise.

Existing Conditions at the Project Site

Site Drainage

A site-specific Hydrology and Water Quality Report was prepared for the proposed Project by John Labib & Associates (2021) (see Appendix H) and peer reviewed by Wood Environment & Infrastructure, Inc. (Wood) civil engineers. As described in Section 2.2.2, *Existing Project Site*, the Project site consists of the existing 9.35-acre fully developed BCHD campus and the adjacent 0.43-acre vacant Flagler Lot. The BCHD campus is developed with 1- to 5-story buildings, a subterranean parking garage, a parking structure, and surface parking lots. Landscaped areas are limited to perimeter planters, small lawns areas, and landscaped trees (particularly along the western boundary of the Project site; refer to Section 3.3, *Biological Resources*). The vacant Flagler Lot is unpaved, which allows stormwater to infiltrate into the ground.

The BCHD campus is higher in elevation than the adjacent properties, while the vacant Flagler Lot is similar in elevation to the surrounding features including Beryl Street, Flagler Lane, and the Redondo Village Shopping Center. The BCHD campus is elevated by approximately 25 feet above the shopping center to the north along Beryl Street and by approximately 30 feet above Flagler Lane and Flagler Alley to the east. The topography of the Project site is relatively flat, with gentle slopes varying from approximately 146 to 166 feet MSL and surface gradients to the northeast. The vacant Flagler lot has an approximate 2:1 gradient with surface elevations sloping towards the eastern portion of the site. Runoff from the BCHD campus sheet flows towards the perimeters of the campus where it is conveyed to the exiting municipal stormwater drainage systems, whereas runoff from the vacant Flagler Lot is infiltrated into the unpaved ground or flows towards the east where it discharges to curb drains. The northeast portion of the Project site drains to an existing catch basin and an 18-inch storm drain line that discharges into the City of Torrance municipal storm drain system beneath Flagler Lane (see Figure 3.9-2). The northwest portion of the Project site drains westerly toward North Prospect Avenue and the remaining south and southeast portions of the site drain to the southwest toward North Prospect Avenue. These flows eventually discharge to the curb and gutter in North Prospect Avenue and eventually outlet into the City of Redondo Beach municipal storm drain system (see Figure 3.9-2) (John Labib & Associates 2021).

Approximately 369,633 square feet (sf) or 81.7 percent of the Project site is covered in impervious surface area (John Labib & Associates 2021). The Los Angeles County's HydroCalc Calculator was used to determine the existing peak runoff rates at the Project site during the 10-, 50-, and

100-year storm events (see Appendix H). HydroCalc is a software based on the Modified Rational Method (MODRAT), as outlined by the Los Angeles County Public Works Department (LACDPW) Hydrology Manual (2006).

The LACDPW Hydrology Manual requires that a storm drain conveyance system be designed for a 25-year storm event and that the combined capacity of a storm drain and street flow system accommodate flow from a 50-year storm event. Further, the Los Angeles RWQCB allows the use of 85th percentile 24-hour rainfall event or the 0.75-inch event for Standard Urban Storm Water Mitigation Plan (SUSMP) and BMP design hydrologic studies. The 85th percentile storm is used to represent the approximate amount of rainfall that would occur from 85 percent of storms occurring in the Los Angeles RWQCB region.² The 85th percentile 24-hour rainfall depths vary from 0.30 to 1.50 inches within the Los Angeles County (LACDPW 2004). The Hydrology and Water Quality Report prepared for the proposed Project modeled peak flow for stormwater discharge occurring during the 85th percentile storm to represent a likely scenario for rainfall in the region.

The street flow capacity of the storm drain in North Prospect Avenue is approximately 225 cubic feet per second (cfs). The peak flow generated from a 50-year storm event at the Project site is approximately 20 cfs (see Table 3.9-3).

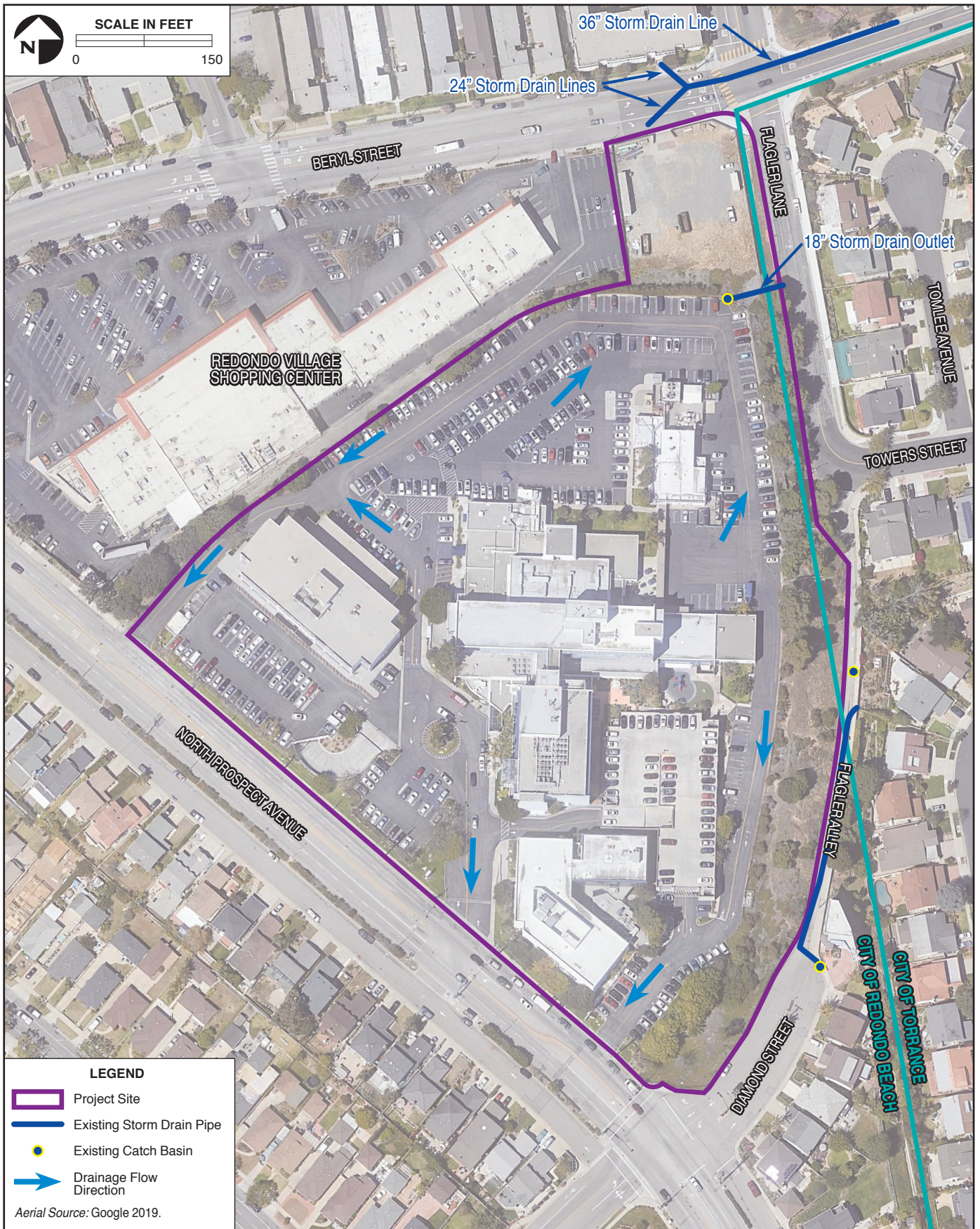
Table 3.9-3. Existing 85th Percentile 10-, 50- and 100-year Peak Stormwater Discharge at the Project Site

	85th Percentile	10-Year	50-Year	100-Year
Clear Peak Flow Rate (cfs)	1.4	12.0	20.0	24.1
24-Hour Clear Runoff Volume (cubic feet)	21,161	105,038	147,568	165,791

Notes: The standard for storm water pollutant control is retention of the 24-hour 85th percentile storm volume, defined as the event that has a precipitation total greater than or equal to 85 percent of all daily storm events larger than 0.01 inches over a given period of record in a specific area or location.

Source: John Labib & Associates 2021; see Appendix H.

² The standard for storm water pollutant control is retention of the 24-hour 85th percentile storm volume, defined as the event that has a precipitation total greater than or equal to 85 percent of all daily storm events larger than 0.01 inches over a given period of record in a specific area or location.



wood.

Existing Site Drainage

**FIGURE
3.9-2**

Groundwater

The Project site is located within the West Coast Groundwater Basin of the Los Angeles Coastal Plain and approximately along the West Coast Basin Seawater Intrusion Barrier, both are located approximately 1 mile east of the Redondo Beach King Harbor. Based on the findings of the subsurface soil investigations, groundwater was not encountered at a boring depth of 61.5 feet (refer to Section 3.6, *Geology and Soils*; see Appendix F). Groundwater levels may fluctuate with the seasons, and zones of perched groundwater may be present at various depths due to local conditions or during rainy seasons. Groundwater conditions below any given site vary depending on numerous factors including seasonal rainfall, local irrigation, and groundwater pumping, among other factors not evident at the time of exploration (Converse Consultants 2016).

As described further in Section 3.8, *Hazards and Hazardous Materials*, no collected soil samples contained contaminants above screening levels. Three collected soil vapor samples contained contaminants at levels above their screening levels. These contaminants included tetrachloroethylene (PCE), benzene, and chloroform. Given that the proposed Project is nearly entirely developed with impervious surface and because groundwater was not encountered at a maximum boring depth of 61.5 feet, PCE contamination is not likely to have affected underlying groundwater at or near the Project site.

3.9.2 Regulatory Setting

Federal Regulations

Clean Water Act

The CWA (33 U.S. Code [USC] §§1251 et seq.) establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. and authorizes Federal (i.e., USEPA), State, and local entities to cooperatively create comprehensive programs for eliminating or reducing the pollution of State waters and tributaries. The CWA sets water quality standards for all contaminants in surface waters and makes it unlawful for any person to discharge any pollutant from a point source into navigable waters unless a permit is obtained under its provisions. The CWA mandates permits for wastewater and stormwater discharges, requires States to establish site-specific water quality standards for navigable bodies of water to enhance beneficial uses of water, and regulates other activities that affect water quality, such as dredging and the filling of wetlands. Under the CWA, States are required to identify the waters within its boundaries that do not meet water quality standards, and establish a TMDL for each of the pollutants impairing the water quality standards in that water body. As previously described, Redondo Beach and Santa Monica Bay are listed as

impaired water bodies on the CWA Section 303(d) List. Key provisions of the CWA address water quality standards and the establishment of the NPDES program for controlling the discharge of stormwater. The NPDES program regulates stormwater discharges from three potential sources: Municipal Separate Storm Sewer System (MS4), construction activities, and industrial activities. To prevent harmful pollutants from being washed or dumped into an MS4, operators must obtain a NPDES permit and develop a stormwater management program. Implementing programs intended to meet TMDLs defined under the NPDES program are managed at the State and regional levels, as discussed below.

FEMA National Flood Insurance Program

The National Flood Insurance Program offers flood insurance to homeowners, renters, and business owners if their community participates in the program. Participating communities agree to adopt and enforce ordinances that meet or exceed FEMA requirements to reduce the risk of flooding.

State Regulations

The California Environmental Protection Agency (CalEPA) is charged with developing, implementing, and enforcing the State's environmental protection laws. The SWRCB and nine RWQCBs – including the Los Angeles RWQCB – operate under the regulatory authority of the USEPA. The SWRCB, a branch of CalEPA, and the RWQCBs have the responsibility of granting NPDES permits for certain point source discharges. California issues NPDES permits to selected point source dischargers and issues either waste discharge requirements or conditioned water quality certification for other discharges.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Act established the SWRCB and divided the State into nine regional basins, each under the jurisdiction of a RWQCB. The SWRCB is the primary State agency responsible for the protection of California's water quality and groundwater supplies. The RWQCBs carry out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a water quality control plan or basin plan that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water quality conditions and problems. The Porter-Cologne Act states that a RWQCB may include water discharge prohibitions applicable to particular conditions, areas, or types of waste within its regional plan. California Water Code Section 13170 also authorizes the SWRCB to adopt water quality control plans on its own initiative.

NPDES Construction General Permit

The SWRCB regulates stormwater runoff from construction activities under Order No. 2009-009-Division of Water Quality (DWQ), as amended by 2010-0014-DWQ and 2012-0006-DWQ. Construction activities subject to the NPDES Construction General Permit include sites that disturb an area of 1 acre or more, and small construction sites less than 1 acre but part of a larger common plan of 1 acre or more. The Order requires that, prior to beginning any construction activities, the applicant must obtain coverage under the General Construction Permit by preparing and submitting a Notice of Intent (NOI) and an adequate Stormwater Pollution Prevention Plan (SWPPP). The SWPPP has two major objectives: 1) to help identify the sources of sediment and other pollutants that affect the quality of stormwater discharges; and 2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater and non-stormwater discharges. Required elements of a SWPPP include: 1) site description addressing the elements and characteristics specific to the site; 2) descriptions of BMPs for erosion and sediment controls; 3) BMPs for construction waste handling and disposal; 4) implementation of approved local plans; 5) proposed post-construction controls, including a description of local post-construction erosion and sediment control requirements; and 6) non-stormwater management. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the CWA Section 303(d) List for sediment.

All construction activities related to the proposed Project are subject to the requirements in the Construction General Permit. The current permit, as amended, establishes the following:

- **Technology-based Numeric Action Levels (NALs):** The Construction General Permit includes NALs for pH and turbidity. NALs are essentially numeric benchmark values for certain parameters that, if exceeded in effluent sampling, trigger the discharger to take actions. Exceedance of an NAL does not itself constitute a violation of the Construction General Permit; however, if the discharger fails to take the corrective action required by the Construction General Permit, that may constitute a violation.
- **Technology-based Numeric Effluent Limitations (NELs):** The Construction General Permit contains NELs for pH during any construction phase where there is a high risk of pH discharge and turbidity for all discharges.
- **Risk-based Permitting Approach:** The Construction General Permit establishes a four-level risk calculation. Those dischargers that are determined to be Risk Level 4 are not covered by the Construction General Permit, and thereby are required to submit a Report

of Waste Discharge to the appropriate RWQCB and seek coverage under an individual or other applicable general permit.

- **Minimum Requirements Specified:** The Construction General Permit specifies more minimum BMPs and requirements that were previously only required as elements of the SWPPP or were suggested by guidance.
- **Project Site Soil Characteristics Monitoring and Reporting:** The Construction General Permit requires all dischargers to monitor and report soil characteristics. The primary purpose of this requirement is to provide better risk determination and eventually better program evaluation.
- **Effluent Monitoring and Reporting:** The Construction General Permit requires effluent monitoring and reporting for pH and turbidity in stormwater discharges. The purpose of this monitoring is to be used to determine compliance with the NELs and evaluate whether NALs included in this Construction General Permit are exceeded.
- **Receiving Water Monitoring and Reporting:** The Construction General Permit requires some Risk Level 2 and Risk Level 3 dischargers to monitor receiving waters.
- **New Development and Redevelopment Stormwater Performance Standards:** The Construction General Permit specifies runoff reduction requirements for all sites not covered by a Phase I or Phase II MS4 NPDES Permit, to avoid, minimize and/or mitigate post-construction stormwater runoff impacts.
- **Rain Event Action Plan:** The Construction General Permit requires sites to develop and implement a Rain Event Action Plan that must be designed to protect all exposed portions of the site within 48 hours prior to any likely storm event.
- **Site Photograph Self-Monitoring and Reporting:** The Construction General Permit requires all projects to provide photographs of their sites at least once quarterly if there are storm events causing a discharge during that quarter. The purpose of this requirement is to help RWQCB staff prioritize their compliance evaluation measures (e.g., inspections). In addition, this reporting makes compliance-related information more readily available to the public.
- **Annual Reporting:** The Construction General Permit requires all projects that are enrolled for more than one continuous 3-month period to submit information and annually certify that their site complies with these requirements. The primary purpose of this requirement is to provide information needed for overall program evaluation and public information.
- **Certification/Training Requirements for Key Project Personnel:** The Construction General Permit requires that key personnel (e.g., SWPPP preparers, inspectors, etc.) have specific training or certifications to ensure their level of knowledge and skills are adequate

to ensure their ability to design and evaluate project specifications that will comply with all applicable requirements.

Water Quality Control Plan for Ocean Waters of California (Ocean Plan)

California Water Code, Division 7, Section 13000 includes water quality objectives for the protection of oceanic water quality. The revised Ocean Plan was adopted by the SWRCB in 2005 and approved by the USEPA in 2006. The Ocean Plan contains water quality objectives for ocean waters of the State to ensure the reasonable protection of beneficial uses and the prevention of nuisance. The Ocean Plan also sets forth effluent limits or levels of water quality characteristics that apply to all discharges to the coastal waters of California. Waste management systems that discharge to the ocean must be designed and operated in a manner to maintain a healthy marine ecosystem and not adversely impact the health of recreational users. Pursuant to California Water Code Section 13263(a), the requirements of the NPDES program implement the Ocean Plan.

Sustainable Groundwater Management Act

The SGMA requires to medium- and high-priority basins to develop groundwater sustainability agencies (GSAs), develop groundwater sustainability plans (GSPs) by January 31, 2022, and manage groundwater for long-term sustainability. The West Coast Basin, where the City of Redondo Beach and City of Torrance, are located is designated as a “very low” priority basin. Therefore, the West Coast Basin is not subject to the requirements of the SGMA (DWR 2020).

California Toxics Rule

The USEPA has established numeric water quality criteria for certain toxic substances for California via the California Toxics Rule (CTR). The CTR establishes acute and chronic surface water quality standards for bodies of water such as inland surface waters and enclosed bays and estuaries that are designated by the RWQCBs as having beneficial uses protective of aquatic life (23 priority toxics) or human health (57 priority toxics). Numeric criteria established in the CTR are the same as those recommended by the USEPA in the CWA Section 304(a) guidance. The CTR also includes provisions for compliance schedules to be issued for new or revised NPDES permit limits when certain conditions are met.

State Antidegradation Policy

In accordance with Federal Antidegradation Policy, the SWRCB adopted in Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality Waters in California (more commonly referred to as the State Antidegradation Policy), which restricts the degradation of surface waters of the State and protects bodies of water where the existing water quality is higher

than necessary for the protection of present and anticipated designated beneficial uses. The State Antidegradation Policy is implemented by the Los Angeles RWQCB.

California Water Code Section 13260

California Water Code Section 13260 requires that any person discharging or proposing to discharge waste that could affect the quality of the waters of the State, in a location other than the community sewer system, must submit a report of the waste discharge with the applicable RWQCB.

Regional Regulations

Water Quality Control Plan for the Los Angeles Region (Los Angeles Basin Plan)

The Los Angeles Basin Plan establishes beneficial uses for surface and groundwater in the region and sets forth the regulatory water quality standards set by the Los Angeles RWQCB to protect those designated beneficial uses (Los Angeles RWQCB 2019a). Where multiple designated beneficial uses exist, water quality standards must protect the most sensitive use. In cases where the Los Angeles Basin Plan does not contain a water quality objective for a pollutant, other criteria are used to establish a standard. Other criteria may be applied from SWRCB documents (e.g., the Inland Surface Waters Plan and the Pollutant Policy Document) or from water quality criteria developed under CWA Section 304(a). Permits issued to control pollution (i.e., water quality standards) while taking into consideration beneficial uses to be protected. The Los Angeles Basin Plan works to preserve and enhance water quality and protect the beneficial uses of Redondo Beach and Santa Monica Bay (e.g., inland surface waters, groundwater, and coastal waters such as bays and estuaries). Runoff from southern Redondo Beach and West Torrance flow westerly where they are collected by the City of Redondo Beach municipal storm drain system and outlet to the Pacific Ocean. The Los Angeles Basin Plan establishes water quality objectives to prevent harmful pollution from entering these waterbodies.

Construction Dewatering General Permit

The General Permit for Waste Discharge Requirements for Water from Construction and Project Dewatering to Surface Waters (Order No. R4-2013-0095) became effective in the Los Angeles RWQCB jurisdiction in July 2013. The Dewatering Permit authorizes discharges of treated or untreated groundwater generated from permanent or temporary dewatering operations, or other applicable wastewater discharges not specifically covered in other general or individual NPDES permits. Discharges from facilities to Federal waters that could not potentially cause or contribute to a violation of any applicable Federal or State water quality objectives/criteria or cause acute or

chronic toxicity in the receiving water are authorized discharges in accordance with the conditions in the Dewatering Permit. To obtain coverage under this permit, a construction operator must comply with discharge prohibitions and specifications as detailed in the permit language.

Municipal Separate Storm Sewer System NPDES Permit

The CWA established the NPDES program to regulate the discharge of pollutants from point sources to waters of the U.S. However, pollution from non-point sources (i.e., urban runoff) was largely unabated. The USEPA developed the NPDES Storm Water Permitting Program in 1990, which established a framework for regulating municipal and industrial discharges of urban runoff. USEPA required NPDES permit coverage for discharges from MS4 with populations of 100,000 or more. Operators of MS4s regulated under the NPDES Storm Water Permitting Program are required to obtain permit coverage for municipal discharges of stormwater and non-stormwater to waters of the U.S.

Under SWRCB enforcement, the Los Angeles RWQCB implements the NPDES Storm Water Permitting Program in Los Angeles County. Except for those discharges originating from the City of Long Beach MS4, stormwater and non-stormwater discharges from the County of Los Angeles MS4 are regulated under NPDES Permit No. CAS004001 (Final Order No. R4-2012-0175), which went into effect in December 2012. The Los Angeles County MS4 NPDES Permit covers 86 permittees, which include the City of Redondo Beach and the City of Torrance. The provisions of this MS4 NPDES Permit are intended to develop, achieve, and implement a timely, comprehensive, cost-effective stormwater pollution control program to reduce the discharge of pollutants in stormwater to the MS4 from the permitted areas in the County of Los Angeles to the waters of the State. Pursuant to CWA, the MS4 NPDES Permit includes effluent limitations and other provisions to implement the TMDLs for the water bodies that have been classified as impaired on the State's CWA Section 303(d) List. The MS4 NPDES Permit prohibits non-stormwater discharges, except for natural flows, uncontaminated groundwater infiltration, and certain exemptions including landscape irrigation, non-commercial car washing, non-emergency fire-fighting activities, and natural dewatering, provided that conditionally exempt non-stormwater discharges avoid potential sources of pollutants in the flow path to prevent the introduction of pollutants to the MS4 and receiving water.

In 2018, the Los Angeles RWQCB approved the removal of fecal coliform from the monitoring requirements contained in Attachment E of the MS4 NPDES Permit for consistency with Resolution No. R10-005, which removed the water quality objective for fecal coliform in freshwater designated for water contact recreation and limited water contact recreation.

The MS4 Permit sets forth the requirements for all permittees, which are discussed further below:

- **Construction.** For all construction sites that disturb less than 1 acre of soil, permittees must require the implementation of an effective combination of erosion and sediment control BMPs to prevent erosion and sediment loss, and the discharge of construction wastes. For all construction sites 1 acre or more that disturb soil, permittees must require the preparation or submission an Erosion and Sediment Control Plan prior to the disturbance of land. The Project site is approximately 9.78 acres, so the proposed Project is subject to erosion and sediment BMPs. The Erosion and Sediment Control Plan must contain appropriate site-specific construction site BMPs for controlling erosion during excavation and grading activities. Erosion and Sediment Control Plans must include the elements of a SWPPP and must address methods to minimize footprint of disturbed area, methods to protect native vegetation and trees, sediment/erosion control, non-stormwater controls (e.g., vehicle washing, soil watering, dewatering, etc.), materials management (e.g., delivery and storage), spill prevention and control, and waste management (e.g., concrete washout/waste management, sanitary waste management, etc.). SWPPPs prepared in accordance with the requirements of the Construction General Permit can be accepted as Erosion and Sediment Control Plans.
- **Operation.** The NPDES MS4 Permit requires that permittees, including the City of Redondo Beach and the City of Torrance, implement operational stormwater runoff controls for new development and redevelopment projects. Under the NPDES MS4 Permit, these projects must be designed to minimize the footprint of the impervious area and to use low-impact development (LID) strategies to disconnect the runoff from impervious area. Projects must be designed to retain on-site stormwater runoff resulting from either the 0.75-inch per 24-hour storm or the 85th percentile storm as defined in the Los Angeles County 85th percentile, 24-hour storm isohyetal map, whichever is greater. Stormwater runoff may be retained on-site by methods designed to intercept rainwater via infiltration, bioretention, and harvest and use. Examples of LID strategies that may be employed to meet the stormwater retention requirements include rain gardens, bioswales, pervious pavement, green roofs, and rainwater harvesting for use in landscape irrigation.
- **Construction Dewatering General Permit.** The Los Angeles RWQCB also regulates discharges of groundwater from construction activities in the coastal watershed of Los Angeles County under Order No. R4-2013-0095 (NPDES Permit No. CAG994004), which was adopted on June 6, 2013. Discharges covered by this permit include, but are not limited to, treated or untreated groundwater generated from permanent or temporary dewatering operations. This permit applies to all construction dewatering activities and includes

effluent and receiving water limitations for metals and other potential contaminants in discharges from dewatering operations, as well as monitoring and reporting requirements. Similar to the Construction General Permit, the construction operator must submit a NOI to discharge groundwater generated from construction dewatering operations in accordance with the requirements of the Construction Dewatering General Permit. The NOI must include such information as the intended reuse or disposal of the wastewater, the nature of wastewater treatment, the discharge point of the wastewater, and the nature of the receiving waters.

Enhanced Watershed Management Program for the Beach Cities EWMP Area

EWMPs are WMPs which comprehensively evaluate opportunities for collaboration on multi-benefit regional projects that retain all non-stormwater runoff and runoff from the 85th percentile, 24-hour storm event while also achieving benefits associated with issues such as flood control and water supply. In general, WMPs and EWMPs are intended to facilitate Permit compliance and water quality target achievement.

Following adoption of the 2012 Los Angeles MS4 NPDES Permit, the cities of Hermosa Beach, Manhattan Beach, Redondo Beach, and Torrance, together with the LACFCD, collectively referred to as the Beach Cities Watershed Management Group (WMG), agreed to collaborate on the development of an EWMP for the Santa Monica Bay and Dominguez Channel areas within their jurisdictions (referred to herein as the Beach Cities EWMP Area). The Machado Lane Subwatershed is not included in the Beach Cities EWMP Area. The EWMP summarizes watershed-specific water quality priorities identified by the Beach Cities WMG, outlines the program plan including specific strategies, control measures, and BMPs to achieve water quality targets, and describes the quantitative analyses completed to support target achievement and Permit compliance (Beach Cities WMG 2018).

Los Angeles County Low Impact Development Standards Manual

The County prepared the 2014 Low Impact Development Standards Manual (LID Manual) to comply with the requirements of the MS4 permit. The LID Manual is an update and compilation of the following documents:

- Development Planning for Storm Water Management: A Manual for the Standard Urban Storm Water Mitigation Plan (September 2002)
- Technical Manual for Stormwater Best Management Practices in the County of Los Angeles (February 2004)
- Stormwater Best Management Practice Design and Maintenance Manual (August 2010)

- Low Impact Development Standards Manual (January 2009)

The LID Manual addresses the following objectives and goals:

- Reduce the adverse impacts of stormwater runoff from development and urban runoff on natural drainage systems, receiving waters, and other water bodies.
- Minimize pollutant loadings from impervious surfaces by requiring development projects to incorporate properly designed, technically appropriate BMPs and other LID strategies.
- Minimize erosion and other hydrologic impacts on all projects located within natural drainage systems that have not been improved by requiring projects to incorporate properly designed, technically appropriate hydromodification control development principles and technologies.

The use of LID BMPs in project planning and design is intended to preserve a site's predevelopment hydrology by minimizing the loss of natural hydrologic processes such as infiltration, evapotranspiration, and runoff detention. LID BMPs try to offset these losses by introducing structural and non-structural design components that restore these water quality functions.

Standard Urban Stormwater Mitigation Plan

The NPDES MS4 Permit defines the minimum required BMPs that must be adopted by the permittee municipalities and included by developers within plans for facility operations. To obtain coverage under this permit, a developer must obtain approval of a project-specific SUSMP from the appropriate permittee municipality.

A SUSMP addresses the discharge of pollutants within stormwater generated following new construction or redevelopment. Under recent regulations adopted by the Los Angeles RWQCB, projects are required to implement a SUSMP during the operational life of a project to ensure that stormwater quantity and quality is addressed by incorporating BMPs into project design. This plan defines water quality design standards to ensure that stormwater runoff is managed for water quality concerns and to ensure that pollutants carried by stormwater are confined and not delivered to receiving waters. Applicants are required to abide by source control and treatment control BMPs from the list approved by the Los Angeles RWQCB and included in the SUSMP. These measures include infiltration of stormwater as well as filtering runoff before it leaves a site. This can be accomplished through various means, including the use of infiltration pits, flow-through planter boxes, hydrodynamic separators, and catch basin filters.

In combination, these treatment control BMPs must be sufficiently designed and constructed to treat or filter the first 0.75 inches of stormwater runoff from a 24-hour storm event, and post-development peak runoff rates and volumes cannot exceed peak runoff rates and volumes of pre-development conditions. Permittees are required to adopt the requirements set forth herein in their own SUSMP. Additional BMPs may be required by ordinance or code adopted by the permittee and applied in a general way to all projects or on a case-by-case basis.

Los Angeles County Department of Public Works Hydrology Manual

The LACDPW Hydrology Manual establishes county hydrologic design procedures and serves as a reference and training guide. The manual outlines county standards to be used when converting rainfall to runoff flow rates and volumes based on collected historic rainfall and runoff data specific to the County of Los Angeles. The standards set forth in this manual govern all hydrology calculations done under LACDPW jurisdiction. The hydrologic techniques in this manual apply to the design of local storm drains, retention and detention basins, pump stations, and major channel projects. The techniques also apply to storm drain deficiency and flood hazard evaluations.

City of Redondo Beach Local Policies and Regulations

City of Redondo Beach General Plan Utilities Element

The Redondo Beach General Plan Utilities Element contains goals and policies related to hydrology and surface and groundwater quality that apply to the proposed Project. These policies include, but are not limited to:

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| Policy 6.2.12 | Where appropriate and feasible, upgrade the existing drainage system by replacing open swales and drainage channels with covered or underground facilities. |
| Policy 6.7.3 | The City of Redondo Beach Community Development Department and City of Redondo Beach Public Works Department shall, through the local design and environmental review and approval process, ensure that new development proposed in the area of the existing groundwater (seawater) intrusion barrier and water injection well system will not create any adverse impacts or damage to the operation of the system. |

Redondo Beach Municipal Code

Redondo Beach Municipal Code (RBMC) Chapter 7 contains the City’s Stormwater Management and Discharge Control Ordinance. This Chapter seeks to ensure health and safety of citizens and the water quality of receiving waters of the County of Los Angeles and surrounding coastal areas by:

- Reducing pollutants in stormwater discharges to the maximum extent practicable.
- Regulating illicit connections and illicit discharges and thereby reducing the level of contamination of stormwater and urban runoff into the MS4.
- Regulating non-stormwater discharges to the MS4.
- Protecting and enhancing the quality of watercourses, water bodies, and wetlands in the city in a manner consistent with the federal Clean Water Act, the California Porter-Cologne Water Quality Control Act, and the Los Angeles County MS4 NPDES Permit.

RBMC Chapter 5-7 prohibits illicit discharges and connections to the municipal stormwater system, littering, and any discharges in violation of the County of Los Angeles MS4 NPDES Permit. RBMC Section 5-7.113 contains the SUSMP Requirement for New Development and Redevelopment Projects, which regulates urban runoff in Redondo Beach and requires owners and occupants within the City to implement BMPs to prevent or reduce the discharge of pollutants to the municipal stormwater system. RBMC Section 5-7.113 also requires integration of LID practices and standards through means of infiltration, evapotranspiration (i.e., the combined process of water surface evaporation, soil moisture evaporation, and plant transpiration), biofiltration, and rainfall harvest and use be included in the SUSMP. LID BMPs focus on reducing peak runoff by allowing rainwater to soak into the ground, evaporate into the air, or collect in storage receptacles for irrigation or other beneficial uses (City of Redondo Beach 2015). Examples of infiltration BMPs include infiltration basins, dry wells, and pervious pavement.

City of Redondo Beach Local Policies and Regulations

Torrance General Plan Circulation and Infrastructure Element

The Torrance General Plan Circulation and Infrastructure Element contains goals and policies related to circulation and infrastructure, including policies on storm drain systems that apply to the proposed Project. These policies include, but are not limited to:

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| Policy CI.9.4 | Require that new development assume the full fair-share costs of construction and expansion of water, sewer, and storm drain system improvements necessitated by that development. |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

- Policy CI.9.9 Require that developers address the City's Total Maximum Daily Load as required by a project's watershed.

Torrance General Plan Community Resources Element

The Torrance General Plan Community Resources Element includes water conservation goals and policies related to hydrology and surface and groundwater quality that apply to the proposed Project. These policies include, but are not limited to:

- Policy CR.15.3 Maximize the use of local water resources to reduce imported water supplies. Policy CR.15.4: Encourage residents and businesses in Torrance to practice water conservation through incentive programs and where necessary, programs that penalize wasteful practices.
- Policy CR.15.5 Enforce regulations aimed at reducing groundwater and urban runoff pollution, including the NPDES requirements of the Regional Water Quality Control Board.
- Policy CR.15.6 Reduce the amount of water used for landscaping through such practices as the planting of native and drought-tolerant plants, use of efficient irrigation systems, and collection and recycling of -4runoff.
- Policy CR.15.7 Implement the water conservation projects set forth in the City's Urban Water Management Plan.
- Policy CR.15.8 Expand the use of recycled water at schools, parks, at City facilities, and other potential irrigation or industrial use sites.
- Policy CR.15.9 Identify opportunities for increased use of reclaimed water.
- Policy CR.15.10 Promote implementation of effective water conservation and water demand management measures including Best Management Practices.

Torrance Municipal Code

The City of Torrance is one of the co-permittees on the MS4 Permit (Order No. R4-2012-0175). Stormwater quality provisions of the municipal code are set forth in Division 4 Chapter 10, Stormwater and Urban Runoff Pollution Control, and Chapter 11, LID Strategies for Development

and Redevelopment. These municipal code requirements ensure compliance with NDPES and MS4 (City of Torrance 2016a, 2016b).

3.9.3 Impact Assessment and Methodology

Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the 2020 California Environmental Quality Act (CEQA) Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on hydrology and water quality if it would:

- a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.
- b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces in a manner which would:
 - i. Result in substantial erosion or siltation on- or off-site.
 - ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
 - iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
 - iv. Impede or redirect flows.
- d) The project would be located in a flood hazard, tsunami, or seiche zones, and risk release of pollutants due to project inundation.
- e) The project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Non-Applicable Threshold(s):

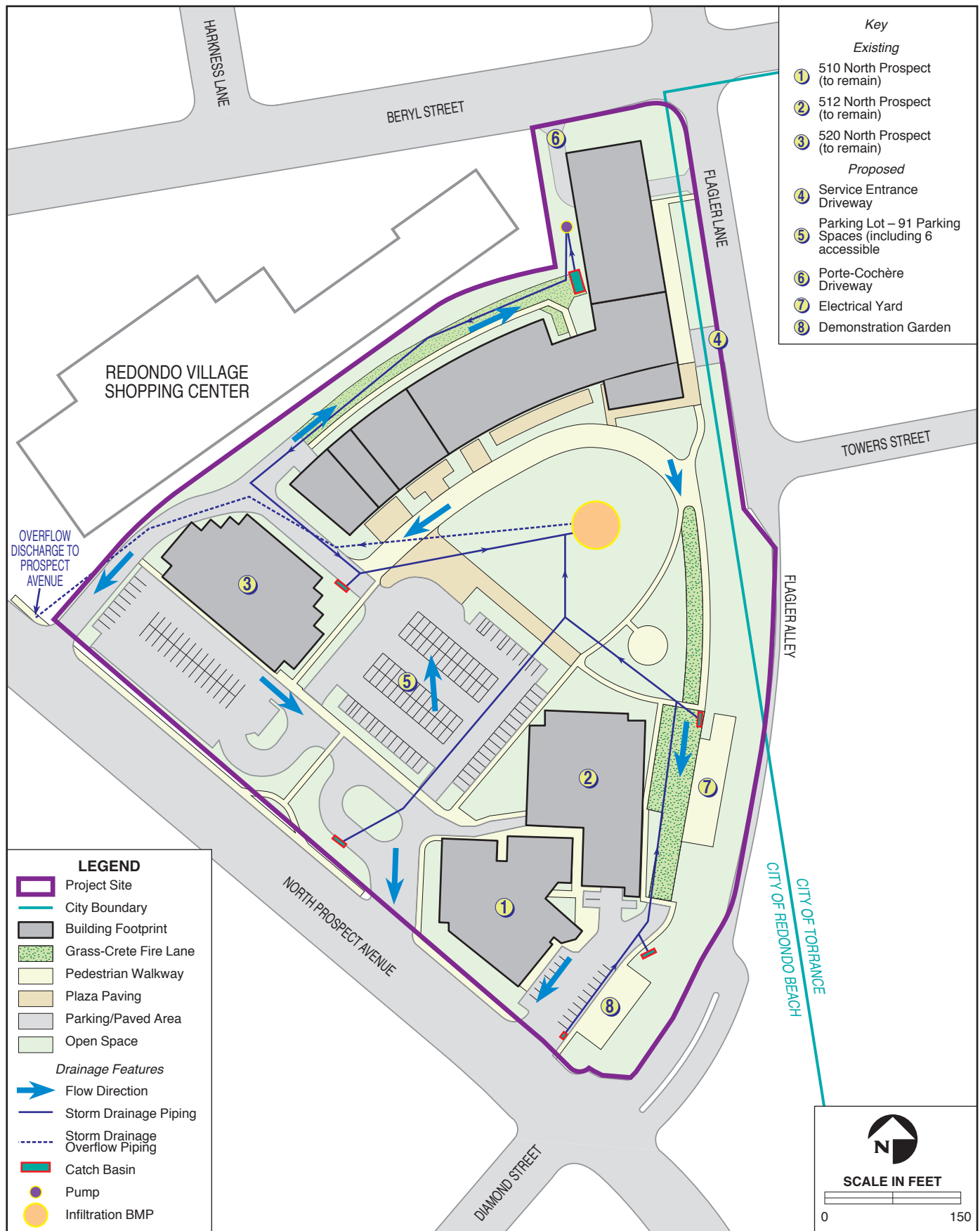
- Threshold (d) (*Flood Hazard, Tsunami, or Seiche Zones*): As described in the Initial Study (IS) (see Appendix A) prepared for the proposed Project, the Project site is located outside of 100-year and 500-year flood zones. According to the FEMA maps, the Project site is in at area within a minimal flood hazard area (FEMA 2020). The proposed Project would similarly not place any other structures within a 100-year flood hazard area that would

impede or redirect flood flows. Additionally, there are no dams, levees, streams, or rivers, in proximity of the Project site. Therefore, the proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving flooding as a result of the failure of a levee or dam and no impact would occur. The Project site is located over 1 mile inland of the Pacific Ocean and is located within a mapped Tsunami Inundation Area (California Department of Conservation 2009). Therefore, the proposed Project would not be affected by or release of pollutants as a result of inundation. Therefore, for the reasons stated above and as discussed in Section X, *Hydrology and Water Quality* of the IS, this issue is not further analyzed in the EIR.

Methodology

The proposed Project was evaluated for hydrologic risks, including potential impacts to surface and groundwater quality, flooding, or groundwater basin capacity based on information from the 2015 Urban Water Management Plan (UWMP), Redondo Beach General Plan Utilities Element, the Torrance General Plan Circulation and Infrastructure Element and Community Resources Element, and the RMBC and TMC. Project-specific information was provided by the Hydrology and Water Quality Report (John Labib & Associates 2021) and geotechnical study prepared for the proposed Project (Converse Consultants 2016).

Potential impacts to the storm drain system were analyzed by comparing the calculated existing and proposed peak runoff rates, taking into consideration the capacity of the existing storm drain system serving the Project site and mandatory compliance with applicable State and local regulations addressing stormwater runoff. Components of the proposed Project that would have the benefit of reducing stormwater runoff and conserving water on-site using LID and outdoor water conservation techniques have been considered. The analysis also takes into consideration mandatory compliance with applicable State and local regulations addressing stormwater runoff and water quality.



3.9.4 Project Impacts and Mitigation Measures

Impact Description (HYD-1)

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

HYD-1 **Neither construction nor operation of the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would result in a violation of water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality. The proposed Project would comply with existing regulations and plans to ensure the potential impacts to water quality would be *less than significant*.**

Construction

Construction of the proposed Project would involve major earthwork, including demolition of existing pavements and structures, excavation and shoring for subterranean levels, grading, and trenching for utilities, which would disturb the underlying soils and expose them to potential erosion and mobilization from wind, rain, and on-site watering activities, necessary to reduce airborne dust (refer to Section 3.6, *Geology and Soils*). These activities could result in sediment transport into adjacent storm drain inlets – particularly during storm events or during on-site watering. Additionally, construction activities have the potential to contribute to polluted stormwater runoff due to the delivery, handling, and storage of construction materials and wastes, as well as potential leakage and spills of construction materials (e.g., oil, grease, paints, solvents, or cleaning agents) (refer to Section 3.8, *Hazards and Hazardous Materials*). During storm events, these contaminants on the Project site have the potential to be washed away by stormwater runoff and carried into the existing storm drain system.

Construction of the proposed subterranean service area and loading dock during Phase 1 would involve the excavation and export of approximately 20,000 cubic yards (cy) of soil (refer to Section 2.5.1, *Phase 1 Preliminary Site Development Plan*). Phase 2 of construction would involve the excavation and export of an estimated 11,000 cy of soil associated with construction of the above ground parking structure (refer to Section 2.5.2, *Phase 2 Development Program*). Winter storms and rainfall events that occur during these construction periods – which would span multiple winter seasons – would generate runoff that could flow over exposed soil areas and carry suspended sediments and other pollutants into the stormwater drainage system leading to the Pacific Ocean. Due to the substantial amount of proposed excavation and the potential for extended periods of

exposed soils, soil erosion could result in the creation of on-site rills and gullies, clogs in the existing drainage system, and transport of suspended sediments into down-gradient areas of the Project site. This stormwater runoff could also contain eroded construction and demolition debris and associated hazardous materials that would potentially further degrade surface water quality in the vicinity of the Project site, including the Santa Monica Bay. Potential pollutant sources resulting from conditions or areas at the Project site that could cause sediment, silt, and/or turbidity in site runoff include, but are not limited to:

- Exposed soil areas with inadequate erosion control measures;
- Areas of active grading;
- Poorly stabilized slopes;
- Lack of perimeter sediment controls;
- Areas of concentrated flow on unprotected soils;
- Poorly maintained erosion and sediment control measures;
- Tracking sediment onto roads and paved surfaces;
- Unprotected soil stockpiles; and
- Failure of an erosion or sediment control measure.

Potential adverse effects on water quality associated with construction activities would be reduced through compliance with the requirements of the Construction General Permit (SWRCB Order No. 2009-0006-Data Quality Assessment). Prior to beginning any demolition, grading, or construction activities, BCHD must obtain coverage under the General Construction Permit by preparing and submitting a NOI and SWPPP for review and approval by the Los Angeles RWQCB. In accordance with the Stormwater Management and Discharge Control Ordinance, the BMPs developed for the proposed Project would also be incorporated into a SUSMP to be approved by the Redondo Beach DPW Engineering Services Division and Torrance Public Works prior to the initiation of construction-related activities. The SUSMP would require that BMPs minimize pollutants and reduce stormwater runoff to levels that comply with applicable water quality standards. The following urban runoff reduction requirements are required to be implemented during construction, consistent with the Los Angeles County MS4 NPDES Permit:

- **Erosion Control or Soil Stabilization BMPs** cover and/or bind soil particles to prevent them from detaching and becoming transported in stormwater runoff, including hydraulic mulch, geotextiles and mats, dikes, and drainage swales to direct runoff and avoid sheet flow, velocity dissipation devices at outlets, slope drains, soil preparation/roughening to break up sheet flow, and non-vegetative stabilization (e.g., decomposed granite, gravel mulch, etc.). For example, plastic covering would be utilized to prevent erosion of an

otherwise unprotected area (e.g., exposed or open to elements stockpiles). These erosion control measures would be implemented throughout the Project site and would be installed well in advance of any storm events.

- **Sediment Control BMPs** are structural measures that would intercept and filter out soil particles that have been detached and transported by water to reduce sediment discharges from construction areas, including silt fencing, sediment traps, check dams, fiber rolls, gravel bag berms, and sandbag barriers. These structural controls would be placed along the perimeter of the Project site along downhill boundaries where runoff is discharged, below the toe or down slope of erodible slopes, at storm drain inlets, along exposed slopes or temporary stockpiles, at culvert/pipe outlets, in channels/ditches/swales, parallel to roadways, or along mildly sloping construction roads. Another sediment control BMP that would be implemented to prevent sediment from entering storm drains and receiving waters would be street sweeping/vacuuming, particularly at points of egress prior to a precipitation event. In addition, vehicle tracking BMPs such as a rock pad, shaker rack, wheel washer, or other BMPs designed to remove soil and mud from vehicles and further reduce offsite tracking of sediment.
- **Wind Erosion Control BMPs** would prevent the transport of soil from disturbed areas of the Project site, off-site by wind and dry conditions during construction. Dust control measures would include construction watering to stabilize soil from wind erosion associated with construction vehicle traffic on unpaved roads, drilling and blasting activities, soil and debris storage, batch drops from front-end loaders, unstabilized soil, and grading. In addition, wind screen fencing would be installed along the perimeter of the Project site.
- **Non-Stormwater and Materials Management BMPs** would reduce or eliminate non-stormwater discharges from the Project site, including implementation of water conservation practices, compliance with applicable Los Angeles RWQCB and local agency dewatering permits (Order No. R4-2013-0095) for any accumulated precipitation allowed to enter the storm drain system, proper inspection and notification of any illicit connections and discharges off-site. These would also include implementation of proper operation, storage, training, and disposal techniques associated with paving and grinding, vehicle maintenance, concrete, irrigation, and waste management operations. For example, machinery or equipment that is to be repaired or maintained in areas susceptible to or exposed to stormwater, would be placed in a manner so that leaks, spills, and other maintenance-related pollutants are not discharged to the municipal storm drain system. Any trash, debris, free standing oil/grease, spills/leaks, shall be removed prior to sidewalk or street washing. No wash water from any type of equipment, vehicle, or machinery shall

be allowed to leave the Project site. Any washing of equipment in the right-of-way shall be contained and properly disposed of. Additionally, parking lots located in areas potentially exposed to stormwater would be swept regularly or other equally effective measures would be utilized to remove debris from such parking lots.

Implementation of BMPs developed in accordance with the requirements of the Construction General Permit would prevent violation of water quality standards and minimize the potential for contributing polluted runoff during construction of the proposed Project. Therefore, construction-related impacts to water quality would be *less than significant*.

Operation

The proposed Project would redevelop the existing BCHD campus and adjacent vacant Flagler Lot. The proposed land cover and impervious surface types would be relatively similar to those currently on the Project site (e.g., rooftops, roadways, driveways, pedestrian walkways, etc.). However, the proposed Project would redevelop the BCHD campus with greater active green space, landscaping, and grass-crete, which is a semi-permeable surface (refer to Figure 2-10). As a result, Phase 1 of the proposed Project, including construction of the proposed Residential Care for the Elderly (RCFE) Building, the demolition of the existing Beach Cities Health Center and the attached maintenance building, and the development of open space and a landscaped surface parking lot, would create a net reduction in the total amount impervious surface area from 81.7 percent to 57 percent during Phase 1 (see Table 3.9-4; John Labib & Associates 2021; see Appendix H).

Table 3.9-4. Areas of Pervious and Impervious Surfaces on Project Site Following the Implementation of Phase 1

	Total Area (sf)	Pervious Area (sf)	Impervious Area (sf)	Impervious Area (%)
Existing	452,174	82,541	369,633	81.7
Total after Phase 1	452,174	194,426	257,748	57.0

Note: Calculations are provided in Appendix B of the Hydrology and Water Quality Report (see Appendix H).
Source: John Labib & Associates 2021; see Appendix H.

The Phase 2 development program would increase the area of impervious surfaces due to the development of additional building footprints. For example, under the Example A site plan scenario, the total impervious surface area would be increased from approximately 57 under Phase 1 to 65 percent under Phase 2 (John Labib & Associates 2021; see Appendix H).

The overall net reduction in impervious surface areas associated with the proposed Project compared to existing conditions would reduce the potential for pollutants (e.g., leaking oil, gas,

grease, metals, organics, pesticides, and non-chemical pollutants such as trash, debris, and bacteria) to be discharged during storm events. Pervious surface areas would increase slightly with the addition of open space and landscaping that would retain stormwater on the Project site for longer periods (e.g., the central lawn, ornamental landscaping on the ground-level open space, landscaped planters on the podium deck of the proposed RCFE Building, the Demonstration Garden, etc.). Additionally, as further described in Impact HYD-3, Phase 1 of the proposed Project would involve the construction of an infiltration 85th system designed to retain, treat, and infiltrate the 85th percentile storm, which can be expected to result in 0.30 to 1.50 inches of rainfall, into the groundwater. (Again, the 85th percentile storm is used to represent the approximate amount of rainfall that would occur from 85 percent of storms occurring in the Los Angeles RWQCB region.) Any flows larger than the 85th percentile design storm would be conveyed to North Prospect Avenue and the existing storm drain infrastructure discharging to the storm drain line beneath Flagler Lane would be abandoned in place.

The proposed Project would be subject to Federal, State, and local regulations pertaining to operational water quality. For instance, the proposed Project is subject to the Redondo Beach Stormwater Management and Discharge Control Ordinance (City of Redondo Beach 2015). Therefore, BCHD would be required to prepare and implement a SUSMP through the operational life of the proposed Project. Long-term operational requirements in the SUSMP would include one or more of the following to mitigate stormwater runoff:

- Control pollutants, pollutant loads, and runoff volume emanating from the Project site by minimizing the impervious surface area and controlling runoff from impervious surfaces through infiltration, bioretention and/or rainfall harvest and use. The proposed Project would retain the Stormwater Quality Design Volume on-site, defined as the runoff from the 0.75-inch, 24-hour rain event or the 85th percentile, 24-hour rain event, as determined from the Los Angeles County 85th percentile precipitation isohyetal map, whichever is greater.
- Bioretention and biofiltration systems shall meet the design specifications provided in Attachment H of the MS4 NPDES Permit unless otherwise approved by the Los Angeles RWQCB Executive Officer.
- When evaluating the potential for on-site retention, the maximum potential for evapotranspiration from green roofs and rainfall harvest and use shall be considered.

Prior to issuing approval for final occupancy, BCHD would be required to provide an operation and maintenance plan, monitoring plan, where required by the Los Angeles Basin Plan, and verification of ongoing maintenance provisions for LID practices, Treatment Control BMPs, and

Hydromodification Control BMPs including but not limited to: final map conditions, legal agreements, covenants, conditions or restrictions, and/or other legally binding maintenance agreements. Verification at a minimum shall include a BCHD-signed statement accepting responsibility for maintenance until the responsibility is legally transferred.

Therefore, following completion of the proposed Project, stormwater runoff from the Project site would not directly affect water quality in the Santa Monica Bay or local groundwater. Compliance with all applicable State and local regulations would ensure that operational impacts to water quality would be *less than significant*.

Impact Description (HYD-2)

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

HYD-2 Construction and operation of the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would not require dewatering activities or otherwise substantially deplete groundwater supplies. The proposed Project would increase groundwater recharge by increasing pervious surface area and improving the existing infiltration system; therefore, there would be a minor *beneficial* impact.

Construction

Based on the findings of the subsurface soil investigation conducted at the Project site, the depth to groundwater at the Project site is more than 61.5 feet below ground surface (bgs) (refer to Section 3.6, *Geology and Soils*; see Appendix F). The proposed Project would include excavation to a maximum depth of 26 feet bgs for the subterranean service area and loading dock of the proposed RCFE Building during Phase 1. Additional excavation also would be required the subterranean levels of the proposed parking structure and the service areas associated with the development under Phase 2. However, dewatering activities would not be necessary, as the maximum excavation depth will not reach groundwater level. Therefore, Construction Dewatering General Permit would not be required.

Due to the existing paved nature of the Project site and lack of stormwater infiltration infrastructure, surface water is not able to naturally infiltrate through the soils and existing groundwater recharge is negligible. Construction activities would temporarily increase the area of

exposed soils; however, the overall change to soil permeability and recharge of the Basin would be nominal.

Construction activities would not substantially deplete groundwater supplies or affect groundwater recharge; therefore, construction impacts to groundwater levels would be *less than significant*.

Operation

The proposed Project would improve groundwater recharge by reducing the volume of runoff and improving infiltration at the Project site. The proposed redevelopment of the BCHD campus would decrease the existing impervious area by adding additional landscape areas, permeable paving pathways, and removing the existing large footprint of impervious surface parking lots. Currently, approximately 369,633 sf, or 81.7 percent, of the Project site is covered in impervious surface area (John Labib & Associates 2021). As described in Impact HYD-1, the implementation of the proposed Project would substantially reduce the area of impervious surface compared to existing conditions (John Labib & Associates 2021). The proposed Project would also create a new drainage system capable including the construction of an infiltration system (i.e., drywell or infiltration trench) capable of retaining, treating, and infiltrating the 85th percentile stormwater flows on-site. Consequently, implementation of the proposed Project would improve groundwater recharge at the Project site and there would be a minor *beneficial* impact to groundwater as a result of the proposed Project.

Impact Description (HYD-3)

- c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces in a manner which would:*
 - i. *Result in substantial erosion or siltation on- or off-site.*
 - ii. *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;*
 - iii. *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or*
 - iv. *Impede or redirect flows.*

HYD-3 The proposed Project would involve the construction of an on-site infiltration system to facilitate groundwater recharge and eliminate stormwater drainage to the City of Torrance municipal storm drain system by abandoning the existing infrastructure that discharges to Flagler Lane in place. Additionally,

the proposed Project – including the Phase 1 preliminary development plan and the more general Phase 2 development program – would not contribute additional runoff to the City of Redondo Beach municipal storm drain system that would exceed existing capacity or increase sources of polluted runoff. The proposed Project would comply with existing regulations and plans to ensure the potential impacts related to drainage would be *less than significant*.

Construction

Construction of the proposed Project would involve site preparation activities, including demolition, excavation, grading, and trenching within areas that are currently developed with impervious surfaces. Generally, all construction activities – particularly those involving substantial soil excavation – would result in exposure of soils and would cause minor alterations to on-site drainage, including the potential for temporary ponding during storm events (refer to Impact HYD-1). However, all stormwater generated during construction would continue to be directed to the existing storm drain system. As discussed in Impact HYD-1, all elements of the proposed Project would be required to implement BMPs to address soil erosion, including topsoil mobilization and loss, and urban runoff, such that substantial erosion or siltation would not occur. Construction activities would alter drainage on-site during each phase of construction, subject to requirements to control water quality and stormwater flows, but would not alter drainage patterns off-site to the existing storm drain system; therefore, construction activities associated with the proposed Project would result in a *less than significant* impact.

Excavation and grading during construction activities would disturb and loosen soils, increasing the potential for soil erosion from wind and rain. For example, substantial ground disturbance under the proposed Project would include the removal of trees and shrubs (e.g., along the eastern perimeter of the campus), installation of the building foundations and footings, deep excavation of soils for subterranean development, and installation of new landscaping. Installation of new utility connections (e.g., water, sewer, and storm drain lines) would also disturb soil up to a depth of approximately 3 feet bgs (see Section 3.15, *Utilities and Service Systems*). Ground disturbance resulting from construction of the subterranean service area and loading dock during Phase 1 and the subterranean levels of the parking structure and service areas during Phase 2 would extend up to approximately 26 feet deep. Implementation of the proposed Project components would result in exposure of large areas of soils during earth work.

However, as described in Impact HYD-1, during construction a SWPPP, SUSMP, and associated BMPs would be implemented in accordance with applicable Los Angeles RWQCB, City of Redondo Beach, and City of Torrance regulations to provide for temporary stormwater

management and prevent construction activities from adversely affecting the amount or direction of flow of surface water. The SWPPP defines site-design, source-control, and treatment-control BMPs would address the potential polluted runoff and surface water quality impacts would be *less than significant*.

Operation

Implementation of the proposed Project would result in impervious surfaces that are relatively similar in type to those currently on the Project site (e.g., rooftops, roadways, driveways, pedestrian walkways, etc.). However, as described under Impact HYD-1, the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would result in a net reduction in the total amount impervious surface area in comparison to existing conditions (John Labib & Associates 2021).

John Labib & Associates used the Los Angeles County HydroCalc Calculator to determine the existing proposed peak runoff rates at the Project site during the 10-, 50-, and 100-year storm events (see Appendix H). A summary of existing and post-construction peak flows at the Project site is provided in Table 3.9-5.

Table 3.9-5. Peak Flow Rates on Project Site Following the Implementation of Phase 1

Clear Peak Flow Rates (cfs)					
	85 th Percentile	10-year	50-year	100-year	100-year (% Increase)
Existing	1.4	12.0	20.0	24.1	-
Phase 1	0.9	8.8	16.3	20.0	-17.0%

Note: Calculations are provided in Appendix B of the Hydrology and Water Quality Report (see Appendix H).

Source: John Labib & Associates 2021; see Appendix H.

The Phase 2 development program would increase the area of impervious surfaces due to the development of additional building footprints. Therefore, the peak flow rates would increase slightly, but still remain less than those described for existing conditions. For example, under the Example A site plan scenario, the total reduction in the 100-year flow would be -13.5 percent as compared to the total reduction of 17.0 percent under Phase 1 (John Labib & Associates 2021; see Appendix H).

Under the proposed Project the existing catch basin and 18-inch storm drain line that outlets to the City of Torrance municipal storm drain system would be abandoned in place. The proposed Project would involve the construction of a new storm drain system on-site including the construction of an infiltration system (i.e., drywell or infiltration trench) capable of retaining, treating, and infiltrating the 85th percentile storm water flows on-site. The percolation tests performed in 2016

by Converse Consultants showed in-situ infiltration rates in the range of 3 to 4 inches per hour which exceeds LACDPW's minimum infiltration rate of 0.3 inches/hour (John Labib & Associates 2021; see Appendix H). Any flows larger than the design storm would be conveyed to North Prospect Avenue, where they would be conveyed through the curb and gutter to the nearest catch basin maintained by the City of Redondo Beach. However, the peak flow rate and total volume of discharge to the City of Redondo Beach municipal storm drain system would be much less than existing conditions. These facilities have excess capacity and would continue to adequately serve the Project site with the implementation of the proposed Project (John Labib & Associates 2021; see Appendix H). Therefore, the proposed Project would result in a reduction in runoff from the site compared to existing conditions, and therefore would have a *less than significant* impact on drainage capacity in the vicinity of the Project site.

Impact Description (HYD-4)

- d) *The project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.*

HYD-4 The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan – including the Ocean Plan, Los Angeles Basin Plan, Groundwater Basin Master Plan (GBMP), and the California Water Service Company (Cal Water) Urban Water Management Plan (UWMP). Therefore, impacts would be *less than significant*.

As previously described, two water quality control plans are applicable to the Santa Monica Bay WMA, which encompasses the Project site: the Ocean Plan and the Los Angeles Basin Plan. For coastal sites, the Ocean Plan includes water quality objectives for the protection of oceanic water quality. Under the Los Angeles Basin Plan, urban runoff must meet guidelines set by the Los Angeles RWQCB to retain the beneficial use of the receiving water bodies. The Los Angeles Basin Plan works to preserve and enhance water quality and protect the beneficial uses of Santa Monica Bay and Redondo Beach (e.g., preservation of biological habitats, navigation, and migration of aquatic organisms). As described in Impact HYD-1, the proposed Project would be required to comply with the requirements of the Construction General Permit (SWRCB Order No. 2009-0006-Data Quality Assessment) to protect associated inland and coastal water quality. The proposed Project would also implement BMPs, such as sediment and erosion controls, to prevent polluted discharge or runoff that would adversely affect water quality. Therefore, through compliance with

the NPDES program, the proposed Project would be consistent with these applicable water quality control plans and impacts would be *less than significant*.

The proposed Project would not conflict with or obstruct the implementation of sustainable groundwater management plan. As described in Section 3.15, *Utilities and Service Systems*, the Groundwater Basin Master Plan (GBMP) provides guidance for parties operating in the West Coast and Central groundwater basins to support additional recharge and pumping from these basins in order to utilize the basins fully and reduce dependence on imported water. The proposed Project would support objectives of the GBMP by increasing the area of pervious surfaces and facilitating groundwater recharge through infiltration on the Project site.

Additionally, as described further in Section 3.15, *Utilities and Service Systems*, Cal Water's UWMP outlines Hermosa-Redondo District's historical and projected water demands, water supplies, supply reliability and vulnerabilities, water shortage contingency planning, and demand management programs to meet the service area's demands (Cal Water 2016). As discussed in Impact UT-2, implementation of the proposed Project would not increase water demand to a level beyond what can be adequately met by existing and future water supplies as determined by existing plans. The proposed Project would not conflict with implementation of any water quality control plans or sustainable groundwater management plans (i.e., the Ocean Plan, Los Angeles Basin Plan, Groundwater Master Plan, and 2015 UWMP). Therefore, the impact of the proposed Project on sustainable groundwater management would be *less than significant*.

Cumulative Impacts

Cumulative development within the vicinity of the Project site would have the potential to contribute to increased pollutant loading in urban runoff and changes in localized drainage patterns. Many pending and future projects in Redondo Beach and Torrance involve redevelopment of existing paved areas, which would not result in a substantial change in surface runoff or groundwater infiltration in the cities because existing development is characterized mostly by paved, impervious surfaces. potential impacts related to stormwater runoff would be regulated across the cities in the same manner as they would be for the proposed Project. New development and redevelopment projects within the cities would be required to comply with the Los Angeles County NPDES permit discharge requirements and respective municipal codes to prevent and mitigate potential impacts to water quality from polluted stormwater runoff. Additionally, each approved project in the vicinity of the Project site would be required to implement BMPs to capture stormwater runoff on-site to the maximum extent feasible and reduce pollutants that are discharged to any stormwater runoff that flows off-site, consistent with the local

regulations in effect in each city. Compliance with existing Federal, State, and local regulations would prevent violation of water quality standards and minimize increases in urban runoff and the potential for contributing additional sources of polluted runoff. Additionally, new development and redevelopment projects in the cities that incorporate current BMP requirements could result in improved water quality as compared to existing conditions. Therefore, the proposed Project *would not substantially contribute to cumulatively considerable impacts* on surface water hydrology and surface water quality.

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3.10 LAND USE AND PLANNING

This section of the Environmental Impact Report (EIR) provides information on the existing land use and zoning in Redondo Beach and Torrance, and addresses the potential for the Beach Cities Health District (BCHD) Healthy Living Campus Master Plan (Project). The analysis provided herein evaluates the potential for the proposed Project to cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The analysis for this category of impact addresses applicable land use plans adopted at the State and regional levels, as well as applicable land use planning goals, policies, and regulations including those identified in the Redondo Beach and Torrance General Plans, municipal codes, and zoning ordinances.

3.10.1 Environmental Setting

Regional Setting

Redondo Beach and Torrance are urbanized beach communities located within Los Angeles County (refer to Figure 2-1). Redondo Beach is bordered to the west by Manhattan Beach and Hermosa Beach and the Pacific Ocean. Torrance borders Redondo Beach to the east and south.

Major highways in the area include Interstate (I-) 405, which runs through the northeast corners of Redondo Beach and Torrance; the Pacific Coast Highway (State Route [SR-] 1), which runs north-south through the length of Redondo Beach and through the southern border of Torrance;

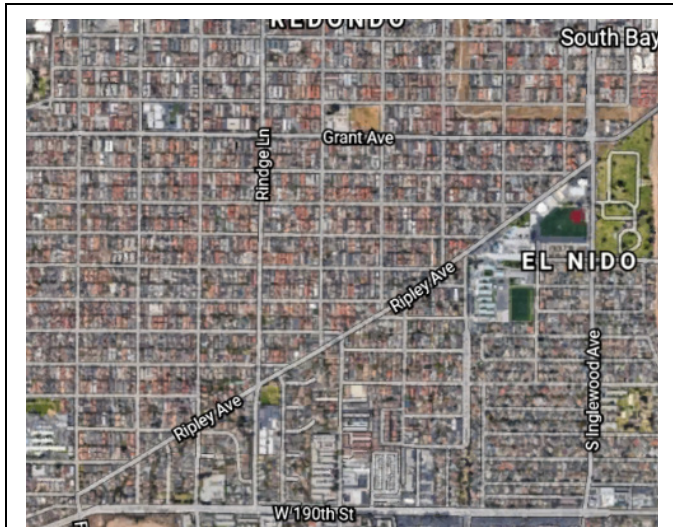
Hawthorne Boulevard (SR-107), which runs north-south through the length of Torrance; and SR-213, another north-south highway, which runs along the western border of Torrance.



The BCHD campus is a regional community facility located in Los Angeles County that serves Redondo Beach, Hermosa Beach, and Manhattan Beach (collectively referred to as the Beach Cities) as well as other nearby cities such as Torrance.

Redondo Beach

Redondo Beach occupies approximately 6.4 square miles, extending approximately 5.25 miles in length from north-to-south and 2.2 miles wide east-to-west at its widest points. Redondo Beach is largely organized around a grid system of streets running north-south and east-west with a few diagonal or curved streets, usually in neighborhoods with uneven topography. Prospect Avenue, West 190th Street, Inglewood Avenue, and portions Hawthorne Boulevard generally define the boundaries between the cities. A portion of the Pacific Coast Highway partially defines the southern boundary of the Redondo Beach. Marine Avenue and



Many neighborhoods in Redondo Beach are organized around a grid system which utilize direct north-to-south and east-to-west roadways, with occasional diagonal or curved streets.

Herondo Street generally define the northern boundary of Redondo Beach and Aviation Boulevard, Harper Avenue, and the coastline generally define the western boundary.

Redondo Beach is a predominantly low density, single-family residential community. Most multiple-family residential areas were originally developed with single-family homes and have transitioned to two or three condominium units on a lot to encourage revitalization and to meet a diversity of housing needs. High-density residential areas within Redondo Beach occur along certain portions of the Pacific Coast Highway. These areas were previously zoned commercial, but were determined to have the potential for higher density residential development.

Commercial districts in the City often occur along commercial corridors with heavily trafficked roads, or in large clusters to accommodate to both local and regional needs. The main commercial land uses in Redondo Beach are located along Artesia Boulevard, Pacific Coast Highway, Torrance Boulevard, Aviation Boulevard, Riviera Village, and North Catalina Avenue (City of Redondo Beach 1992). The areas of Redondo Beach Pier and King Harbor Marina are the most significant coastal-related commercial areas in Redondo Beach, serving as both commercial and recreational assets for the City's residents and regional tourists. There are also several smaller, isolated commercial areas, which may range from a single store to neighborhood-serving shopping centers. These neighborhood-serving shopping centers typically provide necessary and convenient services to the surrounding residential area.

Industrial areas in Redondo Beach allow for light manufacturing, research and development, spacecraft manufacturing and associated aerospace operations, and business park offices. Uses different from, but compatible with, traditional industrial uses are also allowed, including warehouse retail uses, ancillary commercial uses, amusement centers, vehicle sales and services with or without motor vehicle repair, hotels, and motels. Industrial land use in Redondo Beach is limited, with the one major industrial area occurring in the northern end of the City, north of Manhattan Beach Boulevard (City of Redondo Beach 1992). Anchored by the large Northrop Grumman Corporation Space Park complex, the prevailing land use in this area is high-tech industry within an industrial park type of setting. Three other areas within Redondo Beach are also designated as industrial development; however, these areas are smaller and have fragmented ownership.

Public uses and community facilities within Redondo Beach include parks, open space, public schools, the Civic Center (i.e., City Hall, Public Library, and Police Station), a fire station, and the Recreation and Community Services Center. Quasi-public uses include some utility providers as well as privately owned land that serve a public facility or service. Special use districts that serve a specific public function, including the BCHD campus, also contribute to the City's public and institutional land uses.

Torrance

Torrance borders the eastern and southern boundaries of Redondo Beach and is approximately three times larger than Redondo Beach, covering approximately 20.6 square miles. Redondo Beach Boulevard, 182nd Street and West 190th Street generally define the northern borders of Torrance. Prospect Avenue and a small portion of the coastline generally define the western border. Western Avenue (SR-213) and Crenshaw Boulevard defines the eastern boundary of Torrance. Much of Torrance's southern boundary is defined by the Boundary Trail, an unpaved hiking trail. SR-107 provides a north-south connection through central Torrance and terminates at its northern end with I-405. I-405 links Torrance to western Los Angeles, including the Los Angeles International Airport (LAX), and to south Los Angeles County and Orange County.

Residential uses make up approximately half of the total land use in Torrance and are dispersed throughout the City at varying development densities. The lowest densities residential uses are largely located in the western and southern portions of the City, including the single-family residential neighborhoods located immediately adjacent to the west of the Project site (City of Torrance 2010a). Commercial districts in Torrance vary in character and intensity based on location. Commercial districts serving a more local market are dispersed throughout the City in close proximity to residential neighborhoods and at key intersections. Regional commercial

districts along Hawthorne Boulevard, Crenshaw Boulevard, and Pacific Coast Highway cater to a broader population base.

Business park and industrial areas of Torrance are largely concentrated in the east central area of the City and commercial areas are generally clustered around major roadways such as SR-107 and SR-1. Industrial uses in Torrance include traditional industrial processes such as manufacturing, processing, warehousing, packaging or treatment of products, as well as business park uses, which include research and development, warehousing, and office uses, with ancillary commercial uses. Industrial development is concentrated in two main districts: the Central Manufacturing District (generally between Western Avenue and Hawthorne Boulevard, from I-405 to Plaza Del Amo), and the Southern Industrial District that includes airport land and areas north of the airport. The East Victor Precinct located north of Torrance Boulevard and west of Hawthorne Boulevard has a smaller concentration of industrial uses.

Public land uses include the Civic Center, public schools, parks, government facilities, police and fire stations, libraries, and water treatment facilities. Quasi-public uses include land owned by private entities that serve a community-wide function, such as private schools and utility easements.

Project Vicinity

The BCHD campus is bordered by commercial land uses to the northwest, recreational land uses to the northeast, and residential land uses to the south, east, and west.

The Redondo Village Shopping Center is located adjacent to the northwest of the Project site, and is anchored by a Vons grocery store and Shell gas station. The shopping center also includes a fitness studio, pet grooming service, dollar store, and other local dining and retail businesses. The Redondo Village Shopping Center is



The Redondo Village Shopping Center is located immediately to the northwest of the Project site and provides retail and dining opportunities for the surrounding community, which is largely occupied by residential housing.

designated as C-2 (Commercial) in the Redondo Beach General Plan Land Use Element (City of Redondo Beach 1992) and zoned as C-2 (Commercial).

Dominguez Park is located immediately adjacent to the northeast of the Project site across the intersection of Beryl Street & Flagler Lane. This 24-acre park includes grass and trees, picnic areas

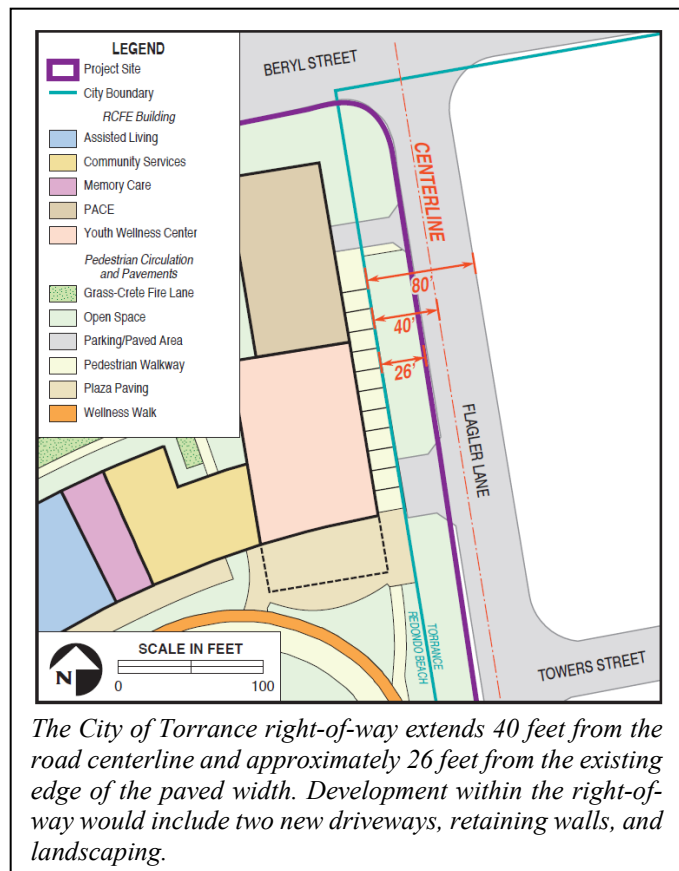
and play equipment, a dog park, Heritage Court, and two Little League fields. Dominguez Park is designated by the City of Redondo Beach as P (Public or Institutional) (City of Redondo Beach 1992) and zoned as P-PRO (Parks, Recreation, and Open Space)

The Project site is also surrounded by single-family residences (R-1) to the south and west, and medium density multi-family residences (RMD) to the north and northwest within Redondo Beach (City of Redondo Beach 1992). The neighborhood bordering the east of the Project site is located within Torrance and is designated as Low Density Residential (R-LO) (City of Torrance 2010b) and zoned as single family residential (R-1).

Project Site

As described in Section 2.2.1, *Project Location* the Project site consists of two legal parcels:

- The existing 9.35-acre campus (Assessor's Identification Number [AIN] 7502-017-903), which is designated by the City of Redondo Beach as P (Public or Institutional) and zoned as P-CF (Community Facility). The campus is developed with the former South Bay Hospital (currently operated as the Beach Cities Health Center), an attached maintenance building, two privately operated medical office buildings with space that is individually leased from BCHD, and a parking structure. As shown in Figure 3.10-1 and Figure 3.10-2, the majority of the campus is located within the Redondo Beach; however, the eastern edge of the campus is partially located within the City of Torrance right-of-way along Flagler Lane and Flagler Alley. The City of Torrance right-of-way extends into the vacant Flagler Lot by approximately 26 feet from the edge of the existing paved width of Flagler Lane.



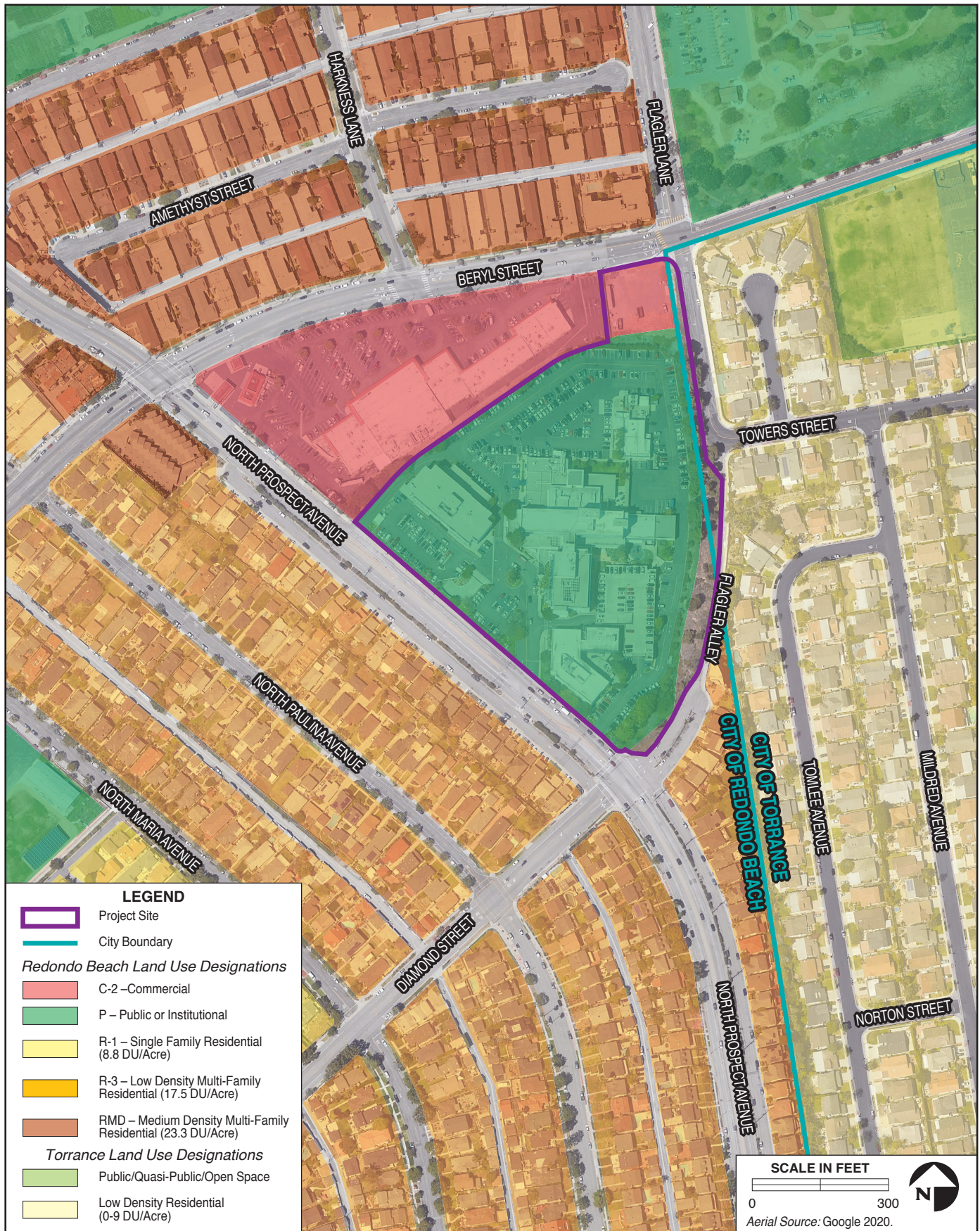




FIGURE 3.10-2

- A 0.43-acre vacant lot owned by BCHD located on the northern edge of and adjacent to the existing campus at the southwest corner of Flagler Lane and Beryl Street (vacant Flagler Lot) (AIN 7502-017-902), which is designated and zoned by the City of Redondo Beach as C-2 (Commercial). This lot is currently undeveloped and is periodically leased by BCHD as a temporary construction staging area for surrounding developments. This lot is currently being leased by The Gas Company as a



The Project site is comprised of two parcels: the existing BCHD campus which is designated as P (Public or Institutional); and the vacant Flagler Lot (pictured above), which is located adjacent to the Redondo Village Shopping Center, and designated as C-2 (Commercial).

construction staging area for gas utility improvements in the vicinity. As with the campus, the majority of the vacant Flagler Lot is located within Redondo Beach; however, the eastern edge of the vacant Flagler Lot is partially located within City of Torrance right-of-way along Flagler Lane. The City of Torrance right-of-way extends into the vacant Flagler Lot by approximately 26 feet from the edge of the existing paved width of Flagler Lane.

3.10.2 Regulatory Setting

This section summarizes relevant adopted regional and local land use policies and regulations applicable to the proposed Project. No Federal land use regulations or policies apply to the proposed Project.

State Policies and Regulations

Senate Bill 375

The California's Sustainable Communities and Climate Protection Act (Senate Bill [SB] 375) (Steinberg, Chapter 728, Statutes of 2008), adopted on September 30, 2008, aligns the goals of regional transportation planning efforts, regional greenhouse gas (GHG) reduction targets, and land use and housing allocations. SB 375 requires metropolitan planning organizations such as the Southern California Association of Governments (SCAG) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS) within their Regional Transportation Plan (RTP) to demonstrate the achievement of GHG reduction targets. In compliance with SB 375,

SCAG has adopted an RTP/SCS, which encompasses Redondo Beach and Torrance as well as other cities and unincorporated land within Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial counties.

Regional Policies and Regulations

SCAG's Regional Transportation Plan / Sustainable Communities Strategy

As described in Section 3.7, *Greenhouse Gas Emissions and Climate Change*, SCAG's Regional Council unanimously approved and fully adopted the 2020-2045 RTP/SCS (Connect SoCal) (SCAG 2020). The 2020-2045 RTP/SCS includes more than 3 years of consultation with stakeholders and the public to capture the goals and objectives of the people within the region and capture the most current available data for determining future demographic projections. The intent of the plan is to build upon and expand land use and transportation strategies established



Both Redondo Beach and Torrance fall within the jurisdiction of SCAG, the metropolitan planning organization for six southern California counties. SCAG's RTP/SCS plan outlines goals of enhancing mobility and sustainability in the regional area.

over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. The Connect SoCal plan achieves per capita GHG emissions reductions relative to 2005 of 19 percent in 2035 (SCAG 2020).

2020 Long Range Transportation Plan

The 2020 Long Range Transportation Plan (LRTP) provides a detailed roadmap for how Los Angeles Metropolitan Transit Authority (Metro) will plan, build, operate, maintain, and partner for improved mobility in the next 30 years. The LRTP will guide future funding plans and policies needed to move Los Angeles County forward for a more mobile, resilient, accessible, and sustainable future (Metro 2020).

South Bay Bicycle Master Plan

The South Bay Bicycle Master Plan is intended to guide the development and maintenance of a comprehensive bicycle network and set of programs and policies throughout El Segundo, Gardena, Hermosa Beach, Lawndale, Manhattan Beach, Redondo Beach, and Torrance for 20 years

following its adoption. Implementation of this plan is meant to promote and increase bicycle ridership for all levels of ability across the South Bay. The Plan's primary objective is to increase the number of bicyclists, as well as create a larger base of utilitarian bicyclists, including bicycle commuters, through safe, accessible and consistent bicycle infrastructure, and supporting policies and programs (Los Angeles County Bicycle Coalition and South Bay Bicycle Coalition 2011).

City of Redondo Beach Local Policies and Regulations

Redondo Beach General Plan

The Redondo Beach General Plan is a comprehensive, long-term planning document which serves as the adopted statement of local policy regarding each individual community's development pursuant to California Government Code Section 65300 *et seq.*, for all cities and counties within the State of California. The Redondo Beach General Plan serves as a blueprint for development and land use activities within City limits and establishes goals, policies, and land use designations that are intended to facilitate orderly and planned growth and other development related issues with the City. The General Plan provides broad policy guidance related to Community Development and Resources (Land Use, Senior Services/Child Care Services and Housing); Infrastructure Systems and Community Services (Circulation, Utilities, Solid Waste Management and Recycling and Conservation, Recreation and Parks, and Open Space); and Environmental Hazards/Natural Hazards (Geologic and Seismic Hazards, Noise, Flood Hazards, Toxic Wastes and Materials, and Fire Hazards). Since 2017, the City has been working to update its General Plan. Once completed, the updated General Plan, to be referred to as PLANredondo, will guide the City's foundation for growth and development for the next 20 to 30 years.

Redondo Beach General Plan Land Use Element

The Redondo Beach General Plan Land Use Element establishes goals, objectives, policies, and implementation programs to guide the manner in which new development will occur and existing uses will be conserved in the City. As previously described, the land use designation for the existing campus is P (Public or Institutional) and the land use designation of the vacant Flagler Lot is C-2 (Commercial). The P (Public and Institutional) designation is comprised of lands that are owned by public agencies, special use districts, and public utilities. Although this designation encompasses a range of different public and quasi-public uses, they share a common thread in that these uses do not fit well under the typical standards for residential, commercial, or industrial uses. Since this designation includes a variety of uses with a variety of characteristics, no attempt has been made to establish specific development standards within the Redondo Beach General Plan (City of Redondo Beach 1992). As described in Redondo Beach Municipal Code (RBMC) Section

10-2.1116 the Floor Area Ratio (FAR), building height, number of stories, and setbacks for development within P (Public and Institutional) land use designations are subject to Planning Commission Design Review. The C-2 (Commercial) land use designation provides for retail commercial, eating and drinking establishments, household goods, food sales, drugstores, building materials and supplies, professional offices, personal services, cultural facilities, and similar uses. RBMC Section 10-2.622 sets forth specific development standards for this land use designation.

Redondo Beach General Plan 2013-2021 Housing Element

As described further in Section 3.13, *Population and Housing*, the Redondo Beach General Plan 2013-2021 Housing Element establishes goals, policies, and implementation measures to specifically identify ways in which the housing needs of the existing and future resident population can be met. The Housing Element also establishes building requirements for mixed-use residential developments in mixed-use and regional commercial land use designations, and to enhance and promote pedestrian-oriented character of the commercial component and the neighborhood (City of Redondo Beach 2017).

Redondo Beach General Plan Transportation and Circulation Element

The Redondo Beach Transportation and Circulation Element includes the identification, location, and design of existing and proposed major thoroughfares, transportation routes, pedestrian connections, bicycle facilities, public transit options, trails, and local public utilities and facilities. Key transportation goals of the City include trip reduction, expansion of programs that decrease the number of single-occupant vehicles on the road, promotion of alternative transportation modes, participation in regional transportation planning, and coordinating transportation and land use planning. The Transportation and Circulation Element also focuses on improving bicycle and pedestrian connections throughout the City (City of Redondo Beach 2009).

Redondo Beach General Plan Recreation and Parks Element

The Redondo Beach General Plan Recreation and Parks Element contains policies and implementation measures to enhance the unique characteristics of the City. Such policies support ongoing maintenance and facilitate expansion and improvement of parkland, recreational facilities, and programs. The Recreation and Parks Element provides the Redondo Beach Recreation and Community Services Department with measures to maximize the use of existing resources, as well as expand upon available opportunities through creative financing measures and cooperative relationships with other City departments and local agencies and organizations. The Recreation and Parks Element describes and categorizes existing park and recreation resources and current

conditions, anticipates future needs outlines, goals, objectives, and policies and an implementation program to meet these goals, objectives, and policies (City of Redondo Beach Recreation and Community Services Department 2004).

General Plan Senior Citizen Services / Child Care Services

In addition to the elements mandated by California Government Code Section 65302, the Redondo Beach General Plan also includes a Senior Citizen Services / Child Care Services Element (City of Redondo Beach 1993). This element identifies specialized needs of the senior population of the City to include affordable housing, health and day care, transportation, and recreation and social services. The Senior Citizen Services / Child Care Services Element identifies existing facilities and programs for provision of senior citizen services and childcare services, estimates current and projected needs for expanded programs. The Senior Citizen Services / Child Care Services Element contains goals, objectives, and policies that evaluate and expand current services and identify needs for additional services and identify future opportunities for expanded services (City of Redondo Beach 1993).

Redondo Beach Municipal Code and Zoning Ordinance

The Redondo Beach Zoning Ordinance (Title 10 of the RBMC) includes regulations for permitted uses, project design and development standards, parking requirements, outdoor space use, and other information regarding land use and development in the City.

Areas zoned as P-CF (Community Facilities) provide lands for park, recreation and open space areas, schools, civic center uses, cultural facilities, public safety facilities, and other public uses which are beneficial to the community (RBMC Section 10-2.1110). Under RBMC Section 10-2.1110, residential care facilities are allowed in areas zoned as P-CF with a conditional use permit (CUP). As described in RBMC Section 10-2.1116 the FAR, building height, number of stories, and setbacks are subject to Planning Commission Design Review.

The specific purposes of the C-2 (Commercial), commercial zone regulations are to provide appropriately located areas consistent with the Redondo Beach General Plan for a full range of neighborhood and community-oriented retail sales, services, professional offices, and other commercial uses (RBMC Section 10-2.600). Child day care centers, recreation facilities, and senior housing are all allowed in areas zoned as C-2 (Commercial) with a CUP (RBMC Section 10-2.620). Development standards for C-2 (Commercial) are described in RBMC Section 10-2.622. Importantly, the FAR of all buildings on a lot shall not exceed 0.5; no building or structure shall exceed a height of 30 feet; and no building shall exceed 2 stories.

City of Torrance Local Policies and Regulations

Torrance General Plan Land Use Element

The Torrance General Plan Land Use Element guides future development in accordance with land use patterns and policies to promote an attractive and high-quality community and provide a high quality of life for Torrance residents. The Land Use Element also identifies the need for community facilities that can serve the health, education, and cultural enrichment needs of senior citizens due to the increase in senior-aged citizens. Objectives listed in the Land Use element include:

- Maintain a balanced community by addressing the need for new development that is functionally compatible with the City’s existing neighborhoods and districts;
- Implement land use development that coordinates with and improves circulation networks;
- Maintain high-quality, attractive, residential neighborhoods;
- Allow for mixed use development in appropriate areas;
- Provide public and quasi-public land uses for the benefit of community;
- Establish attractive, high quality community through urban design elements; and
- Support revitalization and redevelopment plans.

Land uses immediately adjacent to the east of the Project site are designated as Low-Density Residential (R-LO) under the Torrance General Plan Land Use Element. Development within this land use designation is generally characterized by detached single family dwellings on individual lots (up to nine dwelling units per acre) that form a cohesive neighborhood (City of Torrance 2010d).

Torrance General Plan Circulation and Infrastructure Element

The Torrance Circulation and Infrastructure Element plans for the efficient and effective movement of people and goods between destinations within Torrance and throughout the region. The Circulation and Infrastructure Element identifies a transportation system capable of responding to growth occurring consistent with the Land Use Element, and utility systems that provide the service levels Torrance residents and businesses expect. In addition to automobile circulation, the Circulation and Infrastructure Element addresses circulation of pedestrians, cyclists, and transit riders plus aviation services (City of Torrance 2010b).

Torrance General Plan Community Resources Element

The goals, objectives, and polices in the Torrance Community Resources Element focus on the enhancement of community qualities that distinguish Torrance. The Community Resources

Element combines three elements that were included as separate elements in the previous General Plan: the Conservation, Open Space, and Parks and Recreation Elements. The Community Resources Element contains goals, objectives, and policies that build on current recreation, social services, and resource conservation programs. Policies focus on the preservation and management of open space, providing parks, recreation, and community facilities for all residents, historic preservation, natural resource conservation, preservation of scenic resources, managing energy resources, reducing GHG emissions, and promoting sustainable building practices (City of Torrance 2010c).

Torrance General Plan 2014-2021 Housing Element

As described in Section 3.13, *Population and Housing*, the Torrance General Plan 2014-2021 Housing Element includes several programs designed to conserve, preserve, and improve the existing housing stock, encourage the development of more mixed use, multifamily and affordable housing opportunities, reduce governmental constraints to housing production and affordability, and promote equal housing opportunities. The Housing Element consists of the following major components:

- An introduction of the purpose and organization of the Housing Element;
- An analysis of the City's demographic and housing characteristics and trends;
- A review of potential market, governmental, and environmental constraints to meeting the City's identified housing needs;
- An evaluation of land, administrative, and financial resources available to address the housing goals;
- A review of past accomplishments under the previous Housing Element; and
- A Housing Plan to address the identified housing needs, including housing goals, policies, and programs (City of Torrance 2013).

Torrance Municipal Code

As previously described, the City of Torrance right-of-way extends into the existing BCHD campus and the vacant Flagler Lot by approximately 26 feet from the edge of the existing paved width of Flagler Lane (refer to Figure 3.10-1 and Figure 3.10-2).

Torrance Municipal Code (TMC) Section 92.32.8 guides the use of the public right-of-way. Additionally, TMC Section 92.30.8 guides access to local streets within Torrance. These sections of the TMC are relevant to the proposed Project given that the proposed Project would extend into the City of Torrance right-of-way at three locations. The proposed Project includes two access

points with driveways along Flagler Lane. One driveway would serve a left-turn only exit from the proposed pick-up/drop-off zone located on the vacant Flagler Lot. A second driveway is proposed for a subterranean service area and loading dock entry/exit, which would require grading and construction of retaining walls (refer to Section 2.5.1.3, *Proposed Access, Circulation and Parking*). These elements of the proposed Project would require grading and building permits from the City of Torrance (refer to Section 1.5, *Required Approvals*). The proposed Project would also re-landscape the eastern slope of the campus to be consistent with the landscaping proposed within the remainder of the campus. The proposed grading and landscaping on this portion of the slope would also require a grading permit, landscape plan approval, and site plan review from the City of Torrance (refer to Section 1.5, *Required Approvals*).

3.10.3 Impact Assessment and Methodology

Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the 2020 of the California Environmental Quality Act (CEQA) Guidelines. For purposes of this EIR, implementation of the Project may have a significant adverse impact on land use/planning if it would do any of the following:

- a) Physically divide an established community.
- b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Screened-Out Threshold(s):

- Threshold (a) (*Physically Divide and Established Community*): Redevelopment under the Phase 1 preliminary site development plan and the more general Phase 2 development program would be contained in the existing BCHD campus and the adjacent vacant Flagler Lot. The proposed Project would be consistent with existing Redondo Beach General Plan land use designations and the provisions of the zoning code. Moreover, the proposed Project has been designed to be permeable to public movement. The proposed Project includes extensive open space and pedestrian pathways to provide pedestrian access within and through the Project site and therefore improve connectivity between adjacent land uses. The proposed Project would not introduce new land uses or new features (e.g., roads) that would physically divide or interrupt the connection between surrounding land uses. Therefore, for the reasons stated above and as discussed in Section XI, *Land Use and Planning* of the Initial Study (IS), this issue is not further analyzed in the EIR.

Methodology

Conflict with a Land Use Plan, Policy, or Regulation

CEQA Guidelines Section 15125(d) requires that an EIR discuss potential inconsistencies with applicable adopted plans. A project is considered consistent with the provisions of an identified regional and local plan if it meets the general intent of the plans and will further the objectives and policies in the plan. Consistency with Connect SoCal, Metro's LRTP, the South Bay Bicycle Master Plan, Redondo Beach and Torrance General Plans, and Redondo Beach and Torrance Municipal Codes are evaluated in detail below in Impact LU-1. However, in 2018, the California Governor's Office of Planning and Research (OPR) clarified that the focus of the analysis should not be on the "conflict" with the plan, but instead, on any adverse environmental impact that might result from a conflict. For example, destruction of habitat that results from development in conflict with a habitat conservation plan might lead to a significant environmental impact. The focus, however, should be on the impact on the environment, not on the conflict with the plan (California Natural Resources Agency 2018). Therefore, elements of the proposed Project that have the potential to conflict with a threshold, goal, policy, or standard are summarized in this section, along with related physical environmental consequences.

3.10.4 Project Impacts and Mitigation Measures

Impact Description (LU-1)

- 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.*

LU-1 The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not cause a significant environmental impact due to a conflict with applicable land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental effect. Impacts associated with the proposed Project would be *less than significant*.

Development under the Phase 1 preliminary site development plan and the more general Phase 2 development program would be subject to the requirements of Connect SoCal, Metro's LRTP, and the South Bay Bicycle Master Plan as well as the applicable provisions of the Redondo Beach and Torrance General Plans, municipal codes, and zoning ordinances (refer to Section 3.10.2, *Regulatory Setting*). The relationship between the proposed Project and these long-range plans and local goals, objectives, and policies are discussed in Tables 3.10-1 through Table 3.10-6 below.

As described in Section 3.10.3, *Impact Assessment and Methodology*, the following analysis focuses on the potential conflicts of the proposed Project with applicable plans, goals, and policies adopted for the purpose of avoiding or mitigating an environmental effect, and if conflicts exist, whether any such inconsistency would result in a significant effect on the environment. Only the applicable requirements and provisions have been included in the analysis. For example, development standards for parcels zoned as C-3 or R-1 by the City of Redondo Beach have not been identified given that neither of the parcels comprising the Project site are designed as such. However, the development standards pertaining to parcels zoned as P-CF and C-2 are discussed in detail.

It is important to note that the determinations of the consistency for the proposed Project are provided for CEQA purposes to determine the potential for physical environmental impacts. Unrelated to CEQA, plan, policy and regulatory consistency would be determined as part of the review and approval process with Redondo Beach and Torrance decision-makers during consideration of discretionary approvals for the Phase 1 preliminary site development plan and the more general Phase 2 of development program.

The consistency of the proposed Project with GHG reduction and climate change plans is addressed in Section 3.7, *Greenhouse Gas Emissions and Climate Change*.

Connect SoCal

The consistency of the proposed Project – including the Phase 1 preliminary site development plan under Phase 1 and the more general Phase 2 development program – with the applicable goals of Connect SoCal are analyzed in Table 3.10-1. The proposed Project would not conflict with any of the applicable Connect SoCal goals and would not cause a significant environmental impact. Therefore, impacts would be *less than significant* for both the Phase 1 preliminary site development plan and the more general Phase 2 development program.

Metro 2020 Long Range Transportation Plan

The Project site is located within Redondo Beach and adjacent to Torrance to the east, both of which are located within Los Angeles County and subject to Metro's 2020 LRTP. Goals of the LRTP focus on improving transportation and the environment and strengthening economic development. As presented in Table 3.10-2, the proposed Project would not conflict with any of the applicable LRTP strategies and actions. Therefore, impacts would be *less than significant* for both the Phase 1 preliminary site development plan and the more general Phase 2 development program.

Table 3.10-1. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with Connect SoCal

RTP/SCS Goal	Project Consistency
Goal 2. Improve mobility, accessibility, reliability, and travel safety for people and goods.	No conflict. The proposed Healthy Living Campus Master Plan would redevelop the existing BCHD campus. As described in Section 2.5.1.3, <i>Proposed Access, Circulation, and Parking</i> , changes to the transportation network would be limited to the provision of new access along Beryl Street and within the City of Torrance right-of-way along Flagler Lane. These minor changes to the local transportation network would not affect the regional transportation system. Therefore, the proposed Healthy Living Campus Master Plan would not conflict with, or otherwise impede, RTP/SCS Goals 2, 3, or 4 and would not cause a significant environmental impact.
Goal 3. Enhance the preservation, security, and resilience of the regional transportation system.	
Goal 4. Increase person and goods movement and travel choices within the transportation system.	
Goal 5. Reduce greenhouse gas emissions and improve air quality.	No conflict. As described in Section 3.7, <i>Greenhouse Gas Emissions and Climate Change</i> , the proposed Project would reduce operational GHG emissions largely due to the reduction in mobile GHG emission sources that would occur as a result of higher fuel efficiency standards over time. The proposed Project would also incorporate sustainable design features to reduce GHG emissions associated with building operations. For example, all new buildings developed under the proposed Project would conform to the California Title 24 Building Energy Efficiency Standards (Part 6) CALGreen (Part 11). Additionally, the proposed buildings would meet the equivalent of Leadership in Energy and Environmental Design (LEED) Gold Certification and would be WELL Building Certified. Project design would optimize passive design strategies, which use ambient energy sources (e.g., daylight and wind) to supplement electricity and natural gas to increase the energy efficiency. Sustainable design features incorporated into the proposed Project would include photovoltaic solar panels, solar hot water systems, energy efficient heating, ventilation, and air conditioning (HVAC) systems, etc. Therefore, the proposed Healthy Living Campus Master Plan would not conflict with the RTP/SCS Goal 5 and would not cause a significant environmental impact.
Goal 6. Support healthy and equitable communities.	No conflict. The proposed Project would support healthy and equitable communities by providing a Program of All-Inclusive Care for the Elderly (PACE), expanding community services to provide health-related resources and information for adults and families, and providing health and wellness services to youth participants at the proposed Youth Wellness Center. The proposed Blue Zone café would support BCHD's Blue Zone Project program to create a healthier and more productive community. The café would use local produce and produce grown from the proposed Demonstration Garden on-site. The café would include a demonstration kitchen that would support healthy cooking classes for the community. The Phase 2 development program would provide additional recreational and wellness opportunities at the proposed Wellness Pavilion, Aquatics Center, and Center for Health and Fitness (CHF). The CHF would continue to provide a variety of classes for all ages,

Table 3.10-1. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with Connect SoCal (Continued)

RTP/SCS Goal	Project Consistency
	including senior fitness, weight management, nutrition expertise, and massages. Additionally, the buildings constructed under the Phase 1 preliminary site development plan and the more general Phase 2 development program would be WELL Building Certified to enhance environmental health, behavioral factors, and overall health, with leading practices in building design, construction, and management (refer to Section 2.5.1.5, <i>Sustainability Features</i>). Therefore, the proposed Healthy Living Master Plan would not conflict with the RTP/SCS Goal 6 and would not cause a significant environmental impact.
Goal 7. Adapt to a changing climate and support an integrated regional development pattern and transportation network.	No conflict. As described above for RTP/SCS Goal 2, 3, and 4, the proposed Healthy Living Campus Master Plan would redevelop the existing BCHD campus and changes to the transportation network would be limited to the provision of new access along Beryl Street and Flagler Lane. As such, the proposed Project would not affect the regional transportation system. The proposed Project would be located in close proximity to several stops along the Beach Cities Transit Line 102 and Class II (i.e., striped) bicycle lanes and would encourage active transportation to and from the Project site. The proposed Project would also promote active transportation by providing publicly accessible ground-level open space traversed with pedestrian pathways which would provide on-site connectivity with the existing sidewalks adjacent to the Project site. Therefore, the proposed Healthy Living Campus Master Plan would not conflict with RTP/SCS Goal 7 and would not cause a significant environmental impact.
Goal 9. Encourage development of diverse housing types in areas that are supported by multiple transportation options.	No conflict. The proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would provide regional long-term care services, including a combination of housing, personal care, and healthcare services specific to the needs of elderly residents with varying physical and cognitive limitations and needs for assistance in daily activities. Residents of Assisted Living, and Memory Care, as well as participants in PACE services in Phase 1 may be transported to and from the campus by several shared vans. The proposed Project would also support active transportation options by providing pedestrian linkages through the site and bicycle facilities on-site. The proposed Project would also be located adjacent to several stops along the Beach Cities Transit Line 102 (see Section 3.14, <i>Transportation</i>). Therefore, the proposed Healthy Living Campus Master Plan does would conflict with RTP/SCS Goal 9 and would not cause a significant environmental impact.

Table 3.10-2. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the 2020 LRTP

LRTP Action	Discussion
Action 2.6.e. Support transportation demand management (TDM) programs and trip reduction initiatives, including telecommuting.	<p>No conflict. As described in Section 3.14, <i>Transportation</i>, the proposed Project would implement a TDM plan with trip reduction strategies to reduce single-occupancy vehicle trips to the Project site (see Section 3.14 <i>Transportation</i>). The TDM plan would include transit and carpool incentives for employees. The proposed Project would provide designated parking for carpools and vanpools on-site. Additionally, the Assisted Living, Memory Care, and PACE services developed under Phase 1 would share vans to transport several participants at once, which would reduce vehicle trips to the BCHD campus. The proposed Project would also feature ride-share amenities (e.g., pick-up/drop-off zones) and designated parking spaces for carpools and vanpools.</p> <p>The proposed Project would also promote active transportation by providing pedestrian linkages through the site and bicycle facilities on-site, which would assist in reducing vehicle trips. For example, the proposed Project would include publicly accessible ground-level open space traversed with pedestrian pathways which would provide on-site connectivity with the existing sidewalks adjacent to the Project site. Given the Project site's location adjacent to existing Class II (i.e., striped) bicycle lanes along Diamond Street and Beryl Street, as well as Flagler Alley, which is often used as an informal bicycle path, the proposed on-site bicycle facilities (e.g., bicycle parking, employee showers and lockers, etc.) would also encourage active transportation to and from the Project site. Therefore, the proposed Healthy Living Campus Master Plan would not conflict with these actions or this policy of the LRTP and would not cause a significant environmental impact.</p>
Action 3.6.d. Support local and regional projects that decrease GHG emissions or reduce single-occupant vehicle trips.	
Policy. Promote Trip Reduction Strategies.	
Policy. Support transit-oriented communities.	<p>No conflict. The proposed Healthy Living Campus Master Plan is intended to redevelop the existing BCHD campus, which is not located within a Transit Priority Area. Nevertheless, the proposed Project would development 157 new residential units, new jobs, and community uses located in close proximity to several stops along the Beach Cities Transit Line 102. The proposed Master Plan would not conflict with this policy of the LRTP and would not cause a significant environmental impact.</p>

South Bay Bicycle Master Plan

The Project site is located within Redondo Beach and adjacent to Torrance to the east, both of which are member agencies of the South Bay Bicycle Master Plan. The South Bay Bicycle Master Plan is intended to guide the development and maintenance of a comprehensive bicycle network throughout its jurisdiction. The plan does not include specific policies or goals for individual development projects. The proposed Project would support the overall goal of the South Bay

Bicycle Master Plan by providing bicycle facilities on-site, such as secure, short-term bicycle parking, a bicycle repair station, and employee showers and lockers. The Project site is located adjacent to the existing Class II (i.e., striped) bicycle lanes along Diamond Street and Beryl Street, as well as Flagler Alley, which is often used as an informal bicycle path. The proposed Project would not alter existing bike paths or preclude future bike paths in vicinity of the proposed Project. As described in Section 3.14, *Transportation*, the proposed Project would integrate with proposed and pending cumulative projects intended to enhance bicycle connections along Flagler Lane. Therefore, the proposed Project would not conflict with the South Bay Bicycle Master Plan and impacts would be *less than significant* for both the Phase 1 preliminary site development plan and the more general Phase 2 development program.

Redondo Beach General Plan

The Project site is generally located within Redondo Beach, with the exception of the City of Torrance right-of-way that extends approximately 26 feet from the paved width of Flagler Lane (refer to Section 2.2.1, *Project Site*). The BCHD campus is designated as P (Public or Institutional) by the Redondo Beach General Plan and zoned as P-CF (Community Facility) under the Redondo Beach Zoning Ordinance. The vacant Flagler Lot is designated as C-2 (Commercial) by the Redondo Beach General Plan and zoned as C-2 (Commercial) under the Redondo Beach Zoning Ordinance. Redevelopment on these parcels would be subject to standards and policies in the Redondo Beach General Plan and Zoning Ordinance applicable to these land use and zoning designations. As described in Table 3.10-3, the proposed Project would be consistent with the applicable policies of the Redondo Beach Land Use Element. Therefore, impacts related to conflicts with the Redondo Beach Land Use Element would be *less than significant* for both the Phase 1 preliminary site development plan as well as the more general Phase 2 development program.

The existing Beach Cities Health Center includes the Silverado Beach Cities Memory Care Community with 60 double occupancy Memory Care units. Under the Phase 1 preliminary site development plan, these existing Memory Care units would be relocated to the proposed Residential Care for the Elderly (RCFE) Building. Additionally, the proposed RCFE Building would add 157 new Assisted Living units. These units would provide residential opportunities that accommodate the needs of senior citizens with physical and cognitive limitations. As described in Table 3.10-3, the proposed Project would be consistent with the policies of the Redondo Beach Housing Element. Therefore, impacts related to conflicts with the Redondo Beach Housing Element would be *less than significant* for both the Phase 1 preliminary site development plan as well as the more general Phase 2 development program.

Table 3.10-3. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Redondo Beach General Plan

Policies	Discussion
Land Use Element	
<p>Policy 1.2.4. Allow for the development of housing for senior citizens by permitting such housing to vary from the development standards in the zone in which it is located (subject to approval of a Conditional Use Permit and Planning Commission Design Review) in areas classified as Multi-Family Residential (“R-3,” “RMD,” and “RH”), Commercial (“C-2,” “C-3” and “C-4”), Mixed Use (“MU-1,” “MU-2,” and “MU-3”) and Commercial Regional (“CR”) on the Land Use Plan map provided that a) it is appropriate at the proposed location; b) it is located within a reasonable walking distance of commercial retail, professional, and social and community services patronized by senior citizens, or has its own private shuttle bus that will provide daily access to these services, or be within a reasonable walking distance of a bus or transit stop providing access to these services.</p>	<p>No conflict. The Project site is located on two parcels zoned as P-CF (i.e., the existing BCHD campus) and C-2 (i.e., the vacant Flagler Lot). Implementation of the proposed Project would redevelop the Project site with 157 new Assisted Living units and 60 replacement Memory Care units in the proposed RCFE Building along with PACE services, community services, restaurant, and open space. These units would also be located near existing commercial (i.e., Redondo Village Shopping Center), residential, and recreational (i.e., Dominguez Park) land uses as well as Beach Cities Transit Line 102. Additionally, the Assisted Living, Memory Care, and PACE services developed under Phase 1 would share vans to transport residents and participants.</p> <p>As described in RBMC Section 10-2.1116, the FAR, building height, number of stories, and setbacks for development within P (Public and Institutional) land use designations are subject to Planning Commission Design Review. RBMC Section 10-2.622 sets forth specific development standards for C-2 (Commercial). The proposed development would be largely consistent with the C-2 development standards. For example, the portion of the proposed RCFE Building located on the vacant Flagler Lot would be less than 30 feet tall and less than 2 stories. However, this portion of the proposed RCFE Building would exceed the 0.5 FAR requirement. Nevertheless, with the Planning Commission Design Review and issuance of a CUP, the proposed Healthy Living Campus Master Plan would not conflict with Policy 1.2.4 of the Redondo Beach General Plan Land Use Element and would not cause a significant environmental impact.</p>
<p>Policy 1.42.4. Permit development to a maximum intensity of a floor area ratio of 0.5 and height of two (2) stories (30 feet) in areas designated as “C-2”.</p>	<p>Potential conflict. As previously described, the proposed development within the vacant Flagler Lot would be largely consistent with the C-2 development standards. For example, the portion of the proposed RCFE Building located on the vacant Flagler Lot would be less than 30 feet tall and less than 2 stories. However, this portion of the proposed RCFE Building would exceed the 0.5 FAR requirement. Nevertheless, Policy 1.2.4 of the Redondo Beach General Plan Land Use Element allows for the development of housing for senior citizens by permitting such housing to vary from the development standards in the zone in which it is located (subject to Planning Commission Design Review and issuance of a CUP). Additionally, while</p>

Table 3.10-3. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Redondo Beach General Plan (Continued)

Policy	Discussion
	the FAR would be greater than 0.5, given that the height of the building within the vacant Flagler Lot would remain within 2 stories and below 30 feet, there would be no physical impact related to aesthetics or visual resources (refer to Section 3.1, <i>Aesthetics and Visual Resources</i>). Therefore, while the proposed Healthy Living Master Plan may potentially conflict with Policy 1.42.4 of the Redondo Beach General Plan Land Use Element, this potential conflict would not cause a significant environmental impact.
Policy 1.46.1. Accommodate governmental administrative and maintenance facilities, parks and recreation, public open space, police, fire, educational (schools), cultural (libraries, museums, performing and visual arts, etc.), human health, human services, public utility and infrastructure (transmission corridors, etc.), public and private secondary uses, and other public uses in areas designated as “P”.	No conflict. The portion of the Project site that comprises the existing BCHD campus is currently designated as P (Public or Institutional) in the Redondo Beach General Plan Land Use Element and provides human health and wellness services (e.g., CHF, Community Services, public health classes, etc.). The proposed Project would expand existing human health, human services, and recreational facilities, consistent with Policy 1.46.1 and Policy 1.5.1 of the Redondo Beach General Plan Land Use Element. Therefore, the proposed Healthy Living Campus Master Plan would not conflict with these policies of the Redondo Beach General Plan Land Use Element and would not cause a significant environmental impact.
Policy 1.5.1. Allow for the continuation of existing public recreational, cultural (libraries, museums, etc.), educational, institutional (governmental, police, fire, etc.), and health uses at their present location [areas classified as Public (“P”) on the Land Use Plan map] and development of new uses where they complement and are compatible with adjacent land uses.	
Policy 1.5.2. Allow for the development of private recreational, cultural, educational, institutional, and health uses in areas classified as Commercial (“C-1,” “C-2,” “C-3,” “C-4,” and “C-5”) and religious uses in areas classified as Residential, Commercial, or Mixed Use on the Land Use Plan map, provided that they are compatible with adjacent uses.	No conflict. As previously described, the vacant Flagler Lot is zoned as C-2. Implementation of the proposed Project would redevelop the parcel zoned as C-2 with a vehicle driveway and pick-up/drop-off zone as well as a portion of the RCFE Building that would support the Assisted Living and PACE services. Therefore, the proposed Healthy Living Campus Master Plan would not conflict with the Policy 1.5.2 of the Redondo Beach General Plan Land Use Element and would not cause a significant environmental impact.
Policy 1.53.6. Require that on-site parking structures be designed as an integrated component of the building's architectural design character; including the incorporation of elements which continue and reinforce the architectural design of the primary structure and convey the visual “sense” of an occupied building (use of windows, arcades, overhangs, entries, recessed walkways, spandrels, articulated columns and rooflines, and other elements).	No conflict. As described further in Section 3.1, <i>Aesthetics and Visual Resources</i> , the proposed parking structure that would be constructed under the Phase 2 development program including 292,500 sf with up to 2 subterranean levels and up to 8.5 above ground levels providing 736 parking spaces. The proposed parking structure would be designed as an aesthetically cohesive element of the campus consistent with the proposed RCFE Building constructed during Phase 1 as well as the Wellness Pavilion, Aquatics Center, and CHF constructed during Phase 2. The proposed Healthy Living Campus Master Plan would not conflict with Policy 1.53.6 of the Redondo Beach General Plan

Table 3.10-3. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Redondo Beach General Plan (Continued)

Policy	Discussion
	Land Use Element and would not cause a significant environmental impact.
Policy 1.55.2. Select landscape and tree species which complement the architectural design of structures and reflect the intended functional, physical, and visual character of the district in which they are located	No conflict. The proposed Project would redevelop the existing impervious surfaces on the campus with programmable landscaped open space. The proposed Project – including the Phase 1 preliminary site development plan as well as the more general Phase 2 development program – includes a landscaping plan with manicured, low-water use lawns, shrubbery and groundcover, ornamental flowering trees, and large shade canopy trees (refer to Figure 2-7). The western and eastern border of the BCHD campus would be lined with intermittent large shade canopy trees and smaller shade trees. The northern border would be lined with shade and flowering ornamental trees. Placement of these perimeter trees would soften views from the surrounding residences and the Redondo Village Shopping Center (refer to Section 3.1, <i>Aesthetics and Visual Resources</i>). Larger trees would also be planted within and adjacent to the proposed surface parking lot constructed during Phase 1 and nearby the proposed building footprints to provide shade. The required landscape plans would be submitted to the Redondo Beach Building & Safety Division for review and approval prior to the issuance of demolition, grading, or building permits. Therefore, the proposed Healthy Living Campus Master Plan would not conflict with these policies of the Redondo Beach General Plan Land Use Element and would not cause a significant environmental impact.
Policy 1.55.3. Require that development projects submit and implement a landscaping plan.	
Policy 1.55.5 Encourage developers to incorporate mature and specimen trees and other significant vegetation which may exist on a site into the design of a development project for that site (II.18).	
Policy 1.55.6. Require that surface parking lots incorporate trees which will provide extensive shade cover within two years of completion of construction (e.g., canopy coverage versus vertical palms)	
Policy 1.55.7. Encourage the use of drought-tolerant species in landscape design	
Policy 1.55.8. Require that development incorporate adequate drought-conscious irrigation systems and maintain the health of the landscape	No conflict. The plant species selections in the proposed landscaping plans are based on their drought resistance and ability to withstand local conditions such as temperature and shade. As described in Section 2.5.1.5, <i>Sustainability Features</i> , the proposed Project would incorporate a high-efficiency irrigation system, consistent with Policy 1.55.8. Therefore, the proposed Healthy Living Campus Master Plan would not conflict with the Policy 1.55.8 of the Redondo Beach General Plan Land Use and would not cause a significant environmental impact.
Policy 1.57.6. Require that the renovation of existing structures or new development on sites served by parking lots located on adjacent residentially-zoned property restrict the access to such parking areas to the commercial zone frontage, unless there are no feasible alternatives, and that areas facing, abutting, or exposed to residential areas be extensively landscaped to	No conflict. The proposed Project would include the removal of the existing northern surface parking lot and the associated perimeter circulation road located at the northern edge of the Project site. As described in Section 2.5.1.3, <i>Proposed, Access, Circulation, and Parking</i> , the primary entrance to the BCHD campus would remain along North Prospect Avenue. Surface

Table 3.10-3. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Redondo Beach General Plan (Continued)

Policy	Discussion
include a screen wall incorporating evergreen plant material (covering a majority of the wall within a one year period.	parking lots would also be concentrated on this side of the BCHD campus. Additionally, as described in Section 3.1, <i>Aesthetics and Visual Resources</i> perimeter green space and landscaping would soften the campus interface from the surrounding residential uses along North Prospect Avenue, Beryl Street, Flagler Lane and Flagler Alley, and Diamond Street. The western border (along North Prospect Avenue) and eastern border (along Flagler Alley, Flagler Lane, and Diamond Street) of the BCHD campus would be lined with intermittent large shade canopy trees and smaller shade trees that would be clustered for a natural look. The campus's northern border would be lined with shade and flowering ornamental trees to screen views from the Redondo Village Shopping Center. Therefore, the proposed Healthy Living Campus Master Plan would not conflict with Policy 1.57.6 of the Redondo Beach General Plan Land Use Element and would not cause a significant environmental impact.
Policy 1.58.3. Require that all development be designed to provide adequate space for access, parking, supporting functions, open space, storage, and other pertinent elements	<p>No conflict. While the primary vehicle ingress and egress would continue to be provided from the existing main entrance and the two secondary entrances along North Prospect Avenue, the proposed Project would provide two new access points to the Project site – the proposed pick-up/drop-off zone driveway accessible via a right-turn along eastbound Beryl Street and the service and loading dock entry provided off Flagler Lane.</p> <p>Phase 1 of the proposed Project would provide a 40,725-square-foot (-sf) landscaped surface parking lot providing for 86 parking spaces (including accessible parking spaces) within the center of the BCHD campus. The existing western surface parking lot and subterranean parking garage that front the Providence Little Company of Mary Medical Institute Building would remain in place. During Phase 2, the existing parking structure located at 512 North Prospect Avenue would be demolished to provide space for a new parking structure providing up to 292,500 sf with up to 2 subterranean levels and up to 8.5 above ground levels providing 736 parking spaces. With the addition of these parking spaces in Phase 1 and Phase 2 the proposed Project would meet the required parking demand of the uses on the Project site.</p> <p>The proposed Project would substantially increase publicly accessible open space on the campus, with the addition of programable open space in the central area of the campus. Additionally, each of the proposed</p>

Table 3.10-3. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Redondo Beach General Plan (Continued)

Policy	Discussion
	buildings would include adequate storage space for utilities, janitorial supplies, and other equipment. Therefore, the proposed Healthy Living Campus Master Plan would not conflict with Policy 1.58.3 of the Redondo Beach General Plan Land Use Element and would not cause a significant environmental impact.
Policy 1.60.1. Require that proposed development be subject to review to identify its environmental impacts and appropriate mitigation measures in accordance with the California Environmental Quality Act	No conflict. This EIR has been prepared by the Lead Agency, BCHD, with close coordination from the Responsible Agencies, the City of Redondo Beach and the City of Torrance, to identify potential environmental impacts and appropriate mitigation measures including necessary timing and monitoring of these mitigation measures. Due to the location of the Project site within Redondo Beach and partially within the City of Torrance right-of-way along Flagler Lane, the EIR considers compliance with the standards and requirements of both cities as well as Federal and State standards. Where impacts are identified as potentially significant, mitigation measures are required in the respective resource area sections. A complete Mitigation, Monitoring, and Reporting Program (MMRP) will be provided with the Final EIR. Therefore, the proposed Master Plan would not conflict with these policies of the Redondo Beach General Plan Land Use Element and would not cause a significant environmental impact.
Policy 1.60.2. Monitor the impacts of development and effectiveness of mitigation measures on the City's infrastructure, services, and environment and, as necessary, initiate the following actions to account for the defined impacts: a. review and modify the locations, densities, and/or design and development standards contained in this Plan; b. implement capital improvements, public services, or other mitigation programs; c. require additional developer mitigation; and/or d. impose fees on new and/or existing development (as authorized by State of California nexus legislation) for the implementation of mitigation programs	
Policy 1.60.3. Work with other public agencies to ensure that their facilities and operations in the City of Redondo Beach are managed in a manner to prevent adverse environmental impacts and comply with pertinent State and federal standards and requirements	
Policy 1.60.5. Participate in inter-jurisdictional and regional environmental management and mitigation programs with adjoining cities in the region.	
Housing Element Policies	
Policy 1.7. Promote the use of energy conservation techniques and features in the rehabilitation of existing housing.	No conflict. The proposed Project incorporates sustainable design features to promote the use of energy conservation and reduce GHG emissions associated with building operations. For example, all new buildings constructed under the Phase 1 preliminary site development plan and the more general Phase 2 development program would conform to the California Title 24 Building Energy Efficiency Standards (Part 6) CALGreen (Part 11). Additionally, the proposed buildings would meet the equivalent of LEED Gold Certification and would be WELL Building Certified. The proposed development would optimize passive design strategies, which use ambient energy sources (e.g., daylight and wind) to supplement electricity and natural gas to increase the energy efficiency. Sustainable

Table 3.10-3. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Redondo Beach General Plan (Continued)

Policy	Discussion
	design features incorporated into the proposed Project would include photovoltaic solar panels, solar hot water systems, energy efficient HVAC systems, etc. Therefore, the proposed Healthy Living Campus Master Plan would not conflict with Policy 1.7 of the Redondo Beach General Plan Housing Element and would not cause a significant environmental impact.
Policy 2.4. Address the housing needs of special populations and extremely low-income households through emergency shelters, transitional housing, supportive housing, and single-room occupancy units.	No conflict. Seniors and persons with disabilities are included in the City of Redondo Beach’s definition of persons and households with special needs. The proposed RCFE Building constructed during Phase 1 of the proposed Project would provide long-term care services including a combination of housing, personal care, and healthcare services specific to the needs of elderly residents with varying limitations and needs for assistance in daily activities. Therefore, the proposed Healthy Living Campus Master Plan would not conflict with Policy 2.4 of the Redondo Beach General Plan Housing Element and would not cause a significant environmental impact.
Policy 2.5. Promote the use of energy conservation features in the design of residential development to conserve natural resources and lower energy costs.	No conflict. Refer to the discussion for Policy 1.7 of the Redondo Beach General Plan Housing Element. The proposed Healthy Living Campus Master Plan would not conflict with Policy 2.5 of the Redondo Beach General Plan Housing Element and would not cause a significant environmental impact.
Policy 3.2. Encourage development of residential uses in strategic proximity to employment, recreational facilities, schools, neighborhood commercial areas, and transportation routes.	No conflict. The proposed Healthy Living Campus would establish residential, medical office, community service, office, gym, restaurant, and open space uses within the fabric of an existing suburban environment. The proposed Project would also provide community activities and events, such as local farmers’ markets, fitness classes, and outdoor movie nights to engage with the local community. The Project site is also located immediately adjacent to and would be integrated with existing recreational amenities (i.e., Dominguez Park) and commercial uses (i.e., Redondo Village Shopping Center). Therefore, the proposed Healthy Living Campus Master Plan would not conflict with Policy 3.2 of the Redondo Beach General Plan Housing Element and would not cause a significant environmental impact.
Policy 3.5 Allow flexibility within the City’s standards and regulations to encourage a variety of housing types.	No conflict. The proposed Project, while not zoned for residential use, would provide needed housing for seniors including seniors with varying limitations and needs for assistance in daily activities that limit their ability to live independently. Therefore, the proposed Healthy Living Campus Master Plan would not conflict

Table 3.10-3. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Redondo Beach General Plan (Continued)

Policy	Discussion
	with Policy 3.5 of the Redondo Beach General Plan Land Use Element and would not cause a significant environmental impact.
Policy 5.2. Provide equal access to housing for special needs residents such as the homeless, elderly, and disabled.	No conflict. While the proposed Project would not provide housing accommodations for the homeless, the proposed Project would replace 60 existing Memory Care units (120 beds) on-site and provide 157 new Assisted Living units (177 beds) within the proposed RCFE Building. The proposed Project would provide long-term care services including a combination of housing, personal care, and healthcare services specific to the needs of elderly residents with varying physical and cognitive limitations and needs for assistance in daily activities. Therefore, the proposed Healthy Living Campus Master Plan would not conflict with Policy 5.2 or Policy 5.3 of the Redondo Beach General Plan Housing Element and would not cause a significant environmental impact.
Policy 5.3. Promote the provisions of disabled-accessible units and housing for mentally and physically disabled.	
Senior Citizen Services / Child Care Services Element Policies	
Policy 4.2.1. Continue to develop, manage, and expand the Redondo Beach’s senior services and programs as an important social service within the community, as funding and operational conditions permit.	No conflict. The existing Beach Cities Health Center includes 60 Memory Care units and the Community Services program, which primarily involves at-home older adult care services. Phase 1 of the proposed Project would replace the 60 Memory Care units (120 beds) and provide 157 new Assisted Living units (177 beds) within the proposed RCFE Building. The proposed RCFE Building would also include a PACE program, which is a Medicare and Medicaid program that provides medical and social services to adults ages 55 and over. The PACE program would provide services that include adult day care, meals, nutritional counseling, dentistry, primary care (including doctor and nursing services), laboratory/X-ray services, emergency services, hospital care, occupational therapy, recreational therapy, physical therapy, prescription drugs, social services, social work counseling, and transportation. Under Phase 2 of the proposed Project, PACE participants could also potentially access the heated therapy pool in the Aquatics Center and the CHF facilities (e.g., weight rooms, therapy pool, physical therapy rooms, etc.). Therefore, the proposed Healthy Living Campus Master Plan would not conflict with the goals of the Redondo Beach General Plan Senior Citizen Services / Child Care Services Element and would not cause a significant environmental impact.
Policy 4.2.11. Consider providing assistance to regional adult day care facilities and other organizations that are able to demonstrate a need for reduced fees or enhanced services for Redondo Beach resident senior citizens, as funding allows.	

Table 3.10-3. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Redondo Beach General Plan (Continued)

Policy	Discussion
<i>Transportation Element Policies</i>	
<p>Policy 1. Support transit-oriented development that reduces current automobile trips.</p>	<p>No conflict. The existing BCHD campus is not located within a Transit Priority Area and limited transit opportunities exist within the vicinity. However, the proposed Project would implement a TDM plan with trip reduction strategies to reduce single-occupancy vehicle trips to the Project site (see Section 3.14 <i>Transportation</i>). The TDM plan would include transit and carpool incentives for employees. The proposed Project would provide designated parking for carpools and vanpools on-site. Additionally, the Assisted Living, Memory Care, and PACE services developed under Phase 1 would share vans to transport several participants at once, which would reduce vehicle trips to the BCHD campus. The proposed Project would also feature ride-share pick-up amenities (e.g., pick-up/drop-off zones) and designated parking spaces for carpools and vanpools.</p> <p>The proposed Project would also promote active transportation by providing pedestrian linkages through the site and bicycle facilities on-site, which would assist in reducing vehicle trips. For example, the proposed Project would include publicly accessible ground-level open space traversed with pedestrian pathways which would provide on-site connectivity with the existing sidewalks adjacent to the Project site. Given the Project site's location adjacent to existing Class II (i.e., striped) bicycle lanes along Diamond Street and Beryl Street, as well as Flagler Alley, which is often used as an informal bicycle path, the proposed on-site bicycle facilities (e.g., bicycle parking, employee showers and lockers, etc.) would also encourage active transportation to and from the Project site.</p> <p>Therefore, the proposed Healthy Living Campus Master Plan would not conflict with Policy 1 of the Redondo Beach General Plan Transportation Element and would not cause a significant environmental impact.</p>
<p>Policy 12. Require new developments to provide sufficient parking to meet demand.</p>	<p>No conflict. Refer to the discussion for Policy 1.58.3 of the Redondo Beach Land Use Element. Phase 1 of the proposed Project would provide a 40,725-sf landscaped surface parking lot providing for 86 parking spaces (including accessible parking spaces) within the center of the BCHD campus. The existing western surface parking lot and subterranean parking garage that front the Providence Little Company of Mary Medical Institute Building would remain in place.</p>

Table 3.10-3. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Redondo Beach General Plan (Continued)

Policy	Discussion
	During Phase 2, the existing parking structure located at 512 North Prospect Avenue would be demolished to provide space for a new parking structure provided up to 292,500 sf with up to 2 subterranean levels and up to 8.5 above ground levels providing 736 parking spaces. Therefore, the proposed Healthy Living Campus Master Plan would not conflict with Policy 12 of the Redondo Beach General Plan Transportation Element and would not cause a significant environmental impact.
Policy 14. Increase the provision of bike lockers, bike racks, and lighting for bike facilities.	No conflict. The proposed Project would provide secure, on-site short-term bicycle parking, a bicycle repair station, and shower and locker facilities for visitors and employees to encourage multimodal transportation commuting. Therefore, the proposed Healthy Living Campus Master Plan would not conflict with Policy 14 of the Redondo Beach General Plan Transportation Element and would not cause a significant environmental impact.
Policy 28. Close existing gaps in sidewalk infrastructure where necessary, maintain existing sidewalks in good repair, and require sidewalks with all new development.	No conflict. Refer to the discussion for Policy 1 of the Redondo Beach Transportation Element. The proposed Project would include publicly accessible ground-level open space traversed with pedestrian pathways which would provide on-site and off-site connectivity with the existing sidewalks adjacent to the Project site. Therefore, the proposed Master Plan does not conflict with Policy 28 of the Redondo Beach General Plan Transportation Element and would not cause a significant environmental impact.
Policy 29. Provide climate-appropriate landscaping, adequate lighting, and street amenities to make walking safe, interesting, and enjoyable.	No conflict. Plant species selections in the proposed landscaping plans are based on their drought resistance and ability to withstand local conditions such as temperature and shade (refer to Section 3.3, <i>Biological Resources</i>). Additionally, the Project site would include publicly accessible ground-level open space traversed with pedestrian pathways. Open space areas would include an entry plaza featuring directional signage, public art, seating areas, and water feature, a tree-lined pedestrian promenade, and a relocated demonstration garden, making walking safe, interesting, and enjoyable. Therefore, the proposed Healthy Living Campus Master Plan would not conflict with Policy 29 of the Redondo Beach General Plan Transportation Element and would not cause a significant environmental impact.

Table 3.10-3. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Redondo Beach General Plan (Continued)

Policy	Discussion
<i>Parks and Recreation Element Policies</i>	
Policy 8.2b.4. Improve neighborhood access to existing parks, the beach, and other open space and recreational areas. Ensure recreation areas are accessible to the elderly and persons with disabilities.	No conflict. The proposed Project would redevelop the existing BCHD campus and expand community facilities and recreational facilities. For example, development under the Phase 1 preliminary site development plan would provide approximately 114,830 sf of open space. This would include a central lawn that could support outdoor fitness classes and movie nights, a tree-lined promenade that could support farmers' markets and health fair expositions, sensory gardens with water features and sculptures, and shaded gathering areas for small groups, butterfly habitat, and a walking labyrinth. The proposed Aquatics Center, which would be developed under the Phase 2 development program, would feature pools that could be used for in-water-therapy and exercise purposes targeted towards older adults. The proposed CHF would include a gym featuring exercise equipment and provide a variety of exercise classes, including senior fitness classes. Proposed ground-level open space and pedestrian pathway improvements would be gently sloping and designed to comply with the Americans with Disabilities Act (ADA). Therefore, the proposed Healthy Living Campus Master Plan would not conflict with these policies of the Redondo Beach General Plan Parks and Recreation Element and would not cause a significant environmental impact.
Policy 8.2c.1. Provide a wide variety of high quality recreation facilities to ensure creative and constructive use of leisure time for residents.	
Policy 8.2c.2. Maintain and, if necessary, upgrade existing recreation facilities to respond to changes in demographics, preferences, and technology.	
Policy 8.2c.4. Consider providing a heated swimming pool for water-therapy/exercise purposes for the public, particularly senior citizens.	
Policy 8.2d.4 As funding is available, provide a wide range of recreation and community programs including art, cultural awareness, nature study, education, concerts/entertainment, job development and employment skills, health, sports/exercise, and human services that reflect the diversity of the City with respect to gender, ethnicity, age, socioeconomic status, and special needs.	

The existing BCHD campus currently provides health and wellness programs to promote community health and well-being. Under the proposed Project, the existing BCHD campus would be redeveloped to expand recreational and community service facilities and programs available to residents. As described in Table 3.10-3, the proposed Project would be consistent with applicable Redondo Beach Parks and Recreation Element goals and policies. Therefore, impacts related to conflicts with the Parks and Recreation Element would be *less than significant* for both the Phase 1 preliminary site development plan as well as the more general Phase 2 development program.

City of Redondo Beach Municipal Code Development Standards

As previously described, the land use designation for the existing campus is P (Public or Institutional) and the land use designation of the vacant Flagler Lot is C-2 (Commercial). As described in RBMC Section 10-2.1116 the FAR, building height, number of stories, and setbacks for development within P (Public and Institutional) land use designations are subject to Planning

Commission Design Review. RBMC Section 10-2.622 does prescribe specific development standards for parcels zoned as C-2 in the Redondo Beach Zoning Ordinance. The consistency of the proposed Project with these development standards is discussed in Table 3.10-4. As described in Table 3.10-4, the development within the vacant Flagler Lot would exceed the 0.5 FAR requirement; however, Policy 1.2.4 of the Redondo Beach General Plan Land Use Element allows for the development of housing for senior citizens by permitting such housing to vary from the development standards in the zone in which it is located (subject to Planning Commission Design Review and issuance of a CUP). Additionally, while the FAR would be greater than 0.5, given that the height of the building within the vacant Flagler Lot would remain within 2 stories and below 30 feet, there would be no physical impact related to aesthetics or visual resources (refer to Section 3.1, *Aesthetics and Visual Resources*). Therefore, while the proposed Healthy Living Master Plan may potentially conflict with RBMC Section 10-5.622, this potential conflict would not cause a significant environmental impact. Therefore, impacts related to conflicts with RBMC development standards would be *less than significant* for both the Phase 1 preliminary site development plan under Phase 1 as well as the Phase 2 development program.

Torrance General Plan

As described in Section 2.2.1, *Project Location*, the proposed Project would extend into the City of Torrance right-of-way at three locations. The proposed Project includes two access points with driveways along Flagler Lane. One driveway would serve a left-turn only exit from the proposed pick-up/drop-off zone located on the vacant Flagler Lot. A second driveway is proposed for a subterranean service area and loading dock entry/exit, which would require grading and construction of retaining walls (see Section 2.5.1.3, *Proposed Access, Circulation and Parking*). These elements of the proposed Project would require grading and building permits from the City of Torrance (refer to Section 1.5, *Required Approvals*).

The proposed Project would also re-landscape the eastern slope of the BCHD campus to be consistent with the landscaping proposed within the remainder of the campus. The proposed grading and landscaping on this portion of the slope would also require a grading permit, landscape plan approval, and site plan review from the City of Torrance (refer to Section 1.5, *Required Approvals*).

As such, the analysis of potential conflicts with the Torrance General Plan is limited to the proposed development within the City of Torrance right-of-way.

Table 3.10-4. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Redondo Beach Municipal Code

Policies	Discussion
<i>RMBC Section 4-24.503 Construction Noise</i>	
<p>(a) All construction activity shall be prohibited, except between hours of 7:00 a.m. and 6:00 p.m. on Monday, Tuesday, Wednesday, Thursday, and Friday and between the hours of 9:00 a.m. and 5:00 p.m. on Saturday. No construction activity shall be permitted on Sunday, or the days on which the holidays designated as Memorial Day, the Fourth of July, Labor Day, Thanksgiving Day, Christmas Day, and New Year's Day are observed.</p> <p>(b) In the case of an emergency, the Building Officer may issue a permit for construction activity for periods during which construction activity is prohibited by subsection (a) of this section. Such permit shall be issued for only the period of the emergency. Where feasible, the Building Officer shall notify the residential occupants within 300 feet of any emergency construction activity of the issuance of any permit authorized by this subsection.</p>	<p>No conflict. As described in Section 2.5.1.6, <i>Construction Hours</i>, BCHD would comply with the construction hours prescribed by the City of Redondo Beach. Therefore, while construction noise level would exceed the Federal Transit Authority (FTA) significance criteria identified in Section 3.11, <i>Noise</i>, the proposed Healthy Living Campus would not conflict with RBMC Section 2-24.503.</p>
<i>RBMC Section 9-23.01 – Adoption of 2019 California Green Building Standards Code</i>	
<p>Those certain documents, one copy of which is on file in the office of the City Clerk, being marked and designated as the 2019 California Green Building Standards Code (CAL-Green), Part 11, be and the same are hereby adopted as the Code of the City for regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area, and maintenance of all buildings and/or structures in the City; providing for the issuance of permits and all collection of fees therefor; and providing penalties for violations of such Code; and each and all of the regulations, provisions, penalties, conditions, and terms of such 2019 California Green Building Standards Code (CAL-Green), Part 11 are hereby referred to, adopted, and made a part of this chapter as if fully set forth in this chapter, subject to the additions, deletions, and amendments set forth in this chapter.</p>	<p>No conflict. Refer to the discussion for Policy 1.7 of the Redondo Beach General Plan Housing Element. All new buildings constructed within Redondo Beach under the Phase 1 preliminary site development plan and Phase 2 development program would conform to the California Title 24 Building Energy Efficiency Standards (Part 6) CALGreen (Part 11). Additionally, the proposed buildings would meet the equivalent of LEED Gold Certification and would be WELL Building Certified. As such, the proposed Healthy Living Campus Master Plan would not conflict with RBMC Section 9-23.01 and would not cause a significant environmental impact.</p>
<i>RBMC Section 10-5.622 Development Standards: C-2 Commercial Zone</i>	
Floor Area Ratio. The floor area ratio (F.A.R.) of all buildings on a lot shall not exceed 0.5	<p>Potential conflict. Refer to the discussion for Policy 1.42.4 of the Redondo Beach General Plan Land Use Element. The proposed development within the vacant Flagler Lot would be largely consistent with the C-2 development standards. For example, the proposed RCFE Building would be less than 30 feet tall and less than 2 stories. However, the proposed RCFE Building would exceed the 0.5 FAR requirement. Nevertheless,</p>
Building height. No building or structure shall exceed a height of thirty (30) feet.	
Stories. No building shall exceed two (2) stories	
Setbacks. The minimum setback requirements shall be as follows:	

Table 3.10-4. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Redondo Beach Municipal Code (Continued)

Policies	Discussion
<p>1. Front setback. There shall be a minimum front setback of five (5) feet the full width of the lot, except where a lot is contiguous to a residentially zoned lot fronting on the same street, in which case the required front setback shall be the same as required for the contiguous residential lot.</p> <p>2. Side setback.</p> <p>a. There shall be a minimum side setback of ten (10) feet the full length of the lot on the street side of a corner or reverse corner lot.</p> <p>b. No side setback shall be required along the interior lot lines, except where the side lot line is contiguous to a residential zone, in which case the following standards shall apply:</p> <p>i. There shall be a minimum side setback of twenty (20) feet the full length of the lot;</p> <p>ii. The required side setback may be modified pursuant to Planning Commission Design Review (Section 10-5.2502).</p> <p>3. Rear setback. No rear setback shall be required, except where the rear lot line is contiguous to a residential zone, in which case the following standards shall apply:</p> <p>a. There shall be a minimum rear setback of twenty (20) feet the full width of the lot;</p> <p>b. The required rear setback may be modified pursuant to Planning Commission Design Review</p>	<p>Policy 1.2.4 of the Redondo Beach General Plan Land Use Element allows for the development of housing for senior citizens by permitting such housing to vary from the development standards in the zone in which it is located (subject to Planning Commission Design Review and issuance of a CUP). Additionally, while the FAR would be greater than 0.5, given that the height of the building within the vacant Flagler Lot would remain within 2 stories and below 30 feet, there would be no physical impact related to aesthetics or visual resources (refer to Section 3.1, <i>Aesthetics and Visual Resources</i>). Therefore, while the proposed Healthy Living Master Plan may potentially conflict with RBMC Section 10-5.622, this potential conflict would not cause a significant environmental impact.</p>
<i>RBMC Section 10-5.1900 Landscaping Regulations</i>	
<p>RBMC Section 10-5.1900 establishes standards for installation of landscaping in order to enhance the aesthetic appearance of properties within the City, ensure the quality, quantity, and appropriateness of landscape materials, effect a functional and attractive design, improve compatibility between land uses, conserve water, control soil erosion, and preserve the character of existing neighborhoods.</p>	<p>No conflict. Construction under the Phase 1 preliminary site development plan would require the removal of approximately 20 landscaped trees along Flagler Lane (north of Towers Street) and approximately 60 trees along the northern perimeter of the campus to provide space for the proposed footprint of the RCFE Building. Additionally, construction under Phase 1 would require removal of an additional 20 landscaped trees along Diamond Street to provide space for the Southern California Edison (SCE) Substation Yard. Similarly, while a site development plan has not yet been selected for Phase 2, the development program would also require the removal of additional landscaped trees and shrubs within the interior portions of the existing BCHD campus.</p> <p>As described in Section 3.3, <i>Biological Resources</i>, the proposed landscaping plans would replace this vegetation with new vegetation that meets the landscaping regulations provided in RBMC Section 10-5.1900.</p> <p>Therefore, the proposed Healthy Living Campus Master Plan would not conflict with RBMC Section 10-5.1900 and would not cause a significant environmental impact.</p>

Table 3.10-5. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Torrance General Plan

Policy	Discussion
<i>Land Use Element</i>	
Policy LU.2.1. Require that new development be visually and functionally compatible with existing residential neighborhoods and industrial and commercial areas.	<p>No conflict. The proposed Project would redevelop the existing BCHD campus in two phases. The proposed RCFE building constructed during Phase 1 would be located within the boundaries of Redondo Beach and would be subject to the requirements of the RBMC including a Planning Commission Design Review. While the proposed Project – including the Phase 1 preliminary site development plan as well as the more general Phase 2 development program – would alter the visual character of the Project site and surrounding area, this change would be consistent with adopted Redondo Beach General Plan policies for architectural design, massing, landscaping, and pedestrian orientation, as well as the development guidelines prescribed by the RBMC for parcels zoned as C-2 (refer to Section 3.1, <i>Aesthetics and Visual Resources</i>).</p> <p>The proposed RCFE building constructed during Phase 1 and the proposed building(s) constructed during Phase 2 would not encroach on the City of Torrance right-of-way. As previously described, improvements within the City of Torrance right-of-way would be limited to the proposed pick-up/drop-off zone exit as well as the proposed subterranean service area and loading dock entry/exit. Additionally, the proposed Project would re-landscape the eastern slope of the campus to be consistent with the landscaping proposed within the remainder of the campus.</p> <p>As such, the development within the right-of-way would be limited to grading and the construction of retaining walls and pavements. This development within the right-of-way would not be visually incompatible with the surrounding residential neighborhood or commercial area. The proposed the proposed landscaping plan along Flagler Lane within the City of Torrance right-of-way would also be consistent the Torrance Street Tree Master Plan and would incorporate the tree species recommendations for Flagler Lane (refer to Section 3.3, <i>Biological Resources</i>). This landscaping would soften the views of the proposed buildings located within Redondo Beach in relation to surrounding residential uses to the east in Torrance.</p> <p>Therefore, the proposed development and landscaping with the City of Torrance right-of-way would not conflict with the Policy LU.2.1 and LU.2.3 of the Torrance General Plan Land Use Element and would not cause a significant environmental impact.</p>
Policy LU.2.3. Consider both the impact of a proposed development on surrounding property and the impact of existing uses on new development.	

Table 3.10-5. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Torrance General Plan (Continued)

Policy	Discussion
<p>Policy LU.2.5. Establish landscape or hardscape buffers between residential and non-residential uses, where appropriate, to minimize adverse effects.</p>	<p>No conflict. The proposed Project would re-landscape the eastern slope of the campus to be consistent with the landscaping proposed within the remainder of the campus. The perimeter of the BCHD campus would be planted with a mix of drought-resistant grasses, shrubs, indigenous ground cover, and native shade trees. Specifically, the eastern border of the BCHD campus within the City of Torrance right-of-way would be lined with intermittent large shade canopy trees and smaller shade trees that would be clustered for a natural look (refer to Figure 2-7). The proposed the proposed landscaping plan along Flagler Lane within the City of Torrance right-of-way would be consistent the Torrance Street Tree Master Plan and would incorporate the tree species recommendations for Flagler Lane (refer to Section 3.3, <i>Biological Resources</i>). This landscaping would soften the views of the proposed buildings located within Redondo Beach in relation to surrounding residential uses to the east in Torrance. Therefore, the proposed landscaping within the City of Torrance right-of-way would not conflict with the Policy LU.2.5 of the Torrance General Plan Land Use Element and would not cause a significant environmental impact.</p>
<p>Policy LU.3.1: Require new development to be consistent in scale, mass, and character with structures in the surrounding area. For distinct neighborhoods and districts, consider developing design guidelines that suit their unique characteristics. Create guidelines that offer a wide spectrum of choices and that respect the right to develop within the context of existing regulations.</p>	<p>No conflict. Refer to the discussion for Policy LU.2.1 and Policy LU.2.3 of the Torrance General Plan Land Use Element. The proposed development and landscaping within the City of Torrance right-of-way would not conflict with Policy LU.3.1 of the Torrance General Plan Land Use Element and would not cause a significant environmental impact.</p>
<p>Policy LU.3.4. Continue to encourage the maintenance and upgrading of existing development.</p>	<p>No conflict. The proposed Project would redevelop the existing BCHD campus eliminate existing seismic safety issues associated with the former South Bay Hospital Building (514 North Prospect Avenue) within Redondo Beach. The development within the City of Torrance right-of-way would contribute to the creation of a modern campus with public open space. Therefore, the proposed development and landscaping with the City of Torrance right-of-way would not conflict with Policy LU.3.4 of the Torrance General Plan.</p>
<p>Policy LU.4.2. Encourage the use of development design and amenities that support transit and other alternative forms of transportation, including bicycling and walking.</p>	<p>No conflict. The existing BCHD campus is not located within a Transit Priority Area and limited transit opportunities exist within the vicinity. However, the proposed Project would implement a TDM plan with trip reduction strategies to reduce single-occupancy vehicle trips to the Project site (see Section 3.14 <i>Transportation</i>). The TDM plan would include transit</p>

Table 3.10-5. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Torrance General Plan (Continued)

Policy	Discussion
	<p>and carpool incentives for employees. The proposed Project would provide designated parking for carpools and vanpools on-site. Additionally, the Assisted Living, Memory Care, and PACE services developed under Phase 1 would share vans to transport several participants at once, which would reduce vehicle trips to the BCHD campus. The proposed Project would also feature ride-share pick-up amenities (e.g., pick-up/drop-off zones) and designated parking spaces for carpools and vanpools.</p> <p>The proposed Project would also promote active transportation by providing pedestrian linkages through the site and bicycle facilities on-site, which would assist in reducing vehicle trips. For example, the proposed Project would include publicly accessible ground-level open space traversed with pedestrian pathways which would provide on-site connectivity with the existing sidewalks adjacent to the Project site. Given the Project site's location adjacent to existing Class II (i.e., striped) bicycle lanes along Diamond Street and Beryl Street, as well as Flagler Alley, which is often used as an informal bicycle path, the proposed on-site bicycle facilities (e.g., bicycle parking, employee showers and lockers, etc.) would also encourage active transportation to and from the Project site.</p> <p>The proposed development and landscaping with the City of Torrance right-of-way would not conflict with Policy LU.4.2 of the Torrance General Plan Land Use Element and would not cause a significant environmental impact.</p>
<p>Policy LU.4.3. Require that new development projects provide their full fair share of the improvements necessary to mitigate project generated impacts on the circulation and infrastructure systems.</p>	<p>No conflict. As described in Section 3.14, <i>Transportation</i> the proposed Project would result in the generation of 376 net new trips per day. The proposed Project – including the development of a pick-up/drop-off zone exit as well as the proposed subterranean service area and loading dock entry/exit within the City of Torrance right-of-way – would not result in any significant operational transportation impacts and therefore, no mitigation measures would be required. The proposed development with the City of Torrance right-of-way would not conflict with LU.4.3 of the Torrance General Plan Land Use Element and would not cause a significant environmental impact.</p>
<p>Policy LU.5.3. Maintain and encourage visually attractive residential neighborhoods by preserving and adding street trees and other types of streetscape and hardscape, and by encouraging the use of attractive and appropriate private landscaping.</p>	<p>No conflict. Refer to the discussion for Policy LU.2.5 of the Torrance General Plan Land Use Element. The proposed development and landscaping within the City of Torrance right-of-way would not conflict with Policy</p>

Table 3.10-5. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Torrance General Plan (Continued)

Policy	Discussion
	LU.5.3. of the Torrance General Plan Land Use Element and would not cause a significant environmental impact.
<p>Policy LU.9.1. Preserve, protect, and maintain open space, parks, and recreation facilities as desirable land uses, recognizing that such uses contribute to the high quality of life in Torrance.</p>	<p>No conflict. Refer to the discussion for Policy LU.2.5 of the Torrance General Plan Land Use Element. Improvements within the City of Torrance right-of-way would include re-landscaping the eastern slope of the campus to be consistent with the landscaping proposed within the remainder of the campus. The perimeter of the BCHD campus would be planted with a mix of drought-resistant grasses, shrubs, indigenous ground cover, and native shade trees. Specifically, the eastern border of the BCHD campus within the City of Torrance right-of-way would be lined with intermittent large shade canopy trees and smaller shade trees that would be clustered for a natural look (refer to Figure 2-7). The proposed the proposed landscaping plan along Flagler Lane within the City of Torrance right-of-way would be consistent the Torrance Street Tree Master Plan and would incorporate the tree species recommendations for Flagler Lane (refer to Section 3.3, <i>Biological Resources</i>). Therefore, the proposed development and landscaping within the City of Torrance right-of-way would not conflict with the Policy LU.9.1 of the Torrance General Plan Land Use Element and would not cause a significant environmental impact.</p>
<p>Policy LU.11.1. Encourage development which enhances the visual character, quality, and uniqueness of the City's neighborhoods and districts.</p>	<p>No conflict. Refer to the discussion for LU.2.1 and LU.2.3 of the Torrance General Plan Land Use Element. The proposed development and landscaping within the City of Torrance right-of-way would not conflict with Policy LU.3.1 of the Torrance General Plan Land Use Element and would not cause a significant environmental impact.</p>
<p>Policy LU.11.6. Encourage site and building design whereby individual projects on separate lots function as unified developments to promote aesthetic and functional cohesiveness, where applicable and within the context of applicable regulations.</p>	<p>No conflict. The Project site comprises two distinct parcels: the existing BCHD campus, designated by the City of Redondo Beach as P (Public or Institutional) and zoned by the City of Redondo Beach as P-CF (Community Facility), and the vacant Flagler Lot on the northeast corner of the Project site, designated and zoned by the City of Redondo Beach as C-2 (Commercial). The proposed Project would redevelop both parcels – including the areas of the parcels located within the City of Torrance right-of-way along Flagler Lane – as a unified and aesthetically and functionally cohesive campus for the existing and proposed BCHD programs. The proposed development and landscaping within the City of Torrance right-of-way would not conflict with Policy LU.11.6 of the Torrance General</p>
<p>Policy LU.11.9. Require that development along the City's boundaries emphasize the qualities and uniqueness of Torrance by using attractive and cohesive design elements and architectural themes.</p>	

Table 3.10-5. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Torrance General Plan (Continued)

Policy	Discussion
	Plan Land Use Element and would not cause a significant environmental impact.
Policy LU.11.10. Encourage site and building design that integrates low-impact development principles.	No conflict. Improvements within the City of Torrance right-of-way would be limited to the proposed pick-up/drop-off zone exit as well as the proposed service area and loading dock entry/exit. Additionally, the proposed Project would re-landscape the eastern slope of the campus to be consistent with the landscaping proposed within the remainder of the campus. The open space and landscaping within the City of Torrance right-of-way would improve overall permeability and drainage (refer to Section 3.9, <i>Hydrology and Water Quality</i>). The proposed development and landscaping with the City of Torrance right-of-way would not conflict with Policy LU.11.10 of the Torrance General Plan Land Use Element and would not cause a significant environmental impact.
<i>Circulation and Infrastructure Element Policies</i>	
Policy CI.3.4. Encourage the use of regional rail, buses, bicycling, carpools, and vanpools for work trips to relieve regional traffic congestion.	No conflict. Refer to the discussion for Policy LU.4.2 and LU.4.3 of the Torrance General Plan Land Use Element. The proposed development and landscaping within the City of Torrance right-of-way would not conflict with Policy CI.3.4 or Policy CI.3.5 of the Torrance General Plan Circulation and Infrastructure Element and would not cause a significant environmental impact.
Policy CI.3.5. Encourage site and building design that reduces automobile trips and parking space demand.	
Policy CI.6.2. Provide for the consistent use of street trees along all sidewalks, parkways, and property frontages.	No conflict. Refer to the discussion for Policy LU.2.5 of the Torrance General Plan Land Use Element. The proposed Project would not conflict with Policy CI.6.2 of the Torrance General Plan Circulation and Infrastructure Element and would not cause a significant environmental impact.
Policy CI.7.8. Require developers to incorporate facilities for transit and other alternative modes of transportation, such as park-and-ride lots, bus terminals or bus substation, and bus turnouts in the design of major developments.	No conflict. Refer to the discussion for Policy LU.4.2 and Policy LU.4.3 of the Torrance General Plan Land Use Element. The proposed development and landscaping within the City of Torrance right-of-way would not conflict with Policy CI.7.8 of the Torrance General Plan Circulation and Infrastructure Element and would not cause a significant environmental impact.
Policy CI.8.1. Provide and maintain safe, efficient, and convenient pedestrian pathways that offer access to major activity centers, recreation facilities, schools, community facilities, and transit stops.	No conflict. The proposed Project would include publicly accessible ground-level open space traversed with pedestrian pathways which would provide on-site and off-site connectivity with the existing sidewalks adjacent to the Project site, including a pedestrian connection between the sidewalk along Flagler Lane and the proposed multi-tiered staircase within the vacant Flagler Lot. Publicly accessible pedestrian-only
Policy CI.8.2. Promote walking throughout the community by installing sidewalks where they are missing and making improvements to existing sidewalks when needed for safety purposes. Particular	

Table 3.10-5. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Torrance General Plan (Continued)

Policy	Discussion
attention will be given to sidewalk improvements near schools and activity centers.	open space on the ground level of the proposed Project would encourage active transportation between the BCHD campus and the nearby residences, commercial land uses, and transit stops. The proposed development and landscaping within the City of Torrance right-of-way would not conflict with Policy CI.8.1 and Policy CI.8.2 of the Torrance General Plan Circulation and Infrastructure Element and would not cause a significant environmental impact.
<i>Community Resources Element Policies</i>	
Policy CR.1.2. Require the provision of on-site open space in new developments.	No conflict. Refer to the discussion for Policy LU.2.5 of the Torrance General Plan Land Use Element. The proposed development and landscaping within the City of Torrance right-of-way would not conflict with these policies of the Torrance General Plan Community Resources Element and would not cause a significant environmental impact.
Policy CR.1.3. Require that development projects involving modifications or additions include plans to upgrade or add open space and landscaping.	
Policy CR.4.2. Require that developers and property owners improve their properties by providing landscaping and similar aesthetic treatments along roadways.	
Policy CR.4.3. Encourage planting of new trees, and preserve existing street trees in residential neighborhoods.	
Policy CR.7.4. Encourage use of City-sponsored transportation, ride-sharing, and the Torrance Transit System by community residents for transportation to local recreational and community facilities.	No conflict. The proposed Healthy Living Campus Master Plan is intended to redevelop the existing BCHD campus, which is not located within a Transit Priority Area. Nevertheless, the proposed Project would be located in close proximity to several stops along the Beach Cities Transit Line 102. The proposed development and landscaping within the City of Torrance right-of-way would not conflict with not conflict with Policy CR.7.4 of the Torrance General Plan Community Resources Element and would not cause a significant environmental impact.
Policy CR.7.6. Make Torrance's parks, recreation, and community facilities compliant with the Americans with Disabilities Act (ADA) standards for accessibility to better serve senior and disabled populations.	No conflict. The proposed development within the City of Torrance right-of-way would be accessible and navigable by elderly residents and visitors alike as well as the general population. Ground-level pedestrian pathways – including the sidewalk and pathway located within the City of Torrance right-of-way would be gently sloping and designed to comply with the ADA. The proposed development and landscaping within the City of Torrance right-of-way would not conflict with Policy CR.7.6 of the Torrance General Plan Community Resources Element and would not cause a significant environmental impact.

Table 3.10-5. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Torrance General Plan (Continued)

Policy	Discussion
<p>Policy CR.8.2 Maintain, promote, and enhance programs that provide recreational, educational, cultural, and community services for families and residents of all ages.</p>	<p>No conflict. Redevelopment of the BCHD campus – including the preliminary site development plan under Phase 1 and the development program under Phase 2 – would expand community services and programs available for use by residents of all ages, including children, adults, and senior citizens. The proposed development and landscaping within the City of Torrance right-of-way would not conflict with Policy CR.8.2 of the Torrance General Plan Community Resources Element and would not cause a significant environmental impact.</p>
<p>Policy CR.13.5. Support air quality and energy and resource conservation by encouraging alternative modes of transportation such as walking, bicycling, transit, and carpooling.</p>	<p>No conflict. The existing BCHD campus is not located within a Transit Priority Area and limited transit opportunities exist within the vicinity. However, the proposed Project would implement a TDM plan with trip reduction strategies to reduce single-occupancy vehicle trips to the Project site (see Section 3.14 <i>Transportation</i>). The TDM plan would include transit and carpool incentives for employees. The proposed Project would provide designated parking for carpools and vanpools on-site. The proposed Project would also feature ride-share pick-up amenities (e.g., pick-up/drop-off zones) and designated parking spaces for carpools and vanpools.</p> <p>The proposed Project would also promote active transportation by providing pedestrian linkages through the site and bicycle facilities on-site, which would assist in reducing vehicle trips. For example, the proposed Project would include publicly accessible ground-level open space traversed with pedestrian pathways which would provide on-site connectivity with the existing sidewalks adjacent to the Project site. Given the Project site's location adjacent to existing Class II (i.e., striped) bicycle lanes along Diamond Street and Beryl Street, as well as Flagler Alley, which is often used as an informal bicycle path, the proposed on-site bicycle facilities (e.g., bicycle parking, employee showers and lockers, etc.) would also encourage active transportation to and from the Project site.</p> <p>Therefore, the proposed development and landscaping within the City of Torrance right-of-way would not conflict with Policy 13.5 of the Torrance General Plan Community Resources Element and would not cause a significant environmental impact.</p>
<p>Policy CR.13.8. Promote energy-efficient building construction and operation practices that reduce emissions and improve air quality.</p>	<p>No conflict. All of the proposed buildings constructed within Redondo Beach under the Phase 1 preliminary site development plan and Phase 2 development</p>

Table 3.10-5. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Torrance General Plan (Continued)

Policy	Discussion
Policy CR.21.6. Promote energy-efficient design features, including appropriate site orientation, use of light-colored roofing and building materials, and use of trees to reduce fuel consumption for heating and cooling.	program would conform to the California Title 24 Building Energy Efficiency Standards (Part 6) CALGreen (Part 11). Additionally, the proposed buildings would meet the equivalent of LEED Gold Certification and would be WELL Building Certified. Improvements within the City of Torrance right-of-way would be limited to the proposed pick-up/drop-off zone exit as well as the proposed subterranean service area and loading dock entry/exit. Additionally, the proposed Project would re-landscape the eastern slope of the campus to be consistent with the landscaping proposed within the remainder of the campus. As such, the proposed development within the City of Torrance right-of-way would not conflict with these policies of the Torrance General Plan Community Resources Element and would not cause a significant environmental impact.
Policy CR.24.1. Encourage sustainable construction practices and the use of energy-saving technology. Consider establishing a green building program that draws from the LEED (Leadership in Energy & Environmental Design) standards.	

City of Torrance Municipal Code Development Standards

The City of Torrance right-of-way extends into the existing campus and the vacant Flagler Lot by approximately 26 feet from the edge of the existing paved width of Flagler Lane (refer to Figure 3.10-1 and Figure 3.10-2). TMC Section 92.32.8 guides the use of the public right-of-way and TMC Section 92.30.8 guides access to local streets within Torrance.

These sections of the TMC are relevant to the proposed Project given that the proposed Project would extend into the City of Torrance right-of-way at three locations. The proposed Project includes two access points with driveways along Flagler Lane. One driveway would serve a left-turn only exit from the proposed pick-up/drop-off zone located on the vacant Flagler Lot. A second driveway is proposed for a subterranean service area and loading dock entry/exit, which would require grading and construction of retaining walls (refer to Section 2.5.1.3, *Proposed Access, Circulation and Parking*). These elements of the proposed Project would require grading and building permits from the City of Torrance (refer to Section 1.5, *Required Approvals*). The Project also proposes to re-landscape the eastern slope of the campus to be consistent with the landscaping proposed within the remainder of the campus. The proposed grading and landscaping on this portion of the slope would also require a grading permit, landscape plan approval, and site plan review from the City of Torrance (refer to Section 1.5, *Required Approvals*).

Table 3.10-6. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Torrance Municipal Code

Policy	Project Consistency
<i>TMC Section 92.30.8 Use of the Public Right-of-Way</i>	
<p>With the exception of those items for which a permit may be issued, or for which a legal exception is elsewhere granted in law, it is unlawful for any person owning, occupying or having charge of any property in the City to place or maintain on any sidewalk or public right-of-way abutting or adjoining such property any rubbish or waste material, construction material, play equipment, signs, trash, vegetation, or any object which obstructs or interferes with the free passage, use or view by the public of any sidewalk, street, alley, parkway, beach, or other public right-of-way, or which may impede emergency access.</p>	<p>No Conflict. As previously described, improvements within the City of Torrance right-of-way would be limited to the proposed pick-up/drop-off zone exit as well as the proposed subterranean service area and loading dock entry/exit. While these new access points would require two new curb cuts within the sidewalk along Flagler Lane. The proposed development within the City of Torrance right-of-way would not interfere with pedestrian travel along the sidewalk. Further, proposed access points would not interfere with vehicular travel along Flagler Lane (see Section 3.14, <i>Transportation</i>). Neither the proposed development nor the proposed landscaping would conflict with TMC Section 92.30.8 and would not cause a significant environmental impact.</p>
<i>TMC Section 92.30.8 Access to Local Streets Prohibited</i>	
<p>No vehicular access shall be permitted to a local street from a commercially or industrially zoned through lot which also has frontage on a major or secondary street. In no case shall a commercial or industrial lot be developed in such a manner that traffic from the commercial or industrial uses on it will be channeled onto any residential streets.</p>	<p>Potential conflict. As shown in Figure 3.10-1 and Figure 3.10-2, the vacant Flagler Lot is located at the intersection of Beryl Street & Flagler Lane and zoned as C-2 (Commercial) by the City of Redondo Beach. The proposed one-way driveway and pick-up/drop-off zone would be accessible via a right-turn along eastbound Beryl Street located within Redondo Beach and would exit onto Flagler Lane located within Torrance. As such, the proposed Project may potentially conflict with TMC Section 92.30.8 given that the vacant Flagler Lot has a frontage with Beryl Street, but would exit onto Flagler Lane, that latter of which is designed as a local road by Policy 11 and 12 of the Torrance General Plan Circulation and Infrastructure Element. However, the applicability of this policy is unclear given that Beryl Street is located within Redondo Beach and the vacant Flagler Lot has been zoned as C-2 (Commercial) by the City of Redondo Beach. Nevertheless, as described in Section 3.2, <i>Air Quality</i>, Section 3.11, <i>Noise</i>, and Section 3.14, <i>Transportation</i> the development of this proposed driveway would not result in any significant environmental impacts with regarding to air emissions, roadway noise, or geometric roadway hazards. Therefore, while development of the proposed access points the within the City of Torrance right-of-way may potentially conflict with TMC Section 92.30.8, it would not cause a significant environmental impact.</p>

Table 3.10-6. Potential for Significant Environmental Effects Resulting from Conflicts of the proposed Project with the Torrance Municipal Code (Continued)

Policy	Project Consistency
<i>TMC Division 7, Chapter 5</i>	
TMC, Division 7, Chapter 5 comprises the Tree Ordinance, which describes permit requirements to cut, trim, and remove trees (TMC Section 75.1), protection of trees during construction (TMC Section 75.1.11), obstruction of views from driveway to street (TMC Section 75.1.14), etc.	No conflict. As described in Section 3.3, <i>Biological Resources</i> , construction under the Phase 1 preliminary site development plan would require the removal of approximately 20 landscaped trees along Flagler Lane (north of Towers Street). BCHD would apply for a permit from the Public Works Direct pursuant to TMC 75.1.5[a]. The proposed tree removal and the proposed landscaping plan along Flagler Lane within the City of Torrance right-of-way would be consistent the Torrance Street Tree Master Plan and would incorporate the tree species recommendations for Flagler Lane. Therefore, the proposed landscaping within the City of Torrance right of way would not conflict with TMC Section 92.30.8 and would not cause a significant environmental impact.
<i>TMC Section 4-46.3.1 Construction of Buildings and Projects</i>	
a) It shall be unlawful for any person within the City of Torrance to operate power construction tools, equipment, or engage in the performance of any outside construction or repair work on buildings, structures, or projects in or adjacent to a residential area involving the creation of noise beyond 50 decibels (dB) as measured at property lines, except between the hours of 7:30 A.M. to 6:00 P.M. Monday through Friday and 9:00 A.M. to 5:00 P.M. on Saturdays. Construction shall be prohibited on Sundays and Holidays observed by City Hall. An exception exists between the hours of 10:00 A.M. to 4:00 P.M. for homeowners that reside at the property.	No conflict. As described in Section 2.5.1.6, <i>Construction Hours</i> , BCHD would comply with the construction hours prescribed by the City of Torrance. Therefore, while construction noise level would exceed the FTA significance criteria identified in Section 3.11, <i>Noise</i> , the proposed development and landscaping with the City of Torrance right-of-way would not conflict with TMC Section 4-46.3.1.

Cumulative Impacts

Cumulative land use impacts could occur if other future development projects within the Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach (refer to Tables 3.0-1 through 3.0-4 in Section 3.0, *Cumulative Impacts*) would result in land use impacts in conjunction with the proposed Project.

The City of Redondo Beach is currently preparing a focused update of its General Plan for the following Elements: Land Use; Conservation, Recreation and Parks, and Open Space; Safety; and Noise. The Mayor and Redondo Beach City Council directed the City to perform an update of its General Plan and appointed a broadly representative General Plan Advisory Committee (GPAC). One of the first tasks of the GPAC was to develop a draft Vision Statement to guide the Plan update efforts. The draft Vision Statement, approved by the GPAC in September 2017, sets a long-term

vision for Redondo Beach as a guide for the community character and types of development. The General Plan Update will provide policy direction and guidance to residents, City staff, decision-makers, and the community. The General Plan Update has not yet been released to the public; therefore, this EIR evaluates the proposed Project in relation to Redondo Beach's current General Plan (2009).

The proposed Project, in conjunction with other planned and pending projects within the vicinity of the Project site (refer to Tables 3.0-1 through 3.0-4 in Section 3.0, *Cumulative Impacts*), would increase the number of mixed-use developments by increasing the developed commercial space, number of residential units, and square footage of recreational and open space areas. Any such land use changes in the surrounding cities, however, would be required to comply with SCAG's RTP/SCS and local General Plans, municipal codes, and zoning ordinances, which all have goals of focusing expanding public open space and community vibrancy near transit to preserve the existing neighborhoods and to achieve sustainability goals (refer to Tables 3.10-1 through 3.10-7). The proposed Project is expected to increase the use of public transit and decrease the distance between new housing, jobs, and transportation services, thus reducing net increases in trips, and associated GHG emissions. The proposed Project residential, medical office, office, gym, restaurant, and open space uses would be compatible with the surrounding residential, commercial, and recreational land uses in the Project vicinity. The proposed Project would be consistent with the goals and policies contained within Connect SoCal, Metro's LRTP, South Bay Bicycle Master Plan, the Redondo Beach and Torrance General Plans, and development standards contained in the RBMC and TMC. In addition, all pending and future projects are required to be consistent with Connect SoCal, Metro's LRTP, South Bay Bicycle Master Plan, and the applicable General Plans, Municipal Codes, and Zoning Ordinances. All cumulative commercial, residential, and mixed-use development projects would be required to undergo consistency review of with local land use plans, policies, and regulations to ensure compatibility with surrounding communities. Therefore, the proposed Project, in combination with other pending/future projects, would not result or contribute considerably to significant cumulative land use impacts.

For cumulative impacts that result primarily from development outside of Redondo Beach and Torrance (i.e., Hermosa Beach, Manhattan Beach, Gardena, Carson, Lomita, or Palos Verdes Estates), it should be noted that the City of Redondo Beach and the City Torrance cannot control land use policies or decisions outside of their boundaries; however, regional planning guidance provided by SCAG encourages municipalities to promote growth that would limit and reduce potential cumulative impacts, particularly related to transportation and transportation-related air pollutant emissions.

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3.11 NOISE

This section of the Environmental Impact Report (EIR) evaluates the potential noise and vibration impacts from the construction and operation of the proposed Beach Cities Health District (BCHD) Healthy Living Campus Master Plan (Project) – including the Phase 1 preliminary site development plan and the more general Phase 2 development program. Information for this section was developed based on a review of current noise and vibration standards and assessment methodologies, including the Redondo Beach Noise Regulations (Redondo Beach Municipal Code [RBMC] Section 4-24), Redondo Beach General Plan Noise Element, Torrance Noise Regulations (Torrance Municipal Code [TMC] Section 6-46), Torrance General Plan Noise Element, Federal Highway Administration (FHWA) Traffic Noise Model, FHWA Roadway Construction Noise Model, and others contained in the Federal Transit Administration's (FTA's) Transit Noise and Impact Assessment Manual (FTA 2018).

3.11.1 Fundamentals of Sound and Environmental Noise

Noise

Noise is typically defined as unwanted sound that interferes with normal activities or otherwise diminishes the quality of the human or natural environment. Prolonged exposure to high levels of noise is known to have several adverse effects on people, including hearing loss, communication interference, sleep interference, physiological responses, and annoyance (Federal Interagency Committee on Urban Noise [FICUN] 1980). The ambient noise environment typically includes background noise generated from both near and distant noise sources. These can vary from an occasional aircraft overhead or an occasional train passing by to continuous noise from sources such as consistent vehicle traffic along a major road and/or pedestrian activity within open space recreational areas or other places where people congregate.

Sound is technically described in terms of the loudness (i.e., amplitude) and frequency (i.e., pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Sound frequency is measured in terms of hertz (hz), and the normal human ear can detect sounds ranging from about 20 to 15,000 hz. All sounds in the wide range of frequencies are not heard equally well by the human ear, which is most sensitive to frequencies in the 1,000 to 4,000 hz range. Since the human ear is not equally sensitive to sound at all frequencies (i.e., between 1,000 and 8,000 cycles per second), a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) adjusts very high and very low frequencies to approximate the human ear's lower sensitivity to those frequencies since. Decibels are based on a logarithmic scale, which compresses the wide range in sound pressure levels to a more useable

range of numbers. This is called “A-weighting” and is commonly used in the measurement of ambient community environmental noise. Unless otherwise noted, all dB measurements presented in the following noise analysis are dBA.

In terms of human response to noise, a 3-dBA increase is barely perceptible to most people, a 5-dBA increase is readily noticeable, and a 10-dBA increase would be perceived as a doubling of loudness (100 percent increase) (FICUN 1980; FTA 2018). Examples of various sound levels in different environments are shown in Table 3.11-1.

Several rating scales have been developed to analyze the adverse effect of community noise on people. Since environmental noise fluctuates, these scales consider the effect of noise upon people largely dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Each noise rating scale applicable to this analysis is defined as follows:

- **Equivalent Continuous Noise Level (L_{eq})** is the average acoustic energy of noise for a given period. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. This rating scale does not “weight” or “penalize” noise, depending on whether it occurs during the day or the night.
- **Community Noise Equivalent Level (CNEL)** is a 24-hour average L_{eq} with a 5-dBA “weighting” or “penalty” during the hours of 7:00 p.m. to 10:00 p.m. and a 10-dBA “weighting” or “penalty” a during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL. CNEL is often used due to its utility in identifying noise related sleep disturbance effects, often a key community concern for increases in noise levels. This metric is typically used within the State of California for noise analyses and CEQA-compliant documents.
- **Day-Night Average Noise Level (L_{dn})** is a 24-hour average L_{eq} with a 10 dBA “weighting” or “penalty” during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn} . This metric is typically used by Federal agencies (e.g., Federal Aviation Administration [FAA]) for noise analyses and National Environmental Policy Act (NEPA) compliant environmental documentation.
- **Minimum Instantaneous Noise Level (L_{min})** is the minimum instantaneous noise level experienced during a given period.
- **Maximum Instantaneous Noise Level (L_{max})** is the maximum instantaneous noise level experienced during a given period.

Table 3.11-1. Representative Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Power saw	—110—	Rock band
Jet fly-over at 100 feet		Crying baby
Subway	—100—	
Gas lawnmower at 3 feet		
Rail transit horn / tractor	—90—	
Jack hammer		Food blender at 3 feet
Rail transit at-grade (50 miles per hour [mph])	—80—	Garbage disposal at 3 feet
Noisy urban area during daytime		
Gas lawnmower at 100 feet	—70—	Vacuum cleaner at 10 feet
Rail transit in station / commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	—60—	Sewing machine
Air conditioner		Large business office
Quiet urban area during daytime	—50—	Dishwasher in next room
		Refrigerator
Quiet urban area during nighttime	—40—	Theater, large conference room (background)
Quiet suburban area during nighttime		
	—30—	Library
Quiet rural area during nighttime		Bedroom at night, concert hall (background)
	—20—	
		Broadcast / recording studio
	—10—	
Lowest threshold of human hearing	—0—	Lowest threshold of human hearing

Source: California Department of Transportation (Caltrans) 1998.

Noise levels from a source attenuate (i.e., decline) as distance to the receptor increases. Other factors, such as the weather and reflecting or shielding by buildings or other structures, may intensify or reduce the noise level at a location. A common method for estimating roadway noise is that for every doubling of distance from the source, the noise level is reduced by approximately 3 dBA at acoustically “hard” locations (i.e., mostly asphalt, concrete, hard-packed soil, or other solid materials) and 4.5 dBA at acoustically “soft” locations (i.e., exposed soil or landscaping, such as grass).

Noise from stationary sources – including construction-related noise – is reduced by approximately 6 to 7.5 dBA for every doubling of distance at acoustically hard and soft locations, respectively. Noise levels may also be reduced by intervening structures; generally, a single row of buildings

between the receptor and the noise source reduces the noise level by approximately 5 dBA, while a solid wall or berm can reduce noise levels by up to 5 to 10 dBA. The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior noise reduction of newer residential units is generally 30 dBA or more (FTA 2018).

Vibration

Vibration is sound radiated through the ground. Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are construction equipment and traffic on rough roads. If a road is smooth (e.g., newly constructed or newly re-paved), the ground-borne vibration from traffic is rarely perceptible. The vibration of floors and walls may cause perceptible vibration, rattling of items such as windows or dishes on shelves, or a rumble noise. The



Service vehicles, such as delivery trucks and garbage trucks can generate ground-borne vibration in the vicinity of the Project site.

rumble is the noise radiated from the motion of the room surfaces. In essence, the room surfaces act like an amplifier causing what is called “*ground-borne noise*.” Ground-borne vibration rarely disturbs people in outdoor settings. Although the motion of the ground may be perceived, without the effects associated with the shaking of a building, the motion does not provoke the same adverse human reaction. In addition, the rumble noise that usually accompanies the building vibration is perceptible only inside buildings. Typically, ground-borne vibration generated by manmade activities attenuates rapidly with distance from the source of the vibration. Man-made vibration issues are therefore usually confined to short distances from the source.

The ground motion caused by vibration can be measured as peak particle velocity (ppv) in inches per second (in/sec) (FTA 2018; Caltrans 2013). The vibration level at which continuous or frequent vibration is strongly perceptible is 0.1 in/sec. For transient ground-borne vibration (i.e., a single isolated vibration event), 0.035 in/sec is barely perceptible while 2.0 in/sec is felt severely (Caltrans 2013). Potential structural damage from ground-borne vibration, whether transient or continuous, is rare. The thresholds for potential structural damage to fragile buildings from

transient or continuous vibration events are 0.2 in/sec and 0.1 in/sec, respectively. New residential structures are less likely to have structural damage from transient or continuous vibration events which corresponds to threshold criteria of 2.0 in/sec and 0.5 in/sec, respectively.

3.11.2 Environmental Setting

Land uses within Redondo Beach and Torrance include a range of residential, commercial, institutional, and recreational open space areas that are common to urbanized coastal areas in Southern California (refer to Section 3.10, *Land Use and Planning*). The Project site is located along the border of Redondo Beach and Torrance, which includes primarily single-family and multi-family residential development as well as some neighborhood-serving commercial retail, restaurants, and fitness studios. Noise sources associated with these uses include, but are not limited to, the following: exposed mechanical equipment (e.g., heating, ventilation, and cooling [HVAC] equipment, elevator shafts, etc.); delivery, loading, and garbage truck operations; and other minor noise sources associated with restaurant, retail, and residential uses (e.g., amplified music, talking, etc.).

The ambient noise environment in the vicinity of the Project site is typical of an urban area, influenced by a variety of human-caused sources of noise typical for urban areas, most notably vehicular traffic on local roadways, along with occasional aircraft overflights, and activities associated with commercial businesses. The primary source of noise in the vicinity of the Project site is vehicle traffic, including passenger vehicles, buses, motorcycles, and trucks. Traffic noise is primarily generated on nearby arterial streets such as North Prospect Avenue and Beryl Street. Pacific Coast Highway (PCH) and 190th Street are additional sources of vehicle noise and are located to the west and north of the Project site, respectively. The high volume of daily vehicle trips along PCH is a large source of vehicle noise; however, PCH is located approximately 0.5 miles from the Project site, with many residential homes and other development acting as sound barriers, which contain the noise generated and limit the area affected by this noise source.

Towers Elementary School and Beryl Heights Elementary School are located 350 feet and 905 feet from the Project site, respectively. Noise associated with schools includes bells (e.g., attendance and dismissal), children's voices from recess/outdoor play areas, and vehicular traffic during student pick-up and drop-off times.



Noise sources along Beryl Street include the Redondo Village Shopping Center, Dominguez Park, and Towers Elementary School (left). The outdoor play area associated with Beryl Heights Elementary School (right) generates noise along Maria Avenue, which is three streets west of the Project site.

Additionally, construction projects in Redondo Beach and Torrance also generate construction noise, particularly during weekdays between the standard construction hours identified in Redondo Beach Noise Regulations (RBMC Section 4-24) and Torrance Noise Regulations (TMC Section 6-46). For example, recently completed construction along Flagler Lane from Beryl Street to 190th Street to the north of the Project site contributed to the ambient noise environment in the immediate vicinity of the Project site. (For a complete list of cumulative projects in the cities, refer to Tables 3.0-1, 3.0-2, 3.0-3, and 3.0-4.)

The Project site is bounded by North Prospect Avenue to the west and south, the Redondo Village Shopping Center and Beryl Street to the north, and Flagler Lane, Flagler Alley, and Diamond Street to the east. The Project site fronts two busy streets in Redondo Beach, North Prospect Avenue, and Beryl Street. North Prospect Avenue between Anita Street and PCH is identified in the Redondo Beach General Plan Noise Element as a major street with peak period noise exposure levels between 71 and 75 dBA and generating ambient L_{dn} noise levels ranging between 66 and 70 dBA. As such, North Prospect Avenue adjacent to the Project site is identified in the Redondo Beach General Plan Noise Element as a single-family residential area that exceeds State exterior noise guidelines established in Land Use Compatibility for Community Noise Environments (see Section 3.11.3, *Regulatory Setting*). Beryl Street and Diamond Street were identified as generating ambient L_{dn} noise levels ranging between 60 and 65 dBA (City of Redondo Beach 2008b).

The single-family residential neighborhood located immediately east of the Project site within West Torrance is subject to an average ambient noise level of 60 dBA CNEL, according to the Torrance General Plan Noise Element (City of Torrance 2010).

Bus service in the vicinity (within 0.5 miles) of the Project site is provided by Beach Cities Transit Line 102 (see Section 3.14, *Transportation*). The northbound line has three bus stops adjacent to

the Project site: one stop at the campus's southern secondary vehicle entrance (approximately 100 feet north of the North Prospect Avenue & Diamond Street intersection), and two stops along the southern side of Beryl Street, at the Shell gas station and just west of Flagler Lot. The southbound line has two bus stops adjacent to the Project site: one bus stop along the western side of North Prospect Avenue across the street of the campus's main entrance, and one stop along the northern side of Beryl Street across from Flagler Lot. The buses along this transit line are a source of traffic noise.

Redondo Beach Fire Department (RBFD) records indicate that a total of 451 emergency medical service (EMS) calls were dispatched to the Beach Cities Health Center between January 2015 and July 2019, with an average of 98 calls per year and 8 calls per month (see Table 3.11-2).

Table 3.11-2. EMS Calls for the BCHD Campus (2015-2019)

Period	EMS Calls Per Year	Average EMS Calls Per Month
2019 (January – July)	53	7.6
2018 (January – December)	102	8.5
2017 (January – December)	101	8.4
2016 (January – December)	92	7.7
2015 (January – December)	103	8.6
Average	98	8.2

Notes: Refer to Section 3.13, *Public Services* for additional details regarding EMS calls to the BCHD campus.

Source: RBFD 2019.

During incident responses, the typical practice for emergency vehicles is to break traffic at intersections and use sirens – at the discretion of the driver – to warn other drivers of the emergency vehicle approach when traffic is congested. However, emergency vehicles typically do not engage sirens unless necessary along congested roadways or congested intersections. Responses to nighttime emergency calls can routinely occur without the use of sirens due to the limited nighttime traffic. Approximately 13 percent of the 451 EMS calls dispatched to the Beach Cities Health Center between January 2015 and July 2019 were nighttime (i.e., between 10:00 p.m. and 7:00 a.m.) calls. When sirens are necessary for an emergency response, they typically emit noise at a magnitude of approximately 100 dBA at 100 feet. A decrease of about 3 dBA occurs with every doubling of distance from a mobile noise source; therefore, during a response requiring sirens, residences along North Prospect Avenue and Beryl Street experience peak short-duration exterior noise levels ranging from 91 to 100 dBA. Because emergency vehicle response is rapid by nature, the duration of exposure to these peak noise levels is estimated to last for a maximum of 10 seconds, depending on traffic.

The primary source of noise within the Project site is from the parking areas on-site, which are surface parking lots along the boundaries of the campus, the subterranean parking garage that fronts 520 North Prospect Avenue, and the above ground parking structure located at 512 North Prospect Avenue. Noise from the parking areas generally consists of sporadic noises from vehicles arriving and departing, tire squeals, car alarms, opening and closing of car doors, and people's voices. Variation in sound levels depends on factors such as the number of vehicles moving through the structure at any given time (e.g., weekday versus weekend), and the unpredictable nature of noise sources (e.g., car alarms). Additionally, many of the existing structures on the Project site have HVAC systems, which generate a continuous low humming noise. Natural sources of sound (e.g., wind blowing through trees and vegetation and birds) also contribute to the ambient noise environment in the vicinity of the Project site.



The BCHD campus includes five buildings as well as surface parking lots, a subterranean parking garage, and an above ground parking garage, which generate vehicle-related noise.

To identify representative noise levels around the Project site, daytime noise measurements were taken at seven locations including the streets on all sides of the Project site (i.e., North Prospect Avenue, Beryl Street, Flagler Lane, Flagler Alley, and Diamond Street) and along the proposed construction haul routes (i.e., 190th Street and Del Amo Boulevard) (see Figure 3.11-1). Noise levels were measured using a Quest Technologies 2200 Type I Integrating Sound Level Meter, which satisfies the American National Standards Institute (ANSI) Specifications for Integrating-Averaging Sound Level Meters for use in general environmental noise measurement. Measurements were taken during 10-minute intervals between 7:00 a.m. and 9:00 a.m. AM peak period and between 4:00 p.m. and 6:00 p.m. PM peak period (see Table 3.11-3).

Table 3.11-3. Existing Noise Levels Measured in the Project Vicinity (dBA)

		North Prospect Avenue	Diamond Street	Flagler Alley	Flagler Lane	Beryl Street	Mildred Avenue	Del Amo Blvd	190 th Street
		Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8
AM Peak	L _{eq}	64.3	56.7	47.1	59.3	66.6	58.9	69.9	70.2
	L _{max}	77.1	66.2	56.2	72.3	82.1	69.1	80.5	79.6
	L _{min}	47.8	44.8	43.4	53.2	52.6	43.3	49.6	47.9
PM Peak	L _{eq}	68.8	55.3	49.4	61.5	64.2	53.0	70.4	71.5
	L _{max}	85.2	64.6	65.9	72.7	76.4	66.3	82.3	85.7
	L _{min}	49.8	46.8	44.2	54.8	51.6	42.6	48.9	47.3

Notes: See Appendix I for noise monitoring results.

The highest measured noise levels were recorded along Del Amo Boulevard and 190th Street (Sites 7 and 8), with maximum sound levels during the AM and PM peak periods of 82.3 dBA and 85.7 dBA, respectively. Flagler Alley and Mildred Avenue (Sites 3 and 6) generally have lower noise levels, with maximum noise levels during the AM and PM peak periods of 65.9 dBA and 69.1 dBA, respectively. These noise levels are characteristic of a high-activity suburban area. Existing daytime noise levels were calculated using the data collected during noise monitoring as well as the highest recorded traffic volumes on the surrounding roadways to provide the most conservative value for ambient L_{eq} noise levels and presented in Table 3.11-4. Thus, the ambient noise levels are also reflective of roadway traffic noise.

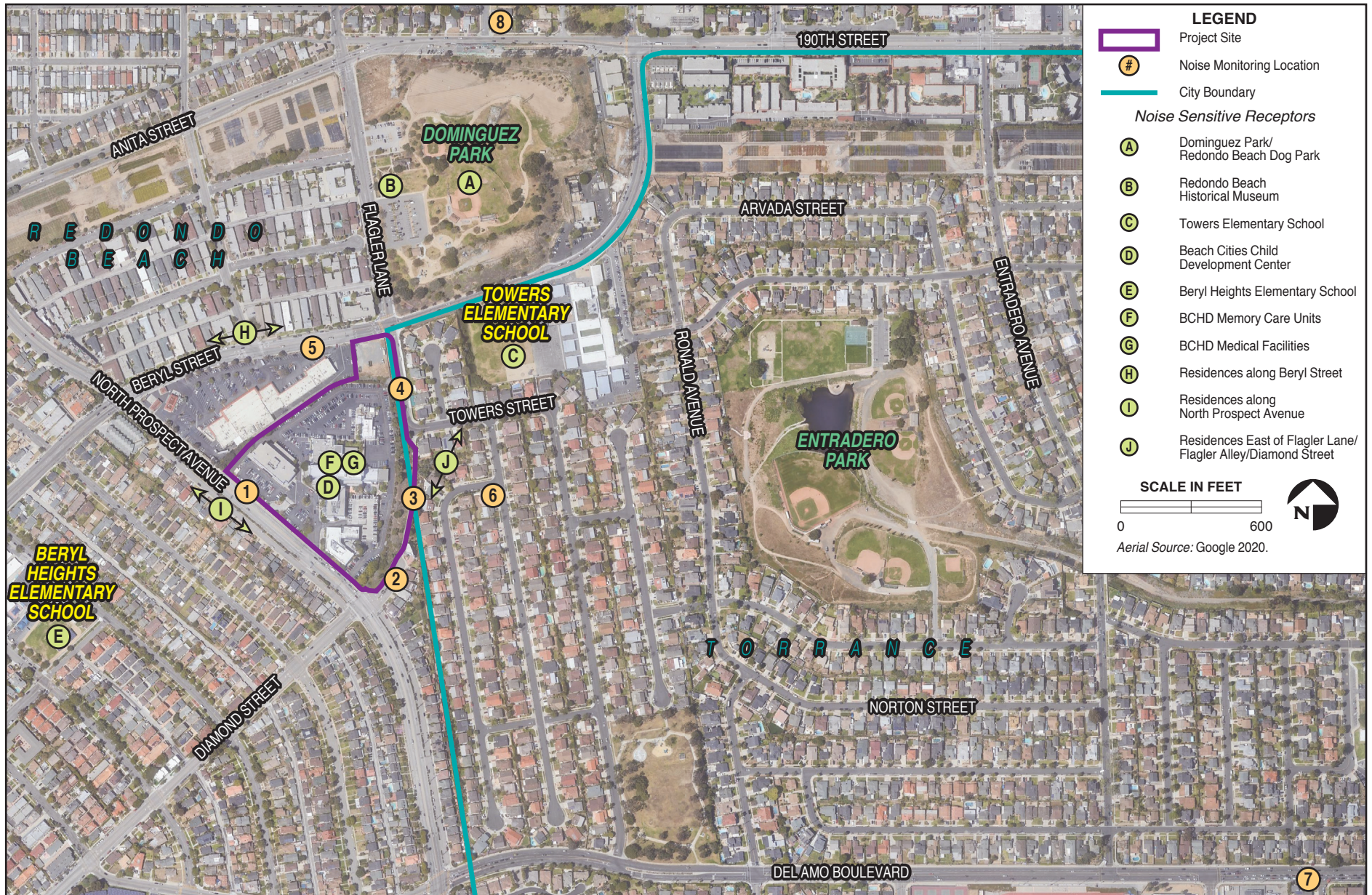
Table 3.11-4. Daytime and 24-hour Average Noise Levels in the Project Vicinity

Street	Daytime Noise Level				24-hour Average Noise Level ^{1,2} (L _{dn})
	AM Peak Period (L _{eq} 1-hour)	Mid-day ¹ (L _{eq} 1-hour)	PM Peak Period (L _{eq} 1-hour)	Ambient (L _{eq} 15-hour)	
Beryl Street	67	64	64	64	63
Diamond Street	57	54	55	54	53
Flagler Lane	59	59	62	59	58
Flagler Alley	47	46	49	46	45
North Prospect Avenue	64	66	69	66	65

Notes:

¹Assumed daytime non-peak period traffic noise level was 3 dBA less than highest peak period traffic noise level (a 50 percent reduction in non-peak period traffic).

²Assumed nighttime noise level was 5 dBA less than daytime non-peak period traffic noise level consistent with the Redondo Beach Permissible Noise Levels as presented in Table 3.11-9.



Noise and Vibration Sensitive Receptors

The Redondo Beach General Plan Noise Element defines noise-sensitive uses as schools, libraries, health care facilities, and residential uses. Land uses identified by the Torrance General Plan Noise Element (2010) as noise-sensitive land uses include schools, hospitals, churches, and residential neighborhoods. Other noise-sensitive may include museums, libraries, and parks. Noise-sensitive land uses near to the Project site are shown in Figure 3.11-1 and are listed in Table 3.11-5.



The nearest schools to the Project site are the Beach Cities Child Development Center (located on-site), Towers Elementary School, and Beryl Heights Elementary School (see Table 3.11-5). Other schools located greater than 1,000 feet from the Project site include Redondo Shores High School, Redondo Beach Learning Academy, Redondo Union High School, Jefferson Elementary School, Parras Middle School, Our Lady of Guadalupe School, Valor Christian Academy, and West High School.

The nearest recreational space to the Project site is Dominguez Park, which is located immediately northeast across the intersection of Beryl Street & Flagler Lane (see Table 3.11-5). Other recreational areas in the vicinity of the Project site, but located greater than 1,000 feet from the BCHD campus include Sunnyglen Park, Entradero Park, Perry Allison Playfield, Sea Hawk Stadium, Moondust Parkette, and Edith Rodaway Friendship Park.

Table 3.11-5. Noise-Sensitive Land Uses within 1,000 Feet of the Project Site

Sensitive Receptor	Address	Distance and Direction	Use
Beach Cities Child Development Center	514 North Prospect Avenue, Redondo Beach	On the Project site	Preschool
Silverado Beach Cities Memory Care Community	514 North Prospect Avenue, Redondo Beach	On the Project site	60 Memory Care residential units for patients with Alzheimer's or other type of dementia
Outpatient Medical Facilities	510, 514, and 520 North Prospect Avenue, Redondo Beach	On the Project site	Outpatient medical facility
Residences east of Flagler Lane/Flagler Alley/Diamond Street	Flagler Lane/Flagler Alley/Diamond Street	80 feet East	Single-family residences
Residences along Beryl Street	Beryl Street	80 feet North	Multi-family residences
Residences along North Prospect Avenue	North Prospect Avenue	110 feet South and West	Single-family residences
Dominguez Park/Redondo Beach Dog Park	200 Flagler Lane, Redondo Beach	112 feet Northeast	Public park with a little league field, play structures, and a dog park
Towers Elementary School	5600 Towers St, Torrance	350 feet East	Elementary school
Morrell House and Queen Anne House at Dominguez Park	302 Flagler Lane, Redondo Beach	600 feet North	Historic houses showcasing local memorabilia
Beryl Heights Elementary School	920 Beryl St, Redondo Beach	905 feet West	Elementary school

Vibration sensitive land uses are affected by construction activity in the cities as well as traffic and transportation vehicles, especially heavy-duty vehicles (e.g., delivery trucks) on local roadways. Vibration sensitive land uses, including historic buildings, are typically more structurally fragile due to older building materials and techniques. The vibration sensitive land uses nearest to the Project site are the locally designated landmarks shown in Figure 3.11-1 and are listed in Table 3.11-6 (refer also to Section 3.4, *Cultural Resources and Tribal Cultural Resources*).

Table 3.11-6. Vibration Sensitive Structures within 1,000 Feet of the Project Site

Sensitive Receptor	Address	Distance and Direction	Use
Morrell House and Queen Anne House at Dominguez Park	302 Flagler Lane, Redondo Beach	600 feet North	Historic houses showcasing local memorabilia

3.11.3 Regulatory Setting

Various standards have been developed to address the compatibility of land uses and noise levels. The applicable standards are presented in the following discussion. Special emphasis is placed on land uses that are noise sensitive.

Federal Regulations

No Federal noise requirements or regulations apply to local actions of Redondo Beach and Torrance. However, Federal regulations influence the audible landscape where Federal funding is involved. For example, FHWA requires abatement of highway traffic noise for highway projects through rules in Title 23 of the Code of Federal Regulations (CFR) Part 772.

State Policies and Regulations

California Air Resources Board Anti-Idling Measure

In 2004, the California Air Resource Board (CARB) adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling (Title 13 of the California Code of Regulations [CCR] Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at a time at a location, thereby minimizing vehicle noise from idling vehicles (refer to Section 3.2, *Air Quality*).

Title 24 of the California Building Standards Code

Title 24 of the CCR includes Sound Transmission Control requirements that establish uniform minimum noise insulation performance standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family units. Specifically, Title 24 states that interior noise levels attributable to exterior sources shall not exceed 45 dBA CNEL in any habitable room of new dwellings. As established in the State of California Department of Health and Safety's Land Use Compatibility for Community Noise Environments, the highest recommended "normally acceptable" exterior noise level exposure is 60 dBA CNEL for single-family residential

and 65 dBA CNEL for multi-family residential. The highest recommended “*normally acceptable*” exterior noise level exposure is 70 dBA CNEL for commercial, institutional, and public/government uses. Where such units are proposed in areas subject to exterior noise levels greater than 60 dBA CNEL, the standards require an acoustical analysis demonstrating how dwelling units have been designed to meet the interior standard. Dwellings are to be designed so that interior noise levels would meet this standard for at least 10 years from the time of a building permit application.

California Department of Transportation

The Caltrans Transportation and Construction Vibration Guidance Manual provides guidance and procedures that “*should be treated as screening tools for assessing the potential for adverse vibration effects related to human perception, structural damage, and equipment. This document is not an official policy, standard, specification, or regulation, and should not be used as such*” (Caltrans 2013).

The Caltrans vibration criteria for assessing structural damage and human perception are shown in Table 3.11-7 and Table 3.11-8, respectively.

Table 3.11-7. Caltrans Vibration Structural Damage Potential Criteria

Structure and Condition	Transient Sources (Maximum PPV [in/sec])	Continuous/Frequent Intermittent Sources (Maximum PPV [in/sec])
Extremely fragile historic buildings, ruins, and monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

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.

Source: Caltrans 2013.

Table 3.11-8. Caltrans Vibration Perception Potential Criteria

Level of Perceptibility	Transient Sources (Maximum PPV [in/sec])	Continuous/Frequent Intermittent Sources (Maximum PPV [in/sec])
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

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-seal equipment, vibratory pile drivers, and vibratory compaction equipment.

Source: Caltrans 2013.

Regional Policies and Regulations

Los Angeles County Code – Vibration Standards

Redondo Beach and Torrance have no vibration regulations; however, vibration is addressed in Chapter 12.08 of the County of Los Angeles Code. This chapter prohibits the operating of any device that creates vibration which is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property, or at 150 feet from the source if on a public space or right-of-way. The perception threshold is defined as a motion velocity of 0.01 in/sec over the range of 1 to 100 Hz.

City of Redondo Beach Local Policies and Regulations

Redondo Beach General Plan Noise Element

The Redondo Beach General Plan Noise Element establishes acceptable noise levels for various land uses, with emphasis on requirements for residential areas and other sensitive noise receptors, such as hospitals and schools. In addition, the Noise Element provides guidelines for determining project impacts and CNEL guidelines for noise/land use compatibility. The Noise Element contains the following goals and policies that are applicable to the proposed Project:

Objective 10.3: Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, and visitors of the community.

Policy 10.3.2 Implement requirements under Title 24 of the California Building Code to ensure that interior noise levels attributable to exterior sources shall not exceed an L_{dn} of 45 dBA in any habitable room within new hotels, motels, dormitories, long-term care facilities,

apartment houses, and dwellings other than detached single-family units.

Policy 10.3.4 Prohibit the development of new industrial, commercial, or related land uses or the expansion of existing land uses when it can be demonstrated that such new or expanded land uses would be directly responsible for causing overall (ambient) noise levels to exceed an L_{dn} of 65 dBA exterior upon areas containing housing, schools, health care facilities, or other “noise-sensitive” land uses (as determined by the City of Redondo Beach).

Policy 10.3.5 Encourage “noise sensitive” land uses, including schools, libraries, health care, facilities, and residential uses, to incorporate fences, walls, landscaping, and/or other noise buffers and barriers, where appropriate and feasible to do so.

Objective 10.5: Minimize noise spillover or encroachment from commercial and industrial uses into adjoining residential neighborhoods or “noise-sensitive” uses.

Policy 10.5.2 Require that all parking areas for commercial and industrial land uses abutting residential areas be buffered and shielded by walls, fences, or adequate landscaping.

Policy 10.5.3 Require that all parking structures serving commercial and industrial land uses be designed to minimize the potential noise impacts of vehicles using these facilities both onsite and on adjacent land uses or properties. The design measures used may include: 1) the use of materials which mitigate sound transmission; or 2) the configuration of interior spaces to minimize sound amplification and transmission.

Objective 10.7: Minimize the impacts of construction noise on adjacent uses.

Policy 10.7.1 Ensure that the prohibitions relative to legal hours of operation for construction activities contained within the existing City of Redondo Beach Noise Ordinance and/or any future/revised Noise Ordinance be adhered to and enforced.

Policy 10.7.2 Require that construction activities adjacent to residential land uses and dwelling units be regulated, as necessary, to prevent the generation of adverse and/or excessive noise impacts.

- Policy 10.7.3 Require that construction activities employ feasible and practical techniques and practices which minimize the generation of adverse and/or excessive noise impacts on adjacent land uses.

Redondo Beach Municipal Code

The RBMC, under Title 4 Chapter 24, Noise Regulation (effective August 11, 1976), provides the local government ordinance relative to community noise level exposure, guidelines, and regulations. The ordinance establishes local noise limits by setting out a series of permissible exterior sound levels by land use categories (for sensitive receptors only). These limits differ between daytime hours (7:00 a.m. to 10:00 p.m.) and nighttime hours (10:00 p.m. to 7:00 a.m.), with the nighttime being more restrictive. The RBMC states that “*no person may operate, or cause to be operated, any source of sound at any location within the City or allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person which causes the noise level when measured on any other property to exceed*” the assigned noise levels for the various land use categories shown in Table 3.11-9 (RBMC Section 3-24.301). Where the land use borders another land use category, the lower land use category limit is increased by 5 dBA. However, where actual ambient noise levels exceed the presumed ambient noise levels in the RBMC, the allowable noise exposure standard shall be increased in 5 dBA increments as appropriate to encompass or reflect such ambient noise level. For these regulations, Redondo Beach uses the L_{eq} metric based upon the Noise Element (Table 50). These levels are not applicable to motor vehicles operation on public rights-of-way (RBMC Section 4-24.693) and are not applicable to construction noise levels, which are regulated exclusively by hour of operation limitations contained in RBMC Section 4-24.503.

For operational interior noise, RBMC Section 4-24.401 states that the allowable interior noise level for residential, school, and hospital properties is 40 dBA from 10:00 p.m. to 7:00 a.m. and 45 dBA from 7:00 a.m. to 10:00 p.m. Again, these limits are not applicable to construction noise.

However, Redondo Beach Noise Regulations do limit construction activities to the hours between 7:00 a.m. and 6:00 p.m., Monday through Friday, and the hours between 9:00 a.m. and 5:00 p.m. on Saturday. No construction activity is permitted to occur on Sundays or holidays (RBMC Sections 4-24.503 and 9-1.12).

Table 3.11-9. Redondo Beach Permissible Sound Levels

Land Use Type	Time Period	Permissible Ambient Level (L _{eq})
Exterior		
Low Density Residential (R-1-A, R-1, R-2, P-D-R, P-U-D, Overlay)	7:00 a.m. – 10:00 p.m.	50
	10:00 p.m. – 7:00 a.m.	45
Medium Density Residential (R-3, R-4, P-D-R, P-U-D, Overlay)	7:00 a.m. – 10:00 p.m.	55
	10:00 p.m. – 7:00 a.m.	50
High Density Residential (R-5, R-6, P-D-R, P-U-D, Overlay)	7:00 a.m. – 10:00 p.m.	60
	10:00 p.m. – 7:00 a.m.	55
Commercial/Industrial (NSC, CSC, GC, P-D-C, P-D-I)	7:00 a.m. – 10:00 p.m.	65
	10:00 p.m. – 7:00 a.m.	60
Industrial (P-I)	7:00 a.m. – 10:00 p.m.	70
	10:00 p.m. – 7:00 a.m.	70
Interior		
Residential, Schools, Hospitals	7:00 a.m. – 10:00 p.m.	45
	10:00 p.m. – 7:00 a.m.	40

City of Torrance Local Policies and Regulations

Torrance General Plan Noise Element

The Torrance General Plan Noise Element addresses the issue of noise by identifying sources of noise in the City and providing goals, policies, and programs that ensure that noise from various sources does not create an unacceptable noise environment. The Noise Element establishes policies to guard against creation of new noise/land use conflicts and to minimize the impact of existing noise sources on the community.

The Noise Element's Table N-3, Torrance Noise/Land Use Compatibility Guidelines, specifies exterior and interior noise standards by proposed land use type and proposed density or intensity (see Table 3.11-10). The purpose of the Noise and Land Use Compatibility Guidelines is to serve as guidance criteria for new development to ensure a given land use is compatible with the ambient noise level.

As stated in the Noise Element,

“These compatibility criteria serve as guidelines. For example, an acoustical analysis must be prepared when noise-sensitive land uses are proposed within noise impact areas. The analysis must show that the project is designed to attenuate noise to meet the City’s noise standards in order to receive approval. If the project design does not meet the noise

standards, mitigation can be recommended in the analysis. If the analysis demonstrates that the noise standards can be met by implementing the mitigation measures, the project can be approved conditioned upon implementation of the mitigation measures.”

Table 3.11-10. City of Torrance Permissible Sound Levels

Land Use Type	Land Use Designations	Permissible Ambient Level (L _{dn} or CNEL)	
		Interior	Exterior ³
Residential	Low Density Residential Low Medium Density Residential Medium Density Residential	45	60/65 ¹
	Medium High Density Residential	45	65/70 ²
	High Density Residential	45	70 ¹
Commercial and Office	General Commercial Center	-	70
	Residential Office	50	70
Industrial	Business Park Light Industrial Heavy Industrial	55	75
	Public/Quasi-Public/Open Space	50	65
	Hospital/Medical	50	70
Airport	Airport	-	70

Notes:

¹The normally acceptable standard is 60 dBA. The higher standard is acceptable subject to inclusion of noise-reduction features in project design and construction.

²Maximum exterior noise levels up to 70 dBA CNEL are allowed for Multiple-Family Housing.

³Regarding aircraft-related noise, the maximum acceptable exposure for new residential development is 60 dBA CNEL.

Source: City of Torrance 2010.

Torrance Municipal Code

Noise from construction activities is regulated in TMC Section 6-46.3.1 (Construction of Buildings and Projects). It is unlawful for any person in Torrance to operate power construction tools, equipment, or engage in the performance of any outside construction or repair work on buildings, structures, or projects in or adjacent to a residential area involving the creation of noise beyond 50 dBA as measured at property lines, except between the hours of 7:30 a.m. and 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturdays. Construction is prohibited on Sundays and holidays observed by Torrance, with the exception of between the hours of 10:00 a.m. to 4:00 p.m. for homeowners that reside at the property.

Additionally, heavy construction equipment such as pile drivers, mechanical shovels, derricks, hoists, pneumatic hammers, compressors, or similar devices are prohibited to operate at any time within or adjacent to a residential area without first obtaining permission from the Community

Development Director to do so. Such request for permission shall include a list and type of equipment to be used and the requested hours and locations of its use, and the applicant shall be required to show that the selection of equipment and construction techniques has been based on minimization of noise within the limitations of such equipment as is commercially available or combinations of such equipment and auxiliary sound barriers. Such permission to operate heavy construction equipment will be revoked if operation of such equipment is not in accordance with the approval of the Community Development Director (TMC Section 6-46.3.1).

Whereas the noise standards of the Noise Element are primarily used to ensure noise/land use compatibility with ambient noise levels, which are dominated by transportation noise sources, the noise regulations in the TMC are used to regulate noise from local onsite noise sources, such as mechanical equipment or event noise. TMC Division 4, Public Health and Welfare, Chapter 6, Noise Regulation, establishes noise level limits in most residential areas of 50 to 55 dBA between 7:00 a.m. and 10:00 p.m., and 45 to 50 dBA between 10:00 p.m. and 7:00 a.m., depending on location. The regulations establish regions with differing noise regulations, with the noise standards in Region 4 – where this Project site is located – being the most lenient. As shown in Table 3.11-11, the highest permitted noise level for residences in Region 4 is 55 dBA from 7:00 a.m. to 10:00 p.m. and 50 dBA from 10:00 p.m. to 7:00 a.m. as measured from the residential property line. TMC Section 6-46.7.2 Subsection 3c states that for noises occurring less than 30 minutes per day or less than 6 minutes per night, the highest allowable noise level is adjusted upward by 15 dBA (i.e., for Region 4, 70 dBA from 7:00 a.m. to 10:00 p.m. and 65 dBA from 10:00 p.m. to 7:00 a.m.).

Table 3.11-11. Torrance Municipal Code Noise Regulations

Region of Noise Receiver	Noise Level (dBA)	
	Day	Night
3	50	45
4	55	50

Source: TMC, Division 4, Chapter 6, Article 7, Section 46.7.2.

3.11.4 Impact Assessment and Methodology

Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the 2020 CEQA Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on noise if it would do any of the following:

- a) The project would generate a substantial temporary or permanent increase in ambient noise levels in the project vicinity in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- b) The project would generate excessive ground-borne vibration or ground-borne noise levels.
- c) For a project within the vicinity of a private airstrip or an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, the project would expose people residing or working in the project area to excessive noise levels.

Screened-Out Threshold(s):

- Threshold (c) (*Private Airstrip or Airport Land Use Plan Area*): The Initial Study (IS) (see Appendix A) prepared for the proposed BCHD Healthy Living Campus Master Plan determined that the proposed Project would not result in noise impacts associated with a public airport or private airstrip. The Project site is located approximately 5.75 miles south of the Los Angeles International Airport (LAX) and is not located within an Airport Land Use Plan. Therefore, the proposed Project would not expose people residing or working at the Project site to excessive noise levels from an airport or airstrip. Therefore, for the reasons stated above and as discussed in Section XIII, *Noise and Vibration* of the IS, this issue is not further analyzed in the EIR.

Construction Noise Levels

The timing of construction noise impacts is an important factor in determining significance. In any urban area, residents expect to be exposed periodically to construction noise during normal working hours on weekdays and for more abbreviated periods on Saturdays (and sometimes Sundays). As described in Section 3.11.3, *Regulatory Setting*, construction activities are permitted in Redondo Beach between 7:00 a.m. and 6:00 p.m. on weekdays, and between 9:00 a.m. and 5:00 p.m. on Saturdays (RBMC Sections 4-24.503 and 9-1.12). Similarly, construction activities are permitted in Torrance between 7:30 a.m. and 6:00 p.m. on weekdays, and between 9:00 a.m. and 5:00 p.m. on Saturdays (TMC Section 6-46.3.1). Neither of the local noise ordinances establish quantitative noise limits or other standards for construction. The RBMC and TMC provide noise standards for interior and exterior levels in residential areas; however, these noise standards do not apply to construction activities (refer to Section 3.11.3, *Regulatory Setting*).

Neither Redondo Beach nor Torrance have established standards or thresholds for evaluating the environmental impacts of construction noise. Recent EIRs prepared by the City of Redondo Beach have relied on the City of Los Angeles CEQA Guidelines (2006) significance threshold for

construction noise, while recent EIRs prepared by the City of Torrance have applied thresholds based in part upon Table N-2 of the General Plan Noise Element.¹ However, these thresholds differ and, given the location of the Project site within Redondo Beach and partially within City of Torrance right-of-way, BCHD has elected to identify a standardized threshold that is applicable across all local jurisdictions (i.e., it does not rely on a single city's general plan). For that reason, the Detailed Analysis Construction Noise Criteria presented in the FTA's Transit Noise and Vibration Impact Assessment Manual Guidelines will be considered in this EIR based on the reasonable criteria for assessment and if exceeded, could result in adverse community reaction (FTA 2018; see Table 3.11-12). As discussed further below, both cities use the FTA's Transit Noise and Vibration Impact Assessment Manual for the assessment of physical impacts associated with ground-borne vibration, which further supports the suitability of these criteria.

In the absence of an established construction noise level criteria, the FTA has stated that an 8-hour L_{eq} of 80 dBA and a 30-day average of 75 L_{dn} is a reasonable criterion for assessment of construction activities on residential land use (FTA 2018). The FTA asserts that project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. The metric L_{eq} shall be used to assess construction noise, and this unit of measurement is appropriate because L_{eq} can be used to describe:

- Noise level from operation of each piece of equipment separately, and noise levels can be combined to represent the noise level from all equipment operating during a given period;
- Noise level during an entire phase; and,
- Average noise over all phases of the construction.

Given the length of construction associated with the Phase 1 preliminary site development plan and the more general Phase 2 development program, the noise metric L_{dn} , averaged over 30-days was also assessed. A detailed quantitative construction noise assessment utilizing the FHWA Roadway Construction Noise Model and FTA Noise and Vibration Impact Assessment Manual has been completed based on the length of the development programs and the proximity to sensitive receptors.

¹ "For the purposes of determination of significant impact from temporary construction noise, the City of Torrance applies a threshold of 75 dBA, based in part upon Table N-2 of the General Plan Noise Element." Solana Residential Development Project Draft EIR (State Clearinghouse [SCH] No. 2017071061).

Table 3.11-12. Construction Noise Impact Criteria for a Detailed Quantitative Construction Noise Assessment

Land Use	Leq (dBA)		Ldn (dBA)
	Day	Night	30-day average
Residential	80	70	75
Commercial	85	85	80
Industrial	90	90	85

Source: FTA 2018.

Operational Noise Levels (Permanent Increase in Ambient Noise Levels in Excess of Standards)

With regard to operational noise, RBMC Section 4-24.401 states that the allowable interior noise level for residential properties is 40 dBA from 10:00 p.m. to 7:00 a.m. and 45 dBA from 7:00 a.m. to 10:00 p.m. With regard to exterior noise levels (other than construction noise), RBMC Section 4-24.301 states that no person may operate, or cause to be operated, any source of sound at any location within the City or allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person which causes the noise level when measured on any other property to exceed the presumed or actual measured ambient noise level for the various land use categories in RBMC Section 4-24.301.

TMC Section 46.7.2 establishes exterior noise level limits in most residential areas of 50 to 55 dBA between 7:00 a.m. and 10:00 p.m., and 45 to 50 dBA between 10:00 p.m. and 7:00 a.m., depending on location. TMC Ordinance 4-24.509 (Refuse Collection Vehicles) prohibits the operation of refuse collection vehicles between the hours of 7:00 p.m. and 7:00 a.m. in a residential area.

As described in Section 3.11.1, *Fundamentals of Sound and Environmental Noise*, a noise level increase of 3-dBA is barely perceptible to most people, a 5-dBA increase is readily noticeable, and a 10-dBA increase would be perceived as a doubling of loudness (FICUN 1980; FTA 2018). As set forth in the previous discussion of the local policies and regulations, RBMC Section 4-24, where actual ambient noise levels exceed the presumed ambient noise levels in the RBMC, the allowable noise exposure standard shall be increased in 5 dBA increments as appropriate to encompass or reflect actual ambient noise level. Therefore, because actual ambient noise levels exceed the presumed ambient noise levels for the purposes of this EIR, operational noise from the proposed Project would be considered significant if the projected noise levels reach 5 dBA above the ambient noise levels (i.e., readily noticeable).

Ground-borne Vibration

For the purpose of this EIR, guidelines and criteria established by the FTA for impacts to residences and businesses as well as for impacts related to building damage within Redondo Beach and Torrance will be utilized. To assess vibration impacts associated with residences and businesses, the metric Vibration Velocity Level (VdB) is used, and levels correspond to land use category and the number of vibratory events. Construction activities within 200 feet would be potentially disruptive to vibration-sensitive uses (e.g., concert halls, television studios, etc.) (FTA 2018).

Table 3.11-13. Ground-borne Vibration Impact Criteria for General Assessment

Land Use Category	Frequent Events	Occasional Events	Infrequent Events
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB	65 VdB	65 VdB
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

Notes:

“Frequent Events” is defined as more than 70 vibration events of the same source per day.

“Occasional Events” is defined as between 30 and 70 vibration events of the same source per day.

“Infrequent Events” is defined as fewer than 30 vibration events of the same kind per day.

This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes.

Source: FTA 2018.

When assessing vibration impacts related to buildings damage, the metric PPV (in/sec) is used (FTA 2018). The FTA has established four types of constructed buildings which can withstand varying levels of vibration. As such, the FTA has assigned threshold criteria of PPV where if exceeded, building damage could be expected (see Table 3.11-14).

Table 3.11-14. FTA Construction Vibration Damage Criteria

Building Category	PPV (in/sec)
I. Reinforced-concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

Source: FTA 2018.

Methodology

Construction Noise Levels

The precise construction timeline for the Phase 1 preliminary site development plan and the Phase 2 development program depends on the timing of entitlements and permit processing. For the purposes of this EIR, construction activity for Phase 1 of the proposed Project is assumed to begin in Spring 2022 and extend over approximately 29 months into the Summer 2024 (refer to Section 2.5.1.6, *Construction Activities*). It is expected that construction activities during the Phase 1 construction time period would include overlapping construction activities including approximately 3 months for soil excavation, grading, and utility work; 7 months for exterior hardscape improvements; 24 months for the construction of the proposed RCFE Building; and 2 months for the demolition of the existing Beach Cities Health Center, including backfill of the existing basement. Phase 2 construction activities would last for a period of 28 months and would be dependent upon the timing of the permit process and financing considerations (refer to Section 2.5.2.4, *Construction Activities*). It is expected that construction activities during the Phase 2 construction time period also would include overlapping activities including approximately 3 months for demolition, soil excavation, grading, and utility work; 27 months for the construction; and 8 months for the hardscape and landscape improvements.

Construction-related noise and ground-borne vibration would be generated by various types of equipment as a result of construction activities anticipated to occur on the Project site. Construction noise levels are estimated based on the anticipated construction equipment inventory, estimated duration of construction, anticipated construction phasing distance, all of which were developed with significant input from construction managers/schedulers at CBRE, and the distance between the construction activities at the Project site and the noise-sensitive land uses (refer to Table 3.11-5).

Construction noise levels at on- and off-site locations were estimated using the FHWA Roadway Construction Noise Model where inputs included distance from construction equipment to receptor, equipment types, and usage factor, which is presented as a percentage of the equipment operating at full power within a given time frame.

As described in Section 3.11.1, *Fundamentals of Sound and Environmental Noise*, noise levels diminish rapidly with distance from the construction site, at a rate of approximately 6 dBA per doubling of distance. This assumption applies only if equipment is generally stationary or confined to specific areas during construction. For example, a noise level of 86 dBA measured at 50 feet from the noise source to the receptor would reduce to 80 dBA at 100 feet from the source to the

receptor, and reduce by another 6 dBA to 74 dBA at 200 feet from the source to the receptor. The construction noise levels at the offsite sensitive uses can be determined with the following equation from FTA's Transit Noise and Vibration Impact Assessment Manual:

$$L_{eq} = L_{eq \text{ at 50 feet}} - 20 \log(D/50)$$

Where: L_{eq} = noise level of noise source (equipment), D = distance from the noise source to the receiver, $L_{eq \text{ at 50 feet}}$ = noise level of source at 50 feet.

Table 3.11-15. Noise Ranges of Typical Construction Equipment

Construction Equipment	Noise Levels in dBA L_{max} at 50 Feet
Front loader	73–86
Trucks	82–95
Cranes (moveable)	75–88
Cranes (derrick)	86–89
Vibrator	68–82
Saws	72–82
Pneumatic impact equipment	83–88
Jackhammers	81–98
Pumps	68–72
Generators	71–83
Compressors	75–87
Concrete mixers	75–88
Concrete pumps	81–85
Back hoe	73–95
Tractor	77–98
Scraper/grader	80–93
Paver	85–88

Note: Machinery equipped with noise control devices or other noise-reducing design features does not generate the same level of noise emissions as that shown in this table.

Source: U.S. Department of Transportation 2013.

Operational Noise Levels

Existing ambient noise levels were measured along the streets in the vicinity of the Project site and along the proposed construction haul routes (refer to Table 3.11-3). Because traffic is the primary component of the noise environment in the vicinity, these measurements are indicative of local roadway noise. Roadway noise associated with the proposed Project was considered in terms of the increases in operational vehicle trips compared to existing conditions. Existing traffic noise was determined based on traffic counts along the roadways in the immediate vicinity of the Project site and subsequent noise modeling. Changes in trip volumes associated with Phase 1 and Phase 2

of the proposed Project were provided by Fehr & Peers in the Transportation Study prepared for the proposed Project (see Appendix K).

With respect to stationary sources of noise, projected noise levels generated from the proposed Project's stationary sources were estimated based on the typical noise levels (dBA) generated from urban noise sources, such as HVAC equipment, delivery trucks, and other common uses (refer to Table 3.11-1). Stationary source noise levels were then estimated for nearby sensitive receptor locations based on the standard point source noise-distance attenuation factor of 6 dBA for each doubling of distance. The distance from the noise-sensitive receptors in the vicinity of the Project site to the noise source (i.e., loudspeaker) from proposed outdoor fitness classes and other community events was measured at the center of the proposed central lawn within the interior portion of the campus.

Ground-borne Vibration Associated with Construction Equipment

Ground-borne vibration levels resulting from construction activities were estimated using FTA-published data (FTA 2018). Potential vibration levels are identified for on- and off-site locations that are sensitive to vibration, including residences and schools. The vibration levels at sensitive uses can be determined with the following equation from the FTA's Transit Noise and Vibration Impact Assessment Manual:

$$L_v(D) = L_v(25 \text{ feet}) - 30\text{Log}(D/25)$$

Where: L_v = vibration level of equipment, D = distance from the equipment to the receiver, $L_v(25 \text{ feet})$ = vibration level of equipment at 25 feet.

This equation was used to assess vibration calculations with inputs for bulldozer vibration levels from the FTA's Transit Noise and Vibration Impact Assessment Manual. According to the FTA, the vibration levels from a bulldozer are 0.089 PPV and 87 VdB at 25 feet. This was attenuated for distance to the nearest sensitive receptors.

As previously described, the FTA considers construction activities within 200 feet to be potentially disruptive to vibration-sensitive uses (FTA 2018). The Morrell House and Queen Anne House at Dominguez Park are located approximately 600 feet north of the Project site (refer to Table 3.11-6; Section 3.4, *Cultural Resources and Tribal Cultural Resources*). As such, these local landmarks would not be affected by ground-borne vibration associated with construction activities (e.g., bulldozers) associated with the proposed Project. Therefore, impacts to historic buildings or structures associated with construction-related vibration are not discussed further in this EIR.

Operation of the proposed Project – including the residential, medical office, community service, administrative, and restaurant uses – would not be anticipated to generate excessive levels of ground-borne vibration. Occasionally, vibration could occur along adjacent roadways as a result of truck travel to and from the Project site for periodic deliveries; however, no substantial sources of ground-borne vibration would be introduced as part of the proposed Project. Therefore, operation of the proposed Project would not expose sensitive receptors on-site or off-site to excessive ground-borne vibration or ground-borne noise levels and operational sources of ground-borne noise are not discussed further in this EIR.

3.11.5 Project Impacts and Mitigation Measures

Impact Description (NOI-1)

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

NOI-1 Construction activities associated with proposed Project – including the Phase 1 preliminary development plan and the more general Phase 2 development program – would result in a temporary, but prolonged increase in noise levels at the following noise-sensitive residential areas: 1) Beryl Street between North Prospect and Flagler Lane; 2) Flagler Lane and Flagler Alley between Beryl Street and North Prospect Avenue; 3) Diamond Street between Flagler Alley and North Prospect Avenue; and, 4) North Prospect Avenue between Diamond Street and Beryl Street. While compliance with the Redondo Beach and Torrance Noise Regulations and implementation of a Construction Noise Management Plan would reduce construction noise, construction noise levels would exceed Federal Transit Administration (FTA) thresholds and this impact would remain *significant and unavoidable* during both Phase 1 and Phase 2 of the proposed Project.

On-site Construction Noise

Development under the Phase 1 preliminary site development plan would require excavation of approximately 20,000 cubic yards (cy) of asphalt and soil for the subterranean service area and loading dock, followed by the construction of the proposed 203,700-square-foot (sf) RCFE Building, and demolition of the existing 158,000-sf Beach Cities Health Center and 3,200-sf maintenance building. Phase 1 construction would occur over approximately 29 months. Development under the Phase 2 development program would require demolition of the existing

above ground parking structure and potentially the Beach Cities Advanced Imaging Building (510 North Prospect Avenue) as well as excavation of approximately 30,250 cy of asphalt and soil for the subterranean levels of the proposed parking structure. Demolition and excavation activities would be followed by the construction of the proposed Wellness Pavilion, Aquatics Center, and CHF, as well as a 292,500-sf parking structure. Phase 2 construction would occur over 28 months.

All phases of construction would involve the use of heavy equipment (e.g., cranes, tractors, loaders, excavators, etc.) that would produce noise. Construction activities would also involve the use of smaller power tools, generators, and other equipment that generate noise. Construction of the subterranean levels would involve the use of typical “*drill and pour*” cast-in-place concrete piles. Haul trucks used to deliver construction materials and to export soil and demolition debris would generate noise along the local roadways to and from the Project site. Each stage of construction would involve a different mix of operating equipment, and noise levels would vary based on the amount and types of equipment in operation and the location of the activity.

Construction activities would produce increased noise levels that would impact surrounding noise-sensitive receptors. Existing on-site noise-sensitive receptors include the Silverado Beach Cities Memory Care Community, Beach Cities Child Development Center, and outpatient medical facilities. Off-site noise sensitive receptors include single-family residential uses to the south, east, and west, multi-family residences to the north. Additionally, Dominguez Park is located adjacent to the northeast of the Project site and Towers Elementary School is located approximately 350 feet to the east (refer to Table 3.11-5 and Figure 3.11-1). Approximate noise levels anticipated to occur at these nearby noise-sensitive land uses during the Phase 1 and Phase 2 construction activities are presented in Table 3.11-16 and Table 3.11-17, respectively. The metric L_{eq} is used to assess noise levels over the period of the construction day and is the average acoustic energy of noise for a given period. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. Additionally, a 30-day average of the metric L_{dn} is presented to assess prolonged construction activities. L_{dn} is a 24-hour average L_{eq} with a 10 dBA “*weighting*” or “*penalty*” during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn} . Some construction activities would overlap resulting in increased noise levels. Noise levels presented represent conservative estimates where construction activities might only overlap for a few weeks. Distances from construction activities to sensitive receptors were measured from the boundary of the Project site and nearest the specific phase development to the closest sensitive receptor.

Table 3.11-16. Phase 1 Estimated Construction Noise Levels at Sensitive Receptors

Construction Activity	West Torrance Residences adjacent to Flagler Alley (80 feet)		West Torrance Residences adjacent to Flagler Lane (80 feet)		Redondo Beach Residences along Beryl Street to the North (110 ft)		Redondo Beach Residences along North Prospect Avenue (260 ft)		Redondo Beach Residences along Diamond Street (290 ft)		Towers Elementary School to the East (350 feet)		On-site Beach Cities Health Center Memory Care/ Child Care Facilities (200 feet)	
	L _{eq}	30-day avg. L _{dn}	L _{eq}	30-day avg. L _{dn}	L _{eq}	30-day avg. L _{dn}	L _{eq}	30-day avg. L _{dn}	L _{eq}	30-day avg. L _{dn}	L _{eq}	30-day avg. L _{dn}	L _{eq}	30-day avg. L _{dn}
Excavation/Shoring	85	77	85	79	82	77	75	71	74	69	72	68	72*	69
Foundations	85	77	85	79	82	77	75	71	74	69	72	68	72*	69
Structural	86	78	86	80	83	78	76	76	75	69	73	68	73*	70
External Finishing	87	79	87	80	84	79	76	76	75	69	74	69	74*	70
Demolition	85	77	85	79	82	77	75	71	74	69	72	68	72*	69
Exceeds L _{eq} Threshold of 80 dBA?	Yes		Yes		Yes		No		No		No		No	
Exceeds 30-day avg. L _{dn} Threshold of 75 dBA?		Yes		Yes		Yes		Yes		No		No		No

Note: Noise levels at off-site sensitive uses were determined with the following equation from the FTA Transit Noise and Vibration Impact Assessment Manual: $L_{eq} = L_{eq} \text{ at } 50 \text{ feet} - 20 \log(D/50)$, where L_{eq} = noise level of noise source, D = distance from the noise source to the receiver, L_{eq} at 50 feet = noise level of source at 50 feet. The highest L_{eq} noise levels during each construction phase are used for a conservative analysis. Noise levels have been rounded up to the nearest whole number.

Assumed Torrance Towers Elementary School has the same daytime/nighttime L_{eq} as Flagler Lane.

Assumed Memory Care and Child Care facilities has the same daytime/nighttime L_{eq} as North Prospect Avenue.

* Includes 5 dB reduction based of line-of-sight obstruction (Beach Cities Health Center located at 514 North Prospect Avenue) between receptor and Phase 1 project footprint # for L_{dn} calculation daytime L_{eq} noise levels taken from ambient levels in Table 3.11-4 and nighttime L_{eq} noise levels were assumed 5 dBA below daytime levels.

30-day average includes 26 working days and 4 non-working days.

Sources: FHWA 2008; FTA 2018; U.S. Environmental Protection Agency (USEPA) 1971.

Table 3.11-17. Phase 2 Estimated Construction Noise Levels at Sensitive Receptors

Construction Activity	West Torrance Residences adjacent to Flagler Alley (80 feet)		West Torrance Residences adjacent to Flagler Lane (80 feet)		Redondo Beach Residences along Beryl Street to the North (110 feet)		Redondo Beach Residences along North Prospect Avenue (260 feet)		Redondo Beach Residences along Diamond Street (290 feet)		Towers Elementary School to the Northeast (560 feet)		On-site RCFE Building Assisted Living and Memory Care Facilities (50 feet)	
	L _{eq}	30-day avg. L _{dn}	L _{eq}	30-day avg. L _{dn}	L _{eq}	30-day avg. L _{dn}	L _{eq}	30-day avg. L _{dn}	L _{eq}	30-day avg. L _{dn}	L _{eq}	30-day avg. L _{dn}	L _{eq}	30-day avg. L _{dn}
Demolition/Excavation	87	79	87	80	79	74*	76	72	75	69	70	66	91	91
Foundations (Building)	87	79	87	80	79	74*	76	72	75	69	70	66	91	84
Structural (Building)	85	77	85	79	77	72*	75	71	74	69	68	64	89	82
External Finishing (Building)	87	79	87	80	79	74*	76	72	75	69	70	66	91	84
Foundations (Parking)	87	79	87	80	79	74*	76	72	75	69	70	66	91	84
Structural (Parking)	87	79	87	80	79	74*	76	72	75	69	70	66	91	84
External Finishing (Parking)	87	79	87	80	79	74*	76	72	75	69	70	66	91	84
Exceeds L _{eq} Threshold of 80 dBA?	Yes		Yes		No		No		No		No		Yes	
Exceeds 30-day avg. L _{dn} Threshold of 75 dBA?		Yes		Yes		No		No		No		No		Yes

Note: Noise levels at off-site sensitive uses were determined with the following equation from the FTA Transit Noise and Vibration Impact Assessment, Manual: $L_{eq} = L_{eq} \text{ at } 50 \text{ feet} - 20 \log(D/50)$, where L_{eq} = noise level of noise source, D = distance from the noise source to the receiver, L_{eq} at 50 feet = noise level of source at 50 feet. The highest L_{eq} noise levels during each construction phase are used for a conservative analysis. Noise levels have been rounded up to the nearest whole number.

Assume Torrance Towers Elementary School has the same daytime/nighttime L_{eq} as Flagler Lane

Assume Memory Care and Child Care facilities has the same daytime/nighttime L_{eq} as Flagler Lane.

* - includes 5 dB reduction based of line of sight obstruction between RCFE and Beryl Street

for L_{dn} calculation daytime L_{eq} noise levels taken from ambient levels in Table 3.11-4 and nighttime L_{eq} noise levels were assumed 5 dBA below daytime levels. 30-day average includes 26 working days and 4 non-working days.

Sources: FHWA 2008; FTA 2018; USEPA 1971.

As described in Section 3.11.1, *Fundamentals of Sound and Environmental Noise*, construction noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6 dBA for every doubling of distance at acoustically hard locations. For example, a noise level of 88 dBA measured at 50 feet from the noise source to the receptor would reduce to 82 dBA at 100 feet from the source to the receptor, and reduce by another 6 dBA to 76 dBA at 200 feet from the source to the receptor.

Consistent with RBMC Section 4-24.503 and TMC Section 6-46.3.1, construction activities would be restricted to the hours of 7:30 a.m. to 6:00 p.m. on weekdays and 9:00 a.m. to 5:00 p.m. on Saturdays. No construction activities would occur on Sundays or public holidays.

Based on the FTA's quantitative construction noise impact criteria, the proposed construction activities during both Phase 1 and Phase 2 would have significant impacts to noise-sensitive receptors for the duration of the construction phases, because the projected L_{eq} would exceed the *Residential* criteria (8-hour L_{eq} of 80 dBA and 30-day average L_{dn} of 75 dBA) (refer to Tables 3.11-16 and 3.11-17).

To reduce impacts from construction noise, MM NOI-1 would require the implementation of noise attenuation measures including the use of noise barriers (e.g., sound walls). Noise levels could be reduced by 3 to 15 dBA depending on the type, height, and length of the noise barrier (FTA 2018). Standard noise barriers blocking the line of sight between the noise source and receptor could result in reduction of 6 to 10 dBA if the barrier is placed either close to the source or close to the receptor (FTA 2018). Noise barriers placed at a distance from the source or receptor might only reduce noise levels by 3 dBA even if the line of sight is blocked (FTA 2018). The effectiveness of barriers can be increased by as much as 5 dBA by applying sound-absorbing material to the inner surface of the barrier (FTA 2018).

The proposed RCFE Building constructed during Phase 1 would be 6 stories tall with a finished roof height of 82 feet from the ground surface and rooftop projections (e.g., enclosed cooling towers) that would extend an additional 21 feet to a total height of 103 feet from the existing campus ground surface. Additionally, the proposed parking structure constructed during Phase 2 would rise to a similar height. Table 3.11-18 depicts the various noise barrier height requirements to block the line of sight between construction on specific floors and the nearest sensitive receptors located in Redondo Beach (North Prospect Avenue and Diamond Street) and West Torrance (Flagler Alley).

Table 3.11-18. Noise Barrier Height Requirements to Block the Line of Sight and Reduce Noise Levels in West Torrance

Floor	Max Height of Construction Floor Level (feet)	Barrier at the Edge of BCHD Development Footprint (feet)*	Barrier at the BCHD Property Line (feet)*	Barrier at the West Torrance Property Line (feet)*
1 st	18	20	15	20
2 nd	31	35	25	20
3 rd	44	45	35	20
4 th	57	60	40	20
5 th	70	75	50	20
6 th	82	85	60	20
Rooftop Projections	103	105	70	20

Notes: *approximate

Assumptions:

- 1) BCHD campus is located approximately 30 feet above the grade of the adjacent West Torrance neighborhood.
- 2) The 1st story of residential development within West Torrance is blocked by a concrete wall, which would provide noise attenuation. However, the 2nd story windows – located at a height of approximately 15 feet – would be directly impacted to construction noise.
- 3) The distance of construction activities is approximately 80-feet from the nearest West Torrance residence
- 4) Noise barrier heights are assumed in 5-foot increments.

The feasibility of noise barrier construction is limited based on engineering variables (e.g., wind load, etc.) and property ownership. Noise barriers are most commonly developed to a height of between 10 and 30 feet. While there have been noise barriers developed to a height of 143 feet to enclose drilling rigs, the base of these enclosures is less than 180 feet by 180 feet and then narrows as height increases (Nederlandse Aardolie Maatschappij 2007). This height is achieved by constructing all four-sides to share equal structural load and withstand winds, up to 78 miles per hour (mph) (Nederlandse Aardolie Maatschappij 2007). For Phase 1 and Phase 2 construction, the necessary noise barrier heights (i.e., up to 105 feet) at the edge of the BCHD development footprint are too great to allow only one- to three-sided barriers and the total building footprint is too large to construct a fully enclosed four-sided noise barrier. Further, the construction of the foundation and framing structure required to support a fully enclosed four-sided noise barrier would result in significant and unavoidable noise impacts to adjacent residential areas in Redondo Beach and West Torrance.

A shorter noise barrier could be constructed at the edge of the sensitive receptors in West Torrance (and similarly in Redondo Beach). However, any such off-site construction of a noise barrier would require approval from the City of Torrance and/or the City of Redondo Beach, which cannot be assured. Additionally, while the construction of a 30-foot-tall noise barrier may be feasible along Flagler Lane and Flagler Alley, a 30-foot noise barrier along Beryl Street and North Prospect Avenue fronting residences may not be feasible.

In an effort to reduce construction noise levels, a 30-foot noise barrier would be erected on BCHD property and encompass the development footprint associated with Phase 1 and Phase 2 of construction. With implementation of a 30-foot noise barrier, sensitive receptors would not be directly impacted by construction noise until development reached a height that exceeded the noise barrier (Table 3.11-19 and Table 3.11-20).

Table 3.11-19. Construction Noise Levels at Sensitive Receptors with a 30-foot Noise Barrier during Phase 1

Receptor	Max Height of Construction Floor for Barrier Reduction	Additional Floors with No Noise Level Reduction	Maximum Construction Daytime L_{eq} without Barrier	Maximum Barrier Reduction Daytime L_{eq}	Minimum Barrier Reduction Daytime L_{eq}
West Torrance/ Flagler Lane	2 nd Floor (31 feet)	5	87	72	75
West Torrance Flagler Alley	3 rd Floor (44 feet)	4	87	72	82
Redondo Beach/ Beryl Street	4 th Floor (57 feet)	3	84	69	77
Redondo Beach/ Diamond Street	3 rd Floor (44 feet)	4	75	60	60
Redondo Beach/ North Prospect Avenue	2 nd Floor (31 feet)	5	76	61	61
Memory Care/ Child Care	2 nd Floor (31 feet)	5	74*	59*	59*
Torrance Towers Elementary School	2 nd Floor (31 feet)	5	74	59	59

Notes: Notes: L_{eq} presented are the maximum over the course of the entire phase of construction.

* includes 5 dBA reduction based on line of sight obstruction (Beach Cities Health Center located at 514 North Prospect Avenue) between receptor and Phase 1 project footprint

Assumptions:

- 1) BCHD campus is located approximately 30 feet above the grade of homes along Flagler Alley and Diamond St.
- 2) Proposed development across from Beryl St occurs at grade and 30-feet above grade, assume noise-barrier at grade along property line at Beryl St. and barrier at development footprint 30-feet above grade.
- 3) Noise source height is 15-feet for second story windows/balconies.
- 4) The distance of construction activities is approximately 80-feet from the nearest West Torrance residence
- 5) Shielding effect from existing hospital between RCFE development and Memory Care/Child Care

Table 3.11-20. Construction Noise Levels at Sensitive Receptors with a 30-foot Noise Barrier during Phase 2

Receptor	Max. Height of Construction Floor for Barrier Reduction	Additional Floors with No Noise Level Reduction	Construction Daytime L_{eq} without Barrier	Max. Barrier Reduction Daytime L_{eq}	Min. Barrier Reduction Daytime L_{eq}
West Torrance/Flagler Lane	2 nd Floor (31 feet)	5	87	62	62
West Torrance Flagler Alley	3 rd Floor (44 feet)	4	87	62	82
Redondo Beach/Beryl Street	4 th Floor (57 feet)	3	79*	64*	64*
Redondo Beach/Diamond Street	3 rd Floor (44 feet)	4	76	61	63
Redondo Beach/North Prospect Avenue	2 nd Floor (31 feet)	5	75	60	63
RCFE Building/Assisted Living Memory Care	2 nd Floor (31 feet)	4	91	76	76
Torrance Towers Elementary School	2 nd Floor (31 feet)	5	70	55	55

Notes: L_{eq} presented are the maximum over the course of the entire phase of construction.

* Includes 5 dBA reduction based on line of sight obstruction between RCFE and Beryl Street

Assumptions:

- 1) BCHD campus is located approximately 30 feet above the grade of homes along Flagler Alley and Diamond Street.
- 2) Proposed development across from Beryl St occurs at grade and 30-feet above grade, assume noise-barrier at grade along property line at Beryl Street and barrier at development footprint 30-feet above grade.
- 3) Noise source height is 15-feet for second story windows/balconies.
- 4) The distance of construction activities is approximately 80-feet from the nearest West Torrance residence.
- 5) Shielding effect from RCFE to Beryl Street.

Compliance with existing local noise regulations along with the implementation of MM NOI-1 would reduce potential noise impacts; however, *significant and unavoidable* noise impacts would occur through implementation of proposed construction.

Off-site Construction Noise

In addition to construction-related noise generated at the Project site, off-site construction-related noise would be generated by construction-related vehicle trips (i.e., haul trucks, concrete trucks, and construction worker commutes). Project construction would generate additional construction worker commute trips associated with an average of 210 employees per day during Phase 1 (29 months) and 130 employees per day during Phase 2 (28 months). Haul trucks would be used during the site clearing and demolition phases as well as during excavation of the subterranean levels of the proposed RCFE Building during Phase 1 and parking structure during Phase 2. This haul truck

activity would be a source of off-site noise for surrounding sensitive receptors including residences and public open space (e.g., Dominguez Park). The proposed Project would result in up to 78 heavy truck trips per day over a 30-week period in Phase 1 and up to 30 heavy truck trips per day over a 35-week period in Phase 2.

Construction trucks would access the Project site via Interstate (I-) 405 traveling on 190th Street or Hawthorne Avenue to 190th Street and reach the site using Del Amo Street to North Prospect Avenue (refer to Figure 2-13). Trucks would pass by a mix of residential and commercial uses along these routes, including single- and multi-family homes, retail stores, offices, and other uses typically present in urban areas. Roadways along the inbound and outbound haul routes carry substantial volumes of traffic. For example, 190th Street between Rindge Lane and Inglewood Avenue is a four-lane road that carries approximately 40,280 average daily trips (ADT) (City of Redondo Beach 2008a).

Table 3.11-21. Estimated Peak Period Construction Traffic Noise Levels at Sensitive Receptors

Receiver	L _{eq}		
	2020 Noise Levels	2020 Noise plus Phase 1 Construction	2020 Noise plus Phase 2 Construction
North Prospect Avenue	69.5	70.5	70.1
Diamond Street (S)	61.4	62.0	61.7
Diamond Street (N)	57.5	58.0	57.8
Towers Street	60.1	60.4	60.3
Mildred Avenue	55.4	55.9	55.7
Beryl Street (S)	66.2	67.1	67.0
Beryl Street (N)	65.5	66.4	66.0
Del Amo Boulevard	69.9	70.3	70.1
W. 190 th Street (W)	69.0	69.2	69.1
W. 190 th Street (E)	70.8	70.8	70.8

Notes: 2020 L_{eq} noise levels differ slightly from monitored noise levels included in Table 3.11-3, as these are based on traffic counts used in the Transportation Study (see Appendix K).

Modeled Fleet Mix: 97 percent Auto / 2 percent Medium Truck / 1 percent Heavy Truck. For reference this fleet mix is similar to the assumption in the Draft EIR prepared for the Kensington Assisted Living Facility (SCH No. 203121065).

Source: See Appendix I.

Haul trucks typically generate traffic noise levels of 85 dBA L_{max} at 50 feet (FHWA 2008). Temporary construction-related trips would increase daytime noise by less than 1 dBA on the majority of the streets analyzed (refer to Table 3.11-21). The greatest increase in noise levels from construction-related trips would be an increase of 1 dBA on North Prospect Avenue to 70.8 dBA L_{eq} during Phase 1 construction. Other roadways along the haul route would experience a similar

increase in noise levels. Noise contributions from these haul truck trips would be imperceptible (i.e., less than 3 dBA). In addition, the Construction Traffic and Access Management Plan under MM T-2, would require that construction haul trucks avoid residential neighborhoods to the maximum extent feasible, which would reduce roadway noise levels during construction. Therefore, noise impacts from construction-related vehicle trips would be *less than significant*.

Mitigation Measures (MM)

To further reduce the noise levels resulting from construction of the proposed Project for off-site residential uses, the following mitigation measure would be implemented:

MM NOI-1 Construction Noise Management Plan. *BCHD shall prepare a Construction Noise Management Plan for approval by the Redondo Beach and Torrance Building & Safety Divisions, in accordance with TMC Section 46.3.1. The Construction Noise Management Plan would address noise and vibration impacts and identify measures that would be used to reduce impacts. At a minimum measures would include:*

- *Construction activities shall be restricted to the hours between 7:30 a.m. and 6:00 p.m., Monday through Friday, or the hours between 9:00 a.m. and 5:00 p.m. on Saturday to the maximum extent feasible, in accordance with RBMC Sections 4-24.503 and 9-1.12 and TMC Section 6-46.3.1.*
- *BCHD and its contractors and subcontractors shall coordinate approvals with the City of Redondo Beach and the City of Torrance and construct noise barriers to reduce noise levels to on- and off-site sensitive receptors, where feasible:*
 - *During Phase 1, noise barriers containing sound-absorbing materials would be constructed to a height that blocks the line-of-sight to sensitive receptors to the maximum extent feasible taking into account environmental constraints (e.g., wind loading, property ownership, etc.).*
 - *During Phase 2, noise barriers containing sound-absorbing materials would be constructed to a height that blocks the line-of-sight to sensitive receptors to the maximum extent feasible taking into account environmental constraints (e.g., wind loading, property ownership, etc.).*

- *BCHD's construction contracts shall require implementation of the following construction best management practices (BMPs) by all construction contractors and subcontractors working in or around the Project site to reduce construction noise levels:*
 - *BCHD and its contractors and subcontractors shall ensure that construction equipment is properly muffled according to manufactures specifications or as required by the Redondo Beach and City of Torrance Building & Safety Division, whichever is the more stringent.*
 - *BCHD and its contractors and subcontractors shall use electrically powered tools and facilities to the maximum extent feasible. Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers or caretaker facilities.*
 - *BCHD and its contractors and subcontractors shall place noise-generating construction equipment and locate construction staging areas away from on-site and off-site sensitive uses (e.g., centrally on the existing campus), where feasible, to the satisfaction of the Redondo Beach and Torrance Building & Safety Divisions.*
- *BCHD's construction contracts shall include the requirement that construction staging areas, construction worker parking and the operation of earthmoving equipment within the Project site, are located as far away from noise-sensitive sites as feasible. Contract provisions incorporating the above requirements shall be included as part of the construction documents, which shall be reviewed and approved by the City of Redondo Beach and Torrance Building & Safety Divisions prior to issuance of demolition or grading permits.*
- *BCHD's construction contracts shall include the requirement that haul trucks remain on the designated haul routes identified in the Redondo Beach and Torrance General Plans. Further, haul trucks should attempt to operate in traffic lanes that are located at the greatest distance from sensitive receptors, typically the lane nearest the roadway centerline on a four-lane roadway. Contract specifications shall be included in the proposed Project's construction documents, which shall be reviewed by the Redondo Beach and Torrance Building & Safety Divisions prior to issuance of demolition or grading permits.*

At least 1 month prior to the initiation of construction-related activities during Phase 1 and Phase 2, BCHD shall prepare and distribute notices to residents and businesses located within a 0.25-mile radius of the Project site. At a minimum, the notices shall describe the overall construction schedule, advise residents, business owners, and employees of increased construction-related noise.

During construction, BCHD shall monitor noise and vibration resulting from construction activities to ensure that all noise attenuation measures are implemented as described in the Plan. Further, BCHD shall provide a non-automated telephone number for residents and employees to call to submit complaints associated with construction noise. BCHD shall keep a log of complaints and shall address complaints as feasible to minimize noise issues for neighbors. The Redondo Beach and Torrance Building & Safety Divisions shall require modification to the conditions of the Construction Noise Plan, if necessary, to address non-performance issues.

Residual Impacts

Compliance with the Redondo Beach and Torrance Noise Regulations (RBMC Sections 4-24.503 and 9-1.12 and TMC Section 6-46.3.1, respectively) in conjunction with implementation of MM NOI-1 would reduce construction noise impacts; however, feasible noise barrier heights and locations would not reduce noise levels below the FTA's residential criterion (8-hour L_{eq} of 80 dBA or 30-day average L_{dn} of 75 dBA). Therefore, noise impacts resulting from construction of the proposed Project would be *significant and unavoidable*. See Section 5.0, *Alternatives* for discussion of alternatives to the proposed Project that would substantially reduce this impact.

Impact Description (NOI-2)

- b) The project would generate excessive ground-borne vibration or ground-borne noise levels.*

NOI-2 Ground-borne vibration levels generated during construction of the proposed Project – including the Phase 1 preliminary site development plan as well as the more general Phase 2 development program – would be below Federal Transit Administration (FTA) thresholds for on-site construction activities but would exceed FTA thresholds for off-site haul truck operations. Nevertheless, impacts to sensitive receptors associated with construction vibration would be less than significant.

During construction, ground-borne vibration would be generated from the use of heavy construction equipment at the Project site, which could potentially expose existing sensitive land uses in the vicinity to excessive vibration. The duration and amplitude of vibration generated by construction equipment varies widely depending on the type of equipment and the purpose for which it is being used. The vibration levels of bulldozer operations (PPV of 0.089 and VdB of 87 at 25 feet) during site preparation would result in the greatest ground-borne vibration for development of Phase 1. Bulldozer operations would occur at no less than 80 feet to the nearest noise-sensitive use (i.e., single-family residences) within Torrance, and would result in a PPV of 0.016 and VdB of 72. Both PPV and VdB vibration levels would be below FTA impact criteria.

During Phase 2 site preparation, the greatest ground-borne vibration at the Project site would result from bulldozer operations within 120 feet of the nearest noise-sensitive (i.e., single-family residences) in Redondo Beach. Phase 2 bulldozer operations would result in a PPV of 0.008 and VdB of 67 at the nearest noise-sensitive use in Redondo Beach. Both PPV and VdB vibration levels would be below FTA threshold criteria of 0.12 PPV to buildings susceptible to vibration damage and 72 VdB for frequent events to residences or buildings where people normally sleep.

Under both Phase 1 and Phase 2, haul trucks would be used for delivery of materials and removal of soil and debris. Operation of loaded trucks results in PPV of 0.076 and VdB of 86 at a distance of 25-feet. Haul routes along Del Amo Boulevard, North Prospect Avenue, Beryl Street, and 190th Street have residences adjacent to traffic lanes.

Table 3.11-22. Vibration Levels from Loaded Haul Trucks at Sensitive Receptors

	Beryl Street	Del Amo Boulevard	North Prospect Avenue	190 th Street
<i>VdB (Category 2)</i>				
Lane 1	84	84	78	84
Exceeds 80 VdB?	Yes	Yes	No	Yes
Lane 2	N/A	93	N/A	93
Exceeds 80 VdB?	N/A	Yes	N/A	Yes
<i>PPV (Building Category III)</i>				
Lane 1	0.058	0.164	0.068	0.164
Exceeds 0.2 PPV?	No	No	No	No
Lane 2	N/A	0.058	N/A	0.058
Exceeds 0.2 PPV?	N/A	No	N/A	No

Notes: Lane 1 is furthest from the residence and Lane 2 is closest.

Del Amo Boulevard and 190th Street: Lane 1 at 30 feet and Lane 2 at 15 feet

Beryl Street: Lane 1 at 30 feet

North Prospect Avenue: Lane 1 at 45 feet

Source: FTA 2018.

Vibration levels used for determining structural damage (PPV) would not be exceeded by the operation of loaded haul trucks associated with Phase 1 or Phase 2 of development. However, vibration levels used for determining annoyance would be exceeded with loaded haul trucks operating in either Lane 1 or Lane 2 along the haul truck route with the exception of along North Prospect Avenue. Loaded trucks typically operate along 190th Street, Beryl Street, and Del Amo Boulevard given the commercial and institutional land use in the area, thus residences are currently subject to infrequent vibration levels exceeding FTA annoyance criteria for Category 3. According to the FTA, the proposed Project would have no impact, even if the existing vibration exceeds the standard vibration criteria, so long as the number of events does not increase significantly (i.e., approximate doubling of events), and the project vibration does not exceed the existing vibration by 3 dBA or more (FTA 2018). Haul truck operations associated with Phase 1 and Phase 2 would not result in the doubling of events, would be temporary in nature, and would not exceed the existing vibration by 3 dB or more. Therefore, vibration levels from construction equipment and haul trips associated with BCHD development would not exceed criteria established by the FTA and impacts would be *less than significant*. Recommended mitigation measure MM NOI-2 would be implemented to further reduce noise levels from heavy haul truck trips during construction associated with the proposed Project.

Recommended Mitigation Measures (MM)

To further reduce the noise levels resulting from construction of the proposed Project for off-site residential uses, the following recommended mitigation measure would be implemented:

MM NOI-2 *Haul and Delivery Truck Operations.* Where feasible, haul and delivery truck operations associated with Phase 1 and Phase 2 development would enter and exit the Project site utilizing Lane 1 (the lane farthest from residences) along the given haul route.

Impact Description (NOI-3)

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

NOI-3 **Operational noise associated with the proposed Project – particularly noise associated with outdoor events (e.g., movie nights, farmers’ markets, fitness classes, etc.) – would result in potentially significant noise impacts. However, operational noise impacts would be *less than significant with mitigation*.**

Long-term operations of the proposed Project would include noise from HVAC equipment, delivery trucks, and parking operations. In addition, on-site outdoor activities associated with the proposed BCHD Healthy Living Campus – including outdoor fitness classes, outdoor movie nights, farmers’ markets, etc. – would result in additional periodic noise.

HVAC Equipment

Large HVAC systems like those associated with the proposed Project can result in noise levels up to 100 dBA at a distance of 3 feet (U.S. Environmental Protection Agency [USEPA] 1971). However, these units are typically fitted with noise shielding cabinets or are placed on the roof or in mechanical equipment rooms to reduce noise levels. Typically, the shielding and location of these units reduces noise levels to no greater than 55 dBA L_{eq} at 50 feet from the source (County of Santa Barbara 2016). The HVAC systems for the proposed Project would be located on the roofs of the buildings and would be enclosed to reduce associated noise. Additionally, noise from mechanical equipment associated with operation of the proposed Project would be required to comply with the California Building Code (CBC) requirements pertaining to noise attenuation, resulting in a noise level reduction of approximately 20 dBA (refer to Section 3.11.3, *Regulatory Setting*). Therefore, noise associated with the proposed Project’s HVAC systems or mechanical equipment noise would not exceed maximum exterior noise limits for Redondo Beach or Torrance and impacts would be *less than significant*.

Delivery and Service Trucks

Operation of the proposed Project would involve daily delivery of goods and trash hauling services to support residential, medical office, administrative, and restaurant uses associated with the proposed Project. The service area and loading dock would be located within the subterranean levels below the RCFE Building, accessible from the proposed dedicated entry/exit along Flagler Lane. Given the relatively narrow two-lane roadway along Flagler Lane, deliveries would be made by a mix of small, medium, and large two-axle trucks. While a specific frequency of deliveries is unknown at this time, given the size of the proposed Project, deliveries of various kinds could be expected on a daily basis, with larger trucks arriving to and departing from the Project site several times per week. Trash hauling would occur over an average of 3 days per week with a medium-sized trash truck, although frequency could increase in summer and immediately following community events on the central lawn or private events at the proposed Aquatics Center.

Noise generated by delivery, trash hauling, and other service trucks would mainly consist of short-term temporary increases in peak sound levels from diesel engines, backup beepers as required by California Division of Occupational Safety and Health (Cal OSHA), braking, and the sound of

truck bays being opened and closed along with loading and unloading activities. Backup beepers are required by Cal OSHA to be at least 5 dBA above ambient noise levels. The maximum sound level from delivery trucks (assuming heavy-duty trucks) would be approximately 87 dBA L_{eq} at 50 feet and would therefore reach up to 82.9 dBA L_{eq} at a distance of 80 feet (i.e., at the nearest sensitive receptor). The proposed service area and loading dock would be below ground, which would reduce noise levels at nearby sensitive receptors by a total of up to 30 dBA or more (City of Hermosa Beach 2018). Pursuant to RBMC Section 4-24.509 (Refuse Collection Vehicles) trash pickup and delivery operations would occur between the hours of 7:00 a.m. and 7:00 p.m. This noise would be temporary in nature, typically lasting no more than 5 minutes. Trash pickup and compacting operations typically take approximately 3 minutes, with the higher noise levels occurring during about half of the operation. Implementation of MM NOI-3a would ensure deliveries and trash pick-ups would occur during the daytime operating hours (i.e., 7:00 a.m. to 4:00 p.m.) and would prohibit idling longer than 5 minutes.

These types of truck noises associated with the proposed BCHD Healthy Living Campus would be similar to existing activities occurring both on-site and in the vicinity. Existing businesses located within the Redondo Village Shopping Center already receive deliveries and trash pick-up via Beryl Street with similar noise levels. Additionally, garbage collection for existing residences within Torrance generates similar noise levels. Further, given the short-term temporary nature and subterranean location of these types of activities, they would not measurably increase the existing ambient noise levels along Flagler Lane (i.e., 72.7 dBA L_{max} as shown in Table 3.11-3). Therefore, the proposed Project would not exceed 5 dBA above the ambient noise levels along Flagler Lane and impacts would be *less than significant with mitigation*.

Emergency Vehicle Noises

Phase 1 of the proposed Project would incrementally increase the total number of individuals requiring ambulance services through the overall addition of 177 new Assisted Living bed spaces to the existing 120 Memory Care bed spaces, bringing the total permanent residents supported at the site to 297. Based on an assumed average of 0.82 annual calls per bed space per year to the existing campus (see Section 3.13, *Public Services*), following the completion of the proposed development under the Phase 1 preliminary site development plan, it is anticipated that the BCHD campus would generate an estimated 244 ambulance calls per year.

While estimated emergency calls would increase by 149 percent, all responses would be sporadic and not all would require use of sirens, as a majority of these calls are related to medical situations that do not always require an emergency response. When sirens are necessary for an emergency response, they typically emit noise at a magnitude of approximately 100 dBA at 100 feet. A

decrease of about 3 dBA occurs with every doubling of distance from a mobile noise source; therefore, during a response requiring sirens, residences along North Prospect Avenue and Beryl Street experience peak short-duration exterior noise levels between 91 and 100 dBA. Because emergency vehicle response is rapid by nature, the duration of exposure to these peak noise levels is estimated to last for a maximum of 10 seconds, depending on traffic. Thus, given the infrequent and short duration of siren utilization responding to emergency situations, noise impacts from emergency vehicles would be both negligible and *less than significant*.

Parking Operations

Surface parking lots can be a source of annoyance to neighboring uses due to sporadic noises from vehicles arriving and departing, tire squeals, car alarms, opening and closing of car doors, and people's voices. Parking lots with 1,000 cars during peak activity hours have a reference hourly L_{eq} of approximately 56 dBA at 50 feet (FTA 2018). As such, the proposed surface parking lot developed during Phase 1 of the proposed Project, which would include 86 parking spaces, would likely generate noise levels below 56 dBA at 50 feet. Noise levels would be further attenuated at the nearest noise-sensitive receptors located along North Prospect Avenue approximately 110 feet from the boundary of the Project site boundary.

Similar to surface parking lots, noise generating activities associated with parking structures also result in sporadic noises from vehicles arriving and departing, tire squeals, car alarms, opening and closing of car doors, and people's voices. For reference, Illingworth & Rodkin, Inc. conducted noise measurements near a four-story parking structure in Downtown Petaluma. Noise measurements were made of typical noise-generating activities occurring on the various parking levels. At each parking level, a car door was opened and closed several times, the engine was started, and the vehicle's horn was sounded. The noise sources were generated at the edge of each story and at a parking stall located about 50 feet from the edge. Noise measurements were also made as a vehicle traveled up and down the parking structure. The loudest noise was generated by a vehicle's horn. Maximum instantaneous noise levels, measured approximately 75 feet from the façade of the structure at ground level, typically ranged from 53 to 58 dBA L_{max} . Typical noise levels of a car horn ranged from 62 to 70 dBA L_{max} . However, Beryl Street and North Prospect Avenue have daytime noise levels of 63 and 65 L_{dn} , respectively, related to existing vehicle traffic. Due to the relatively high level of traffic noise along streets in the vicinity of the Project site, normal daytime parking garage L_{eq} noise of 56 dBA would likely be imperceptible. Therefore, noise impacts relating to parking operations would result in *less than significant* operational noise impacts.

Roadway Noise

The proposed Project would result in a net decrease in daily and peak period vehicle trips to and from the Project site following buildout of Phase 1. Phase 2 would result in a minor increase in daily trips that would incrementally increase traffic in the area; however, peak period trips would be reduced compared to existing conditions (see Section 3.14, *Transportation*). Peak period trips represent the greatest number of vehicle operations within a 24-hour period and where vehicle operations are the dominant noise source, the greatest daily L_{eq} . According to the Transportation Study, the proposed Project is expected to generate up to 271 trips during the AM peak period as compared to 307 trips during the AM peak period under existing conditions (see Appendix K). Therefore, the Project would not contribute to L_{eq} traffic noise, and traffic noise levels would incrementally decrease along two roadways (i.e., Diamond Street and Del Amo Boulevard) under Project implementation (see Table 3.11-23).

Future Year (2032) noise levels along the roadways in the vicinity of the Project site are based on traffic projections from the Transportation Study (see Appendix K). Future plus Project noise levels on these roadways are estimated based on the traffic projections included in the Transportation Study. Future roadway noise levels with and without the Project are compared to 2020 noise levels in Table 3.11-23.

Table 3.11-23. Estimated Peak Period Traffic Noise Levels at Sensitive Receptors

Receiver	L_{eq}		
	Existing Year (2020)	Future Year (2032) Without Project	Future Year (2032) With Project
North Prospect Avenue	69.5	69.7	69.7
Diamond Street (S)	61.4	61.5	61.5
Diamond Street (N)	57.5	57.7	57.6
Towers Street	60.1	60.2	60.2
Mildred Avenue	55.4	55.6	55.6
Beryl Street (S)	66.2	66.4	66.4
Beryl Street (N)	65.5	65.7	65.7
Del Amo Boulevard	69.9	70.1	70.0
W. 190 th Street (W)	69.0	69.2	69.2
W. 190 th Street (E)	70.8	71.0	71.0

Notes: 2020 L_{eq} noise levels are based on traffic counts used in the Transportation Study (see Appendix K).

2032 L_{eq} noise levels are based on projected traffic levels in the Transportation Study.

Modeled Fleet Mix: 97 percent Auto / 2 percent Medium Truck / 1 percent Heavy Truck. For reference this fleet mix is similar to the assumption in the Draft EIR prepared for the Kensington Assisted Living Facility (SCH No. 203121065).

Source: See Appendix I.

Passenger drop-off and pick-up to and from the RCFE Building would occur via Flagler Lane. Noise monitoring along Flagler Lane measured an L_{eq} of 59.3 during AM peak period (refer Table 3.11-3). An hourly L_{eq} of 52.3 dBA at 30 feet would result from 125 passenger vehicles traveling 25 mph along Flagler Lane (FHWA 2004). Should 125 vehicles drop off or pick-up passengers from the RCFE during the AM peak period, the resulting L_{eq} at residences East of Flagler lane would be 60.1 dBA. Noise levels associated with passenger drop-off and pick-up via Flagler Lane were calculated to increase by 0.8 dBA, thus noise impacts would be imperceptible (i.e., less than 3 dBA) and *less than significant*.

Outdoor Function Areas

The outdoor dining spaces at the proposed RCFE Building constructed under the Phase 1 preliminary site development plan, including the dining terrace on the south side of the building, the porch on the south side of the building, and the larger dining terrace above the PACE services on the north side of the building, would operate during the daytime hours and are expected to close by 10:00 p.m. The indoor and outdoor pools associated with the Aquatics Center would be located within the interior of the site, approximately 150 feet west of the nearest noise-sensitive residences along Flagler Alley (refer to Figure 2-11 through Figure 2-13). An L_{eq} of 60 dBA associated with 100 people outdoor pool activities would result in a noise level of 50 L_{eq} at the nearest sensitive receptor, below the criteria of 55 L_{eq} from 7:00 a.m. to 10:00 p.m. established in TMC Section 6-46.7.2

It is anticipated that the majority of outdoor noise would be primarily generated during fitness classes and events (e.g., outdoor movie nights, farmer's markets, etc.) on the central lawn (refer to Figure 2-9). Noise associated with these areas is anticipated to include guests socializing, amplified music, and Public Address (PA) system announcements. Noise levels generated by fitness classes and events that would include amplified music and involve up to 200 people on the central lawn, may contribute to an increase in ambient noise levels in the vicinity of the Project site above existing levels. Noise levels generated by outdoor events that include live amplified music (e.g., three piece band with electric or amplified instruments), may generate maximum noise levels of over 100 dBA at 50 feet (Caltrans 1998). Acoustic accompaniments can generate maximum noise levels of 80 dBA at 1 foot and 46 dBA at 50 feet. However, maximum noise levels over 100 dBA at 50 feet would typically be associated with live amplified music from large concerts, such as rock concerts. An average loudspeaker comes with a sensitivity of approximately 88 dBA (Definitive Technology 2021). Therefore, amplified loudspeaker music associated with outdoor fitness classes on the central lawn is conservatively assumed to generate a maximum loudspeaker L_{max} of 90 dBA at 45 feet. Without any amplified music, 200 people each talking at 60 dBA would

result in noise level of 83 dBA L_{eq} at 5 feet and 63 dBA L_{eq} at 50 feet (Wood 2021). A majority of these events, such as the fitness classes and farmers' markets, would occur during the daytime hours; however, some community events (e.g., outdoor movie nights) would occur during evening hours until 10:00 p.m.

The central lawn would be oriented such that amplified sound would be directed towards the southwest, away from the nearby noise-sensitive receptors east of Flagler Lane and Flagler Alley. Residences east of Flagler Lane and Flagler Alley would be located approximately 450 feet away from the noise source (i.e., loudspeaker) during outdoor events (as measured from the center of the proposed lawn within the interior portion of the campus), which would result in a 20-dBA reduction based on attenuating distance. Based on a maximum loudspeaker L_{max} of 90 dBA at 45 feet, the maximum noise level at receptors along Flagler Lane and Flagler Alley would be an L_{max} of approximately 70 dBA (County of Santa Barbara 2016).

Noise from amplified music at the central lawn would not adversely affect ambient noise levels at the residences southwest of North Prospect Avenue, given the distance (approximately 400 feet from the center of the proposed lawn) and intervening structures between the noise source and residences along North Prospect Avenue. The attenuating distance of 400 feet from the residences along North Prospect Avenue would result in an 18-dB reduction and intervening buildings would result in a 5-dBA reduction, for a combined reduction of 23 dBA from the L_{max} of 90 dBA at 45 feet. Therefore, an L_{max} of 67 dBA would be expected at residences along North Prospect Avenue. The projected maximum noise levels at residences along Flagler Lane and Flagler Alley (70 dBA) and North Prospect Avenue (67 dBA) would be equivalent to normal to elevated speech at a distance of 3 feet.

Elevated noise levels from outdoor events would vary throughout the year. During summer months, events held on the central lawn would be anticipated to occur more frequently, potentially with events or larger gatherings occurring almost every weekend. During winter months, it is anticipated that fitness classes and outdoor events would be less frequent due to the weather and instead would be hosted in the Wellness Center, Aquatics Center, or CHF. Implementation of MM NOI-3b would ensure noise levels from outdoor dining spaces, fitness classes, and community events do not occur after 10:00 p.m. consistent with RBMC Section 4-24.401 and TMC Section 6-46.7.2.

Disturbance from noise levels causing impacts to surrounding sensitive receptors from outdoor fitness classes and community events would be infrequent; however, given the potential for maximum noise levels of over 100 dBA at 50 feet (which would be attenuated to 80 dBA at the nearest sensitive receptor approximately 450 feet away) associated with live amplified music,

operational noise impacts to nearby sensitive receptors are considered *potentially significant*. However, compliance with RBMC Section 4-24.401 and TMC Section 6-46.7.2, as well as the implementation of MM NOI-3b, which would require preparation of an Event Management Plan, would reduce noise impacts related to outdoor events to *less than significant with mitigation*. Additionally, MM NOI-3c would require the proposed Aquatics Center to close operations by 10:00 p.m. to comply with RBMC and TMC lower nighttime noise level criteria, which would further reduce operational noise impacts.

Mitigation Measures (MM)

To further reduce the noise levels resulting from operation of the proposed Project, the following mitigation measures would be implemented:

MM NOI-3a Delivery Truck Hours and Idling. Deliveries from heavy-duty trucks, including refrigerator trucks, trash and recycling pick-ups, and parking lot sweeping, shall be restricted to daytime operating hours (7:00 a.m. to 4:00 p.m.); idling longer than 5 minutes in the same period shall be prohibited.

MM NOI-3b Events Management Plan. BCHD shall prepare an Event Management Plan, which shall include, but is not limited to, establishment of procedures to limit noise generated by operations on the proposed BCHD Healthy Living Campus, particularly for outdoor events. The Plan shall also detail the hours of outdoor classes/events, maximum class/event capacities, and allowable noise levels consistent with the RBMC and TMC. Limitations on outdoor events shall include prohibiting the use of amplification systems for outdoor events after 10:00 p.m. to comply with RBMC and TMC lower nighttime noise level criteria and review of the proposed sound system by a qualified acoustical engineer to ensure that event set ups would meet the acceptable exterior noise criteria of 50 to 55 dBA consistent with RBMC Section 4-24.301 and TMC Section 6-46.7.2.

MM NOI-3c Outdoor Pool Activities. The Aquatics Center, specifically the outdoor pool and deck area would close operations by 10:00 p.m. to comply with RBMC and TMC lower nighttime noise level criteria.

Residual Impacts

Implementation of MM NOI-3a would eliminate nighttime noise impacts associated with heavy-duty delivery trucks by limiting delivery operations to daytime operating hours (7:00 a.m. to 4:00 p.m.) and would reduce daytime noise impacts associated with heavy-duty delivery trucks by

prohibiting idling longer than 5 minutes. Implementation of MM NOI-3b would substantially reduce operational noise associated with outdoor fitness classes and community events by requiring a qualified acoustical engineer ensure that event set ups would meet the acceptable exterior noise criteria of 50 to 55 dBA consistent with RBMC Section 4-24.301 and TMC Section 6-46.7.2. Implementation of MM NOI-3c would ensure Aquatic Center operations close by 10:00 p.m. With required compliance with RBMC Section 4-24.301 and TMC Section 6-46.7.2, as well as the implementation of MM NOI-3a, MM NOI-3b, and MM NOI-3c, impacts associated with proposed Project operations would be *less than significant*.

Cumulative Impacts

Construction of the proposed Project would occur at the same or similar time as other major construction projects identified in the cumulative projects list in Chapter 3.0.2, *Cumulative Impacts*. Tables 3.0-1, 3.0-2, 3.0-3, and 3.0-4 contain a list of pending, approved, and recently completed projects within the Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach, respectively (within 3 miles of the Project site). At least some of the cumulative projects in the vicinity of the Project site may have a construction schedule that overlaps with the anticipated construction schedule for the proposed Project. Cumulative impacts may include a temporary increase in noise levels from site preparation and construction activities. Most noise generation from the proposed Project would occur during excavation, shoring, and foundation construction, and would be limited to approximately 3 months. The addition of construction worker traffic and, particularly, increased haul truck traffic associated with grading and hauling from the proposed Project combined with other cumulative projects would increase existing ambient noise levels in the area by approximately 1 dBA, which would not be perceptible to the human ear, and thus, would be less than significant. Noise levels from construction activities are typically considered as point sources for noise generation and would decrease at a rate of 6 dBA per doubling of distance from the source over hard site surfaces. Further, noise levels would also slightly decrease in areas where buildings (and to a lesser extent trees) act as noise barriers; thus, it would be unlikely that noise from the cumulative projects would reach each other and combine to produce a cumulatively significant impact. Therefore, any cumulative impacts generated from the simultaneous construction of these projects would have a less than significant impact. It is also assumed that construction of these cumulative projects would be limited to daytime hours, consistent with RBMC and TMC restrictions. Therefore, the proposed Project would not have a substantial contribution to cumulatively considerable construction-related noise impacts.

Upon completion of the proposed BCHD Healthy Living Campus, long-term noise impacts associated with the operation of the proposed Project would result from outdoor uses and periodic

outdoor events on the central lawn and Main Street promenade. However, the proposed campus would be required to comply with the Redondo Beach and Torrance Noise Regulations. Additionally, noise during events or large gatherings would be reduced through implementation of MM NOI-3b. Noise impacts associated with other cumulative development projects would be addressed on a case-by-case basis through compliance with the respective applicable noise regulations. Therefore, the proposed Project would not have a substantial contribution to cumulatively considerable noise impacts.

3.12 POPULATION AND HOUSING

This section of the Environmental Impact Report (EIR) describes the existing population, employment characteristics, and the housing stock in Redondo Beach, Torrance, and Los Angeles County. The population and housing analysis evaluates the potential impacts to population, employment opportunities, and housing stock that could result from the implementation of the proposed Beach Cities Health District (BCHD) Healthy Living Campus Master Plan (Project), including the preliminary site development plan under Phase 1 as well as the more general development program under Phase 2. This analysis is based on data and projections provided by the U.S. Census Bureau and the Southern California Association of Governments (SCAG) as well as the Redondo Beach General Plan 2013-2021 Housing Element (City of Redondo Beach 2017) and Torrance General Plan 2014-2021 Housing Element (City of Torrance 2013).

3.12.1 Environmental Setting

The Project site is surrounded by single- and multi-family residences to the north, south, east, and west. The nearest single-family residences to the Project are located within West Torrance across from Flagler Lane and Flagler Alley, approximately 80 feet east of the Project site. The nearest multi-family residences to the Project site are located approximately 110 feet north of the vacant Flagler Lot across Beryl Street. The majority of the BCHD campus community consists of employees and campus visitors, including medical patients receiving outpatient care. However, the Silverado Beach Cities Memory Care Community provides 60 double occupancy Memory Care units that support an on-site resident population.

The following analysis includes a discussion of the existing residential population data, employment data, and housing stock for Redondo Beach, Torrance, and regionally for Los Angeles County.

Population

The U.S. Census Bureau provides official population and housing counts, which are often used by other agencies to develop their own estimates and projections. As part of its long-range planning, SCAG also projects anticipated population, employment data, and housing stock information for each jurisdiction in the SCAG planning region. The most recent projections were released in SCAG's 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Demographics & Growth Forecast (SCAG 2020b).

U.S. Census

U.S. Census data represents the official count of the entire U.S. population and is used as the baseline from which most demographic projections are calculated. The most recent U.S. Census was published in 2010.¹ The American Community Survey (ACS) is also conducted by the U.S. Census Bureau every year for a small sample of the population to provide current estimates for various social and economic characteristics of communities, including housing, education, jobs, etc. The ACS includes 1-, 3-, and 5-year estimates.

According to the 2010 U.S. Census data and the 2019 ACS 1-year estimate data profiles, Redondo Beach and Torrance have grown at a rate similar to Los Angeles County over the last 19 years (see Table 3.12-1). In the 2000 U.S. Census, the population of Redondo Beach was approximately 63,261 persons, the population of Torrance was approximately 137,964 persons, and the population of Los Angeles County was approximately 9,519,338 persons. Between 2000 and 2019, Redondo Beach experienced an estimated 5.51-percent increase in population and Torrance experienced an estimated 4.09-percent increase in population. Similarly, Los Angeles County experienced an estimated 5.46-percent increase in population from 2000 to 2019.

Table 3.12-1. U.S. Census Total Population in 2000-2019

	2000	2010	2019 ¹	Net Increase from 2000-2019
Redondo Beach	63,261	66,748	66,749	+3,488 (+5.51%)
Torrance	137,946	145,438	143,592	+5,646 (+4.09%)
Los Angeles County	9,519,338	9,818,605	10,039,107	+519,769 (+5.46%)

Notes: 2019 population reflects estimated population based on observed and estimated population growth.

Sources: U.S. Census Bureau 2001, 2011, 2019.

SCAG Integrated Growth Forecast

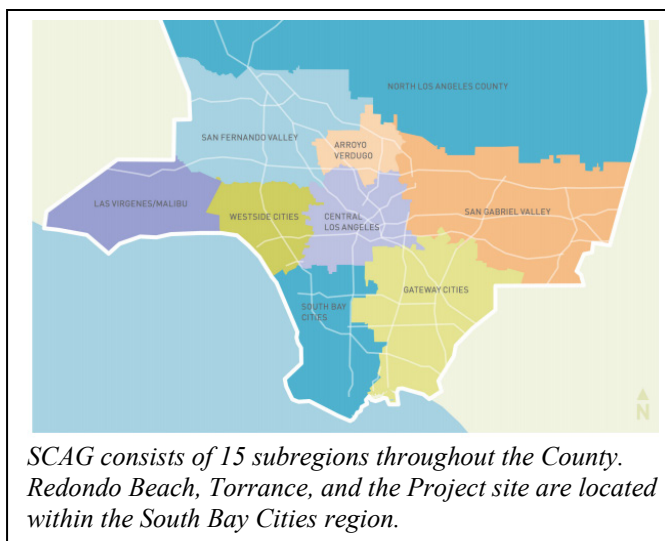
SCAG is the federally designated Metropolitan Planning Organization² for Southern California, and includes the following six counties: Los Angeles, Orange, Riverside, San Bernardino, Imperial, and Ventura. Further, Redondo Beach, Torrance, and 14 other cities and unincorporated

¹ The 2020 census count ended in October 2020. The U.S. Census Bureau is currently conducting multiple surveys, including the Household Pulse Survey, the American Community Survey, and a survey to measure the accuracy of the 2020 census count (U.S. Census Bureau 2020).

² Metropolitan Planning Organization is a federally designated agency that allows local elected officials to provide input into planning and implementation of federal transportation funds for metropolitan areas over 50,000 people (National Association of Regional Councils 2013).

regions within the Los Angeles County (i.e., Carson, El Segundo, Gardena, Hawthorne, Hermosa Beach, Inglewood, Lawndale, Lomita, Los Angeles, Manhattan Beach, Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills, Rolling Hills Estates) are represented by the South Bay Cities Council of Governments (SBCCOG), which is a voluntary agency established to serve as a sub-regional organization to SCAG.

SCAG develops socioeconomic estimates including population, employment, and housing stock projections for cities in the SCAG region through enhanced forecasting methods and interactive public outreach. These estimates and projections provide the analytical foundations for SCAG's transportation planning and other programs at the regional and small geographic area level, including the Regional Housing Needs Assessment (RHNA). In May 2020, SCAG released the



2020-2045 RTP/SCS, Connect SoCal (SCAG 2020a), which contains SCAG's most recent regional Integrated Growth Forecast (Growth Forecast) (SCAG 2020b). The Growth Forecast represents the most likely growth scenario for Southern California in the future, considering a combination of recent and past trends, reasonable technical assumptions, and local or regional growth policies (see Table 3.12-2).

Table 3.12-2. SCAG Projected Population, Employment, and Households

City	Metric	2016	2045	Projected Increase (2016-2045)
Redondo Beach	Population	68,200	72,900	6.9%
	Employment	25,400	28,300	11.4%
	Housing Units	29,200	31,100	6.5%
Torrance	Population	147,100	153,100	4.1%
	Employment	126,600	133,800	5.7%
	Housing Units	55,600	57,300	3.1%
Los Angeles County	Population	10,110,000	11,674,000	15.5%
	Employment	4,743,000	5,382,000	13.5%
	Housing Units	3,319,000	4,119,000	24.1%

Source: SCAG 2020b.

Housing and Employment

The U.S. Census Bureau tracks the number of housing units, a metric that includes both occupied and vacant units. City- and county-wide occupied housing unit demographics are surveyed every 10 years as part of the decadal U.S. Census. As previously described, the ACS is also conducted by the U.S. Census Bureau every year for a small sample of the population to provide current estimates for various social and economic characteristics of communities, including housing, education, jobs, etc. The 2000 and 2010 decadal U.S. Census data as well as the 2018 ACS 5-year estimate data profiles³ are provided below in Table 3.12-3 for the Redondo Beach, Torrance, and Los Angeles County.

As shown in Table 3.12-3, between 2000 and 2018 Redondo Beach has experienced a 1.48-percent increase in the total number of housing units. Torrance and Los Angeles County experienced slightly larger increases in the total number of housing units, approximately 4.14 percent and 7.75 percent, respectively. Redondo Beach experienced increases in the number of vacant units between 2000 and 2018; however, Torrance and Los Angeles County experienced slight decreases in the number of vacant units during this period.

Housing stock is also reported on an annual basis by the California Department of Finance. Between 2010 and 2019, the California Department of Finance reported that the housing stock for Redondo Beach increased by 257 housing units (an increase of approximately 0.84 percent) from 30,609 to 30,866 units (California Department of Finance 2020). Similarly, between 2010 and 2019, the California Department of Finance reported that the housing stock for Torrance increased by 175 housing units (an increase of approximately 0.3 percent) from 58,377 to 58,552. During this time, the housing stock in Los Angeles County increased more substantially by 125,811 units (California Department of Finance 2020).

³ The 5-year estimates are based on 60 months of collected data. This data based on a larger sample size than the 1-year and 3-year estimates and is suitable/reliable for areas with small populations (e.g., <20,000 people).

Table 3.12-3. City- and County-wide Housing Occupancy and Tenure

Housing Type	Redondo Beach				City of Torrance				Los Angeles County			
	2000	2010	2018	Percent Change	2000	2010	2018	Percent Change	2000	2010	2018	Percent Change
Total Units:	29,543	30,609	29,979	1.48%	55,967	58,377	58,283	4.14%	3,270,909	3,445,076	3,524,321	7.75%
Occupied Units:	28,566	29,011	27,621	-3.31%	54,542	56,001	54,360	-0.33%	3,133,774	3,241,204	3,306,109	5.50%
Owner-occupied Units	14,140	14,917	13,949	-1.35%	30,533	31,621	30,063	-1.54%	1,499,744	1,544,749	1,514,629	1.00%
Average Household Size	2.37	2.47	2.58	+0.21	2.68	2.70	2.75	+0.07	3.13	3.16	3.19	+0.03
Renter-occupied Housing Units	14,426	14,094	13,672	-5.23%	24,009	24,380	24,297	+1.20%	1,634,030	1,696,455	1,719,480	5.23%
Average Household Size	2.05	2.09	2.31	+0.26	2.29	2.42	2.57	+0.28	2.85	2.81	2.84	-0.01
Vacant Units:	977	1,598	2,358	141.35%	1,425	2,376	3,923	175.30%	137,135	203,872	218,212	59.12%
Homeowner Vacancy Rate	1.2%	0.9%	1.2%	0%	1.0%	0.8%	0.7%	-0.3%	1.6%	1.7%	1.0	-0.6%
Rental Vacancy Rate	2.6%	5.3%	4.0%	+1.4%	2.4%	5.3%	2.5%	+0.1%	3.3%	5.8%	3.2	-0.1%

Notes: The percent change has been calculated for the 8-year period between 2000 and 2018.

Sources: U.S. Census Bureau 2001, 2011, 2018a.

Housing units in Redondo Beach are spread throughout much of the City, with the exception of coastal commercial areas located directly adjacent to the harbor and pier, other regional commercial areas at the eastern end of the City, and a large industrially zoned area within the northernmost portion of the City. Detached single-family dwellings are the predominant type of residence, although multi-family units are concentrated within some residential neighborhoods, particularly in North Redondo Beach and further west near the coastline. Multi-family residential units are dispersed throughout Torrance, mainly west of the north-southbound State Route (SR-) 107 and particularly near commercial districts. West Torrance is dominated by single-family residential units.

Housing costs make up a large portion of total mean annual household expenses within Redondo Beach and Torrance. Based on the 2018 ACS 5-year estimate data profiles, median gross rent is \$1,987 per month in Redondo Beach and \$1,672 per month in Torrance (U.S. Census Bureau 2018a). Median homeowner costs in Redondo Beach are \$3,299 per month for owners with a mortgage and \$656 per month for those without a mortgage (U.S. Census Bureau 2018a). Median homeowner cost for residents in Torrance are \$2,803 per month for those with a mortgage and \$573 per month for those without a mortgage (U.S. Census Bureau 2018a). The 2018 median home sale price⁴ is \$1,100,000 in Redondo Beach and \$705,000 in Torrance (SCAG 2019a, 2019b). For 2017, housing costs in Redondo Beach accounted for an average of 25.9 percent of renters' total household income and 31 percent of household income for renters in Torrance (SCAG 2019a, 2019b). Homeowners spent slightly less for housing as a percentage of income, paying approximately 24.7 percent of their total household income on housing costs in Redondo Beach and 22.4 percent in Torrance (SCAG 2019a, 2019b).

SCAG Regional Housing Needs Assessment

As previously described, the RHNA quantifies the need for housing within each jurisdiction during specified planning periods. The 5th Cycle RHNA Allocation Plan, which covers the planning period from October 2013 to October 2021, provided projections for the expected number of households in Redondo Beach and Torrance to the year 2040 and was adopted by the Regional Council on October 4, 2012 (SCAG 2012). According to SCAG's projections, the number of households in Redondo Beach was expected to grow from 29,000 in 2012 to an estimated 33,000 in 2040, representing a 13.8-percent increase. Similarly, the number of households in the Torrance was expected to grow from 56,100 to 62,000 from 2012 to 2040, representing a 10.5-percent

⁴ Median home sales price reflects resale of existing homes, which varies due to type of units sold.

increase. SCAG uses these projections to forecast the number of housing units that will be needed for the region.

SCAG determines the housing growth needs for municipalities within its jurisdiction, which includes Redondo Beach and Torrance, and publishes these determinations in the RHNA. The purpose of the RHNA is to anticipate population growth, so that collectively the region and subregions produce sufficient housing to meet future population needs and to address social equity, with each jurisdiction providing its fair share to meet housing needs consistent with the State Housing Element Law (Government Code Sections 65580-65589). State Housing Element Law requires cities to update their Housing Element every 8 years at a minimum and amend their general plans and zoning ordinances, as necessary, to accommodate the number of units in the RHNA. (The RHNA does not require a local jurisdiction to build the number of housing units that it projects, although sufficient opportunity must be provided to do so.)

SCAG is in the process of developing the 6th Cycle RHNA Allocation Plan, which will cover the planning period October 2021 through October 2029. The Draft 6th Cycle RHNA allocates 2,483 housing units to Redondo Beach for the 2021-2029 RHNA planning period, of which 933 new units are designated as units for households with very-low income levels (SCAG 2020b). SCAG allocated 4,928 housing units to Torrance, 1,617 of which are designated for very-low income households (SCAG 2020c). As required by State Housing Law, both cities are in the process of updating their General Plan Housing Elements to accommodate the allocated units and plan for future population growth. As a special district dedicated to public healthcare, BCHD is not subject to the RHNA and is not required by State Housing Element Law to plan for residential units on its campus.

Employment and Labor

According to the 2018 ACS 5-year estimate data profiles, which provides the most recently available data on employment, in 2018 the labor forces within Redondo Beach and Torrance were estimated at a total of 54,672 and 119,753 persons, respectively (see Table 3.12-4). Of the labor force within Redondo Beach, 37,496 persons (68.9 percent) were employed and 1,740 persons (3.2 percent) were unemployed (U.S. Census Bureau 2018b). Of the labor force within Torrance 72,573 persons (60.6 percent) were employed and 3,505 persons (2.9 percent) were unemployed (U.S. Census Bureau 2018b).

Table 3.12-4. City- and County-wide Employment Statistics (2018) (5-Year Estimate)

Labor Force Status	Redondo Beach		Torrance		Los Angeles County	
	Persons	Percent	Persons	Percent	Persons	Percent
Population Over 16	54,672	100%	119,753	100%	8,115,158	100%
Population in Labor Force ¹	39,434	72.1%	76,147	63.6%	5,230,394	64.5%
Civilian Labor Force	39,236	71.8%	76,078	63.5%	5,226,836	64.5%
Employed	37,496	68.6%	72,573	60.6%	4,869,658	60%
Unemployed	1,740	3.2%	3,505	2.9%	357,178	4.4%
Armed Forces	198	0.4 %	69	<0.1%	3,558	<0.1%
Not in Labor Force	15,238	27.9%	43,606	36.4%	2,884,764	35.5%
Unemployment Rate	4.4%		4.6%		6.8%	

Notes: ¹“Population in Labor Force” is defined by the U.S. Census Bureau and includes all people classified in the civilian labor force, plus members of the U.S. Armed Forces (people on active duty with the U.S. Army, Air Force, Navy, Marine Corps, or Coast Guard).

Source: U.S. Census Bureau 2018b.

Jobs-to-Housing Ratio

The jobs-to-housing ratio in a jurisdiction is an overall indicator of both availability of jobs within an area, providing residents with an opportunity to work locally, and availability of housing, providing employees with adequate housing opportunities. A lower job-to-housing ratio may indicate an imbalance between housing options and the type and amount of locally available jobs, while larger job-to-housing ratios may indicate that an area is a job-importer which employees are non-residents. There is adequate housing to accommodate the labor market in a city when the jobs-to-housing ratio is close to 1.0. Based on the 2018 ACS 5-year estimate data profiles, the job-to-housing ratios in Redondo Beach and Torrance were approximately 1.31, or approximately 1.31 jobs per housing unit (U.S. Census Bureau 2018a, 2018b). (It should be noted that while a city may have an equal number of jobs and housing units, this does not mean that the persons employed in a city can afford to live in that city. Additionally, this metric does not account for the location of the job.)

Based on the Monthly Labor Force Data for Cities and Census Designated Places, which provides a 2020 estimate to supplement the 2018 data presented in Table 3.12-4 above, businesses within Redondo Beach provide approximately 33,500 jobs for a labor force of 38,700, while Torrance provides approximately 67,700 jobs for a labor force of 73,700 (Employment Development Department 2020). Approximately 9.4 percent of the residents within Redondo Beach and 22.4 percent of the residents within Torrance work in the cities in which they live, meaning the majority of residents commute to other cities for work (SCAG 2019a, 2019b). Table 3.12-5 lists the top 10 cities of employment for residents of Redondo Beach and Torrance (SCAG 2019a, 2019b). The

average commute time for residents is approximately 30 minutes, with most commuters (79.1 percent from Redondo Beach and 88.8 percent from Torrance) driving themselves (SCAG 2019a, 2019b). Approximately 5.2 percent of commuters from Redondo Beach and 7.5 percent commuters from Torrance carpooled with others in 2019 (SCAG 2019a, 2019b). In both cities, less than 3 percent of commuters used public transportation (SCAG 2019a, 2019b).

Table 3.12-5. Top 10 Cities of Employment for Residences within the City of Redondo Beach and the City of Torrance (2019)

City Ranking		Number of Commuters	Percent of Total Commuters
Redondo Beach			
1	Los Angeles	7,633	25.6%
2	Torrance	3,036	10.2%
3	El Segundo	2,834	9.5%
4	Redondo Beach	2,803	9.4%
5	Manhattan Beach	1,094	3.7%
6	Santa Monica	887	3.0%
7	Hawthorne	624	2.1%
8	Culver City	597	2.0%
9	Burbank	587	2.0%
10	Long Beach	587	2.0%
All Other Destinations		9,112	30.6%
Torrance			
1	Torrance	13,132	22.4 %
2	Los Angeles	12,660	21.6 %
3	El Segundo	3,747	6.4 %
4	Long Beach	2,385	4.1 %
5	Redondo Beach	2,296	3.9 %
6	Carson	1,549	2.6 %
7	Gardena	1,220	2.1 %
8	Manhattan Beach	1,086	1.9 %
9	Hawthorne	931	1.6 %
10	Irvine	762	1.3 %
All Other Destinations		18,871	32.2 %

Sources: SCAG 2019a, 2019b.

Existing Project Site Employment and Housing

As previously described, BCHD provides health and wellness services for children, adults, and seniors in the Beach Cities and surrounding areas. The majority of the existing campus community

is transient in nature, consisting of BCHD and tenant employees that arrive on campus during the morning and leave the campus in the evening as well as patients arriving to and departing from the campus throughout the day. BCHD employees and tenant employees on the campus include approximately 180 medical professionals, caregivers, housekeeping, maintenance, and other miscellaneous staff (BCHD 2020). The resident population on the campus is limited to the residents of Silverado, which provides 60 double occupancy apartment style units (i.e., 120 beds).

3.12.2 Regulatory Setting

This section summarizes relevant local regulations that pertain to population, employment, or housing stock within Redondo Beach and Torrance.

City of Redondo Beach Policies and Regulations

Redondo Beach General Plan 2013-2021 Housing Element

The Redondo Beach General Plan 2013-2021 Housing Element establishes goals, policies, and implementation measures to specifically identify ways in which the housing needs of the existing and future resident population can be met. The Housing Element also establishes building requirements for mixed-use residential developments in mixed-use and regional commercial land use designations, and to enhance and promote pedestrian-oriented character of the commercial component and the neighborhood. The Housing Element relies entirely on existing zoned residential and mixed-use properties to accommodate the City's required RHNA and notes future residential development in Redondo Beach most likely will occur on underutilized lots where developments are not built out to the maximum density permitted. No land use changes, rezoning, or upzoning are necessary to provide adequate sites to accommodate the RHNA. The Housing Element includes a Housing Plan to set goals, policies, and programs to fulfill the housing needs of the community. The Housing Element identifies seniors as a housing special needs group more likely to face difficulty finding affordable housing. Goals and policies relevant to the proposed Project include:

Goal 1.0: Maintain and enhance the existing viable housing stock and neighborhoods within Redondo Beach.

Goal 2.0: Assist in the provision of housing that meets the needs of all economic segments of the community.

Goal 3.0: Provide suitable sites for housing development which can accommodate a range of housing by type, size, location, price, and tenure.

Policy 3.1 Implement land use policies that allow for a range of residential densities and products, including low-density single-family uses, moderate-density townhomes, and higher-density apartments, condominiums, and units in mixed-use developments.

Policy 3.4 Encourage compatible residential development in areas with recyclable or underutilized land.

Policy 3.5 Allow flexibility within the City's standards and regulations to encourage a variety of housing types.

Goal 5.0: Continue to promote equal housing opportunity in the City's housing market regardless of age, race, color, sex, marital status, familial status, national origin, ancestry, religion, sexual orientation, source of income or any other arbitrary factors.

Policy 5.2 Provide equal access to housing for special needs residents such as the homeless, elderly, and disabled.

City of Torrance Local Policies and Regulations

Torrance General Plan 2014-2021 Housing Element

State law requires jurisdictions to periodically update their Housing Elements to be in compliance with changes in housing laws, reflect population trends, demonstrate that the RHNA can be satisfied and prepare goals, policies, programs and quantified objectives to further the development, improvement, and preservation of housing. In 2013, the City of Torrance adopted updates to the Housing Element for the 2014-2021 planning period, with the purpose of providing a coordinated and comprehensive strategy for promoting the production of safe, decent, and affordable housing within the community. The Housing Element includes several programs designed to conserve, preserve, and improve the existing housing stock, encourage the development of more mixed use, multifamily and affordable housing opportunities, reduce governmental constraints to housing production and affordability, and promote equal housing opportunities. The Housing Element objectives and policies relevant to the proposed Project include:

Objective H.1: Enhance housing opportunities for all Torrance residents.

Policy H.1.1 Provide a range of different housing types and unit sizes for varying income ranges and lifestyles.

Policy H.1.2 Encourage the provision for housing which meets the needs of seniors and the disabled.

Policy H.1.3 Continue to implement the Senior Citizen Housing Development Standards.

Policy H.1.4 Continue to monitor and assess the special housing needs of senior citizens, in collaboration with the Torrance Commission on Aging.

Objective H.2 Assist in the provision of adequate housing to meet the needs of the community.

Policy H.2.2. Work with large employers to facilitate the development of workforce housing.

Objective H.4: Maintain and improve the quality of existing housing and residential neighborhoods in Torrance.

Policy H.4.1 Encourage the maintenance and enhancement of the existing housing stock.

Policy H.4.3 Support preservation of existing affordable low-income housing that is considered at risk of converting to market level rents.

Policy H.4.4 Encourage the rehabilitation of residential properties by homeowners and property owners.

3.12.3 Impact Assessment and Methodology

Thresholds of Determining Significance

The following thresholds of significance are based on Appendix G of the 2020 California Environmental Quality Act (CEQA) Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on population and housing if it would:

- a) Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure); and/or
- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Screened-Out Threshold(s):

Threshold (b) (*Displacement of Existing People or Housing*): The Silverado Beach Cities Memory Care Community, which is located in the Beach Cities Health Center (514 North Prospect Avenue), currently provides 60 double occupancy Memory Care units that support an on-site resident population. The implementation of the proposed BCHD Healthy Living Campus Master Plan would not remove or displace any housing or residential areas on campus. Instead, the existing Beach Cities Health Center, including the Silverado Beach Cities Memory Care Community, would remain in place during construction activities associated with the Phase 1 preliminary site development plan. Following the completion of Phase 1, the existing 60 double occupancy Memory Care units would be relocated from the Beach Cities Health Center to the newly constructed RCFE Building. Therefore, for the reasons stated above and as discussed in Section XIV, *Population and Housing* of the Initial Study (IS), this issue is not further analyzed in the EIR.

Methodology

Potential impacts on population and housing associated with the proposed Project were analyzed using population and housing data from the U.S. Census Bureau and SCAG as well as the Redondo Beach General Plan 2013-2021 Housing Element (City of Redondo Beach 2017) and Torrance General Plan 2014-2021 Housing Element (City of Torrance 2013), which describe the local housing goals, policies, objective and programs. Average housing prices were derived for Redondo Beach Torrance from the U.S. Census Bureau's ACS data for monthly median housing costs. Additional population from residential housing projects was estimated based on the U.S. Census Bureau's estimate of persons per household Redondo Beach and Torrance. The analysis also considers the general effect on the jobs-to-housing ratio for each city. Potential related impacts of population and employment growth on issues such as public services and transportation are described in Section 3.13, *Public Services* and Section 3.14, *Transportation*.

3.12.4 Project Impacts and Mitigation MeasuresImpact Description (PH-1)

- a) *Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure); and/or*

PH-1 The proposed Residential Care for the Elderly (RCFE) Building would provide a total of 217 on-site residential units, including 60 replacement Memory Care units and 157 new Assisted Living units. Additionally, the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would create a total of approximately 170 new jobs on the campus. However, the anticipated increase in population within Redondo Beach, Torrance, and the surrounding cities would be minor and well within the forecasted population growth for the region. The proposed Project would not induce substantial population growth and impacts would be *less than significant*.

Temporary Construction-Related Housing Needs

Construction activities associated with the proposed Project would temporarily employ between 60 and 260 construction workers. An average of 210 construction workers would be on-site throughout the 29-month duration of Phase 1 construction and an average of 130 construction workers would be on-site during the 28-month duration of Phase 2 construction. However, these individuals would likely be drawn from the existing labor force within Los Angeles County and would not be expected to relocate to Redondo Beach or Torrance. If construction workers were drawn from outside of Los Angeles County, it is likely that these construction workers would rent or lease temporary accommodations (e.g., long-term, low-cost hotels or rental units) in nearby cities with a lower cost of living (see Table 3.12-7). Therefore, while the proposed Project would provide construction jobs, any incremental increase in housing demand induced during the Phase 1 or Phase 2 construction activities would be temporary and negligible in comparison to the overall regional supply within Los Angeles County.

On-Campus Assisted Living and Memory Care Housing

Implementation of the proposed Project would replace the 60 existing Memory Care units from the existing Beach Cities Health Center in the proposed RCFE Building constructed during Phase 1. Similar to existing conditions, the replacement Memory Care units would also be double occupancy units that would continue to provide housing for up to 120 people. Therefore, the proposed relocation of the 60 Memory Care units would not change the current baseline conditions on the campus and would have no net impact on the resident population on the BCHD campus.

Table 3.12-6. Assisted Living Apartment Occupancy

Unit Type	Units	Beds
Assisted Living		
Studio Unit	37	37
Single-Bedroom Unit	70	70
Single-Bedroom + Den Unit	30	30
Two-Bedroom Units	20	40
Total Units	157	177

The 157 new Assisted Living units would consist of 37 studios, 70 one-bedroom units, 30 one-bedroom units with dens, and 20 two-bedroom units (refer to Table 3.12-6). Together, the proposed 157 new Assisted Living units would provide for approximately 177 new residents on the BCHD campus within Redondo Beach.

As previously described, Redondo Beach has an estimated population of 66,749 and 30,866 housing units according to the California Department of Finance. Assuming 100 percent occupancy of the 157 new Assisted Living units, implementation of the proposed Project would increase the population of Redondo Beach by less than 1 percent (i.e., 0.3-percent increase); therefore, the maximum population increase would be negligible. (It should also be noted that this estimate is conservative given that the market studies prepared for the proposed Project indicate that at a proportion of the Assisted Living residents would come from the existing and future populations of Redondo Beach.) This minor increase in population would be consistent with and well within SCAG's growth projections, which estimate the population Redondo Beach would increase by approximately 6.9 percent by 2045 (refer to Table 3.12-2).

The provision of new housing units for senior citizens requiring additional care and living assistance is a primary objective of the proposed Project. The creation of 157 Assisted Living units is consistent with the Redondo Beach General Plan Housing Element, which aims to enhance existing housing stock and expand housing opportunities for residents. For example, the proposed Project would be consistent with Policy 5.2, which specifically aims to provide housing that meets the special needs of seniors and the disabled (refer to Section 3.12.2, *Regulatory Setting*). The Project is also consistent with the objectives of the Torrance General Plan; for example, the proposed Project would be consistent with Policy H.1.2 which encourages the provision for housing which meets the needs of seniors and the disabled. (Refer to Section 3.10, *Land Use and Planning* for further discussion of the proposed Project's consistency with State and local regulatory policies.)

Further, the proposed Project would redevelop the existing BCHD campus, which is located within a well-established, urbanized area that is already served by existing roads and infrastructure. While construction of the proposed Project would result in the construction of new curb cuts and driveways along Flagler Lane (refer to Section 2.5.1.3, *Proposed Access, Circulation, and Parking*) as well as new utilities connections (refer to Section 2.5.1.4, *Utilities and Services*), the proposed Project would not require the creation of new roads or other infrastructure that would induce new development and population growth beyond the proposed Project (see Section 3.15, *Utilities and Service Systems*).

Long-term Employment-related Housing Needs

As previously described in Section 3.12.1, *Environmental Setting*, BCHD employees and tenant employees on the existing campus include approximately 180 medical professionals, caregivers, housekeeping, maintenance, and other miscellaneous staff (BCHD 2020). Development of the proposed Project, including the preliminary site development plan under Phase 1 as well as the development program under Phase 2, is expected to create approximately 170 new jobs at the campus. Therefore, the proposed Project would increase the total number of jobs in Redondo Beach from a baseline of 33,500 to 33,670, an 0.5-percent increase in the total number of local jobs. (It should be noted that this increase in jobs would be spread over a considerable period of time given the phased construction.) This overall increase in local jobs would be negligible when considering effects on population and housing is well within and consistent with the SCAG's projected population growth of 4,700 individuals in Redondo Beach and 6,000 individuals in Torrance from 2016 to 2045 (refer to Table 3.12-2).

The jobs created by the proposed Project would predominantly include trained or service type jobs such as health care professionals (e.g., dietitian, physical therapist, occupational therapist, recreation therapist, etc.) as well as administrative, dining services, and housekeeping and maintenance staff. The average salary for health care professionals in the Los Angeles area ranges from approximately \$60,000 to \$190,000 per year (GlassDoor 2020). The average salary for the service and assisted living industry in the Los Angeles area ranges from approximately \$25,000 to \$46,000 per year, or \$2,083 to \$3,833 per month (GlassDoor 2020). Based on the 2018 ACS 5-year estimate data profiles, annual median housing costs are approximately \$23,844 (i.e., \$1,987 per month) for renter-occupied housing and approximately \$39,588 (i.e., \$3,299 per month) for owner-occupied housing in Redondo Beach (U.S. Census Bureau 2018a). Annual median housing costs are \$20,064 (i.e., \$1,672 per month) for renter-occupied housing and \$33,636 (i.e., \$2,803 per month) for owner-occupied housing costs in Torrance (U.S. Census Bureau 2018a). This means housing costs in Redondo Beach would range from approximately 52 percent to 95 percent

of an average service employee's annual income for rental housing and 86 percent to over 100 percent for an average mortgage. Housing costs in Torrance would range from approximately 44 percent to 80 percent of an average service employee's annual income for rental housing and 73 percent to more than 100 percent for an average mortgage. For most service and assisted living industry employees associated with the proposed Project, average housing prices – including both rental and home ownership costs – in the Redondo Beach and Torrance would be unaffordable based on the estimated salary range of \$25,000 to \$46,000 per year alone.

Nevertheless, as previously described, 9.4 percent of Redondo Beach residents and 22.4 percent of Torrance residents live and work in the same city. Applying these existing trends, approximately 16 of the 170 new employees would live in Redondo Beach, which could be easily accommodated by the available housing stock of 2,358 units (SCAG 2019a). Further, approximately 38 of the new 170 employees would live in Torrance, which would also be easily accommodated by the available housing stock of 3,923 units (SCAG 2019b).

Potential increases in the low- and moderate-income workforce within Redondo Beach and Torrance could incrementally increase the demand for affordable housing within these cities. However, many employees associated with the proposed Project would likely seek more affordable housing units in nearby cities, such as Hawthorne, Gardena, Inglewood, or Lomita. The U.S. Census Bureau data indicates that there are approximately 14,474 vacant units in the 10 nearby cities listed in Table 3.12-7, with an average commute time of 5 to 40 minutes, depending on time of departure and traffic patterns. As described below in Table 3.12-7, median gross rent for nearby areas range from \$1,118 in Hawthorne to \$2,499 in Manhattan Beach. For example, based on the estimated salary range of \$25,000 to \$46,000 per year (\$2,083 to \$3,833 per month), housing costs in Hawthorne would range from approximately 29 to 54 percent of an average service employee's annual income with an average travel time of 15 to 35 minutes to the BCHD campus. For Gardena, housing costs would range from approximately 32 percent to 60 percent of an average service employee's annual income with an average travel time of 20 to 35 minutes. With the available housing stock in nearby areas, it can be concluded that sufficient housing opportunities that constitute a lower percentage of estimated service employee salaries are available within a reasonable commute distance to the BCHD campus (see Table 3.12-8).

Table 3.12-7. Housing Availability and Price Near the City of Redondo Beach

City	Average Travel Time to the BCHD Campus	Population	# Vacant Housing Units	Median Gross Monthly Rent
Carson	10-20 minutes	91,394	644	\$1,464
El Segundo	20-40 minutes	16,610	336	\$1,785
Gardena	20-35 minutes	59,329	822	\$1,252
Hawthorne	15-35 minutes	86,068	1,375	\$1,188
Hermosa Beach	10-15 minutes	19,320	1,070	\$2,143
Inglewood	20-45 minutes	108,151	1,750	\$1,267
Lomita	15-35 minutes	20,320	353	\$1,335
Manhattan Beach	10-25 minutes	35,183	1,843	\$2,499
Redondo Beach	<5 minutes	67,412	2,358	\$1,987
Torrance	5-20 minutes	145,182	3,923	\$1,672

Notes: “Average Travel Time to the City of Redondo Beach” assumes vehicular travel and provides a range of commute time to account for employees traveling during and outside of rush hour.

Source: U.S. Census Bureau 2018.

Overall, the anticipated increase in population within Redondo Beach, Torrance, and the surrounding cities would be minor and well within the forecasted population growth for the region. Additionally, this increase in population could be accommodated by the existing housing stock in the region. Therefore, potential impacts on population and housing associated with Phase 1 and Phase 2 of the proposed Project would be *less than significant*.

Cumulative Impacts

As described in Table 3.0-1, Table 3.0-2, Table 3.0-3, and Table 3.0-4, in Section 3.0.2, *Cumulative Impacts*, there are several pending, approved, and recently completed development projects in the Redondo Beach and Torrance as well as in the neighboring Hermosa Beach and Manhattan Beach. These projects include infrastructure improvements, a day care center, a supermarket, office buildings, commercial facilities, public facilities, and residential developments. The infrastructure and public facilities improvements described in Section 3.0.2, *Cumulative Impacts* could result in temporary construction-related housing needs, but would not result in substantial permanent job creation or associated permanent increases in housing demand.

New permanent jobs created by the proposed Project and other projects in the region have the potential to increase local populations and increase competition for housing in the region. However, nearby proposed commercial developments would largely create retail and service type jobs that are likely to be filled by those that already live or work in the local area. For example, the South Bay Galleria is anticipated to generate a net increase of 925 employees. However, given

the retail nature of this cumulative project, these employees are expected to be drawn from the local community, similar to the proposed Project. As such, the Final EIR for the South Bay Galleria (State Clearinghouse [SCH] No. 2015101009) determined that the proposed Project would have a less than significant cumulative impact on the population and housing in the region. The Skechers Design Center and Office Project is anticipated to generate the greatest employment-related increase in housing demand in the Beach Cities, adding 430 new jobs in Hermosa Beach and 225 new jobs in Manhattan Beach. The Final EIR for the Skechers Design Center and Executive Offices (SCH No. 2015041081) analyzed the cumulative impacts that would result from an increase of 1,241 jobs associated with the Skechers Design Center and Offices and other cumulative projects in each city. The EIR concluded that cumulative impacts to Hermosa Beach and Manhattan Beach would be less than significant because there are more than enough vacant housing units to accommodate the increase in new residents from this project and other cumulative projects. The proposed Project would result in an increase of 170 jobs and would similarly have a less than significant impact on population and housing (refer to Impact PH-1), particularly given that many of the new service and Assisted Living industry employees would likely be drawn from the existing Redondo Beach, Torrance, and the surrounding South Bay communities. The potential increase in population associated with the proposed Project could easily be accommodated by the existing housing stock in Redondo Beach and Torrance, which includes a total of 6,281 units. This would leave a substantial number of leftover units to accommodate near-term housing needs associated with the other cumulative projects described in Section 3.0.2, *Cumulative Impacts*. The number of vacant units within the nearby cities is even greater and would provide greater affordability options.

While the proposed Project would involve an increase in permanent employment, given the nature of these service and Assisted Living industry jobs as well as the location of the BCHD campus within a well-established, urbanized community with available housing stock, the proposed Project *would not substantially contribute to a cumulatively considerable impact* related to unanticipated population growth.

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3.13 PUBLIC SERVICES

The following section of the Environmental Impact Report (EIR) describes the existing public services within Redondo Beach and Torrance and assesses the potential for the proposed Beach Cities Health District (BCHD) Healthy Living Campus Master Plan (Project) to affect existing service ratios, response times, or other performance objectives. The impact analysis provided in this section address the potential physical impacts associated with new or physically altered facilities necessary to maintain these performance objectives.

Existing public services provided by the City of Redondo Beach and the City of Torrance include but are not limited to fire protection, police protection, public schools, parks and recreational facilities, and libraries. Given the nature of the residential components included in the Phase 1 preliminary site development plan (i.e., Assisted Living and Memory Care), the Initial Study (IS) prepared for the proposed Project determined that the proposed Project would have no potential to impact public schools, parks and recreational facilities, or libraries (see Appendix A). As concluded in Section X, *Public Services* of IS, the proposed development of 157 new Assisted Living units for use by the elderly would not result in increased enrollment within the Redondo Beach Union School District or the Torrance Union School District because the Project would not increase the local population of school-age children. The development of 157 new Assisted Living units would also not result in an increased need for library services, resources, and facilities. As discussed in Section 3.12, *Population and Housing*, it is anticipated that new employees would be drawn from the South Bay region and therefore, would not substantially increase the demand for public libraries. Regarding recreation, new Assisted Living residents would generally utilize the active green space and health facilities provided on the BCHD campus, with outdoor areas open to the public, such that the proposed Project would not require the construction or expansion of new recreational facilities. (Impacts to bicycle paths and pedestrian connectivity are discussed in Section 3.14, *Transportation*.) Therefore, impacts due to new or physically altered public schools, libraries, and parks, are not discussed further in the EIR. For information regarding public utilities including potable water, wastewater, and solid waste, refer to Section 3.15, *Utilities and Service Systems*.

This section focuses on the potential impacts related to the need for new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for Fire Protection and Police Protection. The discussion of Fire Protection services includes a description of the facilities and resources for fire prevention and suppression in Redondo Beach and Torrance, emergency medical services (EMS), and special non-emergency

services. The discussion of Police Protection includes a description of the services and facilities related to police protection in Redondo Beach and Torrance.

3.13.1 Environmental Setting – Fire Protection

Redondo Beach Fire Department Assets

The Redondo Beach Fire Department (RBFD) provides fire protection, EMS, and special services (e.g., hazardous material management) as well as non-emergency services (e.g., building inspections and public education) to a population of over 66,000 in Redondo Beach. The RBFD maintains three fire stations strategically located within the City. Fire Station No. 1 is the Headquarters Station for Fire Administration and Fire Prevention Bureau located at 401 S.



Fire Station No. 2 (pictured above) is located approximately 1.1 miles from the Project site. The RBFD provides fire protection, emergency medical response, and other special services to the population of Redondo Beach.

Broadway, approximately 1.2 miles southwest of the Project site. Fire Station No. 2 is located at 2400 Grant Avenue, approximately 1.1 miles northeast of the Project site, and Fire Station No. 3, which serves as the base for the City's Marine Harbor Patrol Division, is located at 280 Marina Way, approximately 1.1 miles west of the Project site.

RBFD personnel include one fire chief, three fire division chiefs, 13 fire captains, six firefighters, 12 fire engineers, 21 fire paramedics, three deputy harbor masters, three harbor patrol officers, and one hazardous materials inspector. RBFD assets include three fully staffed fire engines, one 100-foot ladder truck, two paramedic units, one hazardous materials response unit, one marine rescue/harbor patrol vessel, one fire boat, and one light/air support vehicle (City of Redondo Beach 2020d).

Torrance Fire Department Assets

The Torrance Fire Department (TFD) provides fire protection and EMS, hazardous materials mitigation, basic and technical rescue, domestic preparedness planning and response, community risk reduction, public fire and life safety education and fire investigation services to a population of over 143,000 in Torrance (see Section 3.12, *Population and Housing*). TFD also provides community safety, environmental protection, and property conservation through its seven divisions: Administration, Communication and Public Affairs, Community Risk Reduction, Emergency Medical Services, Emergency Response and Training, Organizational Planning and

Support Services. TFD divides the City of Torrance into six geographical planning zones, which are also commonly referred to as “first-ins.” These planning zones range in size from 1.92 square miles to 4.77 square miles and are each served by one of the City’s six fire stations. Fire Station No. 5 is located nearest to the Project site at 3940 Del Amo Boulevard, approximately 1.4 miles southeast of the Project site.

TFD resources include seven engine companies, two tiller operated truck companies, five paramedic rescue units, an air and light unit, and one battalion chief all staffed with trained fire fighters. These resources are distributed geographically throughout the City’s fire stations. In total, the TFD employs 163 personnel, 144 of which are sworn personnel and 19 are non-sworn personnel (TFD 2019). At any given time, each station is staffed with a minimum of 1 frontline engine, 1 reserve engine, and 4 to 15 sworn response personnel on duty. Fire Station No. 5 closest to the Project site is constantly staffed and equipped with six sworn response personnel on duty each day, one frontline engine, one frontline rescue, and one reserve engine (TFD 2018a).

Mutual Aid Agreements

Redondo Beach considered a feasibility study for merging the RBFD with the Los Angeles County Fire Department as a cost savings measure (Los Angeles County Fire Department 2019), but ultimately voted to end this pursuit in August 2019. Nevertheless, both Redondo Beach and Torrance are engaged in mutual aid agreements with each other as well as with the other fire departments in the region, including Manhattan Beach and El Segundo (Los Angeles County Fire Department). These mutual aid agreements provide regional fire protection including the provision of supplemental fire protection services, equipment, and personnel in special situations. This means that units participating in the mutual aid agreements could be dispatched to Redondo Beach or Torrance. Likewise, units from Redondo Beach or Torrance could be requested to assist in those jurisdictions.

Redondo Beach Response Times

According to the National Fire Protection Association (NFPA) Code 1710 (Standard for the Organization and Deployment of Fire Suppression Operations, EMS, and Special Operations to the Public by Career Fire Departments), dispatch time for fire suppression, medical response, and special operations should be less than or

- **DISPATCH TIME:** The elapsed time from when an emergency call is placed to when a unit is notified (i.e., dispatched).
- **TURNOUT TIME:** The elapsed time from when a unit is notified (i.e., dispatched) until that unit changes leaves the station and changes their status to responding.
- **TRAVEL TIME:** The elapsed time from when a responding unit leaves the station until its arrival on the scene.
- **TOTAL RESPONSE TIME:** The cumulative elapsed time from when an emergency call is placed until the unit arrives on the scene.

equal to 60 seconds 90 percent of the time. Turnout time should be 60 seconds for EMS responses and 80 seconds for fire responses. NFPA also requires fire stations to establish an objective of 240 seconds (i.e., 4 minutes) or less of travel time for the first arriving engine company at a fire suppression incident or the first responder with an automatic defibrillator or higher-level capacity at an emergency medical incident. The NFPA standards require that these objectives be met for at least 90 percent of incidents. The most recently released 2020 NFPA standards were also revised to include a requirement for fire stations to establish an objective of a second properly staffed four-person unit to arrive within 360 seconds (i.e., 6 minutes) or less. RDFD and TFD response times are measured against these NFPA standards. In addition, TFD has also developed more aggressive response time goals for both high-risk and low- to moderate-risk fires based on the Insurance Services Officer (ISO) grading schedule, which is described further below, as well as historical response data and TFD personnel and community expectations (TFD 2018b).

In 2019, RBFD responded to a total of 7,488 incidents, a 3-percent increase from the previous year, and a 5-percent increase from 2017 (City of Redondo Beach 2020a). Of these calls 4,805 (approximately 64 percent) were for medical incidents, 2,571 (approximately 34 percent) were for non-fire and marine incidents, and 112 (approximately 1.5 percent) were for active fire incidents. As further discussed below under *Project Site Fire Protection Services Infrastructure, Calls, Responses*, there were 53 emergency incident calls to the BCHD campus. In 2019, RBFD had an average dispatch time of 70 seconds, which exceeds the benchmark established in the NFPA standards by 10 seconds. However, in 2019, the RBFD had an average total response time of 4 minutes and 10 seconds for all calls within the City (City of Redondo Beach 2020a). This is well below the benchmark established in the NFPA standards. The average response time for all calls within the City has consistently improved in recent years from 4 minutes and 43 seconds in 2017 and 4 minutes and 16 seconds in 2018 (see Table 3.13-1; City of Redondo Beach 2020a).

Table 3.13-1. RBFD Response Times and Performance

	Goal Time (minutes)	Average Response Time of all Calls (2019; minutes)
Call Processing	< 1	1:10
Turnout Time	< 1:20 (fire); < 1 (EMS)	-
Travel Time 1 st Unit	< 4	-
Travel Time 2 nd Unit	< 6	-
Total Response Time for 1 st Unit	< 6:20 (fire); < 6 (EMS)	4:10

Notes: Total response time for the 1st Unit includes call processing, turnout time, and travel time. No data was available/reported for Turnout Time and unit-specific Travel Times in 2019; however, the total response time is well below the benchmark established in the NFPA 1710 standards.

Source: City of Redondo Beach 2020a; Varone 2019.

Torrance Response Times

TFD responds to over 15,000 calls for service annually. In 2017 the TFD received 15,383 calls for service, a 6.94-percent increase (i.e., an increase of 1,070 calls) from the number of calls in 2015 (TFD 2018b). The majority of these calls were for EMS and 981 were for fire incidents (e.g., structure fires, vehicle fires, fire alarms, or other fires).

As previously described, in addition the NFPA standards, the TFD has also developed goal response times for both high-risk and low- to moderate-risk fires based on the ISO grading schedule, which is described further below, as well as historical response data and TFD personnel and community expectations (TFD 2018b). High-risk fires require deployment of both first-due units and Effective Response Force units. (An Effective Response Force is the minimum amount of equipment and staffing that must reach the scene of an emergency to initiate an effective intervention strategy.) First-due units are staffed with a minimum of four firefighters, capable of establishing command, assigning incoming resources, securing a water source, and initiating rescue or fire attack. The goal response time of first-due units is 6 minutes and 24 seconds. Effective Response Forces are staffed with a minimum of 16 operations personnel and fulfill remaining fire suppression duties. The goal response time of a first-due unit for low- to moderate-risk fires is also 6 minutes and 24 seconds. The goal response times of Effective Response Forces in high-risk fire incidents is 10 minutes and 24 seconds. Low- to moderate-risk fires only require arrival of a first-due unit capable of high-risk first unit duties as well as advancing a fire attack sufficient to extinguish the fire (TFD 2018b).

TFD uses the Torrance Public Safety Dispatch Center to dispatch TFD resources. Calls are received by a call taker – typically a sworn police officer – that transfers to the fire dispatcher, the law dispatcher, or both. The dispatch center’s overall 90-percent performance for call handling over the 3-year period from 2015-2018 was 1 minute and 54 seconds. This time exceeds the benchmark of 60 seconds or 1 minute for EMS calls established in the NFPA standards by 54 seconds (TFD 2018b).

The TFD 90-percent performance for turnout time on calls for the 4-year period from 2015-2018 was 2 minutes and 10 seconds. This turnout time also does not meet the benchmark of 60 seconds for EMS responses and 80 seconds for fire responses established by the NFPA standards (TFD 2018). Over the period of 2015-2018, for 90 percent of all high-risk fires, the total response time for the arrival of the first-due unit was 7 minutes and 56 seconds (TFD 2018b). This time exceeds the TFD goal time of 6 minutes and 24 seconds by 1 minute and 32 seconds. For 90 percent of all high-risk fires, the total response time for the arrival of the Effective Response Force, staffed with 16 firefighters and officers is 13 minutes and 27 seconds (TFD 2018b). This time exceeds the TFD

goal of 10 minutes and 24 seconds by 3 minutes and 3 seconds. For 90 percent of all low- and moderate-risk fires, the total response time for the arrival of the first-due unit was 8 minutes and 48 seconds (TFD 2018b). This exceeds the TFD goal of 6 minutes and 24 seconds by 2 minutes and 24 seconds (see Table 3.13-2).

Table 3.13-2. TFD Fire Response Call Performance

	Goal Time (minutes)	90th Percentile Performance Time High Risk (minutes)	90th Percentile Performance Time Low and Moderate Risk (minutes)
Call Processing	< 1	2:08	2:12
Turnout Time	< 1:20 (fire); < 1 (EMS)	2:11	2:51
Travel Time 1 st Unit	< 4	5:01	5:19
Travel Time Effective Response Force		9:46	-
Total Response Time 1 st Unit	6:24	7:56	8:48
Total Response Time Effective Response Force (for High-Risk Fires)	10:24	13:27	-

Source: TFD 2018b.

Torrance has also developed benchmark performance measures for Advanced Life Support and Basic Life Support EMS incidents. For 90 percent of all Advanced Life Support and Basic Life Support EMS incidents, the total response time goal of the first-due unit is 6 minutes and 4 seconds (TFD 2018b). EMS dispatches can include a first-due unit or an Effective Response Force. First-due units are staffed with a minimum of two paramedics or three emergency medical technicians and are capable of assessing scene safety, establishing command, evaluating the need for additional resources, conducting an initial patient assessment, initiating Basic Life Support, and initiating early defibrillation. Effective Response Forces are capable of conducting a comprehensive patient assessment; obtaining vitals and a detailed medical history of the patient; initiating advanced life support actions in accordance with Los Angeles County EMS protocol; assisting transport personnel with packaging the patient; and caring for the patient until care is transferred to an equal or higher medical authority at the receiving hospital. If an Effective Response Force is Advanced Life Support, it is staffed with a minimum of four operations personnel. If an Effective Response Force is Basic Life Support it is staffed with a minimum of two paramedics or three emergency medical technicians (see Table 3.13-3; TFD 2018b).

Table 3.13-3. TFD EMS Response Call Performance

	Goal Time (minutes)	90th Percentile Performance Time (minutes) for EMS- ALS	90th Percentile Performance Time (minutes) for EMS- BLS
Call Processing	< 1	1:40	1:36
Turnout Time	< 1:20	1:55	1:55
Travel Time 1st Unit	< 4	4:33	4:39
Travel Time Effective Response Force		4:09	-
Total Response Time 1st Unit	6:04	7:05	7:06
Total Response Time Effective Response Force	6:04	8:52	-

Source: TFD 2018b.

Over the period 2015-2018, for 90 percent of all Advanced Life Support EMS incidents, the total response time for the arrival of the first-arriving unit was 7 minutes and 5 seconds and 8 minutes and 52 seconds for the arrival of the Effective Response Force (TFD 2018). This exceeds the TFD goal times by 1 minute and 1 second and 2 minutes and 48 seconds, respectively. The total response time for the arrival of the first-due unit was 7 minutes and 6 seconds (TFD 2018). This exceeds the TFD goal times by 1 minute and 2 seconds.

Fire Prevention

The RBFD Fire Prevention Division provides inspection services, plan review, issuance of permits, fire code enforcement, fire cause investigations, internal safety investigations, citizen safety awareness programs, public fire education, public information services, and community relations events (City of Redondo Beach 2020b). The purpose of the Fire Prevention Division is to protect the community by reducing the likelihood of loss of life, property damage, and environmental harm from fire, explosion, unauthorized release of hazardous materials, and natural disasters through engineering, education, and fire/life safety code enforcement. Engine companies and the Fire Prevention Division personnel conduct thorough and periodic inspections of commercial buildings and multi-unit residential structures in order to provide the public with the maximum protection from loss of life and property through fire.

The TFD Community Risk Reduction Division applies life safety codes to new and existing structures, performs fire investigation and oversees hazardous material administration. Staff includes trained individuals who provide fire safety information and assistance to City staff about new projects in the City, review new construction plans for fire protection regulations conformity

and emergency access, and investigate fires that occur within the City to determine their cause and origin.

The Los Angeles County Fire Department acts as the Certified Unified Protection Agency (CUPA) providing hazardous materials response and remediation (refer to Section 3.8, *Hazards and Hazardous Materials*) with RBFD and the City of Torrance authorized as participating agencies. The participating agencies manage hazardous materials programs in their respective cities and CUPA implements six State environmental programs: Hazardous Materials Reporting and Response Planning, Uniform Fire Code Business Plan, Hazardous Waste Generation and On-Site Treatment, Accidental Release Prevention, Aboveground Storage Tank, and Underground Storage Tank.

Insurance Services Office Rating

The ISO provides rating and statistical information for the insurance industry in the U.S. and rates fire departments nationwide for their effectiveness. In determining its community rating, the ISO evaluates a community's fire protection needs and services and then assigns each community a Public Protection Classification rating. The rating is derived from a cumulative point scoring system, which grades the community's fire-suppression delivery system, including fire dispatch (i.e., operators, alarm dispatch circuits, telephone lines available), fire department (i.e.,



Emergency access to the Project site is currently provided by the driveways located along North Prospect Avenue, which provide a connection to the perimeter circulation road.

equipment available, personnel, training, distribution of companies, etc.), and water supply (i.e., adequacy, condition, number and installation of fire hydrants). The ratings range in descending rank from Class 1 (the best level of service) to Class 10 (no service). As of 2019, the RBFD has an ISO Class 2 rating (Los Angeles County Fire Department 2019). As of 2018, the TFD has an ISO rating of 1, with high marks in each criterion including communication (i.e., receiving and handling alarms), water supply, and fire department credibility (City of Torrance 2018; TFD 2018b). The ISO ratings indicate that the RBFD and TFD have sufficient supplies and are well-equipped to respond to emergencies in Redondo Beach and Torrance.

Project Site Fire Protection Services Infrastructure, Calls, Responses

Then BCHD campus is served by an existing 8-inch fire service line and has five on-site fire hydrants as well as two off-site fire hydrants located on the east side of North Prospect Avenue (refer to Appendix L). Emergency access points are provided at the existing driveways along North Prospect Avenue, which provide a connection to the perimeter circulation road.

The BCHD campus is located within Redondo Beach within approximately 1.2 miles of the three RBFD fire stations, and is well within the 6-minute fire response time area and 6-minute and 20-second EMS response time for the RBFD. Records indicate that a total of 451 EMS calls associated with the BCHD campus at 514 North Prospect Avenue occurred between January 2015 and July 2019, with an average of 98 calls per year and just over 8 calls per month for the 60 double-occupancy Memory Care units with 120 beds total.¹ Each of these EMS calls was responded to by either RBFD Fire Station No. 1 or No. 2 (see Table 3.13-4). The data presented below in Table 3.13-4 indicates total calls to the Beach Cities Health Center at 514 North Prospect Avenue, which includes the Silverado Beach Cities Memory Care Community.

Table 3.13-4. EMS Calls for the BCHD Campus (2015-2019)

Period	EMS Calls Per Year	Average EMS Calls Per Month
2019 (January – July)	53	7.6
2018 (January – December)	102	8.5
2017 (January – December)	101	8.4
2016 (January – December)	92	7.7
2015 (January – December)	103	8.6
Average	98	8.2

Notes: Calls for the BCHD campus between 2015-2019 were limited to EMS responses, no fire responses were recorded during this period.

3.13.2 Regulatory Setting – Fire Protection

Federal Regulations

Uniform Fire Code

The Uniform Fire Code contains specialized technical fire and life safety regulations that apply to the construction and maintenance of buildings and land uses. Topics addressed in the Uniform Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm

¹ For reference this is similar to the 85 calls per year assumed in the Draft EIR prepared for the Kensington Assisted Living Facility (State Clearinghouse [SCH] No. 203121065). The assumed number of calls per year assumed in the Kensington Assisted Living Facility Draft EIR was based on an average per bed estimate of 0.65 calls per bed per year to a similar facility within the City.

systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings.

State Regulations

California Fire Code (Title 24, Part 9, California Code of Regulations)

The California Fire Code is Title 24, Part 9 of the California Code of Regulations (CCR), and is also referred to as the California Building Standards Code (CBSC). The California Fire Code combines the Uniform Fire Code with amendments necessary to address California's unique needs. The CBSC includes regulations which are consistent with nationally recognized standards of good practice, intended to facilitate protection of life and property. Among other issues, its regulations address the mitigation of fire explosion hazards, management and control of the storage, handling and use of hazardous materials and devices, mitigation of conditions considered hazardous to life or property in the use or occupancy of buildings, and requirements to address safety of emergency response personnel.

California Health and Safety Code

State fire regulations set forth in California Health and Safety Code Sections 13000 *et seq.* address building standards, fire protection and notification systems, provision of fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

California Occupational Safety and Health Administration

In accordance with the 8 CCR Sections 1270, Fire Prevention, and 6773, Fire Protection and Fire Fighting Equipment, the California Occupational Safety and Health Administration (CalOSHA) has established minimum standards for fire suppression and EMS. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

City of Redondo Beach Local Policies and Regulations

Redondo Beach General Plan Environmental Hazards / Natural Hazards Element

Goals, objectives, and policies of the Environmental Hazards / Natural Hazards Element of the general plan related to fire prevention and protection include:

Objective 12.1: Endeavor to implement and monitor all possible and necessary fire prevention, fire protection, and emergency preparedness measures to adequately protect residents, employees, visitors and structures from the risk of and impacts due to fire and fire-related emergencies.

Policy 12.1.1 Continue to provide and strive to upgrade an adequate, modern system of fire protection to residents, employees, and visitors of the City of Redondo Beach.

Policy 12.1.2 Continue to cooperate with fire, paramedic, and emergency operations personnel in adjacent municipalities and the County of Los Angeles to assist each other in carrying out the existing regional fire protection agreement.

Policy 12.1.3 Assess the potential impacts of future increases in development density and related circulation impacts and patterns on local fire prevention and protection efforts and emergency response times; ensuring, through the design review and plan check process, that such new development will not result in a reduction of fire protection services below acceptable levels.

Policy 12.1.4 Continue to support public and private programs assisting in the further reduction of potential urban fires, including weed and brush removal and installation and maintenance of fire retardant plantings.

Policy 12.1.5 Continue to monitor, maintain, and upgrade the condition and operation of the local water system and supply, the distribution and operation of local fire hydrants, fire alarm boxes, and fire hose cabinets on the Municipal Pier.

Objective 12.3: Insure that all high occupancy structures, critical facilities, other vital emergency facilities, and local residential, commercial, and industrial structures are designed and constructed to minimize the level of risk of structural failure in a fire or emergency situation.

Policy 12.3.1 Continue to require that all developments be submitted for governmental review according to the Planning and Land Use Section of the California Government Code.

Policy 12.3.2 Enforce all structural and fire safety regulations of the Uniform Building Code, Uniform Fire Code, State Fire Code and appropriate

provisions of the Redondo Beach Municipal Code relating to sprinkler systems, smoke detector systems, and fire alarm systems.

Policy 12.3.3 Continuously re-evaluate and study the need to upgrade the specific provisions of the Redondo Beach Municipal Code relating to sprinkler systems, smoke detector systems, heat detector systems, and fire alarm systems.

Policy 12.3.4 Continue the existing program and practice of inspecting local residential, commercial, and industrial structures for compliance with state and local fire laws, regulations, ordinances, and practices.

Redondo Beach Municipal Code

Redondo Beach Municipal Code (RBMC) Section 3.40.101 adopts the California Fire Code as the Fire Code for the City of Redondo Beach. The RBMC also contains local amendments to the California Fire Code that include additional requirements related to address numbers, fire watch, fire alarm systems, fire protection systems alarms, photovoltaic solar panels, sprinklers, and prohibition of fireworks. The Fire Code is intended to provide for the maximum protection of life and property to the extent feasible, and includes stringent requirements addressing fire prevention and fire suppression for new buildings. Fire Code requirements play an important role in minimizing the risk of fires and preventing property loss, injury, and death within the City.

Redondo Beach Public Services Funding

Funding for the RBFD is determined through Redondo Beach's annual budget process. As required by City of Redondo Beach Charter Section 17.9, the annual budget must be adopted by the City Council on or before June 30 of each year. Under the City's current budget, the Fire Department is authorized for 67 personnel, including 62 sworn firefighter and officer positions (City of Redondo Beach Financial Services Department 2019). The proposed Fiscal Year 2020-2021 budget would authorize a total of 67 personnel, including 62 sworn positions (City of Redondo Beach 2020d). As well as personnel, other operating expenses identified in the annual budget consist of maintenance and operations, internal service fund allocations, and capital outlays.

City of Torrance Local Policies and Regulations

Torrance General Plan Safety Element

The City of Torrance is committed to maintaining a safe environment by minimizing fire hazards to existing and new residential developments. The following policies in the Torrance General Plan

Safety Element aim to minimize the risks associated with urban fires and wildland fires and are relevant to the proposed Project:

- Policy S.2.1 Continue to enforce building fire codes and ordinances.
- Policy S.2.2 Continue to enforce the City's fire prevention and suppression requirements for water supply, water flows, fire equipment access, and vegetation clearance in new and modified developments.
- Policy S.2.3 Continue to research and adopt best practices pertaining to fire management and fire hazards.
- Policy S.2.4 Continue to involve the Fire Department in the development review process to ensure that fire safety is addressed in new and modified developments.

The following policies to provide a high level of fire, police, and emergency medical services are relevant to the proposed Project:

- Policy S.6.2 Maintain an adequate number of fire stations, facilities, and services sufficient to meet high fire protection standards.
- Policy S.6.4 Provide for a maximum six-minute Fire Department response time.

Torrance Municipal Code

The Torrance Municipal Code (TMC) identifies land use categories, development standards, and other general provisions that ensure consistency between the Torrance General Plan and proposed development projects. The following provisions from the TMC focus on fire services impacts associated with new development projects and are relevant to the proposed Project:

Chapter 29.5 (Fire Facilities Impact Fees). This Chapter of the TMC sets forth the fees that are imposed on residential and nonresidential development to ensure that new development pays its fair share of the costs required to support needed fire facilities and related costs necessary to accommodate such development. The funds are to be utilized for payment of the actual or estimated costs of fire facilities, apparatus, and equipment related to new residential and nonresidential construction.

Chapter 85.1 (Fire Code). The Torrance City Council has adopted and incorporated by reference, as though set forth in full in this Section of the Municipal Code, the California Fire Code, 2016. The California Fire Code sets forth

requirements including emergency access, emergency egress routes, interior and exterior design and materials, fire safety features including sprinklers, and hazardous materials.

The City collects development impact fees for fire facilities from all new residential and non-residential development per TMC Section 29.5.1. If the proposed development within the City of Torrance right-of-way is determined to be applicable to the proposed Project, the City of Torrance would calculate and collect the required fees prior to issuance of a grading or building permit.

3.13.3 Impact Assessment and Methodology – Fire Protection

Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the 2020 California Environmental Quality Act (CEQA) Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on fire protection and emergency response services if:

- a) The project would result in substantial adverse physical impacts associated with the provision of new or physically governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection and emergency services.

Methodology

This section: 1) evaluates the availability and level of existing fire protection services; 2) analyzes the potential increases in demand for fire protection and EMS as a result of implementation of the proposed Project including the Phase 1 preliminary site development plan and the more general Phase 2 long range development program; and 3) determines the adequacy of existing fire protection services to meet future demand and whether the proposed Project would increase the demand for fire protection services such that there would be a need for new or physically altered fire facilities, the construction of which could cause significant environmental impacts.

This analysis utilizes the anticipated in the population associated with the proposed Project (refer to Section 3.12, *Population and Housing*), to assess increased demand for fire protection services. Increases in residential, employee, and visitor populations at the Project site were considered in comparison with RBFD staffing levels, assets, and response times. Within this context, impacts to fire protection services are considered potentially significant if the proposed Project would increase the demand for fire protection services such that there would be a need for new or

physically altered RBFD facilities, the construction of which could cause significant environmental impacts.

3.13.4 Project Impacts and Mitigation Measures – Fire Protection

Impact Description (PS-1)

- a) *The project would result in substantial adverse physical impacts associated with the provision of new or physically governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection and emergency services.*

PS-1 The proposed Project – including the Phase 1 preliminary site development plan under Phase 1 and the more general Phase 2 development program – could incrementally increase the demand for the Redondo Beach Fire Department (RBFD) fire protection and Emergency Medical Services (EMS) services as well as other non-emergency services. However, this increase would not result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered fire protection and EMS services and facilities in order to maintain acceptable service ratios, response times, or other performance objectives. This impact would be *less than significant*.

The California Fire Code standards described in Section 3.13.2, *Regulatory Setting – Fire Protection*, are intended to provide for the maximum protection of life and property to the extent feasible, and include stringent requirements addressing fire prevention and fire suppression for new buildings. Requirements include but are not limited to the installation of fire alarms, fire sprinklers, and fire communication systems; the use of more fire-resistant building materials; and the provision of adequate emergency access, fire hydrants, visible address signage, and minimum fire flow rates for water mains. Additionally, multiple State and local programs and policies are in place to reduce potential fire safety impacts associated with new development or redevelopment. The Redondo Beach General Plan Environmental Hazards / Natural Hazards Element and the Torrance General Plan Safety Element include policies to reduce fire hazards and ensure provision of adequate fire services, including, review of development requests, providing local structural inspections, and enforcement of State and local fire regulations (City of Redondo Beach 1993; City of Torrance 2010). As previously described, RBFD has a comprehensive and active fire prevention program, including a dedicated Fire Prevention Division, which provides inspection

services, plan review, issuance of permits, Fire Code enforcement, fire cause investigations, internal safety investigations, citizen safety awareness programs, public fire education, public information services, and community relations events (City of Redondo Beach 2020b). Similarly, TFD's Community Risk Division applies life safety codes to new and existing structures, performs fire investigation and oversees hazardous material administration (TFD 2020a).

As part of the development review processes for the proposed Project, the RBFD and TFD would review the final designs of Phase 1 and Phase 2 prior to issuance of Certificates of Occupancy to ensure that all development is designed to meet the required fire protection safety standards in the Fire Code, thus reducing overall demand for fire protection services (City of Redondo Beach 2020c; TFD 2020a). BCHD coordinated with RBFD regarding the requirements for emergency access as a part of the development of the preliminary site development plan for Phase 1 to ensure that the pedestrian promenade would adequately support fire engines and other RBFD assets used during a fire response or EMS response.

Operation of the proposed BCHD Healthy Living Campus would result in an increase in residents, employees, and visitors at the BCHD campus, and could result in incremental increases in RBFD responses. Phase 1 of the proposed Project would increase the total number of individuals requiring fire protection services through the overall addition of 177 new Assisted Living bed spaces to the existing 120 Assisted Living bed spaces, bringing the total permanent residents supported at the site to 297. As previously described in Section 3.13.1, *Environmental Setting – Fire Protection*, the RBFD responded to an annual average of 98 EMS calls to the Beach Cities Health Center at 514 North Prospect Avenue in 2015 to 2019, which constitutes 1.3 percent of the 7,488 incidents that the RBFD responded to in 2019 (refer to Table 3.13-4). Implementation of Phase 1 of the proposed Project would relocate the 60 existing double occupancy Memory Care units (120 bed spaces) and develop 157 new Assisted Living units (177 new bed spaces), resulting in a total of 297 bed spaces.

Assuming an average of 0.82 annual calls per bed space per year based on the average number of service calls to the existing Beach Cities Health Center, the BCHD campus would generate an estimated total of 244 emergency calls per year following the completion of the proposed development under Phase 1. This would represent an increase in total calls by a factor of approximately 2.5 when compared to the average of 98 calls per year under existing conditions. (This analysis conservatively assumes that each of the EMS calls for the existing BCHD campus was associated with the Silverado Beach Cities Memory Care Community, rather than other medical office building space or the CHF currently located within the Beach Cities Health Center at 514 North Prospect Avenue. It is likely that EMS calls would not increase to this extent because

at least some of the calls to the existing campus are likely attributable to other uses in the Beach Cities Health Center, which would no longer operate once Phase 2 construction begins.)

As with each of the EMS calls from 2015-2019, it is assumed that all future EMS calls would be addressed by RBFD Fire Station No. 1 or 2. (Responses by TFD would be an extremely rare occurrence and would not affect their overall response time goals or ratio of sworn personnel to residents.) Currently, the RBFD has a ratio of 0.93 sworn personnel to every 1,000 residents using the estimated 2019 population of 66,749. The addition of 177 Assisted Living residents to the BCHD campus would not substantially alter the ratio of firefighters from 0.93 sworn personnel to every 1,000 residents. (This minor increase in population would reduce the ratio by < 0.01 , and does not account for the fact that some of the residents would likely be from the existing Redondo Beach population.) Additionally, as discussed in Section 3.12, *Population and Housing*, new employees and visitors to the BCHD campus would be drawn from the South Bay region and would not measurably affect the ratio of firefighters to residents. RBFD's average response times regularly meet their total response time goals (refer to Table 3.13-1), and RBFD has the existing required assets to respond to emergencies at the existing Beach Cities Health Center. The proposed Project would redevelop the existing Beach Cities campus, which is in close proximity (< 1.2 miles) from RBFD's three Fire Stations. Because response times to the existing campus are satisfactory and the proposed Project would only incrementally increase the demand for RBFD services, the proposed Project would continue to be located well within the 6-minute fire response time area and 6-minute and 20-second EMS response time for the RBFD and would not require new or physically altered RBFD facilities.

As described in Section 2.0, *Project Description*, prior to the issuance of Certificates of Occupancy for the proposed development under Phase 1 and Phase 2, BCHD would coordinate with the RBFD and the Redondo Beach Police Department (RBPD) to prepare an Emergency Response Plan for the BCHD campus. This would include an operational handbook that contains processes and procedures for emergencies (e.g., evacuations during a fire, earthquake, etc.). The operational handbook would provide the training requirements and procedures for BCHD staff to contact and coordinate with first responder services. For the reasons stated above, construction and operation of the Project would not affect the ability of RBFD to maintain adequate fire protection and EMS services, and would not require the provision of new or physically altered facilities that could have a substantial adverse physical impact; therefore, the Project impacts would be *less than significant*.

Cumulative Impacts

As described in Impact PS-1, the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – could create an incremental increase in

demand for EMS and fire protection services from RBFD. (Responses by TFD or other fire departments in the Beach Cities or South Bay region would be an extremely rare occurrence and would not affect their overall response time goals or ratio of sworn personnel to residents.) Therefore, the proposed Project, in combination with past, present, and reasonably foreseeable probable future projects in Redondo Beach (refer to Table 3.0-1 in Section 3.0, *Cumulative Impacts*) could contribute to an incremental increase in demand for fire protection services.

The majority of cumulative projects within the City are either public works projects and capital improvement projects or small-scale residential projects (e.g., one- to five-unit condominium developments) that would also have a minor effect on the ratio of sworn personnel to residents. Assuming an average household size of 2.21 people (U.S. Census 2019), these cumulative residential projects would result in an increase in population of approximately 175 people, which is well within the Southern California Association of Governments (SCAG) projections for growth in housing units and population (SCAG 2020) (refer to Section 3.12, *Population and Housing*). With adherence to the Fire Code, which limits the associated impact on fire protection services, the RBFD would continue to be able to provide fire protection services comparable to current services and response times (i.e., RBFD would continue to meet the total response time goal of the 6 minutes for fire response time and 6 minutes and 20 seconds for EMS response). Fire protection services in Redondo Beach are maintained and expanded through property taxes and collection of fees that grow incrementally as development occurs within a service area. Providing for new equipment, facilities, and staffing is assessed as part of Redondo Beach's annual fiscal budget process. (Similarly, the City of Torrance collects development impact fees for police facilities from all new residential and non-residential development per TMC Section 29.5.1.) Based on acknowledgment of, and planning for, future growth within Redondo Beach, and the associated fire protection needs, significant cumulative impacts associated with the need for and/or construction of new or physically altered fire protection facilities are not expected to occur within the foreseeable future. Therefore, neither the preliminary site development plan under Phase 1 nor long range development program under Phase 2 would result in substantial contributions to cumulatively considerable impacts due to the new or physically altered fire protection facilities within Redondo Beach.

3.13.5 Environmental Setting – Police Protection

Redondo Beach Police Department Assets

Police protection services for Redondo Beach are provided by the Redondo Beach Police Department (RBDP), which is divided into a Support Services Bureau and Operations Bureau. The Support Services Bureau provides administrative, management, and recruitment services while the Operations Bureau consists of investigation, patrol and special operations divisions. Each patrol unit is headed by a patrol lieutenant and two sergeants. Units included in the Special



The RBDP Main Station provides police protection services to the City of Redondo Beach.

Operations Division include traffic, pier, community services, and municipal services. Currently, the RBDP consists of 153 staff, 105 of which are staffed under the Operations Bureau. The RBDP Main Station is located at 401 Diamond Street, approximately 0.75 miles southwest of the Project site. The RBDP also operates a part-time police substation located on the Redondo Beach Pier, approximately 1.2 miles southwest of the Project site. The substation allows for officers assigned to the Pier/Harbor Unit to store their equipment, document reports, and houses an office for the Sergeant of the Unit.

Torrance Police Department Assets

Police protection and law enforcement services for the City of Torrance is provided by the Torrance Police Department (TPD). The TPD has one station located at 3300 Civic Center Drive, approximately 2.25 miles northwest of the Project site

Currently, the TPD staffs 227 sworn officers and 128 civilian staff. The TPD is led by the Police Chief and supported by a Command Staff, consisting of a Deputy Chief and three Captains. Each Captain is responsible for one of the major components within the Department's structure: Administrative, Patrol, Special Operations, and Services Bureaus. These bureaus are further divided into divisions that include detective, traffic, patrol, special investigation, community affairs, services, communications, records, personnel and research and training (TPD 2018). The TPD also features many specialized details including a seven-person Crime Scene Investigation unit, a Gang Detail, and a Canine Detail. The Special Operations Bureau offers a Crime Impact

Team that, working undercover, targets major offenders, and a Narcotics Team that targets major international drug distribution organizations.

Crime Rates

In 2018, the RBPD made 2,184 arrests and issued 4,220 traffic citations (City of Redondo Beach Financial Services Department 2019). In 2019, there were a total of 160 violent crimes (240 crimes per 100,000 people) and 1,370 property crimes (2,052 crimes per 100,000 people) in Redondo Beach (Federal Bureau of Investigation 2019a).² The reported number of violent crimes was 46 percent lower than the State-wide rate (441 per 100,000 people) and 35 percent lower than the national rate (367 per 100,000 people) (Federal Bureau of Investigation 2019c), (Federal Bureau of Investigation 2019b). Property crime rates were 12 percent lower than the State average (2,331 per 100,000) and 3 percent lower than the national average (2,110 per 100,000 people) (Federal Bureau of Investigation 2019c; 2019b).

In 2019, the City of Torrance reported a total of 280 violent crimes (195 crimes per 100,000 people) and 2,853 property crimes (1,987 crimes per 100,000 people) (Federal Bureau of Investigation 2019a). The reported number of violent crimes was 56 percent lower than the State-wide rate (441 per 100,000 people) and 47 percent lower than the national rate (367 per 100,000 people) (Federal Bureau of Investigation 2019b, 2019c). Property crime rates were 15 percent lower than the State average (2,331 per 100,000) and 6 percent lower than the national average (2,110 per 100,000 people) (Federal Bureau of Investigation 2019b, 2019c).

Calls and Response Times

The RBPD responds to an average of 186 calls per day (Kochhiem 2020). Calls received by the dispatch center are given a priority ranking of 1 to 3, with 1 being the highest priority. Average response times is 3 minutes 53 seconds for priority 1 calls, 10 minute and 55 seconds for priority 2 calls, and 22 minutes and 3 seconds for priority 3 calls (Kochhiem 2020).

In 2019, TPD officers received a total of 243,172 calls, an average of approximately 666 calls per day (City of Torrance Public Records Center 2020). In 2019, police response time for priority calls was 7 minutes and 20 seconds (City of Torrance Public Records Center 2020).

² Crimes rates per 100,000 people are based on 2019 U.S. Census population estimates. Refer to Section 3.12, *Population and Housing*.

3.13.6 Regulatory Setting – Law Enforcement

City of Redondo Beach Local Policies and Regulations

Redondo Beach Municipal Code

RBMC Section 9-15.01 formally adopts the Uniform Building Security Code, 1997 Edition, published by the International Conference of Building Officials for the protection of the public health and safety. This code establishes minimum standards to make dwelling units resistant to unlawful entry. It regulates swinging doors, sliding doors, windows and hardware in connection with dwelling units of apartment houses or one- and two-family dwellings. The code considers the concerns of police, fire and building officials in establishing requirements for resistance to burglary which are compatible with fire and life safety.

Redondo Beach Public Services Funding

Funding for the RBPd is determined through Redondo Beach's annual budget process. As required by City of Redondo Beach Charter Section 17.9, the annual budget must be adopted by the City Council on or before June 30 of each year. Under the City's current budget, RBPd is authorized for 154 personnel, including 96 sworn positions (City of Redondo Beach Financial Services Department 2019). The proposed Fiscal Year 2020-2021 budget would authorize a total of 153 personnel, including 95 sworn positions (City of Redondo Beach 2020a). Besides personnel, other operating expenses identified in the annual budget consist of maintenance and operations, internal service fund allocations, and capital outlays.

City of Torrance Local Policies and Regulations

Torrance Municipal Code

The City collects development impact fees for police facilities from all new residential and non-residential development per TMC Section 29.6.1. If the proposed development within the City of Torrance right-of-way is determined to be applicable to the proposed Project, the City of Torrance would calculate and collect the required fees prior to issuance of a grading or building permit.

3.13.7 Impact Assessment and Methodology – Law Enforcement

Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the 2020 CEQA Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on police protection and law enforcement services if:

- a) The project would result in substantial adverse physical impacts associated with the provision of new or physically governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection and law enforcement services.

Methodology

This section: 1) evaluates the availability and level of existing law enforcement services; 2) analyzes the potential increases in demand for police services as a result of redevelopment of the BCHD campus under the Phase 1 preliminary site development plan and under the more general Phase 2 development program; and 3) determines the adequacy of existing and planned police facilities to meet future demand and whether the proposed Project would increase the demand for law enforcement services such that there would be a need for new or physically altered police facilities, the construction of which could cause significant environmental impacts.

This analysis utilizes the anticipated increases associated with the proposed Project as identified in Section 3.12, *Population and Housing*, to assess increased demand for law enforcement services. Increases in residential, employee, and visitor populations at the Project site were considered in comparison with RBPD staffing levels, assets, and response times. Within this context, impacts to law enforcement services are considered potentially significant if the proposed Project would increase the demand for law enforcement services such that there would be a need for new or physically altered RBPD facilities, the construction of which could cause significant environmental impacts.

3.13.8 Project Impacts and Mitigation Measures – Law Enforcement

Impact Description (PS-2)

- a) *The project would result in substantial adverse physical impacts associated with the provision of new or physically governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection and law enforcement services.*

PS-2 The implementation of the proposed Project – including the preliminary development plan under Phase 1 and the development program under Phase 2 – would incrementally increase the demand for law enforcement services. However, the required compliance with existing building security standards

(e.g., Redondo Beach Municipal Code [RBMC] Section 9-15.01) would ensure that implementation of the Project would not result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered police protection and EMS services and facilities in order to maintain acceptable service ratios, response times, or other performance objectives. This impact would be *less than significant*.

The addition of 177 new bed spaces under the Phase 1 preliminary site development plan as well as the expansion of community services and recreational facilities under the Phase 2 development program would increase the number of residents, employees, and visitors present on the BCHD campus at any given time, especially during daytime and weekend operational hours. The increase in activity level at the Project site could generate the need for law enforcement services. However, the development under Phase 1 and Phase 2 of proposed Project would include the incorporation of security features such as access control to buildings, secured parking facilities, walls/fences with key systems, building entrances in high foot-traffic areas, and minimum dead space to eliminate areas of concealment. Additionally, the proposed Project would include new and updated security lighting on site, at vehicle entrances, pedestrian walkways, courtyards, driveways, and parking facilities, pursuant to the requirements of RBMC Section 10-5.1706(c)(10). These measures would help reduce impacts on police services by deterring criminal activity at the Project site.

As described in Impact PS-1 with regard to firefighters, the addition of 177 Assisted Living residents to the BCHD campus would not substantially alter the existing ratio of police officers to residents. Additionally, as discussed in Section 3.12, *Population and Housing*, new employees and visitors to the BCHD campus would be drawn from the South Bay region and would not measurably affect the ratio of police officers to residents.

Staffing and equipment needs of the RBPd are reviewed each year during the preparation of the overall budget. Renovation plans for the existing police station are currently under review, but there are no plans to expand the existing station or construct a new station (Kochheim 2020). Further, the RBPd has not identified the need to expand or construct a new police station, and new facilities are not currently required. Based on the current facilities, staffing, and equipment, implementation of the preliminary site development plan under Phase 1 and the development program under Phase 2 would not exceed the overall capacity of existing RBPd services. The proposed Project would not require new or physically altered facilities to maintain service ratios or response times. Therefore, the impacts for Phase 1 and Phase 2 of the proposed Project would be *less than significant*.

Cumulative Impacts

As described in Impact PS-2, the proposed Project – including the preliminary site development plan under Phase 1 and the development program under Phase 2 – could recreate an incremental increase in demand for law enforcement services provided by RBPd related to theft, trespassing, or vandalism. Therefore, the proposed Project, in combination with past, present, and reasonably foreseeable probable future projects in Redondo Beach (refer to Table 3.0-1 in Section 3.0, *Cumulative Impacts*) could contribute to an incremental increase in demand for law enforcement services.

The majority of cumulative projects within Redondo Beach are either public works projects and capital improvement projects or small-scale residential projects (e.g., one- to five-unit condominium developments) that would also have a minor effect on the ratio of RBPd police officers to residents. With adherence to existing building security standards, which deter crime, the RBPd would continue to be able to provide law enforcement services comparable to current services and response times. Additionally, as previously described in Impact PS-2, law enforcement services in Redondo Beach are maintained and expanded through property taxes and collection of fees that grow incrementally as development occurs within a service area. Providing for new equipment, facilities, and staffing is assessed as part of Redondo Beach's annual fiscal budget process. (Similarly, the City of Torrance collects development impact fees for police facilities from all new residential and non-residential development per TMC Section 29.6.1.) Based on acknowledgment of, and planning for, future growth within Redondo Beach, significant cumulative impacts associated with the need for and/or construction of new or physically altered law enforcement services or facilities are not expected to occur within the foreseeable future. Therefore, neither the Phase 1 preliminary site development plan nor the Phase 2 development program would result in substantial contributions to cumulatively considerable impacts due to new or physically altered on law enforcement facilities within Redondo Beach.

3.14 TRANSPORTATION

This section of the Environmental Impact Report (EIR) analyzes the potential environmental effects of the proposed Project on transportation as defined by the California Environmental Quality Act (CEQA) guidelines. This analysis was prepared based on the Beach Cities Health District (BCHD) Healthy Living Campus Transportation Impact Analysis (Transportation Study) prepared by Fehr & Peers (Fehr & Peers 2021a; see Appendix K). Consistent with the intent of Senate Bill (SB) 743 and the associated updates to the CEQA Guidelines, the Transportation Study provides a discussion of vehicle miles traveled (VMT) associated with the proposed Project. Pedestrian, transit, and bicycle impacts anticipated to result from operation of the proposed Project were also analyzed in the Transportation Study.

- **VEHICLE MILES TRAVELED:**

With the adoption of SB 743, the State of California changed the method of traffic analysis required through the CEQA for publicly- and privately-initiated projects. The previous practice of evaluating transportation impacts used on-road congestion or level of service (LOS). SB 743 requires the amount of driving and length of trips – as measured by “*vehicle miles traveled*” or VMT – be used to assess transportation impacts on the environment for CEQA review. These impacts will be reduced or “*mitigated*” by options such as increasing transit, providing for active transportation such as walking and biking, and participating in mitigation banks. All jurisdictions have the option to tailor requirements to their unique communities.

As discussed in detail within Section 3.14.2, *Regulatory Setting*, changes in State law now require an analysis of VMT by measuring the number and distance of daily vehicle trips, rather than the previous practice of analyzing level of service (LOS) by measuring intersection congestion and roadway capacity. This reflects State policy goals to reduce vehicle energy use, particularly that associated with non-renewable fossil fuels, and associated greenhouse gas (GHG) emissions and their adverse effects on global climate change. VMT is determined by multiplying the number of trips generated by the proposed Project by the average length of the trips (measured in miles). VMT per capita is calculated as the total annual miles of vehicle travel divided by the total population in the planning area (e.g., Project site, city, county, region, etc.). Many factors affect travel behavior, including density, design and diversity of land uses, design of the transportation network, access to regional and local destinations, availability of high-quality transit and active transportation facilities, demographics, and effectiveness and availability of Transportation Demand Management (TDM) plans. Typically, low density suburban style development – with greater separation between different types of land uses (e.g., between residential and commercial uses) and without access to high quality transit, bicycle paths or pedestrian facilities – generate more vehicle miles traveled compared to development located in urban areas characterized by mixed-use development and more travel options.

As discussed in Section 3.14.3, *Impact Assessment and Methodology*, as part of the Transportation Study, Fehr & Peers conducted driveway and pedestrian counts to support the VMT analysis.

At the request of the City of Redondo Beach and the City of Torrance, and separate from the Transportation Study, Fehr & Peers also prepared a Non-CEQA Intersection Operational Evaluation, which contains a detailed assessment of traffic circulation issues, with particular focus on the potential for increases in congestion (i.e., changes in level of service [LOS]) at intersections along avenues, boulevards, and commercial streets in the cities of Redondo Beach and Torrance (Fehr & Peers 2021b; see Appendix J). While this analysis is not discussed further in the EIR, it generally found that due to a minor reduction in peak hour trips, the proposed Project – including the Phase 1 site development plan and the Phase 2 development program – would result in a minor beneficial effect on intersection congestion and roadway capacity within the immediate vicinity of the Project site.

3.14.1 Environmental Setting

Regional Highway and Street Network

Regional access to the Project site is provided via Pacific Coast Highway (State Route [SR-] 1), San Diego Freeway (Interstate [I-] 405), Artesia Boulevard (SR-91), and Hawthorne Boulevard (SR-107). Pacific Coast Highway, located approximately 0.5 miles west of the Project site, is a major State highway running along the majority of the coastline in California. Within Redondo Beach and Torrance, the Pacific Coast Highway has four



Artesia Boulevard provides regional access to Redondo Beach and Torrance and connects other regional highways, such as I-10, I-405, SR-107, and Pacific Coast Highway (SR-1).

lanes and is a designated major arterial. The I-405 freeway, located approximately 2.5 miles northeast of the Project site, is a major highway that extends throughout Orange and Los Angeles County and runs in a northwest-southeast orientation through Redondo Beach and Torrance. It is a grade-separated freeway with eight lanes for mixed flow traffic and two lanes designated for High Occupancy Vehicles (HOV). Artesia Boulevard is a four-lane east-west major arterial located approximately 1 mile north of the Project site. Hawthorne Boulevard, located approximately 1.5

miles east of the Project site, provides eight through lanes that run in a north-south direction within Redondo Beach, and is designated as a major arterial.

City Street Classifications

The Redondo Beach General Plan Circulation Element categorizes the street system according to its functions for mobility (i.e., ease of movement) and access (i.e., ability to arrive at a particular destination) (City of Redondo Beach 2009). These street categories include Freeways, Arterial Streets, Collector Streets, and Local Streets.

- **Freeways** – With a controlled number of entry points and grade-separated from City streets, freeways are intended to provide high speed regional movement. Limited access is provided to abutting properties.
- **Arterial Streets** – Designed to carry up to 50,000 vehicles per day, arterial streets are primarily intended to provide movement. Access to abutting property can be provided, but is minimized. Arterials are frequently further divided into major and secondary arterials.
- **Collector Streets** – Typically carrying up to 15,000 vehicles per day, collector streets allow moderate volumes of through traffic to move between local streets and arterials while also providing access to abutting properties.
- **Local Streets** – Local streets are generally intended to carry less than 2,000 vehicles per day with the highest priority to the function of providing access to abutting properties. Given this intended function, through traffic is discouraged.

The Torrance General Plan Circulation and Infrastructure Element further divides arterial streets into Principal Arterials, Major Arterials, and Minor Arterials (City of Torrance 2010).

Local Street Network in the Project Vicinity

The street network in Redondo Beach is primarily gridded with good connectivity. Arterial streets in the vicinity of the Project site generally provide two to three vehicle travel lanes in each direction, with left-turn pockets at most intersections and right-turn pockets at some intersections. Posted travel speeds in the vicinity of the Project site range from 35 to 50 miles per hour (mph), with the majority of streets allowing travel up to 35 mph.

3.14 TRANSPORTATION

The Redondo Beach General Plan Circulation Element designates the following major arterials as local truck routes:

- Sepulveda/Pacific Coast Highway;
- Aviation Boulevard;
- Inglewood Avenue (north of Artesia Boulevard);
- Hawthorne Boulevard;
- Marine Avenue;
- Manhattan Beach Boulevard;
- Artesia Boulevard;
- Redondo Beach Boulevard;
- Anita/190th Street; and
- Torrance Boulevard (east of Pacific Coast Highway).

Torrance has designated its one principal arterial (Hawthorne Boulevard) and most major arterials in the City as truck routes. Major arterials designated as local truck routes within Torrance include, but are not limited to, 190th Street, Anza Avenue, Artesia Boulevard, Del Amo Boulevard, Sepulveda Boulevard, and Torrance Boulevard.

As previously described, regional access to the Project site is provided by the Pacific Coast Highway and a network of arterial and collector streets. The arterial street network that serves the area within the vicinity of the Project site includes 190th Street, Anita Street, Anza Avenue, Beryl Street, Del Amo Boulevard, Hawthorne Boulevard, Inglewood Avenue, North Prospect Avenue, and Torrance Boulevard. Local streets include Blossom Lane, Diamond Street, Harkness Lane, Entradero Avenue, Flagler Lane, Towers Street, and Redbeam Avenue.



Hawthorne Boulevard, which supports primarily commercial uses with some industrial and residential, is a designated truck route within Torrance. Planning within the Hawthorne Boulevard Corridor is guided by the Hawthorne Boulevard Corridor Specific Plan.

Arterial Streets

- **190th Street** is an east-west major arterial that runs east from Flagler Lane following the transition from Anita Street. The roadway provides two lanes in each direction. There are left-turn pockets at most intersections. On-street parking is generally allowed on the north side of the street, except between Rindge Lane and Phelan Avenue. On the south side of the street, on-street parking is generally prohibited west of Entradero Avenue. West of Flagler Lane, 190th Street transitions to become Anita Street. In the Redondo Beach General Plan Circulation Element and Torrance Circulation and Infrastructure Element, 190th Street is designated as a local truck route.
- **Anita Street** is an east-west major arterial that runs east of the Pacific Coast Highway with two lanes in each direction. Between North Maria Avenue and North Prospect Avenue, Anita Street has a center left-turn lane. East of North Prospect Avenue, there are left-turn pockets at most intersections, with a raised median. On-street parking is generally permitted on both sides of Anita Street. Anita Street becomes 190th Street at the intersection with Flagler Lane. Anita Street is designated as a local truck route by Redondo Beach.
- **Anza Avenue** is a north-south secondary arterial that runs from 190th Street south to the Pacific Coast Highway. Within the vicinity of the Project site, Anza Avenue provides two lanes in each direction. Left-turn pockets are provided at most intersections along the avenue. On-street parking is prohibited. However, between Arvada Street and the junction with Halison Street, a service road is provided on the east side of the street, separated by a raised median, and on-street parking is allowed on the service road. Similar to 190th Street, Anza Avenue is designated as a local truck route by both the City of Redondo Beach and City of Torrance.
- **Beryl Street** is a northeast-southwest secondary arterial that runs from Harbor Drive to 190th Street. North of 190th Street, Beryl Street becomes Blossom Lane. Between Catalina Avenue and North Prospect Avenue, Beryl Street provides one lane in each direction with a center left-turn lane. Beryl Street narrows to two lanes east of Flagler Lane. On-street parking is permitted between Catalina Avenue and Flagler Lane and on the south/east side of the street west of Flagler Lane.
- **Del Amo Boulevard** is an east-west major arterial that runs from Diamond Street on the western end to Cerritos in the east. From Diamond Street to North Prospect Avenue, one travel lane is provided in each direction. East of North Prospect Avenue, two travel lanes in each direction are provided with an intermittent raised center median. Between Diamond Street and North Prospect Avenue, on-street parking is permitted on the north side of the street only. East of North Prospect Avenue, on-street parking is permitted for a brief stretch

on south side of the street from Donora Avenue to the bicycle lane transition west of the intersection with Anza Avenue, and is otherwise prohibited.

- **Hawthorne Boulevard (SR-107)** is north-south major arterial that provides four travel lanes in each direction. A raised center median separates opposing traffic. Left-turn lanes are provided at most intersections. On-street parking is prohibited within the vicinity of the Project site. Hawthorne Boulevard is identified as a designated local truck route by both the City of Redondo Beach and the City of Torrance.
- **Inglewood Avenue** is a north-south major arterial that provides two travel lanes in each direction north of 190th Street. South of 190th Street, the roadway transitions to a local road providing one travel lane in each direction. On-street parking is permitted north and south of 190th Street. Inglewood Avenue north of Artesia Boulevard is designated as a local truck route by the City of Redondo Beach.
- **Prospect Avenue** is a north-south secondary arterial that runs from Artesia Boulevard to the Pacific Coast Highway. North of Emerald Street, it is considered North Prospect Avenue and south of Emerald Street, it is considered South Prospect Avenue. Within the vicinity of the Project site, North Prospect Avenue provides two travel lanes in each direction. Left-turn lanes are provided at most intersections.
- **Torrance Boulevard** is an east-west major arterial that provides two travel lanes in each direction west of Anza Avenue and three travel lanes in each direction east of Anza Avenue. A raised median is present from South Prospect Avenue to Wendy Drive. Left-turn lanes are provided at most intersections. On-street parking is permitted on both sides of the street between Henrietta Street and Anza Avenue. Torrance Boulevard is a local designated truck route identified in the Torrance General Plan Circulation and Infrastructure Element.

Local Streets

- **Blossom Lane** is a local street that runs north-south from 190th Street to Manhattan Beach Boulevard. South of 190th Street, Blossom Lane transitions to become Beryl Street. The roadway provides one travel lane in each direction. On-street parking is generally allowed on both sides of the street.
- **Diamond Street** is a northeast-southwest collector street that runs from Catalina Avenue to North Prospect Avenue and provides one travel lane in each direction with a shared left-turn lane. South of North Prospect Avenue, Diamond Street turns into a three-lane roadway with one lane in each direction and a center left-turn lane. On-street parallel parking, Class

II (i.e., striped) bicycle lanes, and 8-foot-wide sidewalks are provided along both sides of the roadway.

- **Entradero Avenue** is a north-south collector street that runs from 190th Street to Del Amo Boulevard and provides one travel lane in each direction. On-street parking is generally allowed on both sides of the street.
- **Flagler Lane** is a north-south collector street that runs from Towers Street to Artesia Boulevard and provides one travel lane in each direction. The portion of Flagler Lane along the western border of Dominguez Park between Anita Street and Beryl Street provides a center left-turn lane and on-street parking. On-street parking along this segment of Flagler Lane includes diagonal parking on the east side of the street facing Dominguez Park and parallel parking along the west side of the street. On-street parking north of 190th Street consists of parallel parking on both sides of the street.



Flagler Lane widens to approximately 62 feet between 190th Street and Beryl Street to support parallel parking along the southbound side of the street and diagonal parking along its boundary with Dominguez Park, as well as two travel lanes and a center left turn lane (left). South of Beryl Street, Flagler Lane narrows to a 36-foot wide, two-lane street until its southern terminus at Towers Street (right).

- **Harkness Lane** is a north-south local street that runs from Rockefeller Lane to Beryl Street and provides one travel lane in each direction. Given its narrow width, on-street parking is prohibited along a majority of Harkness Lane, except on the east side of the street between Morgan Lane and Amour Lane and on both sides of the street between Anita Street and Beryl Street.
- **Towers Street** is an east-west local street that runs from Flagler Lane to Redbeam Avenue and provides one travel lane in each direction. On-street parking is generally allowed on both sides of the street.

- **Redbeam Avenue** is a north-south local street that runs from Towers Street to Del Amo Boulevard and provides one travel lane in each direction. On-street parking is generally allowed on both sides of the street.

Local Access to the Project Site

As described in Section 2.0, *Project Description*, the Project site is generally bordered by North Prospect Avenue to the southwest, Diamond Street to the southeast, Flagler Lane and Flagler Alley to the east, and Beryl Street to the north. Local access to the BCHD campus is provided by North Prospect Avenue from the west and southwest. Access to the vacant Flagler Lot is available from Beryl Street to the north.



Within the vicinity of the Project site (i.e., from approximately 200 feet south of Beryl Street to Diamond Street), a smaller parallel frontage road accessible from the southbound lanes of North Prospect Avenue and Diamond Street splits off from the primary travel lanes along North Prospect Avenue to provide access to single-family houses southwest of the Project site. This smaller parallel frontage road is separated from North Prospect Avenue by a raised median and large hedge that partially obscures views of the BCHD campus.

- **North Prospect Avenue** runs in a northwest-southeast direction along the Project site's frontage, with left-turn channelization for traffic turning east into the Project site. There are no bicycle lanes along North Prospect Avenue or street parking along the Project site frontage however, on-site parking is allowed on portions of the road farther from the Project site.
- **Beryl Street** runs in an east-west direction near the Project site along the adjacent Redondo Village Shopping Center and the vacant Flagler Lot providing two eastbound lanes, one westbound lane, and a center turn lane for vehicles entering and exiting the Redondo Village Shopping Center. Beryl Street intersects with Flagler Lane to the east at a four-way stop, with Hawkes Lane to the north at a four-way stop with access into Redondo Village Shopping Center, and with North Prospect Avenue to the west at a signalized intersection. East of Flagler Lane, Beryl Street narrows to two vehicle lanes. Parallel street parking and 8-foot-wide sidewalks are provided along both sides of Beryl street.
- **Flagler Lane** runs in a north-south direction near the Project site with two vehicle lanes along the majority of the roadway. Adjacent to the Project site, Flagler Lane narrows to 40 feet wide and provides parallel parking and sidewalks along the eastern side of the street

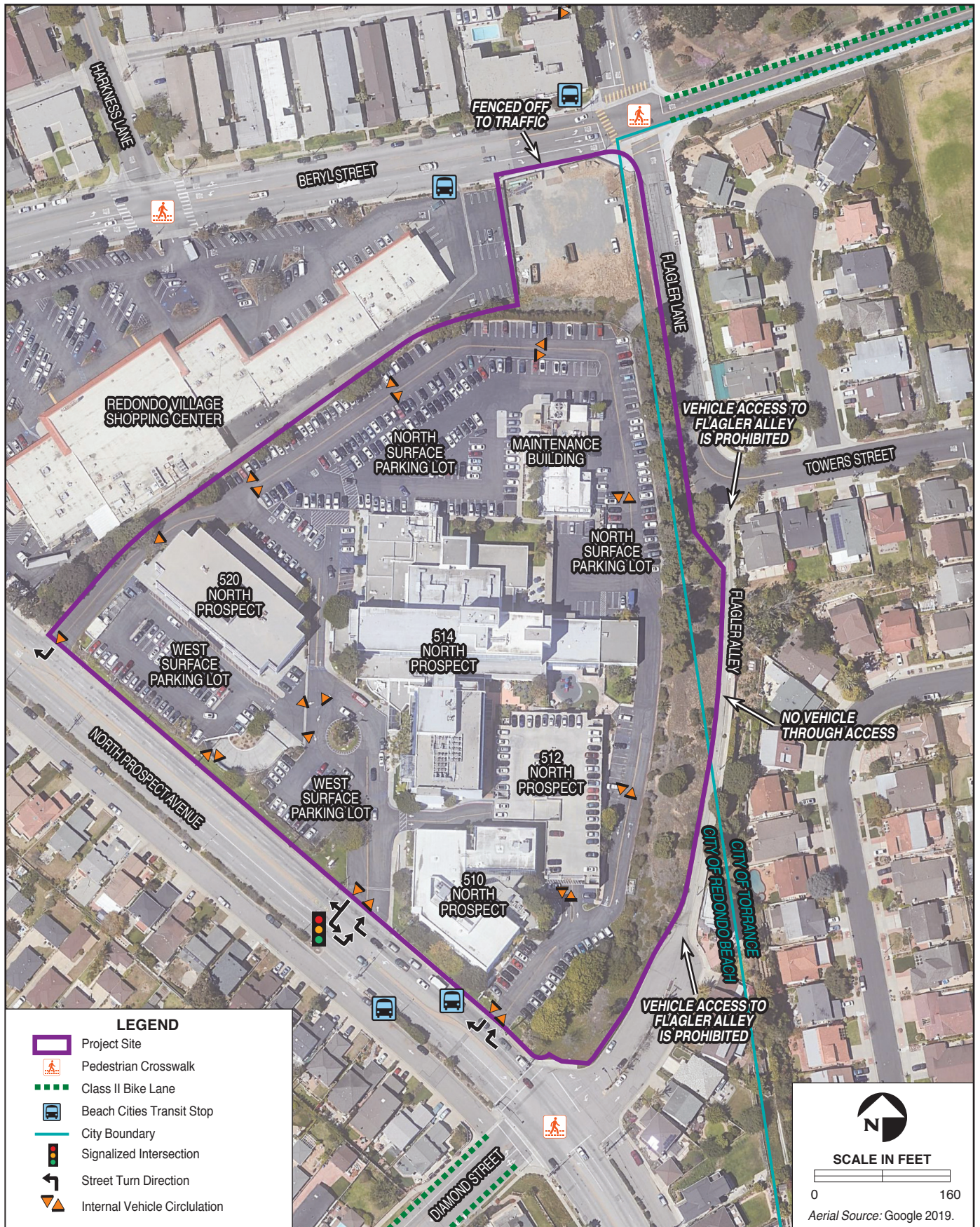
only. Flagler Lane terminates approximately 450 feet south of its intersection with Beryl Street at Flagler Alley. At its southern terminus, the roadway turns east into Towers Street, which provide access to the single-family residential neighborhood to the east, located within Torrance.

- **Flagler Alley** is an approximately 500-foot-long north-south alley that provides a paved pedestrian and bicycle connection between Flagler Lane to the north and Diamond Street to the south (refer to Figure 3.14-1). Flagler Alley is blocked off to vehicles by an existing wooden fence from the north side at the southern terminus of Flagler Lane and a chain-link fence from the south side at the northern terminus of Diamond Street. The 10-foot-wide alley also provides an 8-foot-wide sidewalk.
- **Diamond Street** borders the southeast corner of the BCHD campus, west of North Prospect Avenue. Within the vicinity of the Project site, Diamond Street provides access to six single-family residences immediately southeast of the Project site. Access into this segment of Diamond Street is provided via one lane from the signalized intersection with North Prospect Avenue. Egress from this section of Diamond Street is available via one left-turn lane, one through lane, and one right-turn lane.

Project Site Access

The following three existing driveways provide access to the BCHD campus (refer to Figure 3.14-1):

- The main entrance to the campus is located at a signalized driveway intersection with North Prospect Avenue, approximately 275 feet to the northwest of the intersection of North Prospect Avenue & Diamond Street. This primary entrance provides full left- and right-turn access;
- A secondary driveway is located approximately 100 feet northwest of the intersection of North Prospect Avenue & Diamond Street. This secondary entrance is unsignalized and provides right-turn-only entry/exit to the perimeter circulation road and the southern portion of the campus; and
- Another secondary driveway is located approximately 450 feet northwest of the main entrance along North Prospect Avenue. This secondary entrance is unsignalized and provides right-turn-only entry/exit to the perimeter circulation road and the northern portion of the campus.



wood.

Existing Circulation and Access

**FIGURE
3.14-1**

The main entrance to the campus routes vehicles through a roundabout leading to the existing short-term surface parking lot and drop-off area as well as the entrance to the existing subterranean parking garage. The secondary driveways provide access to a 30-foot-wide perimeter circulation road that runs along the northwest, north, and east borders of the campus and provides access to surface parking spaces at the northern and southern corners of the campus (refer to Figure 3.14-1). Additionally, the vacant Flagler Lot is accessible via a driveway along Beryl Street as well as a locked gate at the corner of the campus's northern parking lot.

Public Transit Services in the Project Vicinity

Local and regional public transit in the Project area is provided by the Los Angeles County Metropolitan Transportation Authority (Metro), Beach Cities Transit, and Torrance Transit. In general, transit service frequency is relatively low in the immediate vicinity of the Project site, presenting challenges to the transit dependent and limiting attractiveness to the non-transit dependent.

- **Metro** – Metro Line 344 provides service between the Harbor Gateway Transit Center in the Gardena and Rancho Palos Verdes to the south. In the Project area, Metro Line 344 travels north-south along Hawthorne Boulevard. Service is provided 7 days per week, with weekday peak period headways of approximately 20 to 30 minutes.
- **Beach Cities Transit** – Beach Cities Transit Line 102 provides local service between the Metro Green Line, the South Bay Galleria, and the Redondo Beach Pier. Within the vicinity of the Project site, Line 102 travels north and south along North Prospect Avenue and northeast and southwest along Beryl Street. Service is provided 7 days per week, with weekday peak period headways of approximately 30 to 45 minutes.
- **Torrance Transit** – Torrance Transit Line 2 provides local service between the Del Amo Fashion Center and the Harbor Freeway (I-110). Within the vicinity of the Project site,



Several bus stops along the Beach Cities Transit Line 102 are located in the immediate vicinity of the Project site, including one across from the vacant Flagler Lot on westbound Beryl Street and one adjacent to the west of Flagler Lot on eastbound Beryl Street.

Line 2 travels east-west along Torrance Boulevard and north-south along Inglewood Avenue. Service is provided 7 days per week, with weekday peak period headways of approximately 60 minutes. Line 3 provides rapid service between Downtown Long Beach and the Redondo Beach Pier. In the Project area, Line 3 travels east-west along Torrance Boulevard. Service is provided 7 days per week, with weekday peak period headways of approximately 10 to 15 minutes. Line R3 provides local service between Downtown Long Beach and the South Bay Galleria. Within the vicinity of the Project site, Line R3 travels north-south along Hawthorne Boulevard. Service is provided on weekdays only. Westbound headways in the AM peak period are approximately 6 to 15 minutes, and 25 minutes in the PM peak period. Eastbound headways are approximately 45 to 55 minutes in the AM peak period and 20 to 25 minutes in the PM peak period. Line 8 provides local service between Torrance and the Los Angeles International Airport (LAX) Transit Center. Within the vicinity of the Project site, Line 8 travels north-south along Hawthorne Boulevard. Service is provided 7 days per week, with weekday peak period headways of approximately 20 to 30 minutes (see Table 3.14-1 and Figure 3.14-1).

Table 3.14-1. Existing Public Transit Services in the Project Area

Route	Line	Description	Hours of Operation		Approximate Headway ¹ (minutes)			
			Weekday	Weekend	Weekday AM	Weekday PM	Saturday	Sunday
Metro Line	344	Harbor Gateway Transit Center – Rancho Palos Verdes	5:09 a.m. – 9:30 p.m.	5:50 a.m. – 9:26 p.m.	20 - 40	30-90	30	60
Beach Cities Transit	102	Metro Green Line, South Bay Galleria, and Redondo Beach Pier	6:05 p.m. – 8:01 p.m.	8:00 a.m. – 7:48 p.m.	30	30	30	20 - 40
Torrance Transit	2	Del Amo Fashion Center – I-110	5:54 a.m. – 10:55 p.m.	6:34 a.m. – 9:21 p.m.	60	60	60	60
	3	Downtown Long Beach – Redondo Beach Pier	4:35 a.m. – 11:33 p.m.	5:30 a.m. – 10:08 p.m.	20 - 30	20 - 30	20 - 30	20 - 30
	R3	Downtown Long Beach – South Bay Galleria	6:20 p.m. – 7:01 p.m.	-	6 - 55	20 - 25	-	-
	8	Torrance – LAX Transit Center	4:43 a.m. – 11:17 p.m.	5:33 a.m. – 10:19 p.m.	20 - 30	20 - 30	60	60

Notes: ¹ Headways are generally defined as the time period between vehicles in a transit system.

Source: Fehr and Peers 2021a.



The Project site is currently directly served by one transit line: Beach Cities Transit Line 102. The northbound Line 102 provides three bus stops adjacent to the Project site: one stop at the BCHD campus's southern secondary vehicle entrance (approximately 100 feet north of the intersection of North Prospect Avenue & Diamond Street), and two stops along the southern side of Beryl Street, at the Shell gas station and just west of the vacant Flagler Lot. The southbound Line 102 provides two bus stops adjacent to the Project site: one bus stop along the western side of North Prospect Avenue, directly across the street from the campus's main entrance, and one stop along the northern side of Beryl Street, directly across the street from the vacant Flagler Lot. The Project site is not served by any Metro or Torrance Transit lines. The nearest Torrance Transit line, Line 2, runs along Anza Avenue approximately 0.80 miles east of the BCHD campus.

Shared Mobility Services

In addition to public transit described above, the WAVE is a senior and disabled curb-to-curb Dial-A-Ride service operating through a cooperative partnership between the City of Redondo Beach and the City of Hermosa Beach. The WAVE provides convenient, inexpensive shared-ride transportation to destinations within Hermosa Beach and Redondo Beach and designated satellite facilities in adjacent communities of Manhattan Beach and Torrance. The service is available to individuals whose disability prevents them from independently boarding an accessible fixed route bus and/or prevents them from getting to or from a boarding location. The service operates on weekdays between 6:00 a.m. and 8:30 p.m. and on weekends between 8:00 a.m. to 8:30 p.m. The WAVE operates from 8:00 a.m. to 5:00 p.m. on holidays including Thanksgiving Day, Christmas Day, and New Year's Day.



Seniors age 62 and older and individuals of any age with impairment or disability are eligible for using the WAVE within the cities of Redondo Beach and Hermosa Beach.

Additionally, the growth of privately operated Transportation Network Companies (TNCs) like Lyft and Uber has also changed the way people move in and around Redondo Beach and Torrance. TNC's provide app-based platforms to connect passengers with drivers who use personal, non-commercial vehicles. Lyft and Uber have become the most recognized and ubiquitous forms of shared mobility and provide both local and to some extent regional linkages. Dockless mobility

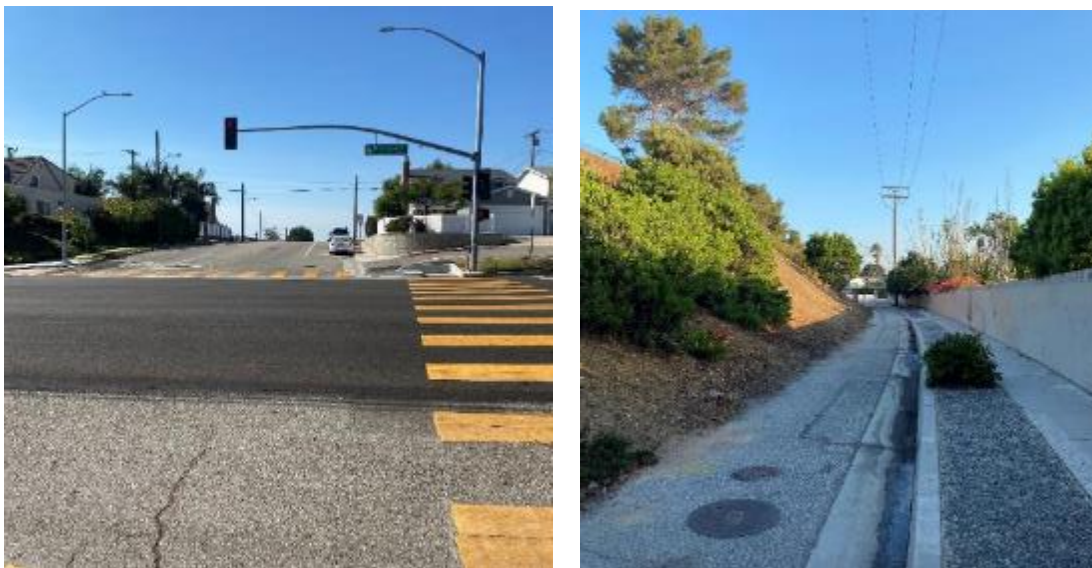
devices that offer app-based electric scooters and bicycles, such as Bird and Jump, are prohibited in Redondo Beach.

Pedestrian and Bicycle Facilities in the Project Vicinity

Pedestrian Facilities

Sidewalks are generally present on both sides of the street throughout the vicinity of the Project site, generally ranging in width from 4 feet wide along the south side of Diamond Street to 9 feet wide along the east side of Flagler Lane. Additionally, sidewalks occur along the eastern side of Flagler Lane and Diamond Street, with Flagler Alley providing an informal pedestrian connection between the two roadways.

Crosswalks are provided along all four legs of the intersection of Beryl Street and North Prospect Avenue and along three legs of the intersection of Beryl Street and Flagler Lane. Additionally, there is a crosswalk provided in the middle of this roadway segment at the driveway entrance to the Redondo Village Shopping Center. Crosswalks are also provided along two legs of the intersection of North Prospect Avenue and Diamond Street and across North Prospect Avenue leading to the main entrance to the campus.



The BCHD campus is accessible via sidewalks and crosswalks along North Prospect Avenue, Beryl Street, Flagler Lane, Diamond Street (left). Flagler Alley (right) provides an informal bicycle path and pedestrian sidewalk to connect Flagler Lane and Diamond Street.

Bicycle Facilities

Bicycle facilities are classified based on the California Department of Transportation (Caltrans) Highway Design Manual (2006) terminology:

- **Class I Bikeway (Bicycle Path)** – A completely separate right-of-way for the exclusive use of bicycles and pedestrians, with vehicle and pedestrian crossflows minimized.
- **Class II Bikeway (Bicycle Lane)** – A restricted right-of-way designated for the use of bicycles, with a striped lane on a street or a highway. Vehicle parking along with vehicle and pedestrian crossflows are permitted.
- **Class III Bikeway (Bicycle Route)** – A right-of-way designated by signs or pavement markings for shared use with pedestrians and motor vehicles.
- **Class IV Bikeway (Separated Bikeway)** – A right-of-way for the exclusive use of bicycles which provides a required separation between the bikeway and through vehicular traffic.

The South Bay Bicycle Master Plan, adopted by the Redondo Beach and Torrance City Councils in 2011, identifies major gaps in the regional bicycle network, primarily within Redondo Beach and between the Torrance and the Pacific Ocean. The bicycle paths along Catalina Avenue and Diamond Street in Redondo Beach provide connections between residential and commercial uses and to Czuliger Park, but do not provide through connections between cities or to major popular destinations. Additionally, three major east-west bicycle routes within the City of Torrance (i.e., Torrance Boulevard, Sepulveda Boulevard, and SR-1) terminate roughly at the border of Torrance with no connection to the Pacific Ocean. The South Bay Bicycle Master Plan indicates that additional Class I, II, and III facilities are planned throughout the Project vicinity. However, under existing conditions, bicycle facilities in the immediate project vicinity are limited and lack connectivity to the larger regional system, requiring cyclists to ride on sometimes busy surface streets.



Flagler Alley, which is currently used as an informal bike path, is planned for improvements under the BCHD Bike Path Project. The BCHD Bike Path Project would upgrade Flagler Alley as a formal Class I bicycle path that would connect existing Class II bicycle lanes along Diamond Street and Beryl Street, adjacent to the Project site.

Within 0.5-mile radius of the Project site, Class II bicycle lanes are available on Anza Avenue between 190th Street and Del Amo Boulevard, Beryl Street between Flagler Lane and 190th Street, and Diamond Street between Prospect Avenue and North Catalina Avenue. The Project site has limited connectivity with the existing network of bicycle paths, with no bicycles paths currently bordering the Project site or connecting the Project site with existing regional bicycle paths in the vicinity. (Flagler Alley provides an informal pathway used by bicyclists and blocked to vehicle traffic.) The nearest Class II bicycle lanes are located along Beryl Street between Flagler Lane and 190th Street and along Diamond Street, southwest of its intersection with North Prospect Avenue. These segmented bicycle lanes provide some bicycle connectivity to the site with surrounding neighborhoods, including the Redondo Beach waterfront area and the coastal Marvin Braude Bike Trail via the Diamond Street bicycle lane. Additionally, the Class II bicycle lane along Diamond Street provides connectivity to the existing Catalina Street Class II bicycle path located roughly 0.75 miles to the south, and which provides some north-south access through Redondo Beach.

The South Bay Bicycle Master Plan indicates that additional bicycle facilities are planned throughout the study area, including Class II bicycle lanes on Beryl Street east of Flagler Lane and on West 190th Street east of Beryl Street, as well as Class III bicycle facilities on 190th Street west of Beryl Street. Additionally, separately from the proposed Project, BCHD is currently working with the City of Redondo Beach and the City of Torrance to plan a new protected (i.e., Class I) bicycle facility (BCHD Bike Path Project) along the eastern perimeter of the BCHD campus along Flagler Lane and Flagler Alley between the northern terminus of Flagler Alley and Beryl Street.

Circulation Hazards

Collision History

A traffic collision is considered to be any event where a vehicle strikes any object while moving. That object could be another car, a pedestrian, or something fixed in place like a light post. When collisions cause damage or injury, the details are recorded by the local law enforcement agency and loaded into the California Highway Patrol Statewide Integrated Traffic Records System (SWITRS). The Transportation Injury Mapping System (TIMS) uses SWITRS data to show an area's High Injury Network (HIN). A HIN consists of streets with a high concentration of traffic collisions that result in severe injuries and deaths, with an emphasis on those involving people walking and bicycling. No roadways in the vicinity of the Project site have been identified by the City of Redondo Beach or the City of Torrance as part of the HIN.

A collision analysis using data collected from the SWITRS was conducted for intersections surrounding the proposed Project which are primary intersections used for access. Based on the

most recently available 5-year collision data (between 2013 and 2018), 323 collisions occurred within the vicinity of the Project on streets used to access the Project site, including people driving, walking, and biking. Of the total number of collisions, 12 resulted in serious injury and five resulted in fatalities.

Table 3.14-2. Number of Collisions in Project Vicinity (2013-2018)

Collision Type	Total	Fatal/Significant Injury Collisions	Total Number of Fatalities
Vehicle-Vehicle	279	13	3
Vehicle-Pedestrian	21	4	2
Vehicle-Bicyclist	26	0	0
Total	323	17	5

Source: See Appendix K.

Hawthorne Boulevard had the highest number of vehicle collisions at its intersections; 33 collisions (10.2 percent) occurred at Hawthorne Boulevard & Del Amo Boulevard, followed by 31 collisions (9.5 percent) at Hawthorne Boulevard & West 190th Street. At both intersections, there was one collision that resulted in a fatality. There were 47 collisions over the 5-year period that involved people either walking or biking along the street segments and key intersections used to access the Project site. Amongst these, four collisions (8.5 percent) resulted in serious injury or death to pedestrians. The intersection of West 190th Street & Hawthorne Boulevard had the highest concentration of collisions, with five reported pedestrian collisions.

Immediately adjacent to the Project site, along Beryl Street and North Prospect Avenue, there was a smaller concentration of collisions, as compared to other segments such as Hawthorne Boulevard, West 190th Street, and Del Amo Boulevard. In total, there were 17 collisions (5.3 percent), which were on the Beryl Street and North Prospect Avenue segments and/or within 200 feet of a key intersection on roadways used to access the Project site. Only two collisions occurred outside of an intersection area. Of these collisions, three collisions resulted in serious injury and one resulted in a fatality. The fatality occurred at North Prospect Avenue & Diamond Street, and involved a motorcyclist. Five collisions occurred at North Prospect Avenue & Diamond Street (closest to the southernmost Project driveway), which was the highest number of collisions closest to the Project site. There were no discernable patterns with regard to collision types (e.g., broadside, rear end, or head-on collisions). Additionally, there are no discernable existing hazards in the vicinity of the Project site due to roadway and driveway configuration.

Closest to the Project site, there were five collisions that involved people walking or biking. These collisions occurred at Beryl Street & Harkness Lane and North Prospect Avenue & Diamond Street

intersections. Of these collisions, two involved children under the age of 18: one walking on Beryl Street and one biking near North Prospect Avenue. There were no collisions reported at the other intersections immediately adjacent to the Project site, including the Project driveways or the Beryl Street & Flagler Street intersection.

Cut-Through Traffic

As arterial roads become increasingly congested, drivers often seek out ways for avoiding traffic jams. This is usually done by cutting through residential neighborhoods to avoid heavy traffic on arterial roads. This phenomenon is referred to as “*cut-through traffic*.”

The residents within the Torrance neighborhood to the east of the Project site have expressed concerns regarding cut-through traffic between Beryl Street and Del Amo Boulevard (see Appendix A). Cut-through traffic in these neighborhoods is associated with commuting as well as student pick-up and drop-off at Towers Elementary School. To reduce cut-through traffic and associated safety risks between Beryl Street and Del Amo Boulevard, the City of Torrance is currently planning to pilot a temporary one-way partial closure of southbound traffic on Flagler Lane between Towers Street and Beryl Street. In preparation for the pilot, the City of Torrance conducted license plate surveys during the AM and PM peak periods at four locations on the boundary of the neighborhood, including:

- Beryl Street & Flagler Lane;
- Redbeam Avenue & Del Amo Boulevard;
- Wayne avenue & Del Amo Boulevard; and
- Entradero avenue & Del Amo Boulevard.



Many bicyclists along North Prospect Avenue ride along the street's wide sidewalks, because the on-road conditions are not suitable for bicycle safety. In particular, several collisions have occurred at North Prospect Avenue & Diamond Street.

The results of the license plate surveys showed that cut-through traffic within the Torrance neighborhood to the east of the BCHD campus is highest between Beryl Street & Flagler Lane and Redbeam Avenue & Del Amo Boulevard. During the AM peak period, approximately 47 percent of the vehicles traveling northbound and 41 percent of the vehicle traveling southbound through the neighborhood contributed to cut-through traffic. During the PM peak period, approximately 31

percent of vehicles traveling northbound and southbound through the neighborhood were commuters cutting through the neighborhood (see Table 3.14-3).

Table 3.14-3. Peak Period Cut-Through Traffic Between Beryl Street and Del Amo Boulevard

Direction	Percent of Vehicles Contributing to Cut-Through Traffic	
	AM Peak Period	PM Peak Period
Northbound	47	31
Southbound	41	31

Source: Fehr & Peers 2021a.

Vehicle Miles Traveled

State-wide Vehicle Miles Traveled and Mode Split

State-wide VMT is highly variable and is affected by the density of development and the mix of land uses within an area. Caltrans reports a total of 344.3 billion State-wide annual VMT and 943.3 million daily VMT in 2017 (the most recent data available) (Caltrans 2019; see Table 3.15-1). According to the U.S. Census Bureau, the 2017 population for the state California was 39.36 million (U.S. Census Bureau 2017). Therefore, the 2017 State-wide annual VMT per capita was approximately 8,747 miles (approximately 23.97 daily VMT per capita).

Table 3.14-4. Statewide Annual and Daily VMT in 2017

Public Roads	Annual VMT (in billions)	Daily VMT (in millions)
State Highways	187.1	512.6
Local Roads ¹	155.8	426.85
Other Agencies ²	1.4	3.8
Total of All Public Roads³	344.3	943.3

Notes: Totals may not equal sum of components due to independent rounding.

¹ Includes city streets and county roads only

² Includes federal, other state and other local jurisdictions

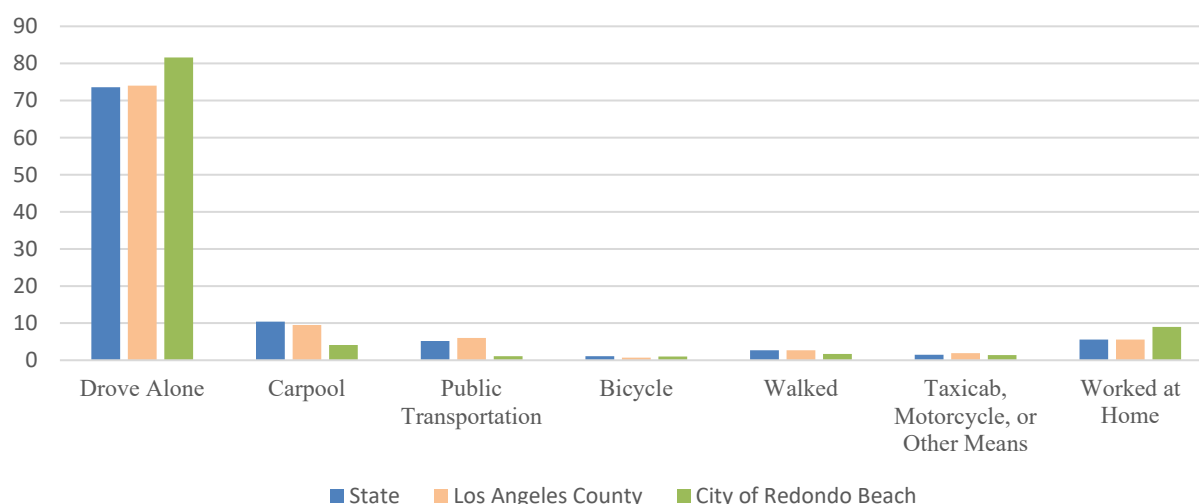
³ All public roads include those owned by cities, counties, and various state and federal agencies

Source: Caltrans 2019.

A majority (approximately 73.6 percent) of the employed population in California drove to work alone in 2017. A smaller portion of the population carpooled (10.4 percent) and took public transit (5.2 percent) to work. Approximately 2.7 percent of the state population walked to work, 1.1 percent biked, and 1.5 percent took a taxi, rode a motorcycle, or chose other means of transportation. Approximately 5.6 percent of the state population worked at home. The average vehicle occupancy (often referred to as “*AVO*”) of workers who drove (alone or carpool) was 1.07 persons per vehicle (see Chart 3.14-1; U. S. Census Bureau 2017). Although data are unavailable,

the COVID-19 pandemic has affected VMT in 2020 and 2021 as a result of restrictions on gatherings, stay at home orders, increased telecommuting and declines in use of public transit; however, its long-term effects on travel behavior are unclear.

Chart 3.14-1. Means of Transportation to Work for the State of California, Los Angeles County, and Redondo Beach



Note: Charted data does not reflect potent effects of COVID-19 pandemic and its effects on commuting.
Source: U.S. Census Bureau 2017.

Regional Vehicle Miles Traveled and Mode Split

According to the Southern California Association of Governments (SCAG) Transportation Safety Regional Existing Conditions report, the SCAG region includes a population of 19 million and a total of 8,700 annual average of VMT per capita in 2017 (SCAG 2017). The SCAG's regional VMT equates to a daily VMT per capita of approximately 23.8 within the greater Los Angeles region.

The 2017 population for Los Angeles County was 10,163,507. The County-wide annual VMT per capita in 2017 was 8,000 annual VMT per capita (approximately 21.9 daily VMT per capita) (SCAG 2017; County of Los Angeles 2019).

Within the County, 74 percent of the employed population drove to work alone in 2017. Less people carpooled to work (9.5 percent) and more people took public transportation (6 percent) than the state averages described above. Similar to the State of California, 2.7 percent of the County's population walked to work, 0.7 percent biked, and 1.9 percent of the population got to work by taxi, motorcycle, or other means. The remaining 5.6 percent of the County's population worked at

home. The average vehicle occupancy of workers who drove (alone or carpool) was 1.07 persons per vehicle, identical to the state average vehicle occupancy (refer to Chart 3.15-1; U. S. Census Bureau 2017).

According to the 2016 SCAG Regional Travel Demand Model (the most recently available model, as the 2020 SCAG Regional Travel Demand Model has not yet been released), the average home-based work VMT per employee (i.e., only vehicle roundtrips between the residence of the trip-maker and their place of work) is 18.4. The average home-based VMT per capita (i.e., all vehicle roundtrips originating from the residence of the trip-maker) for the South Bay Cities Council of Governments (SBCCOG) region is 13.3 (SCAG 2016).

Redondo Beach Vehicle Miles Traveled and Mode Split

Within Redondo Beach, the 2016 annual VMT per capita is 11,753 (32.2 daily VMT per capita). The annual VMT per employee is 5,840 (16.0 daily VMT per employee). City-wide average VMT in Redondo Beach is substantially higher than State-wide or County-wide averages. Within Redondo Beach, a larger portion of the population drove alone to work (81.6 percent) than the State and County averages in 2017. Less of the population carpooled (4.1 percent), walked (1.7 percent), and took public transportation (1.1 percent). Similar to the State and County averages, 1.4 percent of the population traveled to work via taxi, motorcycle, or other means and 1.0 percent of the population biked to work. A larger portion of the Redondo Beach population worked at home (9.0 percent) than the State and County averages. The average vehicle occupancy for workers who drove (alone or carpooled) to work in Redondo Beach was 1.03 persons per vehicle, which is similar to State-wide and County-wide averages (refer to Chart 3.14-1; U. S. Census Bureau 2017).

3.14.2 Regulatory Setting

Federal Laws and Regulations

Americans with Disabilities Act of 1990

Titles I, II, III, and V of the Americans with Disabilities Act (ADA) have been codified in Title 42 of the U.S. Code (USC), beginning at Section 12101. Title III prohibits discrimination on the basis of disability in places of public accommodation (i.e., businesses and non-profit agencies that serve the public) and commercial facilities (i.e., other businesses). This regulation includes Appendix A to Part 36, Standards for Accessible Design, which establishes minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility.

Examples of key guidelines include detectable warning for pedestrians entering traffic where there is no curb, a clear zone of 48 inches for the pedestrian travelway, and a vibration-free zone for pedestrians.

State Laws and Regulations

Assembly Bill 32, Global Warming Solutions Act

Transportation is the largest single sector of the economy that generates GHGs, and changes in transportation are a focus of several State-wide regulations to reduce VMT and increase access to non-vehicular modes of travel. Assembly Bill (AB) 32 commits the State of California to reduce State-wide GHG emissions to 1990 levels by 2020. AB 32 acknowledges that such emissions cause significant adverse impacts to human health and the environment, and therefore must be identified and mitigated where appropriate. Achieving these goals requires a reduction of approximately 30 percent from projected State emission levels and 15 percent from 2006 State levels, with even more substantial reductions required in the future. Pursuant to AB 32, the California Air Resources Board (CARB) must adopt regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions.

Executive Order B-30-15 and Senate Bill 32

Executive Order B-30-15 established a new State-wide policy goal to reduce GHG emissions 40 percent below their 1990 levels by 2030. This Executive Order acts as an intermediate goal to achieving 80 percent reductions by 2050 as outlined in Executive Order S-3-05. Additionally, this Executive Order aligns California's GHG reduction targets with those of leading international governments, including the 28 nations comprising the European Union. California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal established by Executive Order S-3-05 of reducing emissions 80 percent under 1990 levels by 2050.

Senate Bill 375, Sustainable Communities and Climate Protection Act

The adoption of SB 375 created a process whereby local governments and other stakeholders must work together within their region to achieve the GHG reductions specified in AB 32 through integrated development patterns, improved transportation planning, and other transportation measures and policies. Under SB 375, the CARB is required to set regional transportation-related GHG reduction targets for 2020 and 2035. Additionally, SB 375 required that those targets be incorporated within a SCS, a required element within the Metropolitan Planning Organization's (MPO's) Regional Transportation Plan (RTP).

On September 23, 2010, CARB adopted transportation-related GHG emissions reduction targets that require a 7 percent to 8 percent reduction by 2020 and between 13 percent and 16 percent reduction by 2035 compared to emissions in 2005 for each MPO. SCAG is the MPO for the Southern California region and is required to work with local jurisdictions, including the City of Redondo Beach and the City of Torrance. CARB has determined SCAG's reduction target for per capita transportation-related GHG emissions to be 13 percent by 2035.

SB 743

SB 743 furthers the State's commitment to the goals of AB 32 and SB 375 and adds Chapter 2.7, Modernization of Transportation Analysis for Transit-Oriented Infill Projects, to Public Resources Code, Division 13, Section 21099. Key provisions of SB 743, include eliminating the measurement of vehicle delay, or LOS, as a metric that can be used for measuring traffic impacts. Under SB 743, the focus of transportation analysis shifts from LOS to VMT and the reduction of GHG emissions through the creation of multimodal transportation networks and promotion of a mix of land uses to reduce VMT. SB 743 required the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines (Title 14 of the California Code of Regulations [CCR]) to provide an alternative to LOS for evaluating transportation impacts. Particularly for areas served by transit (i.e., transit priority areas [TPAs]), those alternative criteria must *"promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses"* (Public Resources Code Section 21099[b][1]). Measurements of transportation impacts may include *"vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated."* OPR also has discretion to develop alternative criteria for areas that are not served by transit, if appropriate.

As a result, Section 15064.3 was added to CEQA Guidelines, which states *"generally, vehicle miles traveled is the most appropriate measure of transportation impacts."* Section 15064.3 requires that lead agencies no longer use automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, as a criterion for determining a significant impact on the environment pursuant to CEQA, except in locations specifically identified in the revised guidelines, if any. In accordance with this requirement, CEQA Guidelines Section 15064.3(a), states *"a project's effect on automobile delay does not constitute a significant environmental impact."*

Pursuant to the mandate in SB 743, in January 2016, OPR published for public review and comment a Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA (Proposed Transportation Impact Guidelines) recommending that transportation

impacts for projects be measured using a VMT metric. The final Proposed Transportation Impact Guidelines were published in December 2018 (OPR 2018). VMT measures the amount and distance that a project might cause people to drive, accounting for the number of passengers within a vehicle. These proposed transportation impact guidelines provide substantial evidence that VMT is an appropriate standard to use in analyzing transportation impacts to protect environmental quality and a better indicator of GHG, air quality, and energy impacts than automobile delay. With the changes to the CEQA Guidelines, automobile delay, as measured by LOS and other similar metrics, no longer constitutes a significant environmental effect under CEQA (Public Resources Code Section 21099). These updated criteria for transportation impact assessment better align transportation analysis with State GHG reduction goals set by SB 375 to encourage infill development and improve public health through increased active transportation.

2017 Climate Change Scoping Plan

CARB is responsible for the coordination and administration of both Federal and State air pollution control programs within California. CARB's 2017 Scoping Plan reflects the new State-wide GHG emissions reduction goals called for in SB 32 of 40 percent below 1990 emissions levels by 2030.

In the transportation sector, GHG emissions reducing measures include low carbon fuels, cleaner vehicles, and strategies to promote sustainable communities and improved transportation choices that result in curbing the growth in VMT (CARB 2017). As it relates to transportation, the Scoping Plan includes measures to reduce VMT and vehicle GHG emissions, including, but not limited to:

- Pursue 15 percent reduction in VMT for light duty vehicles from Business as Usual by 2050.
- Promote all feasible policies to reduce VMT, including land use and community design that reduce VMT such as transit-oriented development.
- Implement complete street design policies that prioritize transit, biking, and walking.
- Increase low carbon mobility choices, including improved access to viable and affordable public transportation and active transportation opportunities.
- Develop pricing mechanisms such as road user/VMT-based pricing, congestion pricing, and parking pricing strategies.
- Reduce GHG emissions through commute trip reduction strategies, and programs to maximize the use of alternatives to single-occupant vehicles, including bicycling, walking, transit use, and shared mobility options.
- Accelerate equitable and affordable transit-oriented and infill development through new and enhanced financing and policy incentives and mechanisms.

- Increase the number, safety, connectivity, and attractiveness of bicycling and walking facilities to increase use.

California Manual on Uniform Traffic Control Devices

The California Manual on Uniform Traffic Control Devices (MUTCD) is published by Caltrans and is issued to adopt uniform standards and specifications for all official traffic control devices in California, in accordance with Section 21400 of the California Vehicle Code (CVC). The California MUTCD incorporates the Federal Highway Administration's Manual on Uniform Traffic Control Devices (2009 Edition) and all policies on traffic control devices issued by Caltrans that were issued at the time of its release. Caltrans publishes Standard Specifications, Standard Special Provisions, Standard Plans, and other manuals, which contain specifications and requirements for traffic control devices, including their use and placement. In some cases, those specifications and requirements can vary from and be more stringent than those shown in the California MUTCD. The proposed Project – including each of the new access points on Beryl Street and Flagler Lane – would be required to be designed in accordance with all California MUTCD design requirements on any roadway facilities affected by the proposed Project.

Regional Plans and Regulations

SCAG's Regional Transportation Plan/Sustainable Communities Strategy

As described in Section 3.7, *Greenhouse Gas Emissions and Climate Change*, SCAG's Regional Council unanimously approved and fully adopted the 2020-2045 RTP/SCS (Connect SoCal) (SCAG 2020). The 2020-2045 RTP/SCS includes more than 3 years of consultation with stakeholders and the public to capture the goals and objectives of the people within the region and capture the most current available data for determining future demographic projections. The intent of the plan is to build upon and expand land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. The Connect SoCal plan achieves per capita GHG emissions reductions relative to 2005 of 19 percent in 2035 (SCAG 2020).

In October 2020, CARB determined that Connect SoCal is consistent with CARB's GHG reduction targets. Successfully meeting these targets will require substantial effort to reduce VMT. The strategies in Connect SoCal focus on reducing the number of drive-alone trips and overall VMT through ridesharing, which includes carpooling, vanpooling and supportive policies for ridesharing services such as Uber and Lyft; redistributing or eliminating vehicle trips from peak demand periods through incentives for telecommuting and alternative work schedules; and

reducing the number of drive-alone trips through increased use of transit, rail, bicycling, walking and other alternative modes of travel.

Of the 10 goals presented in Connect SoCal, the following six are applicable to transportation:

- Goal 2: Improve mobility, accessibility, reliability, and travel safety for people and goods.
- Goal 3: Enhance the preservation, security, and resilience of the regional transportation system.
- Goal 4: Increase person and goods movement and travel choices within the transportation system.
- Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network.
- Goal 8: Leverage new transportation technologies and data-driven solutions that result in more efficient travel.
- Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options.

2020 Long Range Transportation Plan and Congestion Management Program

The 2020 Long Range Transportation Plan (LRTP) provides a detailed roadmap for how Los Angeles Metropolitan Transit Authority (Metro) will plan, build, operate, maintain, and partner for improved mobility in the next 30 years. The LRTP will guide future funding plans and policies needed to move Los Angeles County forward for a more mobile, resilient, accessible, and sustainable future (Metro 2020).

The current LRTP addresses regional public transit and highways and does not propose any transit improvements in proximity to the Project site. On June 28, 2018, the Metro Board of Directors approved initiating the process for the County and all its local jurisdictions to opt out of the California Congestion Management Program, as authorized under the California Government Code Sections 65082 *et seq.* (Metro 2018). The County is now exempt from the Congestion Management Program. On March 12, 2019, the Redondo Beach City Council also voted to opt out of the Congestion Management Program.

South Bay Bicycle Master Plan

The South Bay Bicycle Master Plan is intended to guide the development and maintenance of a comprehensive bicycle network and set of programs and policies throughout El Segundo, Gardena, Hermosa Beach, Lawndale, Manhattan Beach, Redondo Beach, and Torrance for 20 years following its adoption. Implementation of this plan is meant to promote and increase bicycle

ridership for all levels of ability across the South Bay. The Plan's primary objective is to increase the number of bicyclists, as well as create a larger base of utilitarian bicyclists, including bicycle commuters, through safe, accessible and consistent bicycle infrastructure, and supporting policies and programs (Los Angeles County Bicycle Coalition and South Bay Bicycle Coalition 2011).

City of Redondo Beach Local Policies and Regulations

Redondo Beach General Plan Circulation Element

The Redondo Beach General Plan Circulation Element includes goals to reduce trip generation, promote bicycle and pedestrian modes, and link existing and proposed bicycle facilities, creating opportunities for physical activity. The Circulation Element includes a number of goals related to active transportation and alternative modes, including the promotion of alternative modes, the pursuit of bicycle and pedestrian priorities, the enhancement of bicycle infrastructure, and the creation of opportunities for physical activity.

Goal G1: Reduce Year 2030 trip generation by 25 percent compared to 2007 levels.

Goal G4: Residents and visitors should be able to safely and conveniently walk, bike, or take transit in Redondo Beach, as they prefer.

Goal G5: Expand transportation demand management (TDM) programs that decrease the number of single-occupant vehicles on the road.

Goal G6: Redondo Beach favors development that purposefully integrates itself with surrounding transportation facilities.

Policy P1 Support transit-oriented development that reduces current automobile trips.

Policy P4 Encourage mixed-use development that incentivizes residents to support nearby land uses by minimizing travel distance.

Goal G11: Maintain the existing supply of public parking.

Policy P12 Require new developments to provide sufficient parking to meet demand.

Policy P13 Encourage shared parking between land uses when consistent with industry standards.

Goal G12: Encourage all employers to pursue successful TDM measures already demonstrated in South California.

- Policy P16 Encourage flex hours in work environments.
- Policy P17 Provide incentives for employer-based vanpools.
- Policy P20 Investigate the use of shared transportation vehicles.
- Policy P21 Work with adjacent cities to coordinate incentives for carpools, vanpools, and other measures for Redondo Beach incentives.

Goal G13. Link existing and proposed [bicycle and pedestrian] facilities.

- Policy P22 Connect North Redondo Beach and South Redondo Beach with bike facilities.

Goal G14: Increase the provision of bike lockers, bike racks, and lighting for bike facilities.

Goal G15: Ensure that residences will be able to walk or bicycle to destinations such as the beach, the Civic Center, Redondo Beach Pier, Riviera Village, and other activity centers.

- Policy P29 Provide climate-appropriate landscaping, adequate lighting, and street amenities to make walking safe, interesting, and enjoyable.
- Policy P30 Promote use of alternative transportation for short trips and conduct periodic bicycle and pedestrian counts to assess whether alternative mode use is increasing.

Goal G16: Provide reliable, safe fixed-route transit.

- Policy P37 Provide shuttle service to activity areas.

Circulation Element Policy 10 also contains thresholds of significance for signalized intersections. Unrelated to CEQA, plan, policy, and regulatory consistency with these thresholds of significance would be determined as part of the review and approval process with the City of Redondo Beach decision-makers during consideration of discretionary approvals for the Phase 1 site development plan and the Phase 2 development program. The Operational Intersection Analysis may be used to help inform that decision (see Appendix J).

Redondo Beach Climate Action Plan

The City of Redondo Beach, in concert with SBCCOG, prepared the Redondo Beach Climate Action Plan. The Climate Action Plan, which was adopted in 2017, contains goals and policies that incorporate energy use reduction into Redondo Beach's daily management of its community

and municipal operations. The Climate Action Plan includes a list of non-binding goals and strategies related to transportation:

- Facilitate pedestrian and neighborhood development.
- Identify ways to reduce automobile emissions including:
 - Supporting zero emission vehicle infrastructure;
 - Improving pedestrian and bicycle infrastructure;
 - Enhancing public transit service; and
 - Supporting reductions in single-occupancy vehicle use.

Transportation Demand Management (TDM)

Redondo Beach Municipal Code (RBMC) Section 10-2.2406 requires nonresidential developments of 25,000 square feet (sf) or more to provide TDM measures to reduce the number of vehicles traveling to and from the project site. The proposed Project consists of 389,720 sf of new mixed-use development. The following is required of nonresidential developments greater than 100,000 sf:

- A bulletin board, display case, or kiosk displaying transportation information located where the greatest number of employees are likely to see it.
- Not less than 10 percent of the employee parking area, shall be located as close as is practical to the employee entrance(s), and shall be reserved for use by potential carpool/vanpool vehicles, without displacing handicapped and customer parking needs. This preferential carpool/vanpool parking area shall be identified on the site plan upon application for building permit, to the satisfaction of the City. A statement that preferential carpool/vanpool spaces for employees are available and a description of the method for obtaining such spaces must be included on the required transportation information board. Spaces will be signed/stripped as demand warrants; provided that at all times at least one space for projects of 50,000 sf to 100,000 sf and two spaces for projects over 100,000 sf will be signed/stripped for carpool/vanpool vehicles.
- Preferential spaces reserved for vanpools must be accessible to vanpool vehicles and adequate turning radii and parking dimensions shall be included.
- A safe and convenient on-site zone in which vanpool and carpool vehicles may deliver or board their passengers.
- Bicycle racks or other secure bicycle parking shall be provided to accommodate four bicycles for the first 50,000 sf of nonresidential development and one bicycle per each additional 50,000 sf of nonresidential development.

- Sidewalks or other designated pathways following direct and safe routes from the external pedestrian circulation system to each building in the development.
- If determined necessary by the City to mitigate the project impact, bus stop improvements must be provided. The City will consult with the local bus service providers in determining appropriate improvements. When locating bus stops and/or planning building entrances, entrances must be designed to provide safe and efficient access to nearby transit stations or stops.
- Safe and convenient access from the external circulation system to bicycle parking facilities on site.

City of Torrance Local Policies and Regulations

Torrance General Plan Circulation and Infrastructure Element

The Torrance General Plan Circulation and Infrastructure Element describes the goals and policies needed to attain circulation objectives and introduces other techniques that can be used to improve traffic flow. As discussed in the General Plan, policies pertaining to improving circulation are addressed in multiple chapters of the General Plan. Objectives and associated policies are presented below (City of Torrance 2010).

Objective CI.4: To provide a safe, efficient, and comprehensive circulation system that serves local needs, meets forecasted demands, and reduces traffic impacts on neighborhoods.

Policy CI.4.1 Protect residential neighborhoods from cut-through traffic by enhancing the capacity of Arterials and Collectors, improving signage, guiding traffic away from residential areas, and employing appropriate traffic-calming methods based on identified needs.

Policy CI.4.7 Consider all alternatives for increasing street capacity before widening is pursued for streets that immediately serve residential neighborhoods.

The City also has a target for intersection operation, which is LOS “D” or better. The LOS “D” objective for the roadway system design reflects the City’s desire to maintain stable traffic flow, realizing that peak-hour congestion may occur at locations near freeways or other locations with unusual traffic characteristics due to regional traffic flow. Unrelated to CEQA, plan, policy, and regulatory consistency with these thresholds of significance would be determined as part of the review and approval process with the City of Torrance decision-makers during consideration of

discretionary approvals for the Phase 1 preliminary site development plan. The Operational Intersection Analysis may be used to help inform that decision (see Appendix J).

Torrance Climate Action Plan

The Torrance Climate Action Plan was prepared by the City in concert with SBCCOG and was adopted in 2017. The Climate Action Plan includes a list of non-binding goals and strategies related to transportation, which are the same as those in the Redondo Beach Climate Action Plan as described above.

Hawthorne Boulevard Corridor Specific Plan

The City of Torrance adopted the Hawthorne Boulevard Corridor Specific Plan in 1996 in order to guide future decision-making regarding land use, development, transportation, streetscape, and other public improvements within the Hawthorne Boulevard Corridor Specific Plan Area. The plan area runs along Hawthorne Boulevard and extends from Redondo Beach Boulevard in the north to Rolling Hills Road in the south, encompassing the Del Amo Fashion Center, the Civic Center, Madrona Marsh, and Torrance Municipal Airport. Relevant goals and policies of the plan include the following:

Policy 6-2 Minimize potential conflicts between through traffic on Hawthorne Boulevard and turning traffic, between vehicles and pedestrians, and between traffic and stopped transit vehicles.

Policy 6-4 Avoid the intrusion of through traffic in residential areas.

3.14.3 Impact Assessment and Methodology

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2020 CEQA Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on transportation if it would do any of the following:

- a) Conflict with an applicable plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
- b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).
- c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- d) Result in inadequate emergency access.

As previously described, CEQA Guidelines Section 15064.3(a) establishes increases in VMT as the most appropriate measure of transportation impacts, and states that other considerations may include effects on transit and non-motorized travel. VMT as a metric for impacts is consistent with a broad range of state legislation, regional, and local programs, and plans and policies, and the CEQA Guidelines also require consideration of whether a project may conflict either directly or indirectly with plans, policies, programs, or ordinances addressing circulation, particularly related to increases in VMT and associated reductions in GHG generation. The State has set ambitious targets for reductions in GHG generation, which in turn relates to transportation and required reductions in VMT, because transportation is the largest generator (41 percent) of GHGs by sector in the State. Thus, legislation, programs, plans and policies which target GHG emissions and climate change relate directly to transportation and the need to reduce VMT. Regarding VMT, CEQA Guidelines Section 15064.3(b) provides Criteria for Analyzing Transportation Impacts. Applicable guidance includes the following:

- **Land Use Projects.** VMT exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within 0.5-mile radius of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease VMT in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.
- **Qualitative Analysis.** If existing models or methods are not available to estimate the VMT for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.
- **Methodology.** A lead agency has discretion to choose the most appropriate methodology to evaluate a project's VMT, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's VMT and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate VMT and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

OPR's Recommendations for Transportation Impact Criteria

As explained above in Section 3.14.2, *Regulatory Setting*, in September 2013, SB 743 directed OPR to revise the CEQA Guidelines to establish new criteria for determining the significance of transportation impacts. In developing the criteria, OPR proposed, and in December 2018 the California Natural Resources Agency certified and adopted, changes to the CEQA Guidelines that identify VMT as the most appropriate metric to evaluate a project's transportation impacts. CEQA Section 15064.3 defines VMT as *"the amount and distance of automobile travel attributable to a project"* and notes that for determination of significance for transportation impacts, *"[o]ther relevant considerations may include the effects of the project on transit and non-motorized travel."*

VMT replaced analysis of roadway capacity-based or automobile delay-based LOS, as the CEQA metric for transportation impact from land use projects. That is because LOS measures a project's impact on the driving experience of other vehicle drivers (e.g., congestion, delay, etc.) and favors development in exurban areas where existing roadway traffic is light, often leading to longer vehicle trips, or resulting in road-widening projects, which result in adverse environmental and public health impacts through induced vehicle demand and degradation of the biking or walking experience. By contrast, evaluation of a project's impact as measured by VMT evaluates the effect on the environment of project-generated vehicle trips, such as more and/or longer vehicle trips which emit more GHGs, or projects which generate fewer vehicle trips or shorten existing trips such as development of an infill site or facilities that improve bicycle access or walkability.

While OPR recognizes that lead agencies have the discretion to set or apply their own thresholds of significance, the Proposed Transportation Impact Guidelines include recommendations regarding significance thresholds for residential, office, and retail projects. For residential and office projects, the Proposed Transportation Impact Guidelines recommend that a significant impact occurs when a project's VMT exceeds a level of 15 percent below the existing regional or city VMT per capita and per employee, respectively. This target reduction is consistent with the overall VMT reduction goals of the 2017 CARB Scoping Plan. For retail and redevelopment projects, the Guidelines recommend that a significant impact would occur with any net increase in total VMT. The guidelines also recommend significance thresholds for land use plans. A general plan, area plan, or community plan may have a significant impact on transportation if proposed new residential, office, or retail land uses would in aggregate exceed the respective thresholds recommended above.

BCHD does not have adopted CEQA impact criteria for transportation. As the lead agency responsible for preparing the EIR, BCHD has the discretion to select its impact criteria, and use

relevant and defensible sources. BCHD has reviewed and is following OPR's Technical Advisory. The City of Redondo Beach's in-progress guidelines for VMT impact analysis are also being monitored and the currently considered version is applied to this EIR's the VMT analysis, as further described below.

City of Redondo Beach Draft VMT Thresholds

The VMT impact analysis contained in this report considers the City of Redondo Beach's ongoing efforts to develop new transportation analysis guidelines to comply with SB 743 and is consistent with the draft screening methodologies and impact criteria that were presented to the Redondo Beach City Council on November 10, 2020.

While not yet adopted, the Redondo Beach City Council has provided concurrence with the use of the following screening and significance thresholds:

- **Screening criteria:** Several VMT screening options are currently under consideration by the City of Redondo Beach. If a project meets [one or more of] the screening criteria, it would not be required to conduct a VMT impact analysis. The screening options presented to the City Council included:
 - Small Project screening (less than 110 net daily trips);
 - Locally serving retail (10,000 sf or less); or
 - Low VMT Area (based on data from the SCAG Regional Travel Demand Model). The County defines a Low VMT Area in accordance with CARB's recommendation of 16.8 percent below the County's baseline VMT. The City of Redondo Beach has selected the same threshold in order to be consistent with the County's approach and to support State climate goals.
- **Thresholds of Significance:** For projects that do not meet the screening criteria above, the threshold of significance would be 16.8 percent below the baseline existing conditions. CARB has modeled foreseeable emission reductions associated with existing mobile-source regulations and different combinations of advancements in technologies, fuels, and transportation system efficiencies. The results of CARB's modeling show that a 16.8 percent reduction from existing levels in VMT per capita for light-duty vehicles is needed in order to achieve the State required target of 80 percent reduction in GHGs by 2050. CARB's recommendations are slightly higher than OPR's recommendations (i.e., 15 percent below baseline conditions) because the research is based on meeting slightly different goals.

While not yet adopted, the Redondo Beach City Council has confirmed that SBCCOG should be the geographic area to be used as a baseline for comparing project-related VMT performance in the determination of a potentially significant VMT impact. Using the 2016 SCAG Regional Travel Demand Model, Fehr & Peers estimated average VMT per capita and per employee for the SBCCOG region (see Table 3.14-5). Consistent with the in-progress criteria being considered by the City of Redondo Beach and using their draft guidance, a significant project-related VMT impact would occur if a project's home-based work VMT per employee is greater than 15.3 or a project's home-based VMT per capita is greater than 11.1. Home-based work VMT includes only vehicle roundtrips between the residence of the trip-maker and their place of work. Home-based VMT includes all vehicle roundtrips originating from the residence of the trip-maker.

Table 3.14-5. City of Redondo Beach Draft VMT Impact Thresholds of Significance

VMT Metrics	SBCCOG Average VMT		Percent Change
	2016 Baseline	2040 Forecast	
Home-Based Work VMT per Employee	18.4	13.7	-25.5%
<i>Threshold of Significance (16.8% below)</i>	<i>15.3</i>	<i>11.4</i>	
Home-Based VMT per Capita	13.3	11.3	-15.0%
<i>Threshold of Significance (16.8% below)</i>	<i>11.1</i>	<i>9.4</i>	

Sources: Fehr & Peers 2021a; SCAG 2016.

As described in Table 3.14-5, home-based work VMT per employee is forecast to be reduced by 25.5 percent and home-based VMT per capita is forecast to be reduced by 15 percent in the SBCCOG region by 2040. As such, a project's potential to increase VMT is greater using the (2016) base-year model, rather than the cumulative (2040) forecast. Given this characteristic, the City of Redondo Beach Draft VMT Guidelines require that a project's VMT impact analysis be conducted using the (2016) base-year model.

Methodology

The scope of work for the Transportation Study prepared for the proposed Project was determined in consultation with BCHD, the City of Redondo Beach, and City of Torrance to inform the transportation impact analysis, consistent with the requirements CEQA. Input from the cities was solicited in multiple meetings including on September 20, 2019 and December 12, 2019. An analytical approach was confirmed via feedback received on two technical memoranda focused on trip generation, trip distribution, and VMT analysis.

Plans, Ordinance, and Policy Consistency

The plan, ordinance, and policy consistency analysis assesses whether a project would conflict with an adopted plan, ordinance, and policy addressing the circulation system (including transit, roadways, bicycle, and pedestrian facilities as required under CEQA) that is adopted to protect the environment. In general, transportation policies or standards adopted to protect the environment are those that support multi-modal transportation options and a reduction in VMT. A project that does not implement a program, plan, policy, or ordinance would not necessarily result in a conflict or an impact. Many of these programs must be implemented by the City of Redondo Beach and the City of Torrance themselves over time and over a broad area, and it is the intention of this threshold test to ensure that proposed development projects and plans do not preclude the cities from implementing adopted programs, plans, and policies.

This analysis of land use consistency considers whether the proposed Project would be consistent with applicable plans, policies, and regulations. Sources utilized in the development of this section include SCAG's RTP/SCS, Metro's 2020 LRTP, the South Bay Bicycle Master Plan, the Redondo Beach General Plan, and the Torrance General Plan and Hawthorne Boulevard Corridor Specific Plan. Plan and policy consistency are based on whether the proposed Project would result in environmental impacts to transportation as outlined in the applicable plan.

Vehicle Miles Traveled

The potential impacts of Project-related VMT are assessed in the context of CEQA Section 15064.3 and CEQA Appendix G, as well as the City of Redondo Beach's Draft VMT Guidelines. The analysis also accounts for the goals or State, regional, and local plans regarding reduction targets for VMT and GHG emissions, including the 2017 CARB Scoping Plan target VMT reduction of 15 percent.

The OPR Technical Advisory describes the following components of a VMT analysis necessary to comply with the new CEQA guidelines:

- **VMT Screening & Qualitative Review.** The first step is to determine when a VMT analysis is required. OPR recommends that projects be screened from a VMT analysis based on their size, location, and/or accessibility to transit. If a project does not meet the screening criteria requiring a VMT analysis, it can be presumed to have a less than significant impact under this impact criterion.
- **VMT Analysis Methodology.** If a project is not screened from requiring a VMT analysis, a regional travel demand model is typically used to estimate a project's VMT. OPR

recommends that VMT be reported as “Home-Based Work VMT” per employee for the employees of a project site and “Home-Based VMT” per capita for residential projects.

Based on OPR’s Technical Advisory and the City of Redondo Beach’s Draft VMT Guidelines, the following screening methods were used to analyze the proposed Project: Small Project Screening and Low VMT Area Screening. The analysis also discusses average trip length for trips generated by the proposed Project as compared to regional average trip lengths in the SBCCOG service area.

VMT Screening & Qualitative Review

As described above, the City of Redondo Beach’s Draft VMT Guidelines consider several VMT screening options, which evaluate whether a VMT impact analysis is required for a project. If a project meets the screening criteria, it would not be required to conduct a VMT impact analysis. The screening options include small project (less than 110 net daily trips), locally serving retail (10,000 sf or less), and low VMT area screening. Because the proposed Project is not a locally serving retail development, the small project screening and low VMT area screening are evaluated for the proposed Project below.

The proposed Project’s generation of daily vehicle trips was estimated to evaluate whether the Project meets the criteria for the small project screening. Trip Generation, 10th Edition (Institute of Transportation Engineers [ITE] 2017) represents the industry standard for estimating trip generation and is based on a compilation of empirical (i.e., observed) trip generation surveys at locations throughout the country. While ITE Trip Generation is a defensible approach, ITE always recommends utilizing local data where it is available. Based on input from the City of Redondo Beach and the City of Torrance, an empirical trip generation study was conducted at the BCHD campus to validate and calibrate ITE trip generation rates to reflect accurate existing site conditions.

Driveway counts were collected at the Project site over a period of 24 hours on a typical weekday in October 2019 (see Appendix K). While the driveway counts can be used for validating overall campus trip generation, they do not allow for the analysis of trip generation by individual land use type at the BCHD campus. In order to assess the difference in trip generation by land use type, 24-hour pedestrian counts were conducted at the entrances to each

• DATA USED TO CALIBRATE TRIP GENERATION RATES:

- Driveway Counts
- Pedestrian Surveys
- CHF Membership Scans
- BCHD Programming Information
- Bollard King & Associates Market Feasibility Study

building on campus on the same day as the driveway counts. Because the buildings at 510 North Prospect Avenue and 520 North Prospect Avenue both contain exclusively medical office uses,

pedestrian counts at those buildings were used to develop a site-specific medical office trip rate to compare with ITE trip generation rates for medical office uses. Pedestrian trips to the Beach Cities Health Center (514 North Prospect Avenue) could not be fully isolated by land use due to the mix of land use types within the building. However, the Child Development Center has a dedicated entrance to the Beach Cities Health Center. Therefore, pedestrian counts at that entrance were isolated and compared with ITE trip generation rates for day-care center uses. Membership scans of the Center for Health and Fitness (CHF) were used to estimate isolated trip counts for that land use and compare with ITE trip generation rates for health centers/gyms. Trip counts for the remaining uses within the Beach Cities Health Center (i.e., office/administrative, memory care, etc.) could not be isolated by land use type and individually compared with the respective ITE trip generation rate. Therefore, these land use types were collectively counted and compared to ITE trip generation rates. ITE trip generation rates were applied to each existing land use at the BCHD campus based on the existing occupied floor area of each land use type.

Using the ITE trip generation rates, the existing BCHD campus is estimated to generate 5,854 daily trips, including 530 AM peak period trips, and 637 PM peak period trips. However, the results of the 24-hour site-specific driveway and pedestrian counts showed that the BCHD campus generates 6,713 daily trips, 610 AM peak period trips, and 455 PM peak period trips in one day. Therefore, the driveway and pedestrian counts revealed that the BCHD campus generates 16 percent more daily trips, 13 percent more AM peak period trips, and 29 percent fewer PM peak period trips than the ITE trip generation rates estimated. Using the empirical driveway and pedestrian counts, Fehr & Peers calibrated the ITE trip generation rates in order to more accurately reflect existing trip generation at the BCHD campus. The calibrated trip rates were used to estimate projected trip generation for the proposed Project by phase.

Trip generation estimates for new uses were based on available programming information provided by BCHD. ITE does not provide a trip generation rate for aquatic centers such as the one proposed as part of the Phase 2 development program. Therefore, BCHD hired Ballard King & Associates to prepare a market feasibility study, which includes preliminary findings of the market assessment used by Fehr & Peers to estimate potential trip generation (see Appendix J).

Using the calibrated trip generation rates, it was determined that 3,284 of the total existing daily vehicle trips are generated from land uses within the Beach Cities Health Center. Phase 1 of the proposed Project would demolish the Beach Cities Health Center and subsequently remove these 3,284 daily vehicle trips from the roadway network. (The remaining 3,429 existing daily trips are generated by the medical office uses at 510 North Prospect Avenue and 520 North Prospect Avenue, which would remain in operation under Phase 1 of the proposed Project.)

Table 3.14-6. Phase 1 Project Net Trip Generation

	Trip Generation		
	Daily	AM Peak Period	PM Peak Period
<i>Existing Trips to be Removed</i>			
Beach Cities Health Center	3,284	307	222
<i>Phase 1 Trips to be Added</i>			
RCFE Building	1,365	73	64
<i>Phase 1 Net Trip Generation</i>	<i>-1,919</i>	<i>-235</i>	<i>-158</i>

Source: Fehr & Peers 2021a.

During operation of the Phase 1 preliminary site development plan, the proposed uses within the Residential Care for the Elderly (RCFE) Building which would replace the Beach Cities Health Center are expected to generate 1,365 daily vehicle trips, including 73 AM peak period trips and 64 PM peak period trips (refer to Table 3.14-6; see Appendix J). The net trip generation, which is calculated by subtracting the existing trips generated by the Beach Cities Health Center from the estimated trips that would be generated by the proposed RCFE Building, is expected to be negative. This means that more vehicle trips would be removed from the roadway network than the number of trips that would be added to the roadway network from operation of the proposed RCFE Building. Implementation of the Phase 1 preliminary site development plan is estimated to reduce existing trip generation by approximately 1,919 daily trips, 235 AM peak period trips, and 158 PM peak period trips (refer to Table 3.14-6). This is in part because Phase 1 of the proposed Project would replace high trip generating land uses (e.g., medical office), with lower trip generating land uses (e.g., Assisted Living units). This reduction in daily vehicle trips is also attributed to the demolition of a large number of existing uses within the Beach Cities Health Center and the construction of only a small portion of the proposed Healthy Living Campus Master Plan. Because Phase 1 would result in a substantial reduction of Project-related vehicle trips as compared to existing trip generation at the Project site, Phase 1 would generate fewer than 110 net new trips, falling below the threshold identified by OPR and the City of Redondo Beach for small project screening.

However, after completion of Phase 2, the proposed Project is expected to generate a total of 3,360 daily vehicle trips, including 271 AM peak period trips and 195 PM peak period trips (see Table 3.14-7; see Appendix J). After accounting for existing trips being removed from the roadway network, the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would generate a net increase of 376 new daily trips as compared with existing conditions. Given that the proposed Project would generate a net increase in daily trip generation, and the number of net new trips would exceed the 110 daily trip threshold

identified by OPR and the City of Redondo Beach for small project screening, the proposed Project – including the Phase 1 preliminary site development plan as well as the Phase 2 development program – cannot be assumed to result in a less than significant impact and the proposed Project is not exempt from requiring a VMT impact analysis.

Table 3.14-7. Total Net Trip Generation Resulting from the Proposed Project

VMT	Trip Generation		
	Daily	AM Peak Period	PM Peak Period
Existing Trips to be Removed			
Beach Cities Health Center	3,284	307	222
Proposed Phase 1 and Phase 2 Trips to be Added			
Phase 1	1,365	73	64
<i>Phase 1 Net Trip Generation</i>	<i>-1,919</i>	<i>-234</i>	<i>-158</i>
Phase 2	3,660	271	195
<i>Phase 2 Net Trip Generation</i>	<i>376</i>	<i>-37</i>	<i>-28</i>
Total Net Trip Generation Resulting from the Proposed Project	376	-37	-28

Note: 3,429 existing daily trips are generated by the medical office uses at 510 North Prospect Avenue and 520 North Prospect Avenue, which would remain in operation under the proposed Project. The Beach Cities Advanced Imaging Building (510 North Prospect Avenue) may be redeveloped under the Phase 2 development program; however, it would be replaced with identical medical office uses and would not result in a change in associated trip generation rates.

Source: Fehr & Peers 2021a.

OPR guidance also states that residential and office projects located within an area that generates low VMT may be presumed to have a less than significant impact and could be screened from a VMT impact analysis. Other employment-related and mixed-use projects may

- **TRANSPORTATION ANALYSIS ZONES:** Geographic polygons representing communities and neighborhoods at a sub-city level of detail.

qualify for low VMT area screening if the project is expected to generate VMT per resident or per worker similar to the existing land uses in the low VMT area. As previously described, the County and the City of Redondo Beach define a low VMT area as a transportation analysis zone (TAZ) that generates VMT on a per capita/employee basis that is at least 16.8 percent lower than the regional average. Pursuant to the City of Redondo Beach's Draft VMT Guidelines, the average VMT in the SBCCOG area is used as the regional baseline for comparing Project-related VMT performance.

Using the SCAG Regional Travel Demand Model, Fehr & Peers calculated employment-related (home-based work) VMT per employee and population-related (home-based) VMT per capita for the TAZ that encompasses the Project site (Project TAZ). Home-based work and home-based VMT generated within the Project TAZ were compared to the SBCCOG regional average home-based work and home-based VMT, respectively (see Table 3.14-8).

• **VMT IMPACT ANALYSIS METRICS:**

VMT impact analysis assesses the Vehicle Miles Travelled (VMT) per person (capita), or per employee per day, or total VMT. For residential projects the metric used is “VMT per capita.” For office projects, the metric used is “VMT per employee.” For retail projects, the metric is “total VMT.” For other land uses not specified in the OPR guidance, the metric best fitting the predominant trip-making variable for that use shall be used.

Table 3.14-8. Low VMT Area Screening for Project TAZ

VMT Type	SBCCOG Average	Project TAZ	% Difference
Home-Based Work VMT per Employee	18.4	14.9	-19%
Home-Based VMT per Capita (Population)	13.3	12.7	-5%

Sources: Fehr & Peers 2021a; SCAG 2016.

Home-based work VMT generated within the Project TAZ is more than 16.8 percent lower than the regional average (refer to Table 3.14-8). Therefore, the Project TAZ is considered a low VMT area for home-based work VMT. However, the home-based VMT generated within the Project TAZ is only 5 percent lower than the regional average (refer to Table 3.14-8). Therefore, the Project TAZ does not meet the screening criteria for low VMT screening and would not be identified as a low VMT area for home-based VMT. The City of Redondo Beach has provided direction that low VMT area screening should only be applied to mixed-use projects if all components of the project can be screened. Therefore, the proposed Project, which contains both employment-related and residential-related uses, does not meet the screening criteria for low VMT area screening.

VMT Analysis Methodology

Fehr & Peers calculated VMT associated with the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – using the SCAG Regional Travel Demand Model. The socioeconomic data for the Project TAZ was updated within the model to account for Project-related employment and the Assisted Living residents that would not require on care services. These residents would have access to their own vehicles and therefore could generate home-based VMT per capita. The remaining residents of the proposed Assisted Living and Memory Care units would not be expected to generate home-based VMT since they would be less mobile. Fehr & Peers ran the SCAG Regional Travel Demand Model to calculate

Project TAZ home-based work VMT per employee and home-based VMT per capita with the Project-related socioeconomic data changes (see Table 3.14-9).

Table 3.14-9. Project TAZ VMT Estimates

VMT Metrics	VMT Estimates
Project TAZ Home-Based VMT per Capita	12.8
Project TAZ Home-Based Work VMT per Employee	14.8

Sources: Fehr & Peers 2021; SCAG 2016.

As described in Table 3.14-10 below, the ITE trip generation rates vary widely between the types of residential land uses considered by SCAG (single-family homes and multi-family low-rise developments) and the types of residential uses included in the proposed Project (senior adult housing and assisted living). According to ITE trip generation data, Assisted Living uses generate only 35 percent of the daily trips of typical multi-family housing (see Table 3.14-10).

Table 3.14-10. ITE Residential Daily Trip Generation Rates

ITE Code	Land Use	Unit of Measure	Daily Trips
210	Single Family Housing (Detached)	DU	9.44
220	Multi-Family Housing (Low-Rise)	DU	7.32
252	Senior Adult Housing (Attached)	DU	3.70
254	Assisted Living	Beds	2.60

Source: ITE 2017.

While ITE only considers the numbers of trips generated by various land uses, the VMT analysis prepared by Fehr & Peers assumes that the characteristics of those trips (e.g., trip purpose and length) are similarly varied. For example, residents of single-family homes and multi-family low-rise developments may travel long distances daily for work and may group different purpose trips together (e.g., school or child care drop-offs and pick-ups with errands along the way), whereas retired residents of adult independent communities may make only short trips to one or two destinations per day, such as the local grocery store or a doctor's appointment.

In order to more accurately evaluate VMT generated by the proposed Project, Fehr & Peers also obtained average trip length data for the BCHD campus using StreetLight location-based service data from 2019, prior to the onset of the COVID-19 pandemic. Using the StreetLight portal, Fehr & Peers mapped the relative weight of the origin/destination grid cells to and from the BCHD campus.

BCHD serves members of the Beach Cities (i.e., Redondo Beach, Hermosa Beach, and Manhattan Beach) communities as well as other South Bay communities. By nature of its service area, BCHD generates a shorter average trip length than typical uses in the SBCCOG subregion. According to the StreetLight portal, the areas (i.e., grid cells) with the greatest share of travel to and from the Project site are clustered within the Beach Cities and adjacent communities. Select grid cells beyond these nearby communities indicate likely concentrations of BCHD employees commuting to and from the Project site; however, these areas are scattered with small shares of travel to and from the BCHD campus. The StreetLight data revealed that the average weekday trip length to and from the BCHD campus is 6.4 miles, and the average weekend trip length is 6.3 miles. Given that the proposed Project would redevelop the existing campus with uses that would continue to serve the Beach Cities and surrounding South Bay communities, existing trip lengths are likely to remain similar under the proposed Project. The existing average weekday trip length for the BCHD campus is 65.2 percent lower than SBCCOG regional home-based work VMT per employee (refer to Table 3.14-5).

To further evaluate whether the Assisted Living and Memory Care residents of the proposed Project would generate less VMT per capita than the SCAG Regional Travel Demand Model's estimates for residential uses, StreetLight data were evaluated for Brookdale South Bay located at 5481 West Torrance Boulevard in Torrance. Brookdale South Bay provides independent Assisted Living units. Therefore, Brookdale South Bay was determined to have representative data for average trip lengths associated with residents of the proposed Project. Fehr & Peers calculated an average trip length of 4.8 miles using the StreetLight data for Brookdale South Bay.

- **SCAG REGIONAL TRAVEL DEMAND MODEL:** SCAG forecasts travel behavior for the Southern California Region using computer-based software programs also known as the Regional Travel Demand Model. The Regional Travel Demand Model provides a common foundation for transportation planning and decision-making by SCAG and other agencies within the Region.
- **STREETLIGHT DATA:** StreetLight is a data vendor that aggregates and summarizes origin destination data using cell phone and app location-based data (e.g., Google Maps) to quantify and measure the travel patterns for a given location. (These data are aggregated into grid cells to maintain individual user privacy.) Unlike the modeled regional data provided by SCAG, StreetLight data are recorded, location specific data that provide for a more refined understanding of trip-making characteristics on a local level.

The VMT impact analysis under Impact T-2 compares Project TAZ home-based work VMT per employee and home-based VMT per capita to the regional averages within the SBCCOG to determine the significance of the increase in VMT associated with the proposed Project (see Table 3.14-11)

Geometric Design Feature or Incompatible Use Hazards & Emergency Access

Impacts regarding the potential increase of hazards due to a geometric design feature generally relate to the design of access points to and from the Project site. Impacts can be related to vehicle-vehicle, vehicle-bicycle, or vehicle-pedestrian conflicts as well as to operational delays caused by vehicles slowing and/or queuing to access a project site. These conflicts may be created by the driveway configuration or through the placement of project driveway(s) in areas of inadequate visibility, adjacent to bicycle or pedestrian facilities, or too close to busy or congested intersections. These impacts are evaluated for both temporary conditions during Project construction and permanent conditions after buildout of the Phase 1 preliminary site development plan and the more general Phase 2 development program under the proposed Project.

Project access plans are reviewed in light of commonly accepted traffic engineering design standards to ascertain whether any deficiencies are apparent in the site access plans which would be considered significant. The determination of significance shall be on a case-by-case basis, considering the following factors:

- The relative amount of pedestrian activity at campus access points.
- Design features/physical configurations that affect the visibility of pedestrians and bicyclists to drivers entering and exiting the Project site, and the visibility of cars to pedestrians and bicyclists.
- Emergency access is analyzed with consideration of the routes of ingress/egress to the Project site, evaluating the potential limits to access for emergency personnel and site evacuation.

Cut-Through Traffic

As described in Section 3.14.1, *Environmental Setting*, the City of Torrance conducted license plate surveys during the AM and PM peak periods at four locations on the boundary of the Torrance neighborhood to the east of the BCHD campus to evaluate cut-through traffic between Beryl Street and Del Amo Boulevard. Independent of the City of Torrance's license plate surveys, Fehr & Peers also collected neighborhood street segment counts on a number of roadways in the Torrance neighborhood. The streets considered in these counts include, but are not limited to,

Flagler Lane between Beryl Street and Towers Street, and Redbeam Avenue between Norton Avenue and Del Amo Boulevard. The counts were collected in January 2020, prior to the onset of the COVID-19 pandemic, and on a weekday during a non-holiday week when schools were in session.

Most cut-through traffic occurs when congestion is high on arterial streets, particularly during commute AM and PM peak periods. As identified within the City of Torrance's license plate surveys, between 31 percent and 47 percent of vehicles traveling through the Torrance neighborhood contribute to cut-through traffic. Assuming cut-through traffic remained constant throughout the day, Fehr & Peers assumed a blended cut-through rate of 37.5 percent of vehicles contribute to cut-through traffic during the midday period between 9:30 a.m. and 4:00 p.m. However, cut-through traffic typically occurs most often during peak commute periods when drivers may attempt to bypass congested locations; therefore, midday cut-through traffic would likely be lower than the AM and PM peak period percentages identified by the City of Torrance.

3.14.4 Project Impacts and Mitigation Measures

Impact Description (T-1)

- a) *The project would conflict with an applicable plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.*

T-1 The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not cause significant environmental impacts due to conflicts with any transportation plan, policy, or regulation. Therefore, impacts would be *less than significant with mitigation*.

The CEQA Guidelines state that a project would have a potentially significant impact if the project would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Redondo Beach and Torrance have adopted plans, ordinances, and policies that establish the transportation planning framework for all travel modes. The overall goals of these policies are to achieve a safe, accessible, and sustainable transportation system for all users. In compliance with CEQA, this analysis also assesses consistency with applicable plans in the vicinity of the Project site.

As described in Section 2.5.1.5, *Sustainability Features*, the proposed Project would implement a TDM plan with trip reduction strategies to reduce single-occupancy vehicle trips to the Project site. While the proposed Project would not generate daily vehicle trips or VMT that would result

in a significant transportation impact (see Impact T-2), the TDM plan is included as a recommended mitigation measure that provides additional information on the proposed TDM measures pursuant to the requirements of RBMC Section 10-2.2406. The TDM plan would also encourage visitors to travel to the campus via active (e.g., walking, biking, etc.) transportation, consistent with BCHD's mission to promote health and well-being. For example, BCHD would provide a bicycle sharing program for access to the adjacent bicycle paths and local surroundings as well as bicycle facilities, such as bicycle parking, a bicycle repair station, and employee shower and locker facilities. The TDM plan would also include transit and carpool incentives for employees, such as subsidized Beach Cities Transit passes and designated parking for vanpools and carpools. The Assisted Living, Memory Care, and PACE services would also share and use vans to transport several participants at once, which would reduce vehicle trips to the BCHD campus. BCHD would provide incentives to guests and employees for hybrid and/or electric car parking. The proposed Project would also include ride-share amenities as well as an emergency ride home program for employees and visitors. See MM T-1 for a list of measures that would be considered in the required TDM plan.

Although the proposed Project would generate 376 net new daily vehicle trips and incrementally increase VMT, it would be substantially consistent with adopted plans and policy framework established in Connect SoCal, Metro's 2020 LRTP, the South Bay Bicycle Master Plan, Redondo Beach General Plan Circulation Element, Torrance General Plan Circulation and Infrastructure Element, and Torrance Hawthorne Boulevard Corridor Specific Plan. Therefore, a comprehensive analysis of consistency with applicable long-range planning documents and policies is provided in Section 3.10, *Land Use and Planning*. This analysis includes a rigorous discussion of consistency with development standards, including design guidelines and vehicle trip reduction strategies, to minimize transportation impacts associated with the proposed Project. In addition, because the South Bay Bicycle Master Plan currently does not provide specific policies or goals for individual development projects, this analysis describes how the proposed Project would support the overall goal of this plan. As discussed in further detail below, the proposed Project is consistent with all applicable development standards, design guidelines, and other transportation-related strategies.

Connect SoCal

Connect SoCal aims to reduce or limit new trip generation and associated regional growth in traffic congestion and VMT by focusing growth, density, and land use intensity within existing urbanized areas. Connect SoCal also strives to enhance the existing transportation system, maximize multi-modal transportation, and integrate land use into transportation planning. The RTP/SCS recommends local jurisdictions accommodate future growth within existing urbanized areas to

reduce VMT, congestion, and GHG emissions. The proposed Project supports these goals by redeveloping an existing developed site with a mix of residential, community service, medical office, and community health and wellness uses in close proximity to several stops along Beach Cities Transit Line 102, which are within walking distance of the Project site. The proposed Project would also encourage pedestrian activity through the provision of 114,830 sf of pedestrian-only on-site open space. The proposed Project would also provide electric vehicle (EV) charging stations and bicycle parking spaces for visitors and employees improving overall access to active bicycle facilitates. As described in Section 3.10, *Land Use and Planning* the proposed Project would be consistent with all applicable goals of Connect SoCal.

Metro 2020 Long Range Transportation Plan

Metro's 2020 LRTP focuses on improving transportation and the environment with the implementation of trip reduction strategies and TDM measures, such as transit-oriented development (TOD), to reduce single-occupant vehicle trips and VMT. While the area within the vicinity of the Project site is generally transit poor, lacking multiple transit routes, the proposed Project would support transit-oriented communities by developing 157 new residential units, new jobs, and community center uses conveniently located in close proximity to residential and commercial land uses and adjacent to several stops along the Beach Cities Transit Line 102. As previously described, the proposed Project would implement a TDM plan (see recommended MM T-1) with transit and carpool incentives for employees (e.g., designated parking for carpools and vanpools on-site), shared vans to transport several Assisted Living, Memory Care, and PACE participants at once, and ride-share pick-up amenities (e.g., the main entrance roundabout and passenger drop off driveway). The proposed Project would also reduce vehicle trips and VMT by providing publicly accessible ground-level open space with pedestrian pathways and on-site bicycle facilities (e.g., bicycle parking, employee showers and lockers, etc.) to encourage active transportation to and from the Project site. Therefore, the proposed Project would enhance active transportation usage in the vicinity of the Project site, and would be consistent with the goals of the LRTP.

South Bay Bicycle Master Plan

The Project site is located adjacent to the Class II bicycle lanes on Diamond Street and Beryl Street as well as the informal bike path along Flagler Alley. Implementation of the proposed Project would not physically interfere with any future bicycle facilities identified in the South Bay Bicycle Master Plan. The proposed Project would also not conflict with local goals and policies to increase bicycle trips in the cities of Redondo Beach and Torrance. Rather, the proposed Project would

encourage employees, tenants, and visitors to use existing bicycle facilities throughout the area through implementation of a TDM plan and the provision of on-site bicycle amenities such as secure bicycle parking, showers, and personal locker facilities. Therefore, the proposed Project would support the goals and actions of the South Bay Bicycle Master Plan.

Redondo Beach General Plan Circulation Element

The Redondo Beach General Plan Circulation Element serves as a planning document governing the transportation networks within Redondo Beach. The Circulation Element establishes goals related to reducing trip generation, promoting alternative modes of transportation, expanding TDM, and coordinating transportation and land use planning. The complete list of the goals and policies adopted by the City of Redondo Beach is described in Section 3.10, *Land Use and Planning*. As discussed in Section 3.10, *Land Use and Planning* implementation of the proposed Project would be consistent with the City of Redondo Beach's goals, policies, and programs for transportation management, alternative transportation, and walkable communities.

One of the stated goals of the Redondo Beach General Plan Circulation Element is the City-wide goal to encourage all employers to pursue TDM measures already demonstrated to be successful in Southern California, such as the implementation of flexible hours in work environments, incentives for employer-based carpools and vanpools, and shared transportation vehicles. The proposed Project would maximize mobility and accessibility through implementation of a TDM plan (see recommended MM T-1), which would include trip reduction strategies, such as transit and carpool incentives for employees (e.g., designated parking for carpools and vanpools on-site), to reduce single-occupancy vehicle trips to the Project site. Additionally, the Assisted Living, Memory Care, and PACE services developed during Phase 1 would share vans to transport several participants at once, which would reduce vehicle trips to the BCHD campus. A majority of the BCHD campus employees would continue to work with a flexible schedule, which allows an employee to work hours that differ from the normal company start and stop time to reduce peak period vehicle trips and associated roadway congestion.

The Redondo Beach General Plan Circulation Element also establishes the goal to reduce Year 2030 trip generation by 25 percent compared to 2007 levels. This goal will be achieved by changing travel behavior associated with both existing and future development in Redondo Beach. To achieve the goal of reducing Year 2030 trip generation by 25 percent compared to 2007 levels, the Circulation Element provides a framework for integrating land use and transportation to reduce vehicle trips; encouraging walking, bicycling, and transit use; and creating active, pedestrian-oriented neighborhoods. The proposed Project is expected to reduce daily vehicle trips during

operation of Phase 1 as compared to existing conditions and would generate an increase of only 95 daily vehicle trips during operation of Phase 2 (see Impact T-2). The Circulation Element goal of reducing Year 2030 trip generation by 25 percent compared to 2007 levels is not a requirement to be applied on a project-by-project basis. Rather, the intent of this goal is to reduce vehicle trips for existing and future uses on a City-wide basis through implementation of land use and transportation policies, programs, and projects that support and invest in the transportation system. The Circulation Element encourages that new projects be designed to support the use of alternative forms of transportation by providing housing, jobs, and local-serving community services in close proximity to public transit and incorporating design elements that would encourage walking and bicycling. As previously described, the proposed Project would be served by Beach Cities Transit Line 102. The proposed Project would also promote active and multi-modal transportation by providing pedestrian linkages through the site and bicycle facilities on-site, which would assist in reducing Project-related vehicle trips and VMT. For example, the proposed Project would include publicly accessible ground-level open space traversed with pedestrian pathways which would provide on-site and off-site connectivity with the existing sidewalks adjacent to the Project site on North Prospect Avenue, Beryl Street, Flagler Lane and Flagler Alley, and Diamond Street. The proposed new two-tiered stairway would provide an additional pedestrian entrance to the Project site adjacent to the intersection of Beryl Street & Flagler Lane, and the pedestrian-only open space on the ground level of the proposed Project would enhance active transportation usage in the Project vicinity. Open space areas would include an entry plaza featuring directional signage, public art, seating areas, and water feature, a tree-lined pedestrian promenade, and a relocated demonstration garden, making walking safe, interesting, and enjoyable. Additionally, the proposed Project would provide secure, on-site short-term bicycle parking, a bicycle repair station, and shower and locker facilities for visitors and employees to encourage active transportation to and from the Project site and reduce vehicle trips.

Additionally, by developing a mix of land uses on a single site in Redondo Beach and adjacent to Torrance, the proposed Project would increase accessibility to multiple other destinations including restaurants, grocery stores, commercial, recreational, and residential uses. As a result of increased destination accessibility, the proposed Project would support the City-wide goal of reducing overall vehicle trips and VMT.

As described in Section 3.10, *Land Use and Planning* the proposed Project would be consistent with all applicable goals of the Redondo Beach General Plan Circulation Element.

Torrance General Plan Circulation and Infrastructure Element and Hawthorne Boulevard Corridor Specific Plan

The Torrance General Plan Circulation and Infrastructure Element identifies a transportation system capable of responding to growth occurring consistent with the Land Use Element. This element describes physical improvements needed to attain circulation objectives for automobiles, pedestrians, cyclists, and transit riders, and introduces other measures (e.g., restricted street parking, transportation systems management plans) that can be used to improve traffic flow. The Hawthorne Boulevard Corridor Specific Plan provides a framework of detailed standards and guidelines for integrating land use and transportation to reduce vehicle trips; encouraging walking, bicycling, and transit use; and creating active, pedestrian-oriented neighborhoods. The primary goals of the General Plan Circulation and Infrastructure Element and Hawthorne Boulevard Corridor Specific Plan with regard to the circulation system within Torrance are focused on maintaining or improving the existing LOS at intersections during peak periods, protecting residential neighborhoods from cut-through traffic, and reducing the dependence on single-occupant vehicles.

The proposed Project is expected to reduce daily and peak period trip generation during operation of Phase 1 when compared to existing conditions, as detailed under Impact T-2. While operation of Phase 2 of the proposed Project is expected to generate an increase of 376 net new daily vehicle trips, AM peak period trips would be reduced by approximately 37 and PM peak period trips are expected to be reduced by approximately 28, as compared to existing conditions (refer to Table 3.14-7). Therefore, implementation of the proposed Project would reduce trip generation during peak periods and result in a mildly positive effect on intersection operations along key corridors in Torrance, such as Hawthorne Boulevard.

With implementation of the Construction Traffic and Access Management Plan (MM T-2), the proposed Project would avoid construction traffic through residential neighborhoods within Torrance to the maximum extent feasible (refer to Figure 2-13 for the proposed construction vehicle haul routes). Additionally, the proposed driveways on Flagler Lane south of Beryl Street would be restricted to left turns only, preventing traffic from cutting through the Torrance residential neighborhood to the east of the Project site. Further, service and delivery vehicles would be instructed to enter the driveway from Flagler Lane to the north in order to avoid cut-through traffic within this residential neighborhood (see Impact T-3 for further discussion of Project impacts related to cut-through traffic).

As described in Section 3.10, *Land Use and Planning* the proposed Project would be consistent with all applicable goals of the Torrance General Plan Circulation and Infrastructure Element. As noted above, the proposed Project would also be consistent with the Hawthorne Boulevard Corridor Specific Plan.

Summary of Consistency Discussion

As described above, the proposed Project is consistent with all applicable development standards, design guidelines, and other transportation-related strategies. The proposed Project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities and impacts would be *less than significant*.

Impact Description (T-2)

- b) *The project would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).*

T-2 Additional vehicle miles traveled (VMT) generated during construction would be minimized with implementation of a Construction Traffic and Access Management Plan. Long-term operation of the proposed Project would generate an incremental increase in VMT that would be *less than significant*.

Construction

Construction activities associated with development of the proposed Project would result in additional construction VMT in the vicinity of the Project site and on the PCH and I-405 freeways. Construction-related traffic would include haul trucks, cement trucks, equipment delivery trucks, and construction worker vehicles. During excavation, haul trucks would be required for import and export of materials. Construction activities associated with Phase 1 of the proposed Project would generate up to approximately 1,825 haul truck trips for export of demolished asphalt and excavated soil, and 2,000 haul truck trips for export of demolition debris. Additionally, construction of the RCFE Building would require approximately 1,237 truck trips for concrete delivery. Backfill of the Beach Cities Health Center basement would require approximately 875 truck trips for import of clean soil (refer to Section 2.5.1.3, *Construction Activities*). Construction activities associated with the Phase 2 development program would require approximately 1,660 trips associated with export of demolition debris and excavated soil and approximately 2,149 trips associated with concrete and steel deliveries (refer to Section 2.5.2.4, *Construction Activities*).

The majority of excavation and soil export would occur during the construction of the RCCE Building under Phase 1 construction. The timing and frequency of haul truck trips would be dictated by the rate of excavation activities within the proposed parking structure footprint; however, it is estimated that the rate of export would be up to 1,250 haul truck trips over a 1-month period. All construction and demolition (C&D) waste would be exported to a mixed C&D debris recycling facility approved by the City of Redondo Beach pursuant to a Construction & Demolition Waste Management Plan. This phase of construction would also involve vehicles trips and associated VMT to provide construction materials, support excavation, and transport construction workers. Construction worker vehicles, materials deliveries, and other construction-related trips are expected to result in additional haul truck trips on area streets throughout the construction period. Construction-related increases in VMT would occur would be temporary in nature and *less than significant*. Further, the implementation of MM T-2 would reduce this impact by requiring the preparation of a Construction Traffic and Access Management Plan, which would include provisional measures to reduce construction traffic, maintain public safety, and reduce associated VMT.

Operations

The VMT screening conducted for the proposed Project determined that operation of the proposed Healthy Living Campus following the completion of Phase 2, would not meet the screening criteria for small project screening or low VMT area screening. Therefore, Fehr & Peers prepared a VMT analysis to determine whether implementation proposed Project would result in a significant increase in VMT.

The proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would result in a net increase of 376 new daily trips (refer to Table 3.14-7). The projected increase in daily vehicle trips under the proposed Project would subsequently result in an increase in daily VMT at the Project site as compared to existing conditions.

As described in Section 3.14.3, *Impact Assessment and Methodology*, the City of Redondo Beach’s Draft VMT Guidelines concur with a VMT significance threshold of 16.8 percent below the SBCCOG regional average VMT for home-based work trips and home-based trips. As described in Table 3.14-11, the SCAG Regional Travel Demand Model determined that home-based work VMT generated within the Project TAZ is 14.8 miles, which is 19 percent lower than the SBCCOG regional average of 18.4 miles. Therefore, Project TAZ home-based work VMT does not exceed the threshold of 16.8 percent below the SBCCOG regional average VMT, and impacts related home-based work VMT under the proposed Project are considered to be *less than significant*.

Table 3.14-11. Project VMT Impact Analysis

VMT Metrics	VMT Estimates
SBCCOG Average Home-Based Work VMT per Employee	18.4
Project TAZ Home-Based Work VMT per Employee	14.8
<i>Threshold of Significance (16.8% below regional average)</i>	<i>15.3</i>
Above Threshold?	No
SBCCOG Average Home-Based VMT per Capita	13.3
Project TAZ Home-Based VMT per Capita	12.8
<i>Threshold of Significance (16.8% below regional average)</i>	<i>11.1</i>
Above Threshold?	Yes

Source: Fehr & Peers 2021; SCAG 2016.

As described in Section 3.14.3, *Impact Assessment and Methodology*, StreetLight data for the Project site show that existing trip lengths to the Project site are significantly lower than those calculated using the SCAG model. For example, the average home-based VMT generated within the SBCCOG region is 13.3 miles as estimated by the SCAG Regional Travel Demand model (refer to Table 3.14.11), while the average weekday trip length to/from the BCHD campus is 6.4 miles as calculated using StreetLight data. StreetLight data relies not on a forecast, but on actual observed behavior. While the proposed Project's Assisted Living program is a residential population, it is likely to generate vehicle trips and VMT at a lower level than typical residential uses contained in the SCAG model forecast.

StreetLight data were evaluated for Brookdale South Bay located in the City of Torrance as an example data source of average trip lengths for Assisted Living residents. Brookdale South Bay provides independent living units the proposed Assisted Living program under Phase 1 of the proposed Project. Based on StreetLight data, the average trip length of Brookdale South Bay residents was 4.8 miles in 2019. This average trip length is less than 50 percent of the home-based VMT per capita calculated for the Project TAZ using the SCAG Regional Travel Demand model. It should be noted that the average trip length of 4.8 miles from Brookdale South Bay includes employee travel; therefore, the average residential trip length is likely even shorter than 4.8 miles. With this additional evidence of shorter average trip lengths associated with independent Assisted Living residents, the home-based VMT per capita for the proposed Project would be less than 11.1 (16.8 percent below the SBCCOG regional average; refer to Table 3.14-11). Because average trip lengths associated with independent Assisted Living residents is shorter than 4.8 miles, Project-related VMT would be below the threshold of significance for home-based VMT per capita. The potential for Project-related impacts to home-based VMT per capita is determined to be *less than significant*.

As demonstrated by the above analysis, while the proposed Project would generate a net increase of 376 daily vehicle trips, the average trip length associated with the BCHD campus would be substantially lower than the regional average. Further, the proposed Project would implement several transportation-related sustainability features that are not accounted for in the SCAG Regional Travel Demand Model estimation of home-based VMT. As previously described, the Assisted Living, Memory Care, and PACE services would share and use vans to transport several participants at once, which would reduce vehicle trips and associated VMT to the BCHD campus. The proposed Project would also include ride-share amenities as well as an emergency ride home program for employees and visitors in order to encourage active transportation to the campus. BCHD would provide a bicycle sharing program for access to the adjacent bicycle paths and local surroundings as well as bicycle facilities, such as bicycle parking, a bicycle repair station, and employee shower and locker facilities. BCHD would also incentivize the use of hybrid and EVs by providing designated parking with free EV charging stations.

While the proposed Project would not generate VMT that would result in a significant transportation impact, MM T-1 is recommended to assist in implementing the TDM plan required for the proposed Project by RBMC Section 10-2.2406 . Implementation of the TDM plan would include promotion of alternative transportation modes and carpool incentives for employees, which would further reduce Project-related VMT. The TDM plan would also encourage visitors to travel to the campus via active (e.g., walking, biking, etc.) transportation, consistent with BCHD's mission to promote health and well-being. The TDM plan would also include transit and carpool incentives for employees, such as subsidized Beach Cities Transit passes and designated parking for vanpools and carpools. See MM T-1 below for a list of measures being considered for the proposed TDM plan.

Recommended Mitigation Measures (MM)

MM T-1 ***Transportation Demand Management (TDM) Plan.*** *Beach Cities Health District (BCHD) would prepare and implement a comprehensive TDM plan, which would provide trip reduction strategies for BCHD employees, tenants, and campus visitors. The TDM plan would be prepared by a qualified transportation engineer/planner and overseen by a TDM Coordinator to be designated by BCHD. The TDM plan would be developed prior to the issuance of a Conditional Use Permit (CUP) for Phase 1 of the proposed Project and would be continuously maintained and adjusted as needed.*

The BCHD TDM Coordinator would monitor employee, tenant, and visitor mode share with annual surveys and develop annual reports for submittal to the BCHD Board of Directors. The surveys shall capture trip origin data, travel mode, rideshare (e.g., number of people in the party), and other key data and indicators for TDM program performance relative to VMT (e.g., employee incentives for bicycling to work). The BCHD TDM Coordinator would ensure that monitoring efforts capture all BCHD-related travel behavior. Annual monitoring reports would include trip length surveys completed at least biannually by a sample of BCHD employees and tenants by BCHD employees (e.g., trip origin data collection). Survey results would be used to determine the appropriate TDM measures to employ in the coming year to maximize reductions in VMT per capita, champion transit and alternative mode transportation to the BCHD employees, develop appropriate incentives to increase the BCHD's transit mode share incrementally over time, and develop effective marketing tools to advertise transit and non-vehicular travel mode availability and incentives.

Each annual TDM Program monitoring report would:

- Describe the TDM efforts in place at the time to reduce vehicular trips;*
- Summarize collected employee and tenant survey data and results;*
- Evaluate survey data and results, comparing trends and annual changes;*
- Evaluate change in available transportation infrastructure and programs serving the BCHD campus;*
- Provide recommendations for adjustments to the TDM Program to adaptively manage VMT reductions for employees, tenants, and visitors.*

The TDM Coordinator would oversee annual monitoring and reporting to evaluate the effectiveness of the TDM measures being implemented at the BCHD campus and recommend adjustments as needed to the TDM plan on an annual basis. Final annual reports and data (e.g., survey data) shall be shared with the cities of Redondo Beach and Torrance and made readily available for public review and use. Information regarding the TDM plan shall be distributed to all BCHD employees and tenants and shall be posted on BCHD's website and other marketing materials for BCHD visitors and updated annually as needed based on the annual reports.

The TDM Coordinator would consider a range of measures for the TDM plan to reduce employee and visitor VMT per capita, including, but not limited to, the following:

- *Provide employee incentives to participate in a vanpool program and regularly advertise the opportunities to vanpool through a variety of employee communication formats.*
- *Partner with rideshare companies such as Uber or Lyft to guarantee availability of an emergency ride home or provide access to City vehicles for this purpose.*
- *Offer employee TDM benefits for use of active transportation commuter modes, including ridesharing, transit, bicycling walking, carpool/vanpool, etc. Incentives for BCHD employees could include flexible scheduling or options for telecommuting.*
- *Maximize opportunities for BCHD employee to telecommute as part of regular scheduling.*
- *Provide a transportation information center and wayfinding signage for nearby Beach Cities Transit Line 102 bus stops.*
- *Expand the proposed onsite bicycle facilities (i.e., shower, racks, and lockers) for BCHD employees in an amount and location informed by annual employee surveys and monitoring reports.*
- *Encourage bicycles as a primary commute mode for employees and provide incentives for biking to work, including providing free or discounted equipment to employees such as helmets, locks, bicycle commuter gear, and bicycles (electric or non-electric).*
- *Coordinate with the cities of Redondo Beach and Torrance to identify and facilitate new bicycle paths between the BCHD campus and neighboring communities, particularly linkages to existing bicycle path segments. BCHD and the cities of Redondo Beach and Torrance shall ensure that all bicycle paths to the BCHD campus are well-signed and provide lighting, are regularly patrolled by law enforcement.*
- *Provide commuter clubs for BCHD employees and campus visitors to support a collaborative approach to TDM.*
- *Maintain and expand onsite bicycle parking for BCHD visitors in an amount and location informed by visitor surveys and annual monitoring reports.*
 - *Maintain and expand short-term bicycle parking within the BCHD campus to meet changing demands evaluated in the TDM Program annual reports.*
 - *Provide well-lit, clearly signed, bicycle parking that is convenient and in close proximity to the Entry Plaza to encourage bicycling by visitors.*

- *Provide secure short-term bicycle parking and/or a bicycle parking attendant, bicycle valet, or indoor bicycle parking facility to prevent theft and ensure parking availability for BCHD visitors.*
- *Design bicycle racks with space-efficient configurations, such as vertically staggered racks and two-tier racks.*
- *Provide a bicycle station at the campus as a part of the Metro Bike Share or a new bike share program specific to BCHD. Funding shall be determined based on the area required for the bicycle station. The bicycle share station shall be well-lit and located at a safe and convenient location adjacent to the Entry Plaza.*

Residual Impacts

Although not required to mitigate a significant VMT impact, implementation of recommended MM T-1 would further reduce *less than significant* impacts related to VMT.

Impact Description (T-3)

- c) *The project would substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).*

T-3 Construction traffic hazards would be mitigated by implementation of a Construction Traffic and Access Management Plan. Operation of the proposed Project may increase hazards for pedestrians and transit along eastbound Beryl Street due to the proposed new driveway entrance at the Flagler Lot. Construction and operational impacts related to hazards due to design features would be *less than significant with mitigation*.

Construction

Construction traffic would include haul trucks, cement trucks, equipment delivery trucks, and construction worker vehicles. Demolition would require the use of typical construction equipment, such as backhoes, to break up and remove existing asphalt, concrete, and building materials. Heavy equipment, such as bulldozers and excavators, and haul trucks would be used to haul away large amounts of debris to a mixed C&D debris recycling facility approved by the City of Redondo Beach pursuant to a Construction & Demolition Waste Management Plan. During excavation, haul trucks would be needed for import and export of materials. The majority of excavation and soil export would occur during the construction of the subterranean service area and loading dock included in the Phase 1 preliminary site development plan. The timing and frequency of haul trucks would be dictated by the rate of excavation activities within the proposed parking structure footprint; it is estimated that the rate of export would be 1,250 haul truck trips within a 1-month

period. This phase would also involve delivery trucks trips, construction worker vehicle trips, and other construction-related trips that would result in additional trips per day on the surrounding street network and PCH and I-405 freeways throughout the construction period. However, construction-related increases in traffic would be temporary in nature.

Increased construction traffic on freeways and streets, particularly haul trucks and other heavy equipment (e.g., cement trucks and cranes), may disrupt traffic flows, reduce lane capacities, and generally slow traffic movement. In addition, construction traffic could interfere with or delay transit operations and disrupt bicycle and pedestrian circulation. For example, construction activities associated with the proposed Project may require the temporary or extended closure of adjacent traffic lanes and sidewalks on surrounding streets (i.e., North Prospect Avenue and Beryl Street) to accommodate excavation for utilities, operation of construction equipment, etc. All construction equipment would be staged within secured construction areas within or adjacent to the BCHD campus. The primary construction staging areas for equipment and materials would be the vacant Flagler Lot and the existing northern surface parking lot (refer to Figure 2-12). Nevertheless, frequent haul truck traffic entering and exiting the driveways along North Prospect Avenue and Beryl Street could interfere with pedestrian and bicycle flows along both streets. Other potential construction-related impacts include idling, parked, or queued haul trucks that could potentially obstruct visibility. Haul trucks would exit the I-405 freeway on 190th Street or Hawthorne Avenue to 190th Street and reach the site using Del Amo Street to North Prospect Avenue (refer to Figure 2-13; Section 2.5.1.6, *Construction Activities*).

As a result, construction activities and potential conflicts between vehicles, bicycles, and pedestrians in the Project vicinity would be potentially significant. To avoid construction-related safety hazards, implementation of MM T-2 would require preparation of a Construction Traffic and Access Management Plan to address construction traffic routing and control, safety, construction parking, and vehicle, bicycle, and pedestrian safety. The Construction Traffic and Access Management Plan would require construction flaggers be present during all haul trips and concrete truck trips to maintain the flow of traffic and allow safe passage for pedestrians across crosswalks and crossing the driveway entrances along North Prospect Avenue and Beryl Street. The Construction Traffic and Access Management Plan would include a Construction Traffic Control Plan to be approved by the City of Redondo Beach and the City of Torrance. The Construction Traffic Control Plan would outline designated haul routes and construction staging areas, construction crew parking, emergency access provisions, traffic control procedures, and avoidance of traffic impacts during construction in accordance with the *L.A. County – Department of Transportation Area Traffic Control Handbooks*. The Construction Traffic and Access

Management Plan would address temporary traffic impacts that could occur during each construction activity. With the implementation of MM T-2, construction-related hazards would be reduced to *less than significant with mitigation*.

Specific construction areas within the BCHD campus would be temporarily fenced with 8-foot-high construction fencing and blocked off to employees and campus visitors during construction activities. Larger closures of the campus would be required during the demolition of the Beach Cities Health Center during Phase 1 and during the demolition of the parking structure and potentially the Beach Cities Advanced Imaging Building during Phase 2. All construction equipment would be staged within the secured construction fencing. Additionally, signage would be posted with maps clearly describing pedestrian and vehicle detours on campus. Signage would also clearly show convey warning information and safety regulations (e.g., no trespassing, hard-hats required, etc.) to deter pedestrians from entering the active construction areas. With the implementation of MM T-2, construction-related hazards would be reduced to *less than significant with mitigation*.

Cut-Through Traffic

As described in Section 3.14.1, *Environmental Setting*, cut-through traffic could present a safety hazard associated with speeding through residential neighborhoods and the increased risk of collisions. Cut-through traffic is a major concern for the residents of the Torrance neighborhood and was identified as an area of public concern within the agency and public comment letters received on the Notice of Preparation (NOP) for this EIR (refer to Section 1.8, *Areas of Known Public Controversy*). To reduce cut-through traffic and associated safety risks between Beryl Street and Del Amo Boulevard, Torrance is currently planning to pilot a temporary one-way partial closure of southbound traffic on Flagler Lane between Towers Street and Beryl Street. In preparation for the pilot, the City of Torrance conducted license plate surveys during the AM and PM peak periods at four locations on the boundary of the neighborhood (refer to Section 3.14.1, *Environmental Setting*; refer to Table 3.14-3 for further information regarding the results of the license plate surveys).

In addition to the City of Torrance's license plate surveys to evaluate cut-through traffic between Beryl Street and Del Amo Boulevard, Fehr & Peers collected neighborhood street segment counts on a number of roadways in the Torrance neighborhood to the east of the BCHD campus. The streets considered in these counts include, but are not limited to, Flagler Lane between Beryl Street and Towers Street, and Redbeam Avenue between Norton Avenue and Del Amo Boulevard. The counts showed 1,350 daily vehicles entering the neighborhood from the north end via Flagler Lane

at Beryl Street, and 1,110 daily vehicles exiting on the south end of the neighborhood on Redbeam Avenue at Del Amo Boulevard. In the opposite direction, the counts showed 1,240 daily vehicles entering the neighborhood from the south end on Redbeam Avenue at Del Amo Boulevard, and 1,358 daily vehicles exiting the neighborhood on the north end on Flagler Lane at Beryl Street.

Most cut-through traffic occurs when congestion is high on arterial streets, particularly during commute AM and PM peak periods. Assuming cut-through traffic remained constant throughout the midday period (i.e., between 9:30 a.m. and 4:00 p.m.), a total of 73 vehicles heading southbound on Flagler Lane from Beryl Street could be expected to cut-through the neighborhood during the midday period, for an average of 11 cut-through vehicles per hour. During the nighttime period (i.e., between 6:00 p.m. and 7:30 a.m.), a total of 38 cut-through vehicles could be expected to cut-through the neighborhood in the southbound direction, for an average of 3 cut-through vehicles per hour. However, cut-through traffic typically occurs most often during peak commute periods when drivers may attempt to bypass congested locations; therefore, midday cut-through traffic would likely be lower than the AM and PM peak period percentages identified by the City of Torrance.

As previously described, the proposed one-way driveway, which would be accessible via a right-turn along eastbound Beryl Street, would provide a left-turn-only exit onto northbound Flagler Lane, immediately south of Beryl Street. Similarly, service vehicles would enter the proposed service area and loading dock by taking a right off of Flagler Lane and exit taking a left turn onto northbound Flagler Lane (refer to Figure 2-8). Unlike the entrances from North Prospect Avenue, the driveways along Flagler Lane would not provide access to long-term parking on the BCHD campus and as such, would not be a primary entrance. Therefore, operation of the proposed driveways along Flagler Lane would not contribute to cut-through traffic within the Pacific South Bay residential neighborhood.

Further, as described in Table 3.14-7, while operation of Phase 2 of the proposed Project is expected to generate an incremental increase of 376 net new daily vehicle trips, AM peak period trips would be reduced by approximately 37 and PM peak period trips are expected to be reduced by approximately 28, as compared to existing BCHD trip generation. Give that buildout of the proposed Project would reduce existing AM and PM peak period trip generation, the proposed Project would slightly reduce overall congestion on major roadways in the area during busy commute times. The reduction in overall congestion would allow for more efficient movement of traffic and less incentive for drivers to cut-through residential neighborhoods. Therefore, the proposed Project would not contribute to operational safety hazards related to cut-through traffic, and impacts would be *less than significant*.

Project Site Access

The design of each Project phase would be required to undergo review by City of Redondo Beach and City of Torrance (where applicable) decision-makers, including a review of roadway improvements and operations so that vehicle, bicycle, and pedestrian access are adequately accommodated without obstructing, hindering, or impairing drivers' reasonable and safe views of other vehicles, people walking, or people bicycling on the same street and/or restricting the ability of a driver to stop a motor vehicle without danger of an ensuing collision. Design features of individual development projects would need to be consistent with State design standards, such as the California MUTCD, as well as City of Redondo Beach and City of Torrance (where applicable) standards, which focus on eliminating existing hazards and designing the transportation network so as to enhance safety of all ways of travel.

The proposed Project would include additional entrances to the Project site and reconfigure the internal circulatory system. As discussed in Section 3.14.1, *Environmental Setting*, access to the BCHD campus is currently available directly from three driveways along North Prospect Avenue. Additionally, the vacant Flagler Lot is accessible via a curb cut along eastbound Beryl Street. Under the proposed Project, the Project site would remain accessible from the three existing driveways along North Prospect Avenue. In addition, Flagler Lot would be developed with a new one-way driveway accessible via a right-turn along eastbound Beryl Street, which would support a pick-up/drop-off zone for the proposed RCFE Building. A service entrance to the RCFE Building would be provided off of Flagler Lane, approximately 150 feet south of Beryl Street. Pedestrian and bicyclist access to the Project site would be preserved at the three existing driveways along North Prospect Avenue. Additionally, a new pedestrian access point would be provided at the southwest corner Beryl Street and Flagler Lane via the tiered staircase leading into the interior portion of the main campus.

As described in Section 3.14.1, *Environmental Setting*, an existing bus stop for the northbound Beach Cities Transit Line 102 is located along eastbound Beryl Street to the north of the Redondo Village Shopping Center parking lot and adjacent to the northwest corner of Flagler lot. The proposed one-way driveway along eastbound Beryl Street would be located adjacent to and east of the existing Beach Cities Transit bus stop. While there is an existing curb cut and driveway into the vacant Flagler Lot, the lot is currently closed off with a gate and does not permit vehicle entry. Implementation of the proposed Project would generate an increase in vehicle entry into Flagler Lot via the proposed one-way driveway and pick-up/drop-off zone for the patrons of the RCFE Building and other visitors to the campus. The proposed Project could result in an increase in vehicle-bus conflicts associated with stopped buses at the Beach Cities Transit stop and vehicles

turning right into the proposed one-way driveway. Implementation of MM T-3 would require the existing Beach Cities Transit Line 102 bus stop to be relocated to the east of the proposed one-way driveway entrance along Beryl Street to avoid the potential for safety hazards associated with transit. With implementation of the bus stop relocation, impacts to safety hazards related to vehicle-bus conflicts would be reduced to *less than significant with mitigation*.



The existing Beach Cities Transit Line 102 bus stop located adjacent to the west of Flagler Lot on eastbound Beryl Street would be relocated to the east of the proposed one-way driveway.

Vehicles accessing the Project site via Beryl Street could also block, delay, or increase traffic hazards associated with existing pedestrian and bicyclist traffic along the south side of Beryl Street. However, the proposed one-way driveway would be designed in accordance with applicable RBMC standards and sight distances would be approved by the Redondo Beach Community Development Department during site plan approval. The proposed one-way driveway would allow for right-turn in only from Beryl Street and would provide access for a very limited portion of the proposed Project's visitors (i.e., primarily visitors to the RCFE Building).

Vehicle traffic from the proposed one-way driveway and service entrance along Flagler Lane would not contribute to pedestrian safety hazards given that there is no sidewalk along the west side of Flagler Lane south of its intersection with Beryl Street. The service area and loading dock entrance would be stop-controlled and would be limited to right-turn in and left-turn out movements. Further, the service access entrance would be limited to service vehicles and delivery vehicles only and would not be used by staff, residents, participants, or other visitors to the BCHD campus. Consequently, vehicle traffic associated with the proposed driveways along Flagler Lane would not interfere with pedestrian, bicycles, or vehicles.

Given that existing site access is currently limited to the three driveways along North Prospect Avenue, the additional proposed access point off of Beryl Street would better distribute Project-related vehicle traffic around the site, and reduce the potential for vehicle-pedestrian and vehicle-bicyclist interactions on North Prospect Avenue as compared to existing conditions. Additionally, implementation of the proposed Project is projected to significantly reduce total trip generation

during Phase 1, including a reduction during the peak period of traffic when conditions are most stressful for pedestrians and bicyclists. While operation of Phase 2 of the proposed Project is expected to generate an incremental increase of 376 net new daily vehicle trips to the surrounding roadways, this general increase in vehicle traffic volumes would be distributed among multiple streets in the vicinity and would not be considered to substantially increase traffic hazards. Further, the AM peak period trips would be reduced by approximately 37 and PM peak period trips are expected to be reduced by approximately 28, as compared to existing conditions (refer to Table 3.14-7). Therefore, implementation of the proposed Project would result in a minor reduction in safety hazards related to vehicle congestion during the AM and PM peak periods.

The proposed new driveways would be engineered to comply with State, County, and local standards and designed to intersect the roadway at a right angle to address line of sight, turning radii, spacing, etc. to avoid potential conflicts with transit services, bicycles, and pedestrian traffic. The one-way driveway entrance would also provide the necessary crosswalk and pedestrian movement controls to meet the State, County, and local requirements to protect vehicle, bicycle, and pedestrian safety. The one-way driveway would also be designed to accommodate mobility services for TNCs (e.g., Uber, Lyft, etc.). The existing Class II bicycle lane would be maintained on Beryl Street east of Flagler Lane following the driveway realignments along eastbound Beryl Street. The final design plans of the proposed new driveways along Beryl Street and Flagler Lane would be subject to review by the Redondo Beach and Torrance Community Development Departments. Thus, with compliance with local standards and regulations and review and approval by various local agencies, the proposed Project would not create potentially hazardous conditions for people driving, and impacts related to driving hazards would be *less than significant with mitigation*.

Internal Campus Circulation

Proposed internal circulation changes would improve vehicle and pedestrian mobility and safety by simplifying travel through the BCHD campus. Vehicular circulation through the Project site would be limited to the southwestern portion of the campus. The existing surface parking lot on-site is located along the northern perimeter of the campus, requiring vehicles to drive through or around the main campus to reach the parking area. During Phase 1 of the proposed Project, the central driveway would lead vehicles directly to the proposed surface parking lot, and would continue to provide access to the existing parking structure at 512 North Prospect Avenue as well as the surface parking lot and subterranean parking garage west of the Providence Little Company of Mary Medical Institute Building. The southern driveway would also continue to lead directly to the existing above ground parking structure. The vehicle driveway and pick-up/drop-off zone at

the western side of the RCFE Building would improve vehicle circulation and would allow vehicles to directly exit the Project site via the northern driveway onto North Prospect Avenue. Therefore, implementation of the Phase 1 preliminary site development plan would promote efficient vehicular circulation on campus. Implementation of the Phase 2 development program would similarly develop an efficient circulation system on-site. Under the Example A site plan scenario, the southern driveway would provide direct access to the proposed new parking garage and the central driveway would lead to the existing western surface parking lot and subterranean garage as well as to the vehicle driveway and pick-up/drop-off zone at the western side of the RCFE Building. Under the Example B and C site plan scenarios, all three driveways along North Prospect Avenue would connect to the main access road on-site, which would provide access to the proposed automated parking structure, the existing western surface parking lot and subterranean garage, and the vehicle driveway and pick-up/drop-off zone at the western side of the RCFE Building.

The interior of the BCHD campus would provide a series of pedestrian pathways ranging from 10 to 26 feet wide, with direct public access to all of the proposed buildings on the BCHD campus. The proposed Main Street promenade would extend from the entry plaza around the perimeter of the central lawn to the eastern border of the campus to provide a complete and intuitive circulation loop for visitors to enjoy proposed green space and landscaping. The pedestrian promenade would also be lined with benches shaded by tree canopies to promote walking through the campus. The on-site pedestrian improvements would also be graded at no more than 5 percent slope to provide more ADA-accessible and pedestrian-friendly navigation for BCHD employees, tenants, and campus visitors. This pedestrian-only open space would be closed off to vehicles to improve visitor safety and mobility through the campus. Pedestrian mobility and safety would be considered in the design of other internal circulation improvements such as the vehicle driveway and pick-up/drop-off zone at the western side of the RCFE Building.

Proposed Project improvements to internal circulation within the BCHD campus would result in minor beneficial and *less than significant* operational impacts to transportation safety hazards.

Mitigation Measures

MM T-2 ***Construction Traffic and Access Management Plan*** *Following preparation of the final design plan for Phase 1 of the proposed Project, the Beach Cities Health District (BCHD) shall expand upon the Construction Traffic Control Plan and prepare, implement, and maintain a Construction Traffic and Access Management Plan to address and manage traffic during construction. The Construction Traffic*

and Access Management Plan shall be subject to review and approval by BCHD, the County Department of Transportation (DOT) and Redondo Beach Community Development Department prior to issuance of a Conditional Use Permit. The Construction Traffic and Access Management Plan shall be designed to:

- Prevent traffic impacts on the surrounding roadway network;*
- Minimize parking impacts both to public parking and access to private parking to the greatest extent practicable;*
- Ensure safety for both those constructing the project and the surrounding community; and*
- Prevent substantial truck traffic through residential neighborhoods.*

The Plan shall, at a minimum, include the following:

- Designated haul routes consistent with the Redondo Beach and Torrance General Plan designations;*
- On-site staging areas, which would avoid residential streets to the maximum extent feasible;*
- Traffic control procedures (e.g., traffic cones, temporary signs, changeable message signs, and construction flaggers at the three driveways along North Prospect Avenue as well as the proposed driveways along Beryl Street and Flagler Lane) to address circulation requirements and public safety in accordance with the standards in the County DOT Area Traffic Control Handbooks;*
- Emergency access provisions (i.e., North Prospect Avenue and Beryl Street); and*
- Construction crew parking.*

Ongoing Requirements throughout the duration of construction:

- A detailed Construction Traffic Control Plan for work zones shall be maintained. At a minimum, this shall include parking and travel lane configurations; warning, regulatory, guide, and directional signage; and area sidewalks, bicycle lanes, and parking lanes. Such plans shall be reviewed and approved by the Redondo Beach Community Development Department, Redondo Beach Public Works Department, and Torrance Community Development Department prior to issuance of a demolition, excavation, grading, or building permit and implemented in accordance with this approval.*
- Work within the public right-of-way shall be performed between 9:00 a.m. and 4:00 p.m. This work includes dirt and demolition material hauling and construction material delivery. Work within the public right-of-way outside of these hours shall only be allowed contingent upon the issuance of an after-hours construction permit from the Redondo Beach and Torrance Community Development Department.*

- *Streets and equipment shall be cleaned in accordance with established Redondo Beach and Torrance Public Works Department requirements.*
- *Trucks shall only travel on approved construction routes. Truck queuing/staging shall only be allowed at approved locations. Limited queuing may occur on the construction site itself.*
- *Materials and equipment shall be minimally visible to the public; the preferred location for materials is to be on-site, with a minimum amount of materials within a work area in the public right-of-way, subject to a current City of Redondo Beach permit.*

Project Coordination Elements That Shall Be Implemented Prior to Commencement of Construction

- *Prior to Phase 1 and Phase 2 of Project implementation, BCHD shall advise the traveling public of impending construction activities (e.g., information signs, portable message signs, and media listing/notification) as well as provide a call line for complaints and concerns regarding construction traffic.*
- *BCHD shall provide timely notification of construction schedules to all affected agencies (e.g., public and private transit, Redondo Beach Fire Department [RBFD], Redondo Beach Police Department [RBPD], Public Works Department, and Community Development Department) and to all owners and residential and commercial tenants of property within a radius of 500 feet prior to Phase 1 and Phase 2 of Project implementation.*
- *BCHD shall coordinate construction work with affected agencies in advance of start of work. Approvals may take up to 2 weeks per each submittal.*
- *BCHD shall obtain approval from the cities of Redondo Beach and Torrance of any haul routes for earth, concrete, or construction materials and equipment hauling.*
- *BCHD shall obtain an Excavation Permit, Street/Lane Closure Permit, Sewer Permit, Demolition Permit, and any other applicable permits for construction work requiring encroachment into public rights-of-way, detours, or any other work within the public right-of-way.*

MM T-3 ***Relocation of Beach Cities Transit Line 102.*** *To implement the proposed one-way driveway and pick-up/drop-off zone on Flagler Lot, BCHD shall work with the Redondo Beach Community Services Department Transit Division to relocate the existing Beach Cities Transit Line 102 northbound bus stop along eastbound Beryl Street. The bus stop shall be located along the south side of Beryl Street between the proposed one-way driveway entrance to the west and the intersection with Flagler Lane to the east. All proposed transit stop improvements shall be incorporated into final plans and reviewed and approved by the Redondo Beach*

Community Services Department Transit Division prior to the issuance of permits for these improvements.

Residual Impacts

Implementation of mitigation measure MM T-2 would reduce impacts related to construction traffic hazards to *less than significant*. Implementation of mitigation measure MM T-3 would reduce operational impacts associated with sight distance and vehicle-bus conflicts at the proposed one-way driveway along Beryl Street to *less than significant*.

Impact Description (T-4)

d) The project would result in inadequate emergency access.

T-4 Emergency access to the Project site is currently adequate and would be maintained following the construction of the proposed Project. During construction, emergency access could be impeded due to haul truck traffic, temporary lane closures, or other construction activities. However, with implementation of a Construction Traffic and Access Management Plan, impacts of construction on emergency access would be *less than significant with mitigation*.

Construction

During construction, short-term impacts on emergency access to the Project site would be potentially significant due to the presence of perimeter construction fencing, heavy construction equipment, construction workers, and large excavations and/or trenches. To ensure emergency access is maintained during Project construction, MM T-2 would require a Construction Traffic and Access Management Plan to ensure that an alternate entrance and secondary access is available and clearly indicated and that emergency responders could proceed directly to the most efficient entrance without undue delay or confusion. The Construction Traffic and Access Management Plan would address construction traffic routing and control, vehicle, bicycle, and pedestrian safety, street closures, and construction parking. The Construction Traffic and Access Management Plan would also establish procedures for coordination with local emergency services (i.e., RBFD and RBPD), training for flaggers for emergency vehicles traveling through the work zone, and other measures as necessary to facilitate emergency vehicle travel. Thus, the Construction Traffic and Access Management Plan would ensure the continued provision of emergency access during construction of the proposed Project. Implementation of MM T-2 would ensure that construction impacts on emergency access would be *less than significant with mitigation*.

Operational

SR-1 and SR-107, located approximately 0.5 miles west and 1.5 miles east of the Project site, respectively, are designated Primary Disaster Routes by the County of Los Angeles. In addition, the City of Redondo Beach has an adopted emergency evacuation routes for a tsunami, which include North Prospect Avenue, Beryl Street, and 190th Street. The City of Torrance has not designated emergency routes. The proposed Project does not propose changes in, obstructions to, or reconfigurations of public evacuation routes (refer to Section 3.8, *Hazards and Hazardous Materials*).

The proposed Project would include additional entrances to the Project site and improve the internal circulatory system, which would improve direct emergency access to the proposed campus buildings. As discussed in Section 3.14.1, *Environmental Setting*, emergency access to the BCHD campus is currently available directly from three driveways along North Prospect Avenue. Additionally, the vacant Flagler Lot is accessible via eastbound Beryl Street.

Under the proposed Project, the Project site would remain accessible from the three existing driveways along North Prospect Avenue. In addition, Flagler Lot would be developed with a one-way driveway and passenger drop-off zone, which would provide direct access to the proposed RCFE Building. This building would also be accessible to service, delivery, and emergency vehicles (e.g., fire trucks, ambulances, etc.) via an entrance to the subterranean service area off of Flagler Lane, approximately 150 feet south of Beryl Street.

Within the interior of the campus, the existing perimeter road would be removed and replaced with a pedestrian promenade (Main Street) that would wrap around the campus in a U-shape from the southern driveway to the Providence Little Company of Mary Medical Institute Building. However, emergency vehicle access would be maintained as the pedestrian promenade would be closed to vehicular access with removable bollards for emergency vehicles (refer to Figure 2-8). The pedestrian promenade would connect the existing southern and northern driveways and would provide direct access to the southern side of the RCFE Building. The 26-foot-wide drive aisle would provide sufficient space for Class WB-50 trucks (i.e., 5 axles; 55 feet in length) as well as emergency vehicles. The backyard garden lounge along the northern border of the RCFE Building would provide a secondary emergency access road to the RCFE Building, which would be closed to all other vehicles. Therefore, emergency vehicle access would be improved under Project implementation.

An Emergency Plan for the campus would be prepared in coordination with RBFD and RBPB prior to Project operation. Additionally, BCHD would utilize training procedures and an

operational handbook that provides processes and procedures for BCHD staff to provide the first responder services. Emergency Plan approval from the RBFD and RBPB would ensure that proposed Project provides sufficient access for emergency vehicles prior to issuance of a building permit. Therefore, emergency access would be maintained following construction of the proposed Project and impacts would be *less than significant*.

Cumulative Impacts

Consistency with Circulation Plans, Ordinances, and Policies

The proposed Project would include mixed-use development proximate to the Beach Cities Transit Line 102, bicycle and pedestrian improvements, and the implementation of a TDM plan, all of which would encourage the use of alternative transportation. Although trip generation under the proposed Project would result in 376 net new daily vehicle trips, the average trip length associated with the BCHD campus would remain much lower than the regional average, and the proposed Project would be consistent with goals, policies, and regulations related to VMT and GHG reduction in Connect SoCal, Metro's 2020 LRTP, the South Bay Bicycle Master Plan, AB32, SB 32, SB 375, and recommendations of the State Attorney General, OPR and Climate Action Team. Further, several bicycle lane additions and extensions are under design or approved within the cities of Redondo Beach, Torrance, and Hermosa Beach. In particular, BCHD is coordinating the BCHD Bike Path Project (separate from the proposed Project) with the City of Redondo Beach and the City of Torrance to develop a formal protected Class I bicycle path along Flagler Lane east of the Project site to connect the existing Class II bicycle lanes on Diamond Street and Beryl Street. The expansion of the regional bikeway network in the cities of Redondo Beach, Torrance, and Hermosa Beach would achieve the overall goal of the South Bay Bicycle Master Plan and would align with BCHD's mission to promote health and well-being. As such, the proposed Project would not result in a substantial contribution to cumulatively considerable impacts related to transportation plans and policies.

Conflict with CEQA Guidelines Section 15064.3, Subdivision (b)

As discussed under OPR's Technical Advisory, "*metrics such as VMT per capita or VMT per employee, (i.e., metrics framed in terms of efficiency as recommended below for use on residential and office projects), cannot be summed because they employ a denominator. A project that falls below an efficiency-based threshold that is aligned with long-term environmental goals and relevant plans would have no cumulative impact distinct from the project impact. Accordingly, a finding of a less than significant project impact would imply a less than significant cumulative impact, and vice versa.*"

The Project TAZ is in a low VMT area for home-based work VMT, and the home-based VMT in the Project TAZ is approximately 5 percent lower than the average home-based VMT in the SBCCOG region. Additionally, a majority of the cumulative projects listed in Tables 3.0-2, 3.0-3, and 3.0-4 consist of public infrastructure improvements, such as roadway and utility projects, and small (2- to 5-unit) residential projects, which do not generate substantial vehicle trips and VMT. Further, several bicycle lane additions and extensions are under design or approved within the cities of Redondo Beach and Hermosa Beach. BCHD is coordinating the BCHD Bike Path Project (separate from the proposed Project) with the City of Redondo Beach and the City Torrance to develop a formal protected Class I bicycle path along Flagler Lane east of the Project site to connect the existing Class II bicycle lanes on Diamond Street and Beryl Street. The Bike Path Project would also develop sidewalks along the west side of Diamond Street north of Prospect Avenue and the west side of Flagler Lane south of Beryl Street, where there are currently no sidewalks. The Class I bicycle path and new sidewalks adjacent to the BCHD campus, in conjunction with the TDM plan included in the proposed Project, would further promote active transportation in the Project vicinity as well as throughout the South Bay region. Therefore, implementation of the proposed Project would not result in a substantial contribution to cumulatively considerable impacts related to VMT.

Hazards Due to Design Features and Emergency Access

During construction, emergency access could be impeded as a result of the construction traffic particularly haul trucks and other construction equipment (e.g., cement trucks and cranes), that may disrupt traffic flows, limit turn lane capacities, and generally slow traffic movement. However, with the implementation of MM T-2, construction impacts related to emergency access would be reduced to *less than significant*. Potential overlap of construction activities in Redondo Beach and Torrance could potentially result in a significant increase in daily construction vehicle trips within the vicinity. As with the proposed Project, cumulative projects that have discretionary approval would be required to implement a Construction Traffic Control Plan. These plans, which would address construction traffic routing and control, vehicle, bicycle, and pedestrian safety, street closures, and construction parking in the area, would be reviewed by the city with jurisdiction over the proposed project site with an understanding of the other cumulative projects undergoing construction in the vicinity simultaneously. Thus, implementation of the City-approved Construction Traffic Control Plan for cumulative projects would ensure the continued provision of emergency access. With the implementation of MM T-2, the proposed Project would not result in a substantial contribution to cumulatively considerable impacts related to emergency access.

With regard to operation, hazards due to design features and emergency access are generally specific to the Project site, and the proposed Project and associated impacts are generally not additive to other projects. Implementation of the proposed Project would not preclude the City of Torrance converting Flagler Lane to one-way northbound if the closure becomes permanent. Additionally, given that development of the proposed Project would reduce peak period trip generation compared to existing BCHD trip generation, there would be less overall congestion on major roadways in the area during busy commute times, allowing for more efficient movement of traffic and less incentive for drivers to cut-through residential neighborhoods. Therefore, the proposed Project would not contribute to a cumulatively considerable impact to safety hazards related to cut-through traffic. If the City of Torrance's temporary one-way closure of southbound traffic on Flagler Lane is successful and neighborhood residents support it, the one-way closure could become permanent. This would preclude access for service and delivery vehicles to the subterranean proposed service area and loading dock beneath the RCFE Building. Therefore, service and delivery vehicles would be required to drive through the Torrance neighborhood to travel north on Flagler Lane and turn left into the service area and loading dock entrance. Thus, the permanent closure of southbound traffic on Flagler Lane south of Beryl Street would require service and delivery vehicles to cut-through the Torrance neighborhood and would present a potential conflict associated with cut-through traffic. For this reason, an alternative to the proposed Project with a revised access and circulation scheme is considered under Alternative 3 in Section 5.0, *Alternatives*.

Additionally, implementation of the Class II bicycle lane along Flagler Alley and segments of Flagler Lane and Diamond Street would be designed with consideration of the proposed Project design features to protect pedestrians and bicyclists along the Class II bicycle lanes as they cross Towers Street. Further, as with the proposed Project, each of the cumulative projects would be subject to site plan review and would meet local street design and access requirements. Therefore, implementation of the proposed Project would not result in a substantial contribution to cumulatively considerable impacts related to design features and inadequate emergency access.

3.15 UTILITIES AND SERVICE SYSTEMS

This section of the Environmental Impact Report (EIR) describes the existing utility infrastructure and capacity in the vicinity of the Beach Cities Health District (BCHD) campus within the City of Redondo Beach and the City of Torrance. Further, this section of the EIR describes the planned utility infrastructure improvements and evaluates the operation and capacity of these utilities with the development of the proposed BCHD Health Living Campus Master Plan (Project). The utilities analysis is divided into three subsections: 1) water infrastructure and supply; 2) wastewater collection, conveyance, and treatment; and 3) solid waste management. Energy services – including electricity and natural gas – are addressed in Section 3.5, *Energy*.

The Project site is currently served by the following utilities:

Table 3.15-1. Utilities Serving the Existing BCHD Campus

Utility	Service Provider
Water	West Basin Municipal Water District, California Water Service Company
Wastewater	Los Angeles County Sanitation Districts, City of Redondo Beach Public Works Department
Solid Waste	Athens Services

3.15.1 Water Infrastructure and Supply

This subsection describes the current status of potable water (i.e., drinking water) in the City, including a discussion of local water conservation initiatives and the ability of the local water infrastructure and supply to meet existing demand at the BCHD campus and projected water demands with the implementation of the proposed Project.

3.15.1.1 Environmental Setting – Water Infrastructure and Supply

Water Infrastructure

California Water Service Company (Cal Water) is a retail water agency that provides potable and non-potable water throughout California for single- and multi-family residential, commercial, and industrial uses, as well as landscaping irrigation and fire protection. The Project site is located within the Hermosa-Redondo District service area, which includes the Hermosa Beach, Redondo Beach, and portions (i.e., approximately 5 percent) of Torrance (Cal Water 2020). The Hermosa-Redondo District water system includes approximately 212 miles of pipeline, 17 storage tanks, four Metropolitan Water District of Southern California (MWD) connections, and well-head

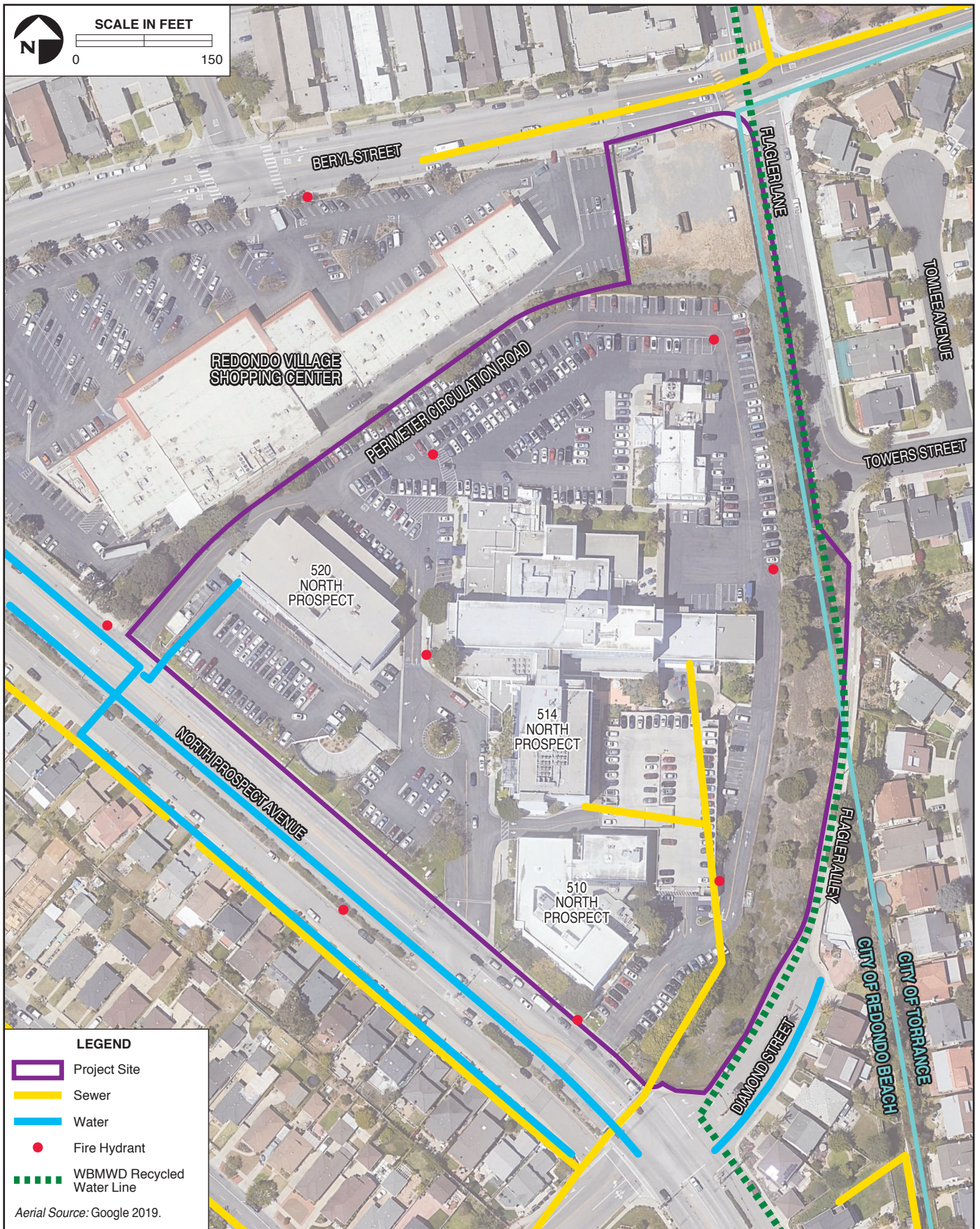
treatment facilities at two active wells, which remove iron and manganese from groundwater (Cal Water 2020).

Water service to the BCHD campus is currently provided through an existing 8-inch water line located along North Prospect Avenue. The 8-inch water main line North Prospect Avenue has two domestic water tie-ins and two fire service tie-ins to the Project site. A 6-inch domestic water tie-in located towards the northwest corner of the Project site provides the connection to the Providence Little Company of Mary Medical Institute Building (i.e., 520 North Prospect Avenue) and an 8-inch domestic water tie-in located at the southwest corner of the Project site provides the connection to the Beach Cities Advanced Imaging Building (i.e., 510 North Prospect Avenue) as well as the Beach Cities Health Center (i.e., 514 North Prospect Avenue). The existing 8-inch water main along North Prospect Avenue can discharge 2,513 gallons per minute (gpm) while keeping a residual pressure of 20 pounds per square inch (psi) in the water main (John Labib & Associates 2020a).

Similarly, two 8-inch fire service tie-ins are located at the northwest boundary of the Project site, north of the surface parking lot, and southwest corner of the Project site. There are currently seven fire hydrants located on or adjacent to the BCHD campus, two of which are located within the northern surface parking lot, one on the west side and the other on the east side, south of the vacant Flagler Lot. A third fire hydrant is located adjacent to the west end of the Beach Cities Health Center. Another fire hydrant is located immediately east of the aboveground parking structure. The remaining three fire hydrants are located along North Prospect Avenue, including one adjacent to the southern driveway, one in the raised west-side median near the central driveway, and one adjacent to the northern driveway (see Figure 3.15-1). One additional fire hydrant is located on the southern sidewalk of Beryl Street approximately 500 feet west of the vacant Flagler Lot.



There are four fire hydrants located on the BCHD campus, including one at the western side of the Beach Cities Health Center. An additional three hydrants are located adjacent to the site along North Prospect Avenue.



wood.

**Existing Utilities
at the Project Site**

**FIGURE
3.15-1**

3.15-3

Fire Flows

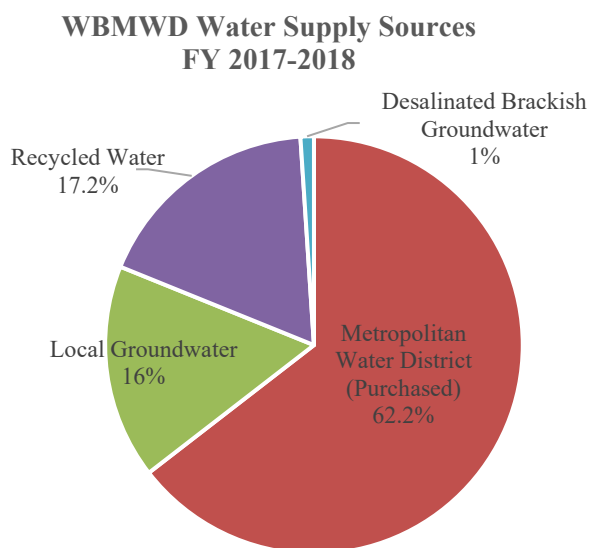
A fire flow test was conducted for the Project site by John Labib & Associates in December 2019. The fire hydrant located adjacent to the north of the southern driveway and immediately west of the Beach Cities Advanced Imaging Building was used as a representative fire hydrant for the Project site. The fire flow test determined that this fire hydrant can discharge 2,513 gpm while keeping a residual pressure of 20 psi (John Labib & Associates 2020a; see Appendix L). This existing water flow and pressure is adequate to serve the proposed Project (John Labib & Associates 2020a; see Appendix L).

- **FIRE FLOW:** Flow rate of a water supply, measured at 20 psi residual pressure, that is available for firefighting (Appendix B of the 2016 California Fire Code). Fire flow is used to determine the quality of a water supply to an area. It also used as an aid to determine pipe size and arrangements to delivery water to a specific area.

Water Supply

Cal Water is responsible for providing water within the Hermosa-Redondo District service area and ensuring that the water quality meets applicable California health standards for drinking water. Cal Water's potable water supply consists of local groundwater and imported water from the West Basin Municipal Water District (WBMWD), a member agency of MWD (through both the State Water Project [SWP] and the Colorado River Aqueduct). Additionally, non-potable treated urban runoff water is produced by WBMWD's Edward C. Little's (ECL) Water Recycling Facility for landscaping irrigation and other approved non-potable water uses. Cal Water's water supply portfolio consists of imported water from MWD connections (80 to 85 percent) and local supplies, including local groundwater basins (15 to 20 percent) and recycled water from the ECL Water Recycling Facility (1 percent).

The WBMWD serves a total of 17 cities throughout southwest Los Angeles County across a service area of 185 square miles. WBMWD purchases imported drinking water from MWD and delivers those drinking water supplies throughout its service area, including the Cal Water service areas (WBMWD 2020a). In Fiscal Year (FY) 2017-2018, WBMWD water supplies totaled 171,386 acre-feet (AF) from several sources, including 50 AF of desalinated brackish groundwater (<1 percent), 106,601 AF of



purchased imported water from MWD (62.2 percent), 27,474 AF of groundwater (16 percent), and 29,522 AF of recycled water (17.2 percent) (see Table 3.15-2; WBMWD 2019).¹

Table 3.15-2. WBMWD Water Supply from FY 2014-2015 to FY 2017-2018 (AF)

Water Supply Source	FY 2014-2015	FY 2015-2016	FY 2016-2017	FY 2017-2018
Desalinated Water	690	779	284	50
Imported Water	105,539	103,638	103,333	106,601
Groundwater	32,994	24,072	14,317	27,474
Recycled Water	29,103	30,116	30,468	29,522
Total	175,680	162,286	164,964	171,386

Note: FY 2017-2018 was the most recent water supply data made publicly available by WBMWD.

Source: WBMWD 2019.

Metropolitan Water District

Historically, the majority of the Cal Water's water demand is supplied by purchases from MWD. MWD is the largest water wholesaler for domestic and municipal uses in California, providing nearly 19 million people, with on average 1.7 billion gallons of water per day to a service area of approximately 5,200 square miles. MWD supplies water to its service area through a conveyance and distribution system that consists of the 242-mile-long Colorado River Aqueduct, five pumping plants, approximately 830 miles of pipeline, five water treatment plants, and nine reservoirs, plus a participation right in the SWP. MWD imports its water supplies from Northern California through the SWP's California Aqueduct and from the Colorado River by way of MWD's Colorado River Aqueduct. WBMWD and the City of Torrance are two of 26 member agencies that have preferential rights to purchase water from the MWD.

Local Groundwater

Cal Water owns water rights in the West Coast Groundwater Basin within the Hermosa-Redondo District service area. Cal Water relies on groundwater supplies extracted from the West Coast Basin's Silverado Aquifer to meet approximately 15 to 20 percent of the demand within the Hermosa-Redondo District service area (Cal Water 2016). Cal Water's adjudicated water rights are approximately 4,070 acre-feet per year (AFY). Between FY 2008-2009 and FY 2017-2018, the groundwater water demand within the Hermosa-Redondo District service area ranged from a low of 1,018 AF in FY 2008-2009 to a high of 2,186 AF in FY 2011-2012 (WBMWD 2019). Therefore, the groundwater demand within the Hermosa-Redondo District service area remains

¹ In FY 2017-2018, the WBMWD also supplied 7,740 AF of high-quality recycled water and imported water for two seawater barriers: the West Coast Basin Seawater Barrier and the Dominguez Gap Barrier. A seawater barrier is a series of injection wells positioned like a dam between the ocean and the groundwater aquifer. These wells inject water along the barrier to ensure that the water level near the ocean stays high enough to keep the seawater from seeping into the aquifer.

well below its adjudicated safe yield. However, various challenges have restricted the use of these local resources by Cal Water – particularly seawater intrusion issues. To prevent seawater intrusion, the Los Angeles County Flood Control District (LACFCD) maintains seawater barrier projects at the West Coast Basin Seawater Barrier and the Dominguez Gap Barrier. The Water Replenishment District of Southern California (WRD) purchases all of the water that is injected into the barriers and protects the basin through groundwater replenishment, deterrence of sea water intrusion, and groundwater quality monitoring of contamination through assessments on water pumped from the WRD service area (WBMWD 2019, 2020b). For further discussion of groundwater basin characteristics and hydrology, refer to Section 3.9, *Hydrology and Water Quality*.

Recycled Water

The remainder of water demand is met by Cal Water through recycled water supplies from the ECL Water Recycling Facility, which makes up approximately 1 percent of total water served to the Hermosa-Redondo District (Cal Water 2016). The facility's recycled water supply source is treated wastewater effluent from the Los Angeles Hyperion Wastewater Treatment Plant (Hyperion). The ECL Water Recycling Facility purchases approximately 37,600 AF, or roughly 13 percent of Hyperion's secondary effluent for treatment at the ECL



The ECL Water Recycling Facility treats wastewater effluent from the Los Angeles Hyperion Wastewater Treatment Plant to supply recycled water for approved uses.

Water Recycling Facility (WBMWD 2016). The ECL Water Recycling Facility's recycled water is treated to meet Title 22 of the California Code of Regulations (CCR) disinfected tertiary recycled water standards. Title 22 addresses specific treatment requirements for recycled water and lists approved uses. Approximately 2,000 tests are performed monthly at the ECL Water Recycling Facility to ensure water quality meets all Federal and State requirements (WBMWD 2016).

The use of recycled water reduces the demand for potable water in the area. Cal Water recycled water supplies are primarily used for groundwater replenishment, landscape irrigation, and industrial process water. In calendar year (CY) 2015, ECL Water Recycling Facility delivered approximately 35,250 AF of recycled water to sites inside and outside its service area, saving enough potable water to serve roughly 70,500 households. Within ECL Water Recycling Facility's

service area, municipal and industrial recycled water use totaled 16,707 AF and seawater barrier 12,403 AF, which is about 9 percent of ECL Water Recycling Facility's current total water supplies (WBMWD 2016).

Water Demand

Cal Water Hermosa-Redondo District Water Demand

The annual water demand for the Hermosa-Redondo District service area from FY 2017-2018 was approximately 11,256 AF, including 9,951 AF (88.4 percent) imported water from MWD, 1,086 AF (9.6 percent) from local groundwater supplies, and 219 AF (1.9 percent) of recycled water from the ECL Water Recycling Facility (see Table 3.15-3; WBMWD 2019). The largest percentage of water use within the Hermosa-Redondo District is attributed to residential uses, which accounted for up to approximately 63.4 percent of total demand in 2015. Approximately 4.2 percent of total demand was attributed to system water losses (Cal Water 2016). As shown in Table 3.15-3, water demand for the Hermosa-Redondo District decreased from FY 2014-2015 to FY 2016-2017 and increased again in FY 2017-2018, but did not reach FY 2014-2015 levels.

Table 3.15-3. Hermosa-Redondo District Water Demand from FY 2014-2016 to FY 2017-2018 (AF)

Water Supply Source	FY 2014-2015	FY 2015-2016	FY 2016-2017	FY 2017-2018
Imported Water	10,098	9,169	9,280	9,951
Groundwater	1,896	1,541	1,397	1,086
Recycled Water	147	156	147	219
Total	12,141	10,866	10,824	11,256

Source: WBMWD 2019.

Project Site Water Demand

The existing BCHD campus generates demand for potable water associated with the existing medical, residential (i.e., Memory Care units), food service, and office uses on-site. Existing water demand for the Project site was estimated using indoor water demand factors from the California Emissions Estimator Model (CalEEMod) by land use type, consistent with Section 3.2, *Air Quality*. Landscaping irrigation demand was estimated based on the Water Supply Assessment for the Redondo Beach Water Front Project (Yarne & Associates, Inc. 2015). Based on these water demand factors and the total square footage and number of beds, the annual average water demand for the existing Project site is approximately 39,231,667 gallons per year (approximately 120.48 AFY) (John Labib & Associates 2020a).

Table 3.15-4. Estimated Existing Project Site Water Demand

Existing Use	Waste Generation Factor	Size	Water Demand (gal/year)	Water Demand (gpm)
<i>Beach Cities Advanced Imaging Building (510 North Prospect Avenue)</i>				
Medical Office	125,481 gal per year per 1,000 sf	52,000 sf	6,525,012	12.41
<i>Providence Little Company of Mary Medical Institute (520 North Prospect Avenue)</i>				
Medical Office	125,481 gal per year per 1,000 sf	47,700 sf	5,985,444	11.39
<i>Beach Cities Health Center (514 North Prospect Avenue)</i>				
Hospital	89,814 gal per year per 1,000 sf	60 beds	5,388,840	10.25
Medical Office	125,481 gal per year per 1,000 sf	158,000 sf	19,825,998	37.72
Landscaping	18.25 gal per year per sf	82,541 sf	1,506,373	2.87
Existing Average Daily Flow			39,231,667	74.64

Notes: Indoor Water Demand rates are referenced from CalEEMod Appendix D, Table 9.1.

Landscaping water use estimate of 2.5 AFY per acre (18.25 gallons per year per sf) based on the Redondo Beach Water Front Project Water Supply Assessment (Yarne & Associates, Inc. 2015).

The existing above ground parking structure at 512 North Prospect Avenue does not generate water demand and therefore is not included.

Source: John Labib & Associates 2020a (see Appendix L).

Water Conservation

As required of all urban water suppliers by the California Department of Water Resources (DWR), Cal Water has prepared a responsive Water Shortage Contingency Plan designed to effectively enforce staged water use restrictions based on district water demands, agency supplies, and varying drought conditions. Likewise, WBMWD, as part of development of its Urban Water Management Plan (UWMP), has completed a Water Supply Allocation Plan designed to calculate member agency supply allocations in order to meet State mandated water use reduction targets (see Section 3.15.1.2, *Regulatory Setting – Water Infrastructure and Supply*).

As a result of extended drought conditions, both Cal Water and WBMWD water service agencies have elected to pursue measures which would ensure the reliability of water supplies, reduce customer water usage, and promote water conservation measures. Water conservation measures limit allocations of water supplies but ensure efficiency and distribution.

In FY 2017-2018, the Hermosa-Redondo District purchased its highest volume (i.e., 218.7 AF) of recycled water from WBMWD. WBMWD's recycled water line runs north through Torrance west into Redondo Beach and north along North Prospect Avenue, Flagler Lane, and Flagler Alley, adjacent to the east of the Project site (WBMWD 2019).

Future Water Demand and Projected Water Supply

The WBMWD's 2015 UWMP presents water demand projections through 2040 based on MWD's 2015 UWMP projections for total demand and water use efficiency (WBMWD 2016). Growth projections are used from the Southern California Association of Government's (SCAG's) 2012 Regional Transportation Plan (RTP) / Sustainable Community Strategy (SCS) (SCAG 2012).² Within MWD's forecast of total demand for WBMWD is an estimate of water conservation and a projection of retail demand after future water conservation is taken into account. This includes water conserved using best management practices (BMPs) from active, code-based, and price-effect conservation. Active conservation levels are derived by calculating water savings from all active program device-based savings installed to date. Code-based conservation levels are derived by calculating water savings from devices covered by existing water conservation ordinances and plumbing codes, including the state Model Water Efficient Landscape Ordinance, with replacement and new construction rates driven by demographic growth consistent with SCAG land use and transportation plans used to derive retail demand. Price-effect conservation is derived by calculating water savings by retail customers attributable to the effect of changes in the real (inflation adjusted) price of water. WBMWD's projected recycled water demands are based on WBMWD's planned projects for recycled water and desalination through 2030 as outlined in the Capital Implementation Master Plan. Between FY 2025 and FY 2040, WBMWD service area demands are projected to increase by approximately 5,806 AF, or 4.2 percent (see Table 3.15-5).

Table 3.15-5. Projected WBMWD Supply

Water Supply	Projected Water Supply (AF)				
	2020	2025	2030	2035	2040
Potable and Raw Water	99,426	100,154	100,173	100,413	99,991
Recycled Water	38,894	44,135	44,135	44,135	44,135
Total	138,320	144,289	144,308	144,548	144,126

Source: WBMWD 2016.

Cal Water projects a slight (approximately 2 percent) increase in total water supplies, increasing from 11,256 AF in FY 2017-2018 to 12,747 AF in 2040 (Cal Water 2016). Due to a flat 4,070 AFY adjudicated right to WBMWD's Silverado Aquifer supplies, total available groundwater is projected to remain consistent through 2040 (see Table 3.15-6). Recycled water supplies are also projected to remain the same through 2040, with a recycled water supply of 150 AFY. The only

² The WBMWD's 2015 UWMP relies on the growth projections in the 2012 RTP/SCS. However, for transportation planning purposes, the SCAG recently prepared Connect SoCal, the 2020-2045 RTP/SCS (refer to Section 3.14, *Transportation*).

variable in total projected water supplies is imported water from MWD, which varies year-by-year based on service area demands and water use conservation.

Table 3.15-6. Projected Hermosa-Redondo District Supplies

Water Supply	Projected Water Supply (AF)			
	2025	2030	2035	2040
Groundwater	4,070	4,070	4,070	4,070
Imported Water	8,320	8,357	3,425	8,527
Recycled Water	150	150	150	150
Total	12,540	12,577	12,645	12,747

Source: Cal Water 2016.

The Cal Water Hermosa-Redondo District 2015 UWMP concludes that Cal Water's water supply is adequate to meet water demand under normal, single dry year, and multiple dry year conditions through the year 2040 (Cal Water 2016).

3.15.1.2 Regulatory Setting – Water Infrastructure and Supply

State Policies and Regulations

California Urban Water Management Planning Act

The Urban Water Management Planning Act (UWMPA) (California Water, Code Division 6, Part 2.6, Sections 10610 *et seq.*) was developed due to concerns over potential water supply shortages throughout California. The UWMPA requires information on water supply reliability and water use efficiency measures. As part of the UWMPA, municipal water suppliers that serve more than 3,000 customers or provide more than 3,000 AFY are required to develop and implement UWMPs to describe water supply, service area demand, population trends, and efforts to promote efficient use and management of water resources. An UWMP is intended to serve as a water supply and demand planning document that is updated every 5 years to reflect changes in the water supplier's service area including water supply trends, and conservation and water use efficiency policies.

Senate Bill 610

SB 610 became effective January 1, 2002. SB 610, codified in California Water Code, Division 6, Part 2.6, Sections 10910 *et seq.*, describes requirements for water supply assessments and UWMPs applicable to the California Environmental Quality Act (CEQA) process. SB 610 requires that water suppliers must prepare a water supply assessment for projects that are subject to CEQA and exceed a specified minimum size to determine whether the projected water demand associated with the project is included as part of the most recently adopted UWMP. The size requirement is

specified according to development type but generally includes developments with water consumption that would be equivalent to or greater than the amount of water required by a 500-dwelling unit project. The proposed Project includes 157 new Assisted Living units and 60 replacement Memory Care units, which is substantially below this 500-dwelling unit threshold. Therefore, a water supply assessment is not required for the proposed Project.

California Code of Regulations, Title 20

Title 20 of the California Code of Regulations, Sections 1605.1(h) and 1605.1(i) establishes efficiency standards (i.e., maximum flow rates) for all new federally regulated plumbing fittings and fixtures, including showerheads, lavatory faucets, and flush toilets. Amongst these standards, the maximum flow rate is 1.2 gpm at 60 psi for residential lavatory faucets and aerators, 1.8 gpm with optional temporary flow of 2.2 gpm at 60 psi for kitchen faucets and aerators, 0.5 gpm at 60 psi for public lavatory faucets, and 1.8 gallons per flush for flush toilets, effective January 1, 2016. Additionally, Section 1605.3(h) establishes State efficiency standards for non-federally regulated plumbing fittings, including commercial pre-rinse spray valves.

California Green Building Standard Code (CALGreen)

CALGreen builds on standards established under Title 20 of the CCR and sets forth water efficiency standards (i.e., maximum flow rates) for all new federally regulated plumbing fittings and fixtures. Updates to CALGreen were published July 1, 2019 and became effective January 1, 2020. Mandatory standards for water use are shown in Table 3.15-7.

Table 3.15-7. CALGreen Mandatory Maximum Flow Rates

Fixture Type	Maximum Allowable Flow Rate – Residential	Maximum Allowable Flow Rate – Nonresidential
Showerheads	1.8 gpm at 80 psi	2.0 gpm at 80 psi
Lavatory Faucet	1.2 gpm at 60 psi	0.5 gpm at 60 psi
Kitchen Faucet	1.8 gpm at 60 psi	1.8 gpm at 60 psi
Water Closets	1.28 gallons per flush	1.28 gallons per flush
Floor-mounted Urinals	0.5 gallons per flush	0.5 gallons per flush
Wall-mounted Urinals	0.125 gallons per flush	0.125 gallons per flush

Source: CALGreen Building Standards Code Section 4.303.

Health and Safety Code Section 17921.3

Requires low-flush toilets and urinals in all buildings, including commercial, residential, institutional, and industrial buildings.

California Fire Code

The 2016 California Fire Code is one of 12 parts of an official compilation referred to as the California Building Standards Code. The purpose of the California Fire Code is to establish the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety and assistance to fire fighters and emergency responders during emergency operations. The California Fire Code includes standards for water supply and pressure to adequately support firefighting capabilities, including appendix standards for automatic fire sprinkler systems that reduce water demands to a building for firefighting reduce up to 75 percent with a minimum required fire-flow 1,500 gpm. The latest California Fire Code published by the California Building Standards Commission were adopted in 2016 and became effective January 1, 2017.

City of Redondo Beach Local Policies and Regulations

Redondo Beach General Plan Utilities Element

The goals of the Redondo Beach General Plan Utilities Element are to provide a modern and efficient system of transmission, distribution, and storage of water supplies to the City capable of meeting the normal daily and peak hour demands of the community, including adequate fire flow requirements, and to meet existing and future water demand in a timely and cost-effective manner.

Objective 6.3: Provide a modern and efficient system of transmission, distribution, and storage of water supplies to the City capable of meeting the normal daily and peak hour demands of the community, including adequate fire flow requirements, to meet existing and future water demand in a timely and cost effective manner.

- Policy 6.3.1 Ensure the provision of adequate water supply, transmission, distribution, and storage, throughout the city to serve the community's residential, industrial, commercial, and recreational needs.
- Policy 6.3.2 Ensure the provision and construction of upgraded and expanded water supply, transmission, distribution, and storage facilities throughout the city to support existing and future development.

- Policy 6.3.3 Ensure the maintenance and replacement of existing water supply, transmission, distribution, and storage facilities, as necessary to adequately serve the city's water needs.
- Policy 6.3.4 Require that the approval of new development in the city be contingent upon the ability of the project to be served with adequate water infrastructure and service.
- Policy 6.3.7 Ensure that the costs of specific improvements to the existing water supply, transmission, distribution, and storage facilities necessitated by a new development project be borne by the project proponent; either through the payment of impact fees, or by the actual construction of the necessary physical improvements.
- Policy 6.3.12 Require that development projects of sufficient scale to make it economically feasible incorporate dual pipe systems for the use of reclaimed water for irrigation and other State and County health approved purposes where these uses are accessible to trunkline distribution service.
- Policy 6.3.14 Require that large scale development projects evaluate the feasibility of and where feasible incorporate gray water re-capture, storage, and distribution systems.

Redondo Beach General Plan Land Use Element

The City's Land Use Element includes policies that promote water conservation and sustainability:

- Policy 1.55.10 Use reclaimed water for the irrigation of public and private landscape, as available.
- Policy 1.56.10 Require that street landscape incorporate a drought-conscious irrigation system or other methods to provide proper watering, where irrigation systems are required.

Redondo Beach Municipal Code

The Redondo Beach Municipal Code (RBMC) establishes fire extinguishing requirements and water conservation measures.

Section 3-4.111 – Fire Extinguishing Systems. Requires an automatic sprinkler system throughout every new structure except in occupancies under 750 sf. All

pipings and attached appurtenances subjected to system working pressure shall be hydrostatically tested at gauge pressure of 200 psi (13.8 bar) or 50 psi (3.4 bar) in excess of the system working pressure, whichever is greater, and shall maintain that pressure at gauge pressure of +/- 5 psi (0.34 bar) for 2 hours.

Section 9-23.01 – Adoption of 2019 California Green Building Standards Code. The City adopted a Green Building Ordinance in 2008, with updates in 2019. This ordinance requires the use of highly efficient plumbing fixtures, irrigation, and landscaping for new construction, major remodels, and new or remodeled landscapes.

Section 10-2.1900 – Landscaping Regulations. Requires the use of drought-tolerant plants where feasible. Recommended drought-tolerant plant species are listed in the City of Redondo Beach List of Recommended Trees and Water Conserving Plants maintained by the Superintendent of Parks. Other plants consistent with the intent of this section, but not included in the List of Recommended Trees and Water Conserving Plants, may be approved by the Community Development Director. This section also adopts the California State Model Water Efficient Landscape Ordinance by reference.

3.15.1.3 Impact Assessment Methodology – Water Infrastructure and Supply

Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the 2020 CEQA Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on water infrastructure and supply if:

- a) The project would require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects; and/or
- b) The project would not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Methodology

The proposed Project has been evaluated to determine projected utility demands for the proposed Project and its effects on the water supply as well as the current capacity of water infrastructure .

The proposed Project was evaluated for impacts to potable water utilities based on data published by the WBMWD and Cal Water and a Water Memorandum for the proposed Project (John Labib & Associates 2020a).

The ability of the local water lines to serve the Project site was analyzed based on John Labib and Associates' (2020a) calculated fire flow at the fire hydrant located adjacent to southern driveway into the Project site (see Appendix L). The results of fire flow testing were analyzed to calculate adequate pressure and flow for firefighting purposes. John Labib & Associates prepared a Water Memorandum for the proposed Project (see Appendix L). The analysis of water supply estimates the total water demand generated by the proposed Project and compares that demand to Cal Water's available water supply. Potential impacts resulting from the proposed Project were compared with criteria from CEQA Appendix G to assess their significance.

3.15.1.4 Project Impacts and Mitigation Measures – Water Infrastructure and Supply

Impact Description (UT-1)

- a) *The project would require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.*

UT-1 Implementation of the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would increase the overall operational water demand at the Project site. However, with the exception of on-site trenching for the new connection to the 8-inch water line located along North Prospect Avenue, the proposed Project would not require or result in the substantial construction or expansion of existing water facilities. Therefore, potential impacts to water infrastructure would be *less than significant*.

Construction

As described in Section 2.5.1.6, *Construction Activities*, Section 3.2, *Air Quality*, and Section 3.6, *Geology and Soils* (refer to Impact GEO-2) construction of the proposed Project would require water for dust control, equipment cleaning, soil excavation and export, and re-compaction and grading activities. Based on a review of construction projects of similar size, duration, and type of construction (e.g., The Plaza and the Ocean Avenue Project located in the City of Santa Monica), water use is conservatively estimated at 1,000 to 2,000 gpd during construction, depending on the construction phase (e.g., demolition, excavation, building construction, etc.). Temporary

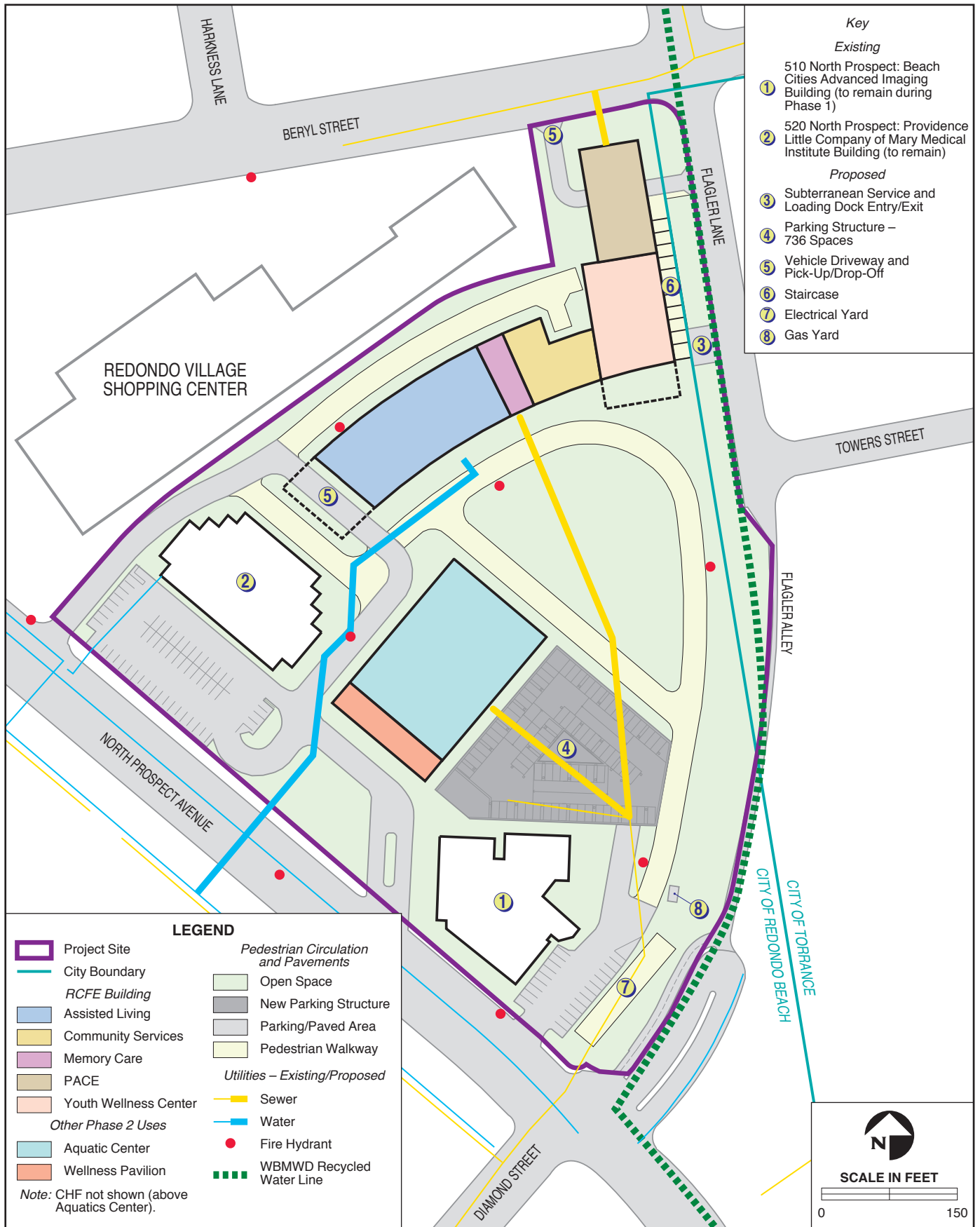
construction-related water use would be less than 2 percent of the existing water consumption at the Project site, which is estimated to be approximately 107,484 gpd (refer to Table 3.15-4) and could be accommodated by the existing water infrastructure on-site. Overall, temporary construction-related impacts associated with water demand and water infrastructure would be *less than significant*.

As described in Section 2.5.1.4, *Utilities and Services*, water would be supplied by Cal Water from the existing 8-inch water line located along North Prospect Avenue. The proposed Project would connect to Cal Water's water supply system with a new lateral line installed within the Project site (see Figure 3.15-2). The new lateral would connect the proposed Residential Care for the Elderly (RCFE) Building to the 8-inch water line northwest of the central driveway. The existing 8-inch lateral connecting to the Providence Little Company of Mary Medical Institute Building (520 North Prospect Avenue) would remain protected in place during construction. None of the other existing water lines would be affected by the proposed Project. In addition to the proposed laterals, the Project may also include a connection to the existing 4-inch diameter purple pipe along Diamond Street, Flagler Alley, and Flagler Lane (for recycled water). Construction associated with the installation of laterals and the potential installation of a purple pipe connection would primarily involve minor trenching on-site.

Given the location of the BCHD campus and the existing water infrastructure within the Redondo Beach, all work associated with the proposed water lateral would be subject to review and approval by the Redondo Beach Department of Public Works. All appropriate permits (e.g., public right-of-way permits associated with connections to off-site the water distribution system) would be obtained, as necessary. The construction contractor would be required to notify the Redondo Beach Department of Public Works in advance of ground disturbance activities to existing avoid water lines and/or disruption of water service to off-site properties. Compliance with all required permit requirements enforced by the Redondo Beach Department of Public Works would ensure that temporary impacts on water supply and infrastructure during construction activities would be *less than significant*.

Operation

In order to assess the operational water infrastructure needs associated with the proposed Project, John Labib & Associates prepared a Water Memorandum (see Appendix L). Domestic water demand is the primary contributor to water consumption associated with the proposed Project (see Impact UT-2); fire flow represents the peak water demand on the City's water infrastructure,



including water flow and pressure. The average water demand associated with the proposed Project is 45,431,840 gallons per year (86.44 gpm) during Phase 1 and 56,426,355 gallons per year (107.35 gpm) during Phase 2. Additionally, John Labib & Associates assessed the flow requirements based on the size of the largest building included in the proposed Project. The proposed Project would generate a maximum demand of approximately 107.35 gpm of domestic water and 5,750 gpm of fire water totaling 5,857.35 gpm. As measured by the fire flow test conducted for the proposed Project, the maximum allowable flow from the main is 2,513 gpm, which is less than the required fire flow. However, new buildings developed under the proposed Project, including the proposed parking structure would include automatic sprinklers, which reduce required fire flow of buildings by up to 75 percent. As such, incorporation of automatic sprinklers in new buildings would create a minimum fire flow requirement of 1,437.5 gpm and total domestic and fire flow requirement of 1,464.3 gpm. Therefore, the existing water flow and pressure is adequate to serve the proposed Project in accordance with Appendix B of the 2016 California Fire Code (John Labib & Associates 2020a).

Although net average daily water demand would increase by approximately 6,200,173 gallons per year (11.8 gpm), no upgrades to public water mains would be needed under the proposed Project. Cal Water's potable water system has the infrastructure and the capacity to serve the proposed Project. With regard to the use of recycled water for operational landscaping irrigation, the proposed Project may use recycled water from the WBMWD's recycled water line, located adjacent to the Project site. These options would be explored as final design plans are further developed. The ECL Water Recycling Facility currently operates 55 percent of capacity; therefore, use of recycled water would not require an expansion of this facility.

Cal Water's water network has adequate capacity, and the proposed Project would not result in the need for new or additional water infrastructure. Impacts to water infrastructure would be *less than significant*.

Impact Description (UT-2)

- b) *The project would not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.*

UT-2 The proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would result in an overall increase in water demand, but this water demand would be adequately met by existing and planned future water supplies. This impact would be *less than significant*.

As described in Section 3.15.1.1, *Environmental Setting – Water Infrastructure and Supply*, the existing water demand associated with the Project site is approximately 39,231,667 gallons per year (107,484 gpd) (John Labib & Associates 2020a). The proposed uses associated with Phase 1 of the proposed Project would increase water demand at the Project site. Using CalEEMod water demand factors, John Labib & Associates (2020A) calculated a projected Phase 1 water demand of 45,822,139 gallons per year (125,540 gpd) (see Table 3.15-8). Therefore, the proposed Phase 1 operations would increase water demand by approximately 6,590,469 gallons per year (18,056 gpd) or 16.8 percent of existing water demand.

Table 3.15-8. Projected Water Demand for Phase 1 of the Proposed Project

Proposed Use	Water Consumption Factor	Size	Water Demand (gal/year)	Water Demand (gpm)
<i>Assisted Living</i>				
Studio Unit	65,154 gal/year per DU	37 units	2,410,698	4.59
Single-Bedroom Unit	65,154 gal/year per DU	100 units	6,515,400	12.40
Two-Bedroom Unit	65,154 gal/year per DU	20 units	1,303,080	2.48
Common Areas	125,481 gal/year per 1,000 sf	84,000 sf	10,540,404	20.05
<i>Memory Care</i>				
Two-Bedroom Unit	65,154 gal/year per DU	60 units	3,909,240	7.44
Common Areas	125,481 gal/year per 1,000 sf	24,500 sf	3,074,285	5.85
<i>PACE Services</i>				
Medical Office	125,481 gal/year per 1,000 sf	14,000 sf	1,756,392	3.34
<i>Community Services</i>				
Office	177,734 gal/year per 1,000 sf	6,270 sf	1,114,392	2.12
<i>Youth Wellness Center</i>				
Counseling Center	42,890 gal/year per 1,000 sf	9,100 sf	390,299	0.74
<i>Landscaping and Irrigation</i>				
Landscaping Irrigation Demand	18.25 gal/year per sf	125,890 sf	2,297,493	4.37
510 and 520 North Prospect Avenue to Remain (refer to Table 3.15-4)			12,510,456	23.80
Average Daily Demand			45,822,139	87.18

Notes: Indoor Water Demand rates are referenced from CalEEMod Appendix D, Table 9.1.

Landscaping water use estimate of 2.5 AFY per acre (18.25 gallons per year per sf) based on the City of Redondo Beach Water Front Project Water Supply Assessment (Yarne & Associates, Inc. 2015).

Some uses do not generate water demand (e.g., the existing above ground parking structure at 512 North Prospect Avenue, janitorial closets, storage, etc.) and therefore, are not included.

Source: John Labib & Associates 2020a; see Appendix L.

The proposed Wellness Pavilion, Aquatic Center, and Center for Health and Fitness uses associated with Phase 2 of the proposed Project would further increase water demand at the Project

site. John Labib & Associates (2020a) calculated a water demand of 56,426,355 gallons per year (154,593 gpd) (174.92 AFY) for the Phase 2 development program (see Table 3.15-9). Therefore, the proposed Project would increase the existing water demand by approximately 17,194,688 gallons per year (52.8 AFY), a 43.8 percent increase over the existing demand.

Table 3.15-9. Projected Water Demand for Phase 2 of the Proposed Project

Proposed Use	Water Use Factor	Size	Water Demand (gal/year)	Water Demand (gpm)
<i>Wellness Pavilion</i>				
Office	177,734 gal/year per 1,000 sf	19,271 sf	3,425,112	6.52
Research and Development	491,694 gal/year per 1,000 sf	5,000 sf	2,458,470	4.68
Restaurant	303,534 gal/year per 1,000 sf	5,782 sf	1,755,034	3.34
<i>Aquatic Center</i>				
Health Club/Spa	59,143 gal/year per 1,000 sf	27,015 sf	1,597,748	3.04
Office	177,734 gal/year per 1,000 sf	1,813 sf	322,232	0.61
<i>Center for Health and Fitness</i>				
Health Club/Spa	59,143 gal/year per 1,000 sf	20,000 sf	1,182,860	2.25
<i>Landscaping</i>				
Landscaping Irrigation Demand	18.25 gal/year per sf	118,370 sf	2,160,253	4.11
510 and 520 North Prospect Avenue to Remain (refer to Table 3.15-4)			12,510,456	23.80
Phase 1 Water Use (refer to Table 3.15-8)			31,014,190	59.01
Average Daily Demand			56,426,355	107.35

Notes: Indoor Water Demand rates are referenced from CalEEMod Appendix D, Table 9.1.

Landscaping water use estimate of 2.5 AFY per acre (18.25 gallons per year per sf) based on the City of Redondo Beach Water Front Project Water Supply Assessment (Yarne & Associates, Inc. 2015).

Some uses do not generate water demand (e.g., the existing above ground parking structure at 512 North Prospect Avenue, janitorial closets, storage, etc.) and therefore, are not included.

Counseling center has been assumed to have the same demand as a day-care center.

Restaurant has been conservatively assumed to have the same demand as a High turnover sit down restaurant.

Due to the programmatic nature of the Phase 2 development program, the provided water use factors for the Aquatics Center represent estimates based on similar uses. Health Club/Spa represent fitness centers that have both fitness equipment as well as indoor and outdoor pools.

Source: John Labib & Associates 2020a; see Appendix L.

However, the increase in water demand associated with the proposed Project (17,194,688 gallons per year; 52.8 AFY), would represent less than 1 percent of the total water supply of the projected Hermosa-Redondo District Supplies. Cal Water provided a will serve letter to BCHD on November 12, 2019 indicating that after all of the required permits are obtained, Cal Water will provide water service in accordance with the rules and regulations of the California Public Utilities

Commission (CPUC) (Cal Water 2019). No new or expanded water entitlements are necessary for the proposed Project.

Additionally, the proposed Project may also include a connection to the existing 4-inch diameter purple pipe along Diamond Street, Flagler Alley, and Flagler Lane (for recycled water). Recycled water could be used to reduce overall water demand, consistent with the Redondo Beach General Plan Land Use Element (e.g., Policy 1.55.10) associated with operational landscaping irrigation. Proposed uses for recycled water include landscape irrigation and architectural water features, water for mechanical cooling towers, and water for toilet flushing. Overall, the proposed Project would be consistent with local policies (e.g., City of Redondo Beach Green Building Codes) and impacts on potable water use associated with Project operations would be *less than significant*.

Cumulative Impacts – Water Infrastructure and Supply

The geographic context for cumulative impacts analysis on local water supplies is the Cal Water Hermosa-Redondo District service area. A cumulative impact related to water infrastructure and supply would result if the potential impacts associated with the proposed Project, when combined with other past, present, and future projects (refer to Table 3.0-1), would require construction of new or expanded water infrastructure, would require new or expanded entitlements, or would adversely affect the ability of the Hermosa-Redondo District to continue to meet its goal for 128 gallons per capita per day by 2020.

Water Infrastructure

The proposed Project, along with other past, present, and future projects in Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach would cumulatively increase the demand on the existing water distribution system and could potentially require relocation or construction of new or expanded water infrastructure, the construction or relocation of which could cause significant environmental effects. However, as with the proposed Project, individual projects would be subject to review by the permitting city to ensure that the existing water lines would be adequate to meet domestic water and fire flow demands. Cal Water regularly conducts evaluations to ensure its water infrastructure system is adequate to meet service needs and infrastructure system improvements would be implemented as needed as part of its Capital Implementation Master Plan. The Hermosa-Redondo District Infrastructure Improvement Plan identified 22,239 feet of water line segments within the Hermosa-Redondo District that appear to be undersized or operating at or near capacity and need to be upgraded between 2019 and 2021 (Cal Water 2018). Replacement of these water lines would require excavation, cut/cap or removal of older water lines, and installation of the new water lines located within existing paved streets and public rights-of-way.

This would involve typical short-term construction impacts, such as criteria air pollutant emissions (refer to Section 3.2, *Air Quality*), noise (refer to Section 3.11, *Noise*), and disruption of pedestrian, bicycle, and vehicle traffic (refer to Section 3.14, *Transportation*). The City of Redondo Beach's ongoing efforts to maintain and upgrade public infrastructure would ensure that the infrastructure system remains adequate for existing and planned future demands. However, as described in Impact UT-1, implementation of the proposed Project would not substantially affect water lines serving the Project site. Therefore, the proposed Project would not result in a *considerable contribution to cumulatively considerable impacts* on water infrastructure.

Water Demand and Supply

Cumulative water supply impacts are considered on a local and regional basis in accordance with the Cal Water Hermosa-Redondo District's 2015 UWMP, adopted by Cal Water in June 2016. The UWMP takes into consideration SCAG growth projections and local General Plan land use data. (The proposed Project is consistent with future SCAG growth projections; refer to Section 3.12, *Population and Housing*). As discussed under Impact UT-1 above, implementation of the proposed Project would result in a net increase in water demand at the Project site compared to existing conditions. However, as described in Section 3.15.1.1, *Environmental Setting – Water Infrastructure and Supply*, Cal Water has concluded that the Hermosa-Redondo District will have adequate water supplies to meet projected demands under normal, single dry year, and multiple dry year conditions through the year 2040. The contribution of the proposed Project to cumulative impacts on local water supplies would be negligible in comparison to existing and future planned water supplies in the Hermosa-Redondo District (i.e., less than 1 percent). The proposed Project would comply with regulatory standards to implement water conservation strategies and minimize indoor water use. Therefore, while the proposed Project would incrementally contribute cumulative demand, Cal Water would continue to effectively manage its water demand and significantly expand its water conservation programs that focus on reducing urban water use to meet future cumulative demand. Therefore, the proposed Project would not result in a *substantial contribution to a cumulatively considerable impacts* on water supply.

3.15.2 Wastewater Collection, Conveyance, and Treatment

3.15.2.1 Environmental Setting – Wastewater Collection, Conveyance, and Treatment

Wastewater Management

The Redondo Beach Public Works Department Sewer & Storm Drain Maintenance Division is responsible for all facilities that support the collection and conveyance of wastewater and

stormwater runoff necessary to protect the community from system overflows, reduce local flooding, and promote overall water quality of the marine environment. The City of Redondo Beach's sewer system consists of approximately 113 miles of sewer lines, 15 pump stations, and 9 backup generators (City of Redondo Beach 2020a). A System Evaluation and Capacity Assurance Plan (SECAP) and Rehabilitation and Replacement Program (RRP) was prepared for the City of Redondo Beach in 2010 to evaluate the sewer collection system and provide a framework for undertaking the construction of new and replacement facilities. During the 5-year period between January 2007 and December 2011, the City of Redondo Beach reported 58 sanitary sewer overflows (SSOs), of which 33 percent were attributed to root intrusion; 20 percent to pump station failure; and 13 percent to fats, oils, and grease. Approximately 1 mile of the system was calculated to have capacity issues and four locations (i.e., Lucia Street, Pacific Coast Highway, Helberta Street, and Esplande Street) have experienced repeat SSOs (USEPA 2011). However, these locations more than 0.9 miles of the Project site; SECAP shows no deficiencies within the boundaries of the Project site. Approximately 5 percent (i.e., 28,247 feet) of the City of Redondo Beach's sewer system is identified as an area of concern and recommended for annual inspection, as compared to the areas considered to have no deficiencies, which are inspected every 10 years (USEPA 2011).

Wastewater Treatment

Wastewater is collected through the City of Redondo Beach sewer systems, which flows into the Los Angeles County Sanitation District (LACSD) interceptors and is ultimately conveyed for treatment to the Joint Water Pollution Control Plant (JWPCP), located approximately 6 miles southeast of the City of Redondo Beach in the City of Carson. The JWPCP is part of the South Bay Cities Sanitation District, one of the 24 independent districts making up the LACSD. The South Bay Cities Sanitation District provides wastewater collection and treatment to the following eight cities: El Segundo, Hermosa Beach, Manhattan Beach, Palos Verdes Estates, Rancho Palos Verdes, Redondo Beach, Rolling Hills Estates, and Torrance. The JWPCP facility provides primary and secondary treatment for approximately 261.1 million gallons per day (mgd), and has a total permitted capacity of 400 mgd, making it one of the largest wastewater treatment plants in the world (LACSD 2015, 2020a).

Effluent from the JWPCP is required to meet the Los Angeles Regional Water Quality Control Board's (RWQCB's) requirements for the Pacific Ocean. The Los Angeles RWQCB imposes performance standards on water quality that are more stringent than the standards of the National Pollution Discharge Elimination System (NPDES) permit required under the Clean Water Act. Accordingly, JWPCP effluent to the Pacific Ocean is continually monitored by the South Bay

Cities Sanitation District to ensure that it meets or exceeds prescribed standards (Los Angeles RWQCB 2017).

Project Site Sewer System

The Project site is served by one 8-inch local sanitary sewer line located along Diamond Street, with one tie-in to the Project site located near the southern driveway (refer to Figure 3.15-1). The 8-inch sewer lateral connects to the Beach Cities Health Center (514 North Prospect Avenue) and additional 6-inch laterals, which connect to the Beach Cities Advanced Imaging Building (510 North Prospect Avenue) and Providence Little Company of Mary Medical Institute Building (520 North Prospect Avenue). An additional local sewer line is located along Beryl Street north of the Flagler Lot; however, this line does not tie-in to the Project site. According to City of Redondo Beach records of the existing sewer infrastructure, the Project site is the most upstream point of the 8-inch local sewer main. Wastewater and sewage collected by this sewer line is conveyed to an 8-inch gravity sewer main located at the intersection of North Prospect Avenue and Diamond Street. The capacity of the existing 8-inch sewer main is a maximum flow of approximately 4 inches (i.e., 50 percent) and 668,593 gpd. In a letter dated September 22, 2020, LACSD indicated that the wastewater flow originating from the Project site discharges from the local sewer line, which is not maintained by LACSD, for conveyance to LACSD's South Bay Cities Main Trunk Sewer, located in Gertruda Avenue at Catalina Avenue. LACSD's 20-inch diameter lined trunk sewer has a capacity of 2.4 mgd and conveyed a peak flow of 0.3 mgd when last measured in 2015 (LACSD 2020b).

Wastewater generation and sewer flows were estimated for the existing development at the Project site by John Labib & Associates in a site-specific Sewer Capacity Study prepared in August 2020 (see Appendix L). Existing wastewater generation for the Project site was estimated using Sewer Generation Factors established in the City of Los Angeles CEQA Thresholds Guide (2006) for each existing building use. Based on the City of Los Angeles CEQA Thresholds Guide (2006), the 8-inch sewer line located along Diamond Street conveys an average daily flow of approximately 68,925 gpd from the Project site (see Table 3.15-10; see Appendix L).

Table 3.15-10. Estimated Existing Project Site Wastewater Generation

Existing Use	Wastewater Generation Factor	Size	Average Daily Flow (gpd)
<i>Beach Cities Advanced Imaging Building (510 North Prospect Avenue)</i>			
Medical Office	250 gpd per 1,000 sf	52,000 sf	13,000
<i>Providence Little Company of Mary Medical Institute (520 North Prospect Avenue)</i>			
Medical Office	250 gpd per 1,000 sf	47,700 sf	11,925
<i>Beach Cities Health Center (514 North Prospect Avenue)</i>			
Hospital	75 gpd per bed	60 beds	4,500
Medical Office	250 gpd per 1,000 sf	158,000	39,500
Existing Average Daily Flow			68,925

Notes: Hospital assumes same uses as Memory Care units.

The existing above ground parking structure, Maintenance Building, and mechanical rooms do not generate wastewater and therefore, are not included.

Wastewater Generation Factors are based on sewer flow estimates from Exhibit M.2-22 of the City of Los Angeles CEQA Thresholds Guide (2006).

Source: John Labib & Associates 2020b (see Appendix L).

3.15.2.2 Regulatory Setting – Wastewater Collection, Conveyance, and Treatment

Federal Policies and Regulations

Federal Water Pollution Control Act (1948)

The Federal Water Pollution Control Act, which was expanded in 1972 and is commonly known as the Clean Water Act, is a comprehensive statute aimed at restoring and maintaining the chemical, physical, and biological integrity of the nation's waters, including discharge waters of wastewater treatment processes. The Clean Water Act, in combination with other Federal environmental laws, regulates the location, type, planning, and funding of wastewater treatment facilities.

National Pollutant Discharge Elimination System

As authorized by the Clean Water Act, the NPDES program regulates point sources that discharge pollutants into waters of the U.S. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. The NPDES permit system is authorized and implemented by States and local water boards.

State Policies and Regulations

Operation of the JWPCP is subject to regulations set forth by the California Department of Public Health and the State Water Resources Control Board (SWRCB) in compliance with the Clean Water Act and NPDES program.

Regional Policies and Regulations

Los Angeles Regional Water Quality Control Board

Waste discharge pursuant to NPDES regulations for the LACSD water reclamation plant, (i.e., the JWPCP in Carson) are set forth in Los Angeles RWQCB Order No. R4-2017-0180, issued in 2017. This order sets discharge prohibitions (e.g., discharges that degrade water supplies) and effluent limitations and discharge specifications.

Los Angeles County Sanitation District

Capital improvements to the LACSD water reclamation plants are funded from connection fees charged to new developments, redevelopments, and expansions of existing land uses. The connection fee is a capital facilities fee used to provide additional conveyance, treatment, and disposal facilities (i.e., capital facilities) required by new users connecting to the LACSD's sewerage system or by existing users who significantly increase the quantity or strength of their wastewater discharge. The Connection Fee Program ensures that all users pay their fair share for any necessary expansion of the system. LACSD establishes discharge limits for wastewater discharges within its service areas to prevent discharge of substances to LACSD sewers that would exceed the treatment capacities or otherwise damage LACSD water reclamation facilities (LACSD 2020b). The discharge limits enable water reclamation facilities to maintain their effluents within Los Angeles RWQCB wastewater discharge requirements.

Clearwater Program Master Facilities Plan

The Sanitation Districts of LACSD prepared the Clearwater Program Master Facilities Plan in November 2012 to identify a recommended plan that will meet the wastewater management needs of the Joint Outfall System through the year 2050. The Joint Outfall System is a regional, interconnected system of wastewater conveyance and treatment facilities within and under the jurisdiction of the 17 Sanitation Districts that participate in the Joint Outfall Agreement. The Clearwater Program Master Facilities Plan provides past, current, and projected water and wastewater volumes and evaluates the needs of the system. The plan also provides a guiding plan with programs to implement the recommended system improvements.

Los Angeles County Wastewater Ordinance

The Los Angeles County Wastewater Ordinance, adopted on April 1, 1972 and amended on July 1, 1998. The ordinance, among other things, regulates sewer construction and provides for the approval of plans for sewer construction and implements Federal and State pollution control regulations.

Los Angeles County Connection Fee Ordinance and Program

Capital improvements to LACSDs' water reclamation plants are funded from connection fees charged to new developments, redevelopments, and expansions of existing land uses. The connection fee is a capital facilities fee used to provide additional conveyance, treatment, and disposal facilities (i.e., capital facilities) required by new users connecting to the LACSDs' sewerage system or by existing users that significantly increase the quantity or strength of their wastewater discharge. The purpose of the Ordinance is to impose fees for the privilege of connecting facilities to the sewerage system or for the privilege of increasing the strength or quantity of wastewater discharged into connected facilities, and to provide for the collection of those fees. Revenue derived under the ordinance is used for expansion of the LACSDs' capital facilities and to fund loans as provided for in the ordinance.

3.15.2.3 Impact Assessment Methodology – Wastewater Collection, Conveyance, and Treatment

Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the 2020 CEQA Guidelines. For the purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on wastewater infrastructure if:

- a) The project would require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects; and/or
- b) The project would result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Methodology

The proposed Project was evaluated for potential impacts to wastewater utilities based on data published by the LACSD and RWQCB, information provided by the City of Redondo Beach's

SECAP and RRP and the Sewer Capacity Study prepared for the proposed Project and peer reviewed by Wood Environment & Infrastructure Solutions, Inc. (see Appendix L). Projected wastewater generation was calculated using Wastewater Generation Factors from Exhibit M.2-22 of the City of Los Angeles CEQA Thresholds Guide (2006).

Projected wastewater utility demands for the proposed Project were compared with the capacity available for allocation within Redondo Beach. Potential impacts resulting from the proposed Project were compared with criteria from RWQCB, CEQA and Appendix G to assess their significance. Impacts associated with trenching for sewer utilities are discussed in Section 3.6, *Geology and Soils*.

3.15.2.4 Project Impacts and Mitigation Measures – Wastewater Collection, Conveyance, and Treatment

Impact Description (UT-3)

- a) *The project would require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects.*

UT-3 Implementation of the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would result in an increase in operational wastewater generation at the Project site as compared to existing conditions. Environmental effects associated with the construction of wastewater facilities would be *less than significant*.

Construction

During construction of the proposed Project, existing uses at the Beach Cities Health Center and the attached Maintenance Building would remain in place until the completion of the RCFE Building, after which they would be re-located, therefore, existing wastewater generation would remain throughout construction. During construction, portable toilets would be provided by a private waste management company for use by construction workers and the waste would be disposed of off-site. Additionally, given the depth to groundwater, it is not anticipated that groundwater would be encountered during construction; therefore, the construction area would not need to be dewatered and no groundwater would be extracted or discharged to the existing sewer system. Therefore, construction activities would not generate wastewater flows and would not, along with existing and projected wastewater flows, approach the existing capacity of the JWPCP.

The facilities developed under the proposed Project would connect to the City of Redondo Beach's sewer system with new connections to the 8-inch sewer line along Diamond Street and a new connection the 8-inch sewer main along Beryl Street (refer to Figure 3.15-2). (Neither the existing facilities nor the proposed facilities on the BCHD campus would discharge wastewater to the City of Torrance sewer system.) Construction impacts would primarily involve trenching on-site to install the new sewer connections. Prior to ground disturbance, all proposed work associated with the sewer connections would be subject to review and approval by the Redondo Beach Department of Public Works. All appropriate permits (e.g., public right-of-way permits associated with connections to off-site sewer system) would be obtained, as necessary. The construction contractor would be required to notify Redondo Beach Public Works Department in advance of ground disturbance activities to existing avoid disruption of sewer service to off-site properties. Compliance with all required permit requirements required by the Redondo Beach Department of Public Works would ensure that temporary impacts on sewer capacity and wastewater infrastructure during construction activities would be *less than significant*.

Operation

The Sewer Capacity Study prepared for the proposed Project determined that the existing buildings on the Project site generate a peak daily demand of 68,925 gpd, which flows into the 8-inch local sewer main in North Prospect Avenue and away from the Project site to the southeast (John Labib & Associates 2020b). The existing sewer main capacity is 668,593 gpd (John Labib & Associates 2020b). The existing uses at the Beach Cities Advanced Imaging Building (510 North Prospect Avenue) and Providence Little Company of Mary Medical Institute Building (520 North Prospect Avenue) would remain, and would continue to generate a combined average of approximately 24,925 gpd (refer to Table 3.15-10).

Phase 1 of the proposed Project would decrease wastewater generation at the Project site compared to existing conditions. Using wastewater generation factors from the City of Los Angeles CEQA Thresholds Guide (2006), John Labib & Associates (2020), the projected daily peak demand during Phase 1 would be approximately 62,606 gpd (see Table 3.15-11). Therefore, the implementation of Phase 1 of the proposed Project would decrease existing wastewater generation by approximately 6,319 gpd.

Table 3.15-11. Projected Wastewater Generation for Phase 1 of the Proposed Project

Proposed Use	Wastewater Generation Factor	Size	Peak Daily Wastewater Generation (gpd)
<i>Assisted Living</i>			
Studio Unit	80 gpd per DU	37 units	2,960
Single-Bedroom Unit	120 gpd per DU	100 units	12,000
Two-Bedroom Unit	160 gpd per DU	20 units	3,200
Lobbies/Lounges	80 gpd per 1,000 sf	84,000 sf	6,720
<i>Memory Care</i>			
Two-Bedroom Unit	160 gpd per DU	60 units	9,600
Lobbies/Lounges	80 gpd per 1,000 sf	24,500 sf	1,960
<i>PACE Medical Care Service</i>			
Medical Office	250 gpd per 1,000 sf	14,000 sf	3,500
<i>Community Services</i>			
Office	150 gpd per 1,000 sf	6,270 sf	941
510 and 520 North Prospect Avenue to remain (refer to Table 3.15-10)			24,925
Average Daily Demand			62,606

Notes: DU = dwelling unit

Wastewater Generation Factors are based on sewer flow estimates for each use from Exhibit M.2-22 of the *Los Angeles CEQA Thresholds Guide (2006)*.

Source: John Labib & Associates 2020b; see Appendix L.

The implementation of Phase 2 of the proposed Project would increase wastewater generation at the Project site compared to Phase 1 and existing conditions,. Using wastewater generation factors from the City of Los Angeles CEQA Thresholds Guide (2006), the projected daily peak demand of the Phase 2 would be approximately 116,286 gpd (see Table 3.15-12). Therefore, Phase 2 of the proposed Project would increase the amount of wastewater currently transported by the sewer system by approximately 47,361 gpd from existing conditions.

Sewer lines have a flow capacity based on the diameter and slope of the pipe. To ensure that wastewater flows would be adequately accommodated, sewer lines are reviewed based on the guidelines for sewer design and operations from the Los Angeles Bureau of Engineering Manual – Part F. According to this guidance, sewer lines should be sized so the depth of the Peak Dry Weather Flow (PDWF), projected for the design period, shall be no more than 50 percent of the pipe diameter ($d/D = 0.5$ where d = depth of flow and D = pipe diameter). This design screening criterion of $d/D = 0.5$ for both PDWF and Peak Wet Weather Flow (PWWF) is used to assess whether future upgrades are needed to the City sewer system.

Table 3.15-12. Projected Wastewater Generation for Phase 2 of the Proposed Project

Proposed Use	Wastewater Generation Factor	Size	Peak Daily Wastewater Generation (gpd)
<i>Wellness Pavilion</i>			
Lobbies/Lounges	80 gpd per 1,000 sf	12,863 sf	1,029
Restaurant	30 gpd per seat	290 seats	8,700
Office	150 gpd per 1,000 sf	7,077 sf	1,062
Library	80 gpd per 1,000 sf	5,000 sf	400
<i>Aquatic Center</i>			
Health Club/Spa	800 gpd per 1,000 sf	27,015 sf	21,612
Lobbies/Lounges	80 gpd per 1,000 sf	500 sf	40
Office	150 gpd per 1,000 sf	1,813 sf	272
<i>Center for Health and Fitness</i>			
Health Club/Spa	800 gpd per 1,000 sf	20,000 sf	16,000
<i>Youth Wellness Center</i>			
Office	150 gpd per 1,000 sf	9,100 sf	1,365
Phase 1 Average Daily Demand (refer to Table 3.15-11)			37,681
510 and 520 North Prospect Avenue to remain (refer to Table 3.15-10)			24,925
Daily Demand			116,286

Notes: Wastewater Generation Factors are based on sewer flow estimates for each use from Exhibit M.2-22 of the City of Los Angeles CEQA Thresholds Guide (2006).

Due to the programmatic nature of the Phase 2 development program, the provided water use factors for the Aquatics Center represent estimates based on similar uses. Health Club/Spa represent fitness centers that have both fitness equipment as well as indoor and outdoor pools.

Source: John Labib & Associates 2020b; see Appendix L.

The Sewer Capacity Study prepared by John Labib & Associates (2020b) analyzed the capacity of the 8-inch local main along Diamond Street to convey the increased wastewater flow associated with the proposed Project. The Sewer Capacity Study concluded, after calculating the proposed sewer flow, the existing 8-inch sewer line along Diamond Street would adequately accommodate the proposed sewer flow without upgrades. As shown in Table 3.15-13, under the proposed peak flows would increase from 68,925 gpd to 116,285 gpd, representing net change of 47,361 or 69 percent increase from existing conditions. However, even with the increase in sewage flow associated with the proposed Project, proposed flows would remain below a 50 percent flow depth to diameter ratio. Therefore, the proposed Project and would not exceed existing infrastructure capacity (John Labib & Associates 2020b). .

Table 3.15-13. Wastewater Conveyance for the Proposed Project

	Peak Flow (gpd)
Existing	68,925
Proposed	116,286
Net Change	47,361
Existing Sewer Capacity	2,100,000

Source: John Labib & Associates 2020b; see Appendix L.

The proposed Project wastewater would continue to flow from the local sewer line along Diamond Street to the LACSD South Bay Cities Main Trunk Sewer, located in Gertruda Avenue at Catalina Avenue. The LACSD's 20-inch diameter lined trunk sewer has a capacity of 2.4 mgd and conveyed a peak flow of 0.3 mgd when last measured in 2015 (LACSD 2020b). As such, the LACSD main trunk sewer has a remaining sewer capacity of approximately 2.1 mgd and the increase in sewage flow of 0.047 mgd associated with the proposed Project would not exceed the LACSD sewer capacity. Therefore, implementation of the proposed Project would result in a *less than significant* impact on existing wastewater infrastructure.

Impact Description (UT-4)

- b) *The project would result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.*

UT-4 Implementation of the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would result in an overall increase in wastewater generation at the Project site; however, the proposed Project would not result in an exceedance of the Joint Water Pollution Control Plant's (JWPCP's) wastewater treatment capacity. Impacts would be *less than significant*.

As described in Section 3.15.2.1, *Environmental Setting – Wastewater Collection, Conveyance, and Treatment* wastewater is collected through the City of Redondo Beach's sewer system, flows into the LACSD interceptors, and is conveyed to the JWPCP. The JWPCP receives approximately 261.1 mgd of wastewater, and has a maximum capacity of approximately 400 mgd processed through full secondary treatment (LACSD 2015, 2020a). As described in Impact UT-3, the proposed Project would generate an increase in the average daily amount of wastewater by approximately 47,361 gpd during the implementation of Phase 2 (refer to Table 3.15-12). Given that the JWPCP has approximately 139 mgd of additional capacity, the increased wastewater flow

from the operation of the proposed Project would be less than 1 percent of the remaining capacity of the JWPCP. As a result, the JWPCP would have sufficient capacity to accommodate the increased wastewater generated by the proposed Project and would not require any upgrades to increase capacity due to the proposed Project. Therefore, impacts related to wastewater treatment capacity would be *less than significant*.

Cumulative Impacts – Wastewater Collection, Conveyance, and Treatment

A cumulative impact related to wastewater infrastructure would result if the potential impacts associated with the proposed Project, when combined with other past, present, and future projects (refer to Table 3.0-1), would require construction of new or expanded wastewater infrastructure, the construction of which would cause significant environmental effects or if there is inadequate capacity to serve the projected demand in addition to the wastewater treatment provider's existing commitments.

Wastewater Conveyance System

As described in Impact UT-3, the implementation of the proposed Project would result in a minor increase to the existing wastewater flows in the 8-inch sewer main and gravity main along Diamond Street (refer to Table 3.15-11 and Table 3.15-12). This increase in wastewater flow from the proposed Project would result in a maximum flow of approximately 1.59 inches, which is well below the current capacity of the line (see Appendix L).

Wastewater flows from the Project site would flow to Diamond Street for conveyance to LACSD's South Bay Cities Main Trunk Sewer, located in Gertruda Avenue at Catalina Avenue. As with all wastewater in the City of Redondo Beach, the wastewater flows from the Project site would be conveyed to the JWPCP. Cumulative projects within the cities of Redondo Beach, Torrance, and Hermosa Beach could create additional wastewater flows. Cumulative development may necessitate future upgrades to maintain adequate service capacity for existing and future development within Redondo Beach, Torrance, Hermosa Beach, and Manhattan Beach. However, required development fees for the proposed Project would support improvements and upgrades to capital facilities needed to maintain wastewater conveyance systems to an adequate service capacity. Construction of new sewer lines would require excavation, removal of older mains, removal of existing manholes, and installation of the new manholes and lines located within existing paved roads and public rights-of-way. This would involve typical short-term construction impacts, such as air emissions, noise, and disruption of pedestrian, bicycle, and vehicle traffic flows. However, as with the proposed Project, individual projects would be subject to City review

and approval, including environmental review to ensure that replacement or construction of new sewer mains would be mitigated to a less than significant level, as necessary.

The proposed Project's contribution to cumulative wastewater generation demand would be incremental in comparison to existing and future planned wastewater capacities of local wastewater treatment providers. Compliance of the proposed Project and future development projects with regulatory requirements that regulate wastewater discharge, such as the Los Angeles County Wastewater Ordinance, Los Angeles RWQCB wastewater treatment requirements, and local municipal codes would assist in ensuring that wastewater generation is minimized and wastewater demand is adequately served on a cumulative basis. If cumulative development projects exceed the capacity of the wastewater infrastructure, developers would be required to reduce water consumption and wastewater flow on a project-specific basis, including implementation of BMPs for water conservation and efficiency. Therefore, capacity of wastewater conveyance systems would be maintained and the proposed Project would not have a considerable cumulative impact on regional wastewater treatment.

Wastewater Treatment

LACSD manages the JWPCP, which serves Redondo Beach and portions of the greater Los Angeles area. LACSD's Clearwater Program Master Facilities Plan addresses wastewater disposal in the service area, including Redondo Beach, through the year 2050. The JWPCP facility provides primary and secondary treatment for approximately 261.1 mgd, and has a total permitted capacity of 400 mgd (LACSD 2015, 2020a). Based on current long-term estimates of population density and sewer demand, projected average annual wastewater flows for the JWPCP are 359 mgd in 2050 (LACSD 2012). Therefore, the proposed Project's estimated generation of 0.1 mgd (116,286 gpd) (including the existing uses at 510 and 520 North Prospect Avenue) would not have a considerable contribution to cumulative impacts on regional wastewater treatment.

3.15.3 Solid Waste Management Services

3.15.3.1 Environmental Setting – Solid Waste Management Services

Solid Waste Management System

Solid waste services for Redondo Beach and the Project site are provided under an exclusive franchise agreement with Athens Services, a commercial vendor providing solid waste haul and disposal service throughout Southern California (City of Redondo Beach 2020b). Athens Services provides residential and commercial solid waste collection and recycling services throughout

Redondo Beach and manages several Materials Recovery Facilities (MRFs) located in the Los Angeles County area.

Pursuant to its contract with the City of Redondo Beach, Athens Services is required to collect refuse, recyclables, and organics throughout the City through expanded recycling programs and curbside compost collection. Solid waste collected from all residential uses in Redondo Beach is disposed of at the Southeast Resource Recovery Facility. Solid waste collected from commercial and municipal uses in the Redondo Beach is hauled to one of Athens Services MRFs located in either the City of Industry or Sun Valley, where it is sorted and recycled. Solid waste is sorted and recycled at these facilities to ensure compliance with the State mandated 75 percent waste diversion rate under Assembly Bill (AB) 341 as well as the City of Redondo Beach's 75 percent diversion contract with Athens Services. Green waste is transported to American Organics in Victorville. Once sorted, solid waste materials that are not able to be recycled are transported to either the Chiquita Canyon Landfill or San Timoteo Landfill (see Table 3.15-14).

Table 3.15-14. City of Redondo Beach Disposal and Estimated Remaining Disposal Capacity (tons)

Landfill	2018 City Disposal		Permitted Daily Capacity (tpd)	Additional Remaining Capacity (tons)*	Remaining Life (years)
	Tons Per Day	Tons Per Year			
Chiquita Canyon Landfill	0.73	268	6,000	12,001,395	39
Mid Valley Sanitary Landfill	26.23	9,575	7,500	37,000,000	14
San Timoteo Sanitary Landfill	9.77	3,565	2,000	7,000,000	24
Victorville Sanitary Landfill	0.74	270	3,000	55,061,069	29
Southeast Resources Recovery Facility	53	16,390	2,240	N/A	N/A
Total	90.47	29,800	20,740	111,062,464	N/A

Notes: *As of December 31, 2018. Permitted daily capacity and additional remaining capacity for the Victorville Sanitary Landfill are from December 31, 2016 and therefore may be slightly inflated.

Source: Jesse Reyes 2020; County of Los Angeles Department of Public Works 2019; County of San Bernardino 2018.

Los Angeles County periodically evaluates demand for landfill capacity through the preparation of the County Integrated Waste Management Plan Annual Reports. Of the 10 Class III landfills that serve Los Angeles County, the following four landfills serve the City of Redondo Beach: Chiquita Canyon, Mid Valley, San Timoteo, and Victorville landfills.³ These landfills have a combined remaining capacity of approximately 111,062,464 tons (refer to Table 3.15-14; County of Los Angeles Department of Public Works 2019; County of San Bernardino 2018). Mid Valley

³ Class III landfills are landfills that are permitted to accept non-hazardous municipal solid wastes.

Landfill serves the City of Redondo Beach's waste disposal needs more than any other Class III landfill, and has a remaining disposal capacity of approximately 37,000,000 tons.

Construction and Demolition Waste

Construction and demolition (C&D) debris is generated when new structures are built and existing structures and hardscape are renovated or demolished, and results in the generation of solid waste. C&D can be composed of various materials, including concrete, asphalt, brick, glass, wood, metals, gypsum wallboard, and roofing. Materials that comprise C&D debris may also include land clearing debris, trees, stumps, soil, and rock from clearing construction sites. Construction waste typically consists of trim scraps of construction materials associated with the construction of new buildings and roadways such as wood sheetrock, masonry, and roofing materials.

C&D debris is typically disposed of at inert landfills instead of sanitary landfills, due to lower disposal costs or tipping fees. According to the County of Los Angeles Integrated Waste Management Plan 2018 Annual Report, the Azusa Land Reclamation Facility is the only permitted inert waste landfill in Los Angeles County that has a full solid waste permit. The remaining capacity of this landfill is 57.72 million tons or 46.17 million cubic yards (cy) as of the end of 2018 (County of Los Angeles Department of Public Works 2019). Given the permitted remaining capacity rate of 1,148 tons per day (tpd) in 2018, it is estimated that this capacity would be exhausted in 2046 (County of Los Angeles Department of Public Works 2019). Victorville Landfill in San Bernardino County, which serves the City of Redondo Beach, also accepts inert debris and has a remaining capacity of 55,061,069 tons as of the end of 2016 (County of San Bernardino 2018).

Project Site

Solid waste currently generated at the Project site includes waste associated with the Advanced Imaging Building (i.e., 510 North Prospect Avenue), Beach Cities Health Center (i.e., 514 North Prospect Avenue), and Providence Little Company of Mary Medical Institute Building (i.e., 520 North Prospect Avenue), including medical and office uses, such as medical supplies, food and beverage containers, paper products, and other miscellaneous trash. Solid waste generation was estimated based on the existing number of Memory Care residential units and employees for each land use type. The Project site currently generates approximately 330.22 tons of solid waste per year (Table 3.15-15). Based on the City of Redondo Beach's current diversion rate of 75 percent, approximately 247.67 tons of solid waste generated at the Project site per year are diverted from landfills by recycling or composting, and approximately 82.56 tons of solid waste per year are sent to landfills.

Table 3.15-15. Existing Solid Waste Generation at the Project Site

Existing Uses		Size	Solid Waste Generation Rate	Solid Waste (tons/year)
Providence Little Company of Mary Medical Institute Building	Medical and Health	18 employees	0.74 tons/employee/year	13.32
Beach Cities Advanced Imaging Building	Medical and Health	8 employees	0.74 tons/employee/year	5.92
Beach Cities Health Center	Medical and Health	75 employees	0.74 tons/employee/year	55.5
	Services	88 employees	2.31 tons/employee/year	203.28
	Memory Care	60 units	0.87 tons/unit/year	52.2
Total				330.22

Notes: Service/administrative uses were combined and waste generation rates were calculated using the most conservative

Services generation rate of 2.31 tons/employee/year.

Number of employees represent estimates based on responses from Tenant Surveys created and distributed to Office Managers in support of the proposed Project.

Source: CalRecycle 2015.

3.15.3.2 Regulatory Setting – Solid Waste Management Services

State Policies and Regulations

California Integrated Waste Management Act

The California Integrated Waste Management Act (CIWMA) of 1989 (AB 939; California Public Resources Code, Section 40000 *et seq.*) established an integrated waste management hierarchy to guide the California Integrated Waste Management Board and local agencies in implementation, in order of priority: 1) source reduction; 2) recycling and composting; and 3) environmentally safe transformation and land disposal. The Act required each county to establish a task force to coordinate the development of countywide siting elements and citywide Source Reduction and Recycling Elements (SRREs). The Act also required each county to prepare, adopt, and submit to the Board an Integrated Waste Management Plan.

Senate Bill 1016

SB 1016 builds on AB 939 compliance requirements by implementing a simplified measure of jurisdictions' performance. SB 1016 accomplishes this by changing the measurement of waste reduction from a diversion rate to a disposal-based indicator – the per capita disposal rate. The purpose of the per capita disposal measurement system is to make the process of goal measurement as established by AB 939 simpler, timelier, and more accurate. Beginning with reporting year 2007 jurisdiction annual reports, diversion rates will no longer be measured. With the passage of SB 1016, only per capita disposal rates are measured. For 2007 and subsequent years, CalRecycle

compares reported disposal tons to population to calculate per capita disposal expressed in pounds/person/day.

Short Lived Climate Pollutants Bill of 2016 (Senate Bill 1383)

SB 1383 requires the California Air Resources Board (CARB) to approve and begin implementing a comprehensive strategy no later than January 1, 2018 to reduce emissions of short lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. It also establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The law grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025. CalRecycle, in consultation with CARB, is responsible for implementation of regulations to achieve these targets. SB 1383 authorizes local jurisdictions to charge and collect fees to recover the local jurisdiction's costs incurred in complying with the regulations. It also requires CalRecycle, in consultation with CARB, to analyze the progress that the waste sector, State government, and local governments have made in achieving the specified targets for reducing organic waste in landfills no later than July 1, 2020. Depending on the outcome of that analysis, CalRecycle is authorized to amend the regulations to include incentives or additional requirements.

Assembly Bill 341

AB 341 established a State policy goal that no less than 75 percent of solid waste generated be source reduced, recycled, or composted by 2020. Additionally, this law required CalRecycle to provide a report to the Legislature that recommends strategies to achieve the policy goal by January 1, 2014. AB 341 builds on the existing AB 939 requirement that every jurisdiction divert at least 50 percent of its waste. The bill also mandates local jurisdictions to implement commercial recycling by July 1, 2012. AB 341 requires any business (including schools and government facilities) that generates 4 cy or more of waste per week, and multifamily buildings with five or more units to arrange for recycling services.

City of Redondo Beach Local Policies and Regulations

Redondo Beach General Plan Solid Waste Management and Recycling Element

Objective 7.2: Increase the range and amount of solid waste that is recycled throughout the community, in accordance with all applicable state and local requirements, while achieving the resultant environmental and financial benefits and advantages of such activities.

Policy 7.2.3 The City of Redondo Beach (principally through the Department of Public Works) shall continue to encourage, support, and monitor the efforts and activities of the City’s Environmental and Utilities Commission relative to integrated waste management activities. This body was appointed by the City Council to develop and implement the City of Redondo Beach Solid Waste Management Plan, as mandated by the State Legislature in Assembly Bill 939.

Policy 7.2.4 In the interim, the City should continue to proactively encourage, engender, and monitor its existing “curbside” recycling plan, neighborhood and group recycling plans and efforts, recycling by larger property owners and commercial and industrial businesses to increase the amount of participation and range of materials that are presently being recycled.

Policy 7.2.5 The City of Redondo Beach shall, as feasible and appropriate, require that all new or remodeled multi-family residential, commercial, and industrial developments develop and submit a formal “recycling plan,” designating where and through which means materials will be stored for recycling purposes. The City Department of Public Works shall assist the City Community Development Department in reviewing these plans.

Redondo Beach Municipal Code

The RBMC includes several provisions regarding the city’s solid waste generation and disposal.

Section 5-2.704 – Submission of a Hazardous Waste Management Plan. Requires an applicant for a demolition permit to submit a waste management plan for City approval. The waste management plan must show that at least 50

percent of all construction and demolition material generated by the project will be diverted or that an exemption has been approved. Of the 50 percent diversion rate, no more than 25 percent can be achieved through the recycling or reuse of inert materials unless the applicant can demonstrate that there are not sufficient structural materials for recycling or that a 25 percent diversion of total waste through non-inert materials is not feasible.

Section 9-12.502 – Standards for Utilities. Requires all new and replacement water supply and sanitary sewage systems be designed and located to avoid or eliminate impairment or contamination to onsite waste disposal systems during flooding.

3.15.3.3 Impact Assessment Methodology – Solid Waste Management Services

Thresholds for Determining Significance

The following thresholds of significance are based on Appendix G of the 2020 CEQA Guidelines. For purposes of this EIR, implementation of the proposed Project may have a significant adverse impact on solid waste if:

- a) The project would 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; and/or
- b) The project would not comply with Federal, State, and local management and reduction statutes and regulations related to solid waste.

Methodology

The proposed Project was evaluated for impacts to solid waste facilities based on data published in the County of Los Angeles Countywide Integrated Waste Management Plan 2018 Annual Report and personal communication with the Redondo Beach Department of Public Works and Athens Services. Based on these sources, this analysis assesses the existing capacity of landfills that serve Athens Services and the City of Redondo Beach, any planned improvements to or changes to landfill capacity and projected increases in solid waste generation associated with land use changes anticipated to occur by 2030.

Impacts to solid waste disposal would be considered a significant impact if solid waste generated by the proposed Project exceeds the capacity of landfills and other solid waste facilities where

such waste would be disposed or if the proposed Project would adversely affect the achievement of State or local diversion requirements.

3.15.3.4 Project Impacts and Mitigation Measures – Solid Waste Management Services

Impact Description (UT-5)

- a) *The project would 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.*

UT-5 The implementation of the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not result in the generation of solid waste during construction or operation that would exceed the existing capacity of existing landfills serving Redondo Beach. Therefore, impacts would be *less than significant*.

Construction

As described in Section 2.5.1.6, *Construction Activities*, the proposed Project would involve the demolition of the existing Beach Cities Health Center and northern surface parking lot during Phase 1 construction and the existing above ground parking garage and Phase 1 parking lot during Phase 2 construction. These demolition activities would result in the generation of substantial amounts of concrete and asphalt as well as other debris including structural steel, wood, glass, flooring, and utility material such as pipes and cables. The proposed construction activities would generate a variety of scraps and wastes, with the majority of recyclables being wood waste, drywall, metal, paper, and cardboard. The proposed Project would comply with the Redondo BeaConstruction and Demolition Ordinance, including submittal of a waste management plan that would divert at least 50 percent of materials generated during construction and demolition from landfills. The construction and demolition waste would be delivered to certified construction and demolition waste processors within the region where it would be recycled, as feasible. The Countywide Integrated Waste Management Plan 2018 Annual Report concludes that there is current capacity of 57.72 million tons or 46.17 million cy available throughout the County for the disposal of inert waste. Additionally, the City of Redondo Beach is served by Victorville Sanitary Landfill in San Bernardino County, which also receives construction and demolition debris waste and has a current capacity of 55,061,069 tons as of the end of 2016 (County of San Bernardino 2018). The C&D waste associated with the proposed Project, including approximately 65,250 tons

of demolition debris (e.g., asphalt and construction) would represent a very small percentage of the inert waste disposal capacity in the region. Therefore, the proposed Project would not create a need for additional solid waste disposal facilities to adequately handle Project construction-generated inert waste and impacts would be *less than significant*.

Operations

The proposed Project would generate municipal solid waste that would be typical of those generated by a mixed-use project. The proposed Project would result in a minor increase in municipal solid waste generation relative to existing conditions. To determine if there would be sufficient landfill capacity to accommodate solid waste generated by the proposed Project, solid waste generation was estimated based on the number of residential units and projected employees for each land use type. The estimated potential increase in solid waste generation is approximately 663.1 tons per year (see Table 3.15-16) (CalRecycle 2015). Assuming the existing Athens Services diversion rate of 75 percent, this would result in up to 497.38 tons per year of waste that would need to be disposed in one or both landfills serving the City of Redondo Beach.

Table 3.15-16. Estimated Solid Waste Generated by the Proposed Project

Proposed Uses	Size	Solid Waste Generation Rate	Solid Waste (tons/year)
Assisted Living and Memory Care	217 units	0.87 tons/unit/year	188.8
Caregiver and Medical Technicians	53 employees	2.92 tons/employee/year	154.7
Services	108 employees	2.31 tons/employee/year	249.5
Restaurant	24 employees	2.92 tons/employee/year	70.1
Total			663.1

Notes: Service/administrative uses were combined and waste generation rates were calculated using the most conservative Services generation rate of 2.31 tons/employee/year. Management, Administrative, support, and social services uses generate 1.44 tons/employee/year of solid waste.

Source: CalRecycle 2015.

As described in Section 3.15.3.1, *Environmental Setting – Solid Waste Management Services*, five solid waste disposal facilities currently serve the Redondo Beach, including four landfills and one refuse-to-energy facilities (refer to Table 3.15-14). The combined remaining capacity of the landfills is 111,062,464 tons (refer to Table 3.15-14; (County of Los Angeles Department of Public Works 2019; County of San Bernardino 2018). The combined maximum permitted daily capacity of these facilities is 20,740 tons, although only 10,013 tons are disposed in these facilities daily (48 percent of capacity). Therefore, the projected 663.1 tons per year of solid waste (approximately 1.8 tpd) would constitute 1 percent of the capacity of existing solid waste facilities, would therefore not exceed the existing capacity of solid waste facilities.

As explained above, the City of Redondo Beach has achieved significant waste reduction targets and strives for additional reductions in solid waste. Through its contact with Athens Services, the City of Redondo Beach has achieved a diversion rate of 75 percent. Under the proposed Project, the City of Redondo Beach would continue to implement waste diversion strategies, thereby reducing expected waste generation from the proposed Project. Given the existing sufficient capacity of solid waste facilities and the City of Redondo Beach's continued efforts to reduce waste generation, this impact would be *less than significant*.

Impact Description (UT-6)

- b) *The project would not comply with Federal, State, and local management and reduction statutes and regulations related to solid waste.*

UT-6 The proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program – would not result in generation of solid waste that would conflict with Federal, State, and local statutes and regulations related to solid waste. Due to existing local programs implementing State laws for diversion, would be *no impact*.

As described in Impact U-5, the proposed Project would not conflict with the goals or requirements of AB 939, AB 341, Redondo Beach General Plan Solid Waste Management and Recycling Element, or the RBMC. As discussed in UT-5, the City of Redondo Beach has already achieved a diversion rate of 75 percent through its contract with Athens Services that is in excess of the requirements of AB 939 and AB 341 to achieve a 50 percent diversion by 2020. The City of Redondo Beach remains committed to continuing its existing waste reduction programs and minimization efforts, including curbside recycling, multi-family centralized recycling and commercial recycling, school recycling programs, and backyard and worm composting.

BCHD would comply with the Construction and Demolition Ordinance (RBMC Section 5-2.704) by submitting a waste management plan to the City of Redondo Beach and diverting at least 50 percent of construction and demolition debris from landfills. Additionally, proposed Project operations would include recyclable containers/bins that would be provided on-site to ensure that solid waste associated with the proposed Project would be recycled or reused to the greatest extent possible. Therefore, the proposed Project would comply with applicable State and local statutes and regulations related to solid waste, and there would be *no impact*.

Cumulative Impacts – Solid Waste Management Services

The operation of the proposed Project would contribute to cumulative solid waste generation that is sent to regional landfills and solid waste disposal facilities associated with future growth within the City of Redondo Beach and the region. As shown in Table 3.15-14, the combined maximum solid waste accepted daily throughput of the two solid waste facilities serving the City of Redondo Beach is 8,000 tons of solid waste per day, while the average daily amount disposed is 5,466 tons per day, resulting in an excess daily capacity of 2,534 tons of solid waste per day (refer to Table 3.15-14).

The projected 663.1 tons per year of solid waste (approximately 1.8 tpd) that would be generated following the completion of the proposed Project would represent a negligible increase, less than 1 percent, of the total daily permitted capacity of the two solid waste facilities that to serve the City of Redondo Beach, and would not contribute to a cumulative increase in waste disposal that would exceed the capacity of a landfill. Therefore, this additional waste would not result in a considerable contribution to cumulative impacts associated with landfill capacity. Additionally, the County periodically addresses landfill capacity through the preparation of Annual Reports. The preparation of each Annual Report provides sufficient lead time (15 years) to address potential future shortfalls in landfill capacity. Compliance of the proposed Project and future development projects with findings and recommendations of these annual reports and regulatory requirements that promote diversion of solid waste, such as the California Integrated Waste Management Act, would also assist in ensuring that solid waste facilities have adequate capacity to serve solid waste generation on a cumulative basis. Therefore, the proposed Project *would not result in a substantial contribution to cumulative impacts* on solid waste facilities.

4.0 OTHER CEQA CONSIDERATIONS

This section of the Environmental Impact Report (EIR) presents the evaluation of additional environmental impacts analyses required by the California Environmental Quality Act (CEQA) that are not discussed in Section 3.0, *Environmental Impact Analysis and Mitigation Measures*, including significant unavoidable effects, significant irreversible environmental changes, growth-inducing impacts (including removal of obstacles to growth), and environmental resource areas that would experience negligible or no environmental impacts. CEQA Guidelines Section 15126 requires that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation.

4.1 SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL EFFECTS

CEQA Guidelines Section 15126.2(c) requires that an EIR describe any significant impacts that cannot be avoided, even with implementation of feasible mitigation measures. Where there are significant impacts, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described.

Noise

All phases of construction associated with the proposed Project would involve the use of heavy construction equipment (e.g., cranes, bulldozers, excavators, etc.). Demolition and excavation would involve the use of haul trucks, and construction of the proposed buildings during Phase 1 and Phase 2 would require extensive concrete pours requiring additional truck trips. Construction activities would produce increased noise levels that would impact surrounding noise-sensitive receptors. Mitigation Measure (MM) NOI-1 would require the implementation of noise attenuation measures, including the use of noise barriers (i.e., sound walls) or noise blankets (i.e., sound absorbing materials). Compliance with existing local noise regulations along with the implementation of MM NOI-1 would reduce potential noise impacts. However, given the maximum roof heights of the proposed Residential Care for the Elderly (RCFE) Building (i.e., 103 feet above the campus ground level and 133.5 feet above the vacant Flagler Lot below) and other proposed building(s) under the Phase 2 development program (i.e., up to 71.5 feet above the campus ground level and 101.5 feet above the vacant Flagler Lot below), construction of noise barriers to a height necessary to break the line of sight from surrounding sensitive receptors would be infeasible. Therefore, *significant and unavoidable* noise impacts would occur for the duration of construction of both phases of the proposed Project.

4.2 REASONS THE PROJECT IS BEING PROPOSED NOTWITHSTANDING ITS SIGNIFICANT AND UNAVOIDABLE IMPACTS

In addition to identification of the significant and unavoidable impacts associated with the proposed Project, CEQA Guidelines Section 15126.2(c) requires a description of the reasons why a project is being proposed, notwithstanding significant and unavoidable impacts.

As previously described in Section 4.1, *Significant and Unavoidable Effects*, the proposed Project would result in significant and unavoidable off-site construction-related noise impacts. Compliance with existing local noise regulations along with the implementation of MM NOI-1 would reduce potential construction noise impacts; however, given the maximum roof heights of the proposed buildings of up to 103 feet above the existing campus ground level and 133.5 feet above the vacant Flagler Lot. The necessary noise barrier heights required to mitigate the noise from construction activities above 30 feet are considered infeasible (refer to Impact NOI-1 in Section 3.11, *Noise*). Compliance with existing local noise regulations along with the implementation of MM NOI-1, which would require preparation and implementation of a Construction Noise Management Plan, would reduce potential noise impacts. However, *significant and unavoidable* noise impacts would occur throughout the duration of the proposed construction activities.

These construction-related noise impacts would occur within the hours permitted by the Redondo Beach Municipal Code (RBMC) Section 4-24 and the Torrance Municipal Code (TMC) 6-46. While construction related noise would exceed the Federal Transit Administration (FTA) noise thresholds, neither the RBMC nor the TMC set quantitative noise limits on construction equipment during these hours.

Notwithstanding the significant impacts associated with construction-related noise impacts, the proposed Project has been proposed by BCHD to achieve the objectives described in Section 2.4, *Project Objectives*. The proposed Project would address escalating building maintenance costs associated with the former South Bay Hospital Building (i.e., 514 North Prospect Avenue). These costs are anticipated to exceed the annual operational revenue of BCHD within the next 2 to 3 years and create an operational deficit if left unresolved. Additionally, the South Bay Hospital is over 60 years old, does not meet the current seismic requirements of the California Building Code (CBC), and presents a public safety hazard (Nabih Youssef and Associates Structural Engineers 2018). The proposed Project would provide a long-term solution to seismic safety hazards through the demolition and replacement of the South Bay Hospital (and Beach Cities Health Center) with new facilities that comply with the latest State and local building code standards and are capable of withstanding lateral ground movement from an earthquake.

4.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines Section 15126.2(d) requires a discussion of “*significant irreversible environmental changes which would be caused by the proposed project should it be implemented. Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.*”

Development of the proposed Project would result in the irreversible alteration of the built environment and the irreversible consumption of limited amounts of slowly renewable resources and non-renewable resources due to construction and operation. Construction associated with the proposed Project would involve the consumption of building materials and energy, including lumber and other forest products; raw materials such as steel; aggregate materials used in concrete and asphalt, such as sand and stone; water; petrochemical construction materials, such as plastic; and petroleum-based construction materials. In addition, fossil fuels would be consumed for construction of the proposed Project. The consumption of limited slowly renewable resources and nonrenewable resources would continue throughout the operational lifetime of the proposed Project because the proposed 157 Assisted Living units, 14,000 sf of space for PACE services, 6,270 sf of Community Services space, 37,150 sf of Wellness Pavilion space, 31,300 sf Aquatic Center, and 20,000 sf of Center for Health and Fitness would require resources such as water, petroleum, and natural gas.

Although the proposed Project would necessarily result in the consumption of such resources, the proposed Project would contribute to a land use pattern that would promote an overall reduction in resource consumption per capita. The proposed Project would provide a mix of compatible uses to activate the proposed pedestrian pathways and encourage walking by future residents, employees, and patrons of the site. The compatible mix of uses would also encourage campus visitors to participate in several programs at the Project site, which would reduce vehicle miles traveled (VMT). In addition, bicycle amenities would include lockers and showers for commercial employees who bike to work, ground level short-term visitor bicycle parking, long-term parking for employees, secured parking for residents, and residential elevators to facilitate convenient transport of bicycles within the Project site.

As required by the RBMC and the TMC, all new buildings on the site would conform to the California Title 24 Building Energy Efficiency Standards (Part 6) CALGreen (Part 11), and the Torrance Water Conservation and Water Supply Shortage and Sustainability Program requirements. Additionally, the proposed buildings would meet the equivalent of Leadership in Energy and Environmental Design (LEED) Gold Certification and would be WELL Building Certified. The proposed Project would include a variety of conservation features, which would be finalized in a final design plans, including photovoltaic solar panels, solar hot water systems, and other renewable energy resources; LED lighting; solar swimming pool heating; retention and potential reuse of on-site stormwater pollution; and water efficiency features. The proposed Project would reduce waste with on-site recycling containers to support the City of Redondo Beach's recycling efforts. The proposed Project would also include sustainable transportation infrastructure, such as bicycle parking; employee shower and locker facilities; electric vehicle (EV) charging stations; designated parking for carpools and vanpools; and ride-share amenities to provide options to reduce internal-combustion vehicle usage for residents and visitors. The proposed Project would also implement a transportation demand management (TDM) plan with trip reduction strategies, such as transit and carpool incentives for employees, to reduce single-occupancy vehicle trips to the Project site (refer to Section 3.14, *Transportation*). These additional sustainability features would further reduce new energy demand and the consumption of water and non-renewable fossil fuels.

Consumption of these resources would be relatively small in scale in comparison to the region and are not unique to the Project. Further, the consumption of resources would be consistent with regional and local growth forecasts in the area, and would occur in accordance with State and local goals and requirements. Additionally, because the Project site does not contain these resources, the Project would not directly impact or interrupt the production or delivery of such resources. The Project's irreversible changes to the environment would be *less than significant*.

4.4 GROWTH INDUCING IMPACTS

CEQA Guidelines Section 15126.2(e) requires a discussion of ways in which a project could foster economic or population growth, either directly or indirectly, including ways in which a project could remove an obstacle to growth. Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. A project may induce growth if it directly or indirectly fosters economic or population growth or the construction of additional housing, removes obstacles to population growth, taxes community service facilities to the extent that the construction of new facilities would be necessary, or encourages or facilitates other

activities that cause significant environmental effects. In general, a project may foster physical, economic, or population growth in a geographic area if it meets any one of the criteria identified below:

- The project results in the urbanization of land in a remote location (leapfrog development)
- The project removes an impediment to growth (e.g., the establishment of an essential public service, or the provision of new access to an area)
- The project establishes a precedent-setting action (e.g., a change in zoning or general plan amendment approval)
- Economic expansion or growth occurs in an area in response to the project (e.g., changes in revenue base, employment expansion, etc.)

If a project meets any one of these criteria, it may be considered growth inducing. Generally, growth inducing projects are in isolated, undeveloped, or underdeveloped areas, necessitating the extension of major infrastructure such as sewer and water facilities or roadways, or encouraging premature or unplanned growth. However, in urban areas, growth inducing projects typically involve proposed plans or policies that alleviate barriers to growth or increase opportunities for development.

To comply with CEQA, an EIR must discuss the ways in which the proposed project could promote economic or population growth near the project area and how that growth would, in turn, affect the surrounding environment. Under CEQA, this growth is not to be considered “*necessarily detrimental, beneficial, or of little significance to the environment*” (CEQA Guidelines Section 15126.2[e]). Induced growth is considered a significant impact only if it affects (directly or indirectly) the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth, in some other way, significantly affects the environment.

Population, Employment, and Housing Growth

The proposed Project would develop 217 residential units, including replacement of 60 existing Memory Care units and development of 157 new Assisted Living units. The proposed Project is anticipated to increase the population within the Cities by approximately 177 residents (refer to Section 3.12, *Population and Housing*). Relative to the populations of Redondo Beach and Torrance, the expected net increase in residential population resulting from the proposed Project would be less than 1 percent and would not be considered substantially growth inducing (U.S. Census Bureau 2017).

The provision of new Assisted Living units is a primary objective of the proposed Project, consistent with the goals and policies within the Redondo Beach General Plan Housing Element

to promote new housing which meets the needs of seniors and the disabled such as Policies 3.1, 3.4, 3.5, and 5.2, (refer to Section 3.10, *Land Use and Planning* and Section 3.12, *Population and Housing*).

The proposed Project would generate short-term employment opportunities during construction, which would draw workers from the existing regional work force. Additionally, Phase 1 and Phase 2 of the proposed Project are expected to employ approximately 170 full-time equivalent employees. The proposed Project is expected to draw most workers from the existing regional workforce. Therefore, the proposed Project would not be considered growth inducing because it would not substantially affect long-term employment opportunities or require the construction of additional housing stock.

Potential impacts associated with population, employment, and housing anticipated to result from implementation of the proposed Project are further addressed in Section 4.4, *Effects Found Not to Be Significant*.

4.4.1 Removal of Obstacles to Growth

The proposed Project would be located within an urbanized area, which is well-served by existing infrastructure including streets, water system, sewer system, and electricity/natural gas service. Because the proposed Project constitutes redevelopment of a currently developed site within an urbanized area and does not require the extension of new infrastructure through undeveloped areas, Project implementation would not remove an obstacle to growth.

The proposed Project would implement the policies of the Housing Elements of the Redondo Beach General Plan and Torrance General Plan. The siting of 157 new housing units (177 bed spaces) within 0.2 miles of the several bus stops along the Beach Cities Transit Line 102 would be consistent with Redondo Beach General Plan Housing Element (e.g., Policy 3.3) goals and policies (refer to Section 3.10, *Land Use and Planning*) to increase housing opportunities near existing transit. The creation of 157 Assisted Living units is also consistent with the Redondo Beach General Plan Housing Element (e.g., Policy 5.2), which aims to enhance existing housing stock and expand housing opportunities that meet the special needs of elderly and disabled residents. The proposed Project would not induce additional growth other than what was already anticipated in the RTP/SCS and the Redondo Beach General Plan Housing Element and would not have growth inducing impacts.

4.5 EFFECTS FOUND NOT TO BE SIGNIFICANT

CEQA Guidelines Section 15128 requires a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Through the scoping process, BCHD determined that the proposed Project would have *no impact* on: Agriculture and Forestry Resources; Mineral Resources; Recreation; and Wildfire.

Agriculture and Forestry Resources

The proposed Project would not have the potential for significant impacts associated with important agricultural or forestry resources. The Project site and surrounding areas are urbanized and do not contain any developed agricultural or forestry resources. The proposed Project would not change any land use designations affecting such resources and would not indirectly affect such resources. Therefore, there would be *no impacts* to these resource areas.

Mineral Resources

The proposed Project would not have the potential for significant impacts associated with important mineral resources. No mineral extraction operations occur on the site or in the nearby vicinity. Additionally, the Project site is not designated as an existing mineral resource extraction area by the State of California. Given that the Project site is located within a highly urbanized area of the Cities and has been previously disturbed by development, the potential for mineral resources to occur onsite is low (City of Torrance 2010). Therefore, construction and operation of the proposed Project would not result in the loss of availability of a mineral resource or mineral resource recovery site and *no impacts* would be expected.

Recreation

The City of Redondo Beach has 32 regional, community, neighborhood parks and parkettes that total over 130 acres and range in size from 0.07 acres (i.e., Matthews Parkette) to 20.6 acres (i.e., Dominguez Park) (City of Redondo Beach 2008). Similarly, the City of Torrance Community Services Department operates and manages over 40 parks and recreation facilities, libraries, and open spaces for residents of Torrance and the South Bay. Parks in Torrance range in size from 0.1 acre (i.e., John F. Kennedy and Keller Memorial Squares) to 52 acres (i.e., Columbia Park) (City of Torrance 2010). The cities also provide and maintain stretches of sandy beach, off-leash dog parks, bike and walking paths, lawn areas, and other recreational opportunities for residents, employees, and visitors. Recreational areas near the Project site include the Dominguez Park

(northeast of Beryl Street and Flagler Lane), Sunnyglen Park (approximately 1,190 feet southwest), and Entradero Park (approximately 1,390 feet east).

Redondo Beach's park inventory of more than 150 acres currently provides approximately 2.3 acres of parkland per 1,000 residents, and Torrance's park inventory of more than 355 acres provides approximately 2.44 acres of parkland per 1,000 residents, well below the Los Angeles County average of 3.3 acres per 1,000 residents (County of Los Angeles and County of Los Angeles Department of Parks & Recreation 2016). The proposed Project would provide approximately 125,890 sf of open space during Phase 1 and approximately 114,830 sf of open space during Phase 2 of the proposed Project, including a central lawn for public events such as outdoor movie nights, sensory gardens, a flexible use platform for fitness classes, landscaped pedestrian pathways, two outdoor dining terraces, and a Demonstration Garden. The proposed Project would also include a tree-lined promenade (Main Street) that could support farmers' markets and health fair expositions and a porch along the southern façade of the RCFE Building. Landscaped private open space (i.e., backyard garden lounge) is also included along the northern exterior of the RCFE building. The proposed Project also includes construction of a 31,300-sf Aquatic Center. Although this would not be considered a formal recreational amenity, public enjoyment of these facilities may substitute for some of the recreational demand for other recreational facilities throughout the City.

Because the proposed Project would not substantially increase demand on recreational facilities, potential impacts to recreational resources would be considered *less than significant*. Therefore, no further analysis of this issue is required.

Wildfire

The Project site is in a highly urbanized area and entirely within a Local Responsibility Area (LRA), approximately 3.3 miles from the nearest designated High or Very High Fire Hazard Severity Zone (FHSZ) associated with the Palos Verdes Estates. Redevelopment of the Project site would not exacerbate wildfire risks. The proposed Project would not involve installation of any infrastructure such as high-tension electricity lines that would exacerbate wildfire risk and would not increase public exposure to wildfires (i.e., placing residential uses in areas of high wildfire risk). Although the Project site is located on a significant slope, Project implementation would comply with all recommendations in the Geotechnical Study Report (refer to Section 3.6, *Geology and Soils*) and would employ low-impact development (LID) drainage systems on-site (refer to Section 3.9, *Hydrology and Water Quality*). Therefore, the proposed Project would not result in increased structural or population hazards associated with post-fire slope instability or drainage alterations. The Project site is accessible from multiple emergency response routes and would not

change or block an existing evacuation route since it is proposed within an established collection of parcels.

The Redondo Beach Fire Department (RBFD), which currently serves the Project site, has an average response time for medical emergencies of 5 minutes below the 6-minute objective established by the National Fire Protection Association (NFPA). The proposed Project would comply with all applicable Fire Code requirements (RBMC Title 3 Chapter 4 and TMC Division 8 Chapter 5) and the 500-foot maximum distance between existing fire hydrants would remain. Further, the 2020 Sewer Capacity Study prepared by John Labib & Associates for the Project indicates there is sufficient water pressure in the Project vicinity to support the Project (refer to Section 3.15, *Utilities and Service Systems*; see Appendix L). Therefore, there would be *no impacts* and issues involving wildfires are not analyzed further in this EIR.

Other Topics with No Impacts

Additional topics within environmental issue areas that would not result in potentially significant impacts were eliminated from further assessment in the EIR through the IS. The resource sections and topics not discussed further in the EIR include:

- Damage to scenic resources along a State-designated scenic highway (Section I, *Aesthetics* of the Initial Study [IS]): There are no designated state scenic highways or other designated scenic resources near the Project site; the nearest designated highway is the Mulholland Highway, located approximately 20 miles to the northwest.
- Impacts to species identified as a candidate, sensitive, or special status species (Section II, *Biological Resources* of the IS): The Project site is completely developed and nearly 90-percent paved and special status species are unlikely to occur, and the Biological Resources Survey completed for the Project site concluded that the site does not provide suitable habitat for any candidate, sensitive, or special status species in local or regional plans, policies, or regulations.
- Impacts to riparian habitat or other sensitive natural community (Section II, *Biological Resources* of the IS): No riparian habitat or other sensitive natural communities exist on or adjacent to the Project site.
- Impacts to state or federally protected wetlands (Section II, *Biological Resources* of the IS): The Project site is completely developed and there are no potential wetlands located on the Project site or in the nearby vicinity.
- Conflict with an adopted local, regional, or state Habitat Conservation Plan (Section II, *Biological Resources* of the IS): The Project site is not subject to an adopted Habitat

Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

- Conflict with or obstruction of a state or local plan for renewable energy or energy efficiency (Section VI, *Energy* of the IS): The proposed Project would not displace any existing renewable energy facilities, would include the installation of solar electric and solar hot water systems as well as a stormwater capture system, and would comply with energy efficiency standards in the Building Code.
- Adverse effects including risk of loss, injury, or death related to rupture of a known earthquake fault (Section VII, *Geology and Soil* of the IS): There are no known active faults on or adjacent to the Proposed site and the proposed Project is not located within an Alquist-Priolo Earthquake Zone.
- Impacts related to soils incapable of adequately supporting septic tanks or alternative wastewater disposal facilities where sewers are not available (Section VII, *Geology and Soils* of the IS): The Project site and surrounding area is served by an existing sewer system; septic tanks would not be installed for the proposed Project.
- Safety hazards or excessive noise for people residing or working in a project area located within an airport land use plan or within 2 miles of an airport (Section IX, *Hazards and Hazardous Materials* of the IS): The proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program – would not subject workers, clients, or visitors of the Project site to substantial hazards related to aircraft operating to or from the Hawthorne Municipal Airport or Los Angeles International Airport (LAX).
- Redirection of flood flows (Section X, *Hydrology and Water Quality* of the IS): There are no streams or rivers that traverse the Project site, and the proposed Project would not result in an impediment or alteration of flood flows.
- Release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone (Section X, *Hydrology and Water Quality* of the IS): The Project site is located outside of 100-year and 500-year flood zones and the tsunami inundation zone, and is not located near inland water bodies.
- Physical division of an established community (Section XI, *Land Use and Planning* of the IS): Development would be consistent with existing land uses and would not remove or divide any residential units.
- Exposure of people residing or working in the project area to excessive noise levels for projects located within the vicinity of a private airstrip or an airport land use plan (Section XIII, *Noise and Vibration* of the IS): The Project site is not located in the vicinity of a

private airstrip or Airport Influence Area for the Hawthorne Municipal Airport or and LAX.

- Displacement of existing people or housing (Section XIV, *Population and Housing* of the IS): The proposed Project would occur within the existing campus and would not remove or displace any housing or residential areas.
- Impacts associated with the need for or provision of new or physically altered schools (Section XV, *Public Services* of the IS): The proposed Project includes the development of 157 new Assisted Living units for use by the elderly and would not result in an increase in the number of students to the Redondo Beach Unified School District.
- Impacts associated with the need for or provision of new or physically altered parks (Section XV, *Public Services* of the IS): Implementation of the proposed Project would increase recreational space and result in a beneficial impact to recreational facilities in Redondo Beach.
- Impacts associated with the need for or provision of new or physically altered libraries (Section XV, *Public Services* of the IS): The robust library system in Redondo Beach would be able to accommodate the modest increase in population under the proposed Project.

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5.0 ALTERNATIVES

5.1 INTRODUCTION

This section of the Environmental Impact Report (EIR) evaluates alternatives to the Phase 1 preliminary site development plan and Phase 2 development program under the proposed Beach Cities Health District (BCHD) Healthy Living Campus Master Plan (Project) and analyzes the comparative environmental impacts associated with each alternative.

The California Environmental Quality Act (CEQA) Guidelines state that an “*EIR shall describe a range of reasonable alternatives to the proposed project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives*” (CEQA Guidelines Section 15126.6[a]).

The CEQA Guidelines further state that “*the range of alternatives required in an EIR is governed by a ‘rule of reason’*” that requires the EIR to set forth only those alternatives necessary to permit fully informed decision making. The alternatives shall be limited to ones that would avoid or substantially reduce any of the significant and unavoidable effects of the proposed Project. Of those alternatives, the EIR needs to examine in detail only the ones that the lead agency determines could feasibly attain most of the basic project objectives (CEQA Guidelines Section 15126.6[f]). The EIR must also identify alternatives that were considered by the lead agency, but rejected as infeasible during the scoping process (CEQA Guidelines Section 15126.6[c]).

Not every conceivable alternative must be addressed, nor do infeasible alternatives need to be considered (CEQA Guidelines Section 15126.6[a]). In defining the feasibility of alternatives, the CEQA Guidelines state that “*among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site*” (CEQA Guidelines Section 15126.6[f][1]). The CEQA Guidelines also require the analysis of a No Project Alternative (CEQA Guidelines Section 15126.6[e][1]). Based on the alternatives analyzed, the lead agency must identify an environmentally superior alternative (CEQA Guidelines Sections 15091, 15126.6[e][2]). The lead agency is not, however, obligated to select the Environmentally Superior Alternative for implementation if it would not accomplish the basic project objectives and/or is infeasible (CEQA Guidelines Section 15126.6[a], [c], and [f]).

The EIR should include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed Project. The alternatives analyzed in this EIR have been prepared at a sufficient level of detail to permit their consideration for adoption by the BCHD Board of Directors.

The alternatives analysis for this EIR is presented in the following four parts. Section 5.2, *Project Objectives* below describes the objectives of the proposed Project. Section 5.3, *Summary of Potentially Significant Impacts* summarizes the potentially significant impacts of the proposed Project from information presented in Section 3.0, *Environmental Impact Analysis and Mitigation Measures*. Section 5.4, *Alternatives Considered but Rejected from Further Analysis* identifies alternatives considered but rejected for further analysis. Section 5.0, *Alternatives Analysis* describes the alternatives selected for full evaluation, and discusses potential impacts under each of these alternatives. Section 5.6, *Identification of the Environmentally Superior Alternative* concludes with the identification of an environmentally superior alternative, which is the alternative that generates the fewest significant.

5.2 PROJECT OBJECTIVES

As discussed in Section 2.4, *Project Objectives*, BCHD developed three major “*Project Pillars*,” which were presented to the Board of Directors during a public meeting on June 17, 2020. The Project Objectives are based on these three Project Pillars:

Health

- Build a center of excellence focusing on wellness, prevention, and research.
- Leverage the campus to expand community health programs and services.

Livability

- Focus on emerging technologies, innovation, and accessibility.
- Create an intergenerational hub of well-being, using Blue Zones Project principles.

Community

- Actively engage the community and pursue partnerships.
- Grow a continuum of programs, services, and facilities to help older adults age in their community.

Based on these Project Pillars, BCHD developed six Project Objectives:

- Eliminate seismic safety and other hazards of the former South Bay Hospital Building (i.e., 514 North Prospect Avenue).
- Generate sufficient revenue through mission-derived services to replace revenues that will be lost from discontinued use of the former South Bay Hospital Building and support the current level of programs and services.
- Provide sufficient public open space to accommodate programs that meet community health needs.
- Address the growing need for assisted living with on-site facilities designed to be integrated with the broader community through intergenerational programs and shared gathering spaces.
- Redevelop the Project site to create a modern campus with public open space and facilities designed to meet the future health needs of residents, including a Community Wellness Pavilion with meeting spaces for public gatherings and interactive education.
- Generate sufficient revenue through mission-derived services and facilities to address growing future community health needs.

5.3 SUMMARY OF POTENTIALLY SIGNIFICANT IMPACTS

The proposed Project would result in significant and unavoidable impacts associated with construction noise levels (refer to Section 3.11, *Noise*). In addition, the proposed Project would result in impacts that are either *less than significant* or *less than significant with mitigation*, which are related to areas of community concern that were identified during community meetings held between 2017 and 2020 as well as agency and public comment letters received on the Notice of Preparation (NOP) (see Appendix A). These areas of community concern include potential impacts to visual resources as a result of building height, construction-related air emissions, erosion during excavation and grading, existing soil contamination and hazardous materials, vehicular access, and transportation (refer to Section 3.1, *Aesthetics and Visual Resources*; Section 3.2, *Air Quality*; Section 3.6, *Geology and Soils*; Section 3.8, *Hazards and Hazardous Materials*; Section 3.10, *Land Use and Planning*; and 3.14, *Transportation*, respectively). While this EIR concludes that impacts to these environmental issue areas are not anticipated to be significant, these impacts, in addition to the significant and unavoidable construction-related noise impact, were used as screening criteria to determine appropriate alternatives that could avoid or substantially reduce the environmental impacts identified for the proposed Project (see Section 5.4, *Alternatives Considered but Discarded* and Section 5.5, *Alternatives Analysis*). Refer to Section 1.8, *Areas of Known Public Controversy* for a more detailed discussion environmental issues known to be of public concern.

Aesthetics and Visual Resources

As described further in Section 3.1, *Aesthetics and Visual Resources*, the existing Project site is developed with the Beach Cities Health Center and the attached maintenance building, two medical office buildings, a parking structure, and surface parking lots. The tallest building on-site is the Beach Cities Health Center, which is 5 stories tall with a rooftop projection (i.e., elevator shaft) reaching up to a height of 76 feet above the campus ground level. The proposed Residential Care for the Elderly (RCFE) Building included in the Phase 1 preliminary site development plan would have a maximum roof height of approximately 103 feet above the campus ground level and 133.5 feet above the vacant Flagler Lot below, including rooftop projections for permitted elements (e.g., elevator shafts, stairs, photovoltaic solar panels, etc.). While there are no designated scenic vistas or scenic view corridors in the vicinity of the Project site identified by the City of Redondo Beach or City of Torrance, the highpoint of 190th Street at Flagler Lane (i.e., Representative View 6) provides wide-ranging panoramic views of Redondo Beach to the south, including the ridgeline of the Palos Verdes hills. Under the proposed Project, the rooftop of the proposed 6-story RCFE Building would substantially interrupt the ridgeline of the Palos Verdes hills as seen from that public viewpoint. However, implementation of Mitigation Measure (MM) VIS-1 would reduce the height of the building such that it would no longer interrupt this ridgeline. With implementation of MM VIS-1, impacts to this important scenic vista would be *less than significant with mitigation*.

Air Quality

As described in Section 3.2, *Air Quality*, peak daily construction emissions during Phase 1 and Phase 2 would be well below South Coast Air Quality Management District (SCAQMD) thresholds, and therefore would be *less than significant*. However, on-site construction-related emissions would exceed the SCAQMD localized significance thresholds (LSTs) for respirable particulate matter (PM₁₀) and fine particulate matter (PM_{2.5}) as they affect off-site receptors. MM AQ-1 would require watering of exposed surfaces three times daily achieving a fugitive dust reduction of 74 percent and prohibiting demolition when wind speed is greater than 25 miles per hour (mph), which would achieve a fugitive dust reduction of 98 percent. Therefore, with implementation of MM AQ-1, impacts with regard to localized construction emissions would be *less than significant with mitigation*.

Similarly, construction activities associated with the proposed Project would generate diesel particulate matter (DPM). However, MM AQ-1 requires the use of U.S. Environmental Protection Agency (USEPA) Tier 4 engines on all construction equipment, except crushing equipment, which

would reduce DPM emissions from combustion by 79 to 94 percent. With the use of Tier 4 engines, DPM emissions anticipated during the construction of Phase 1 would not exceed SCAQMD thresholds for cancer risk, and impacts to sensitive receptors due to temporary, localized construction DPM emissions would be *less than significant with mitigation*.

Geology and Soils

Construction of the proposed Project would involve the excavation of approximately 20,000 cubic yards (cy) of soil during implementation of the Phase 1 preliminary site development plan and 11,000 cy of soil during construction associated with the Phase 2 development program. Additionally, grading would be required to backfill the basement associated with the Beach Cities Health Center and to level the other areas of the Project site. While construction activities would be temporary – lasting for a period of 29 months during Phase 1 and approximately 28 months during Phase 2 – excavation and grading associated with the proposed Project would result in exposed soil and the potential for erosion caused by wind and/or stormwater runoff. The proposed Project would be required to implement erosion control best management practices (BMPs) in accordance with a Stormwater Pollution Prevention Plan (SWPPP) in order to meet the requirements of the Construction General Permit. Additionally, BCHD would be required to prepare and implement Standard Urban Stormwater Mitigation Plan (SUSMP) to address soil erosion and urban runoff. With the implementation of BMPs in accordance with the SWPPP, and the SUSMP and low impact development (LID) requirements, potential impacts associated with erosion or the loss of topsoil would be *less than significant*.

Hazards and Hazardous Materials

Due to the age of the existing buildings on-site it is assumed that asbestos-containing material (ACM) and lead-based paint (LBP) are present in the buildings proposed for demolition under the Phase 1 preliminary site development plan and the Phase 2 development program (refer to Section 3.8, *Hazards and Hazardous Materials*). Additionally, the transformers and florescent light ballasts on-site may contain polychlorinated biphenyls (PCBs) and mold could also potentially be present. If not properly abated, the accidental release of ACM, LBP, PCBs, and/or mold could pose a hazard to the environment and public health. However, implementation of MM HAZ-1 and compliance with existing mandatory regulations and BMPs related to the treatment, handling, and disposal of ACM, LBP, PCBs, and mold, would ensure that impacts associated with the proposed Project would be *less than significant with mitigation*.

As previously described, construction of the proposed Project would involve the excavation of substantial amounts of soil and additional earthwork associated with trenching and grading. Soil

disturbance during excavation, trenching, and grading at the Project site would result in the disturbance of potentially contaminated soil (refer to Section 3.8, *Hazards and Hazardous Materials*). The implementation of MM HAZ-2a through -2d would ensure volatile organic compounds (VOCs) and contaminated soils are properly detected, removed, and handled during ground disturbing activities. Therefore, the risk of an accidental release of hazardous materials into the environment during construction of the proposed Project would be *less than significant with mitigation*.

Land Use

As described in Section 3.10, *Land Use and Planning*, the proposed one-way driveway and pick-up/drop-off zone exit onto Flagler Lane as well as the service area and loading dock entry/exit onto Flagler Lane may be potentially inconsistent with Torrance Municipal Code (TMC) Section 92.30.8, which prohibits site access to commercial or industrial properties from local streets when access from a major or secondary arterial road is available. The purpose of this policy is to avoid vehicle traffic from commercial or industrial uses through residential streets within Torrance. The proposed one-way and pick-up/drop-off zone exit would be limited to left-turn only onto northbound Flagler Lane and would prohibit vehicle traffic onto southbound Flagler Lane towards the Torrance neighborhood to the east of the Project site. Similarly, the proposed service area and loading dock entry/exit would provide right-turn in and left-turn out access to avoid cut-through traffic within the Torrance neighborhood. This service entrance would be limited to service vehicles and delivery vehicles only and would not be used by staff, residents, participants, or other visitors to the BCHD campus. Nevertheless, Flagler Lane, which is designated as a local street in the Torrance General Plan Circulation and Infrastructure Element. Since vehicular access to the Project site is available from North Prospect Avenue and Beryl Street, which are both identified as secondary arterial streets by the Redondo Beach General Plan Circulation Element (refer to Section 3.14, *Transportation*), the proposed access along Flagler Lane may be potentially inconsistent with TMC Section 92.30.8. (The applicability of this policy remains unclear given that Beryl Street is located within Redondo Beach and the vacant Flagler Lot has been zoned as C-2 [Commercial] by the City of Redondo Beach.) Nevertheless, as described in Section 3.2, *Air Quality*, Section 3.11, *Noise*, and Section 3.14, *Transportation* the development of this proposed driveway would not result in any significant environmental impacts with regarding to air emissions, roadway noise, or geometric roadway hazards. While development of the proposed access points the within the City of Torrance right-of-way may potentially conflict with TMC Section 92.30.8, it would not cause a significant environmental impact. Therefore, impacts related to land use and planning would be *less with significant*.

Cut-through traffic within residential neighborhoods and nearby schools was identified as a concern raised by the City of Torrance and the Torrance residents during the public scoping period. It should also be noted that the City of Torrance is considering the removal of the southbound traffic along Flagler Lane between Beryl Street and Towers Street, to address neighborhood concerns regarding existing cut-through traffic, particularly as it relates to pick-up and drop-off at Towers Elementary School. If approved by the City of Torrance, this change to the transportation network would prevent service vehicles from entering the proposed subterranean service area and loading dock under the proposed Project.

Noise

All phases of construction associated with the proposed Project would involve the use of heavy construction equipment (e.g., cranes, bulldozers, excavators, etc.). Additionally, demolition and excavation would include the use of haul trucks and construction of the structures would require the use of concrete trucks. Construction activities would produce increased noise levels that would impact surrounding noise-sensitive receptors. MM NOI-1 would require the implementation of noise attenuation measures, including the use of noise barriers (i.e., sound wall) on the BCHD campus to encompass the development footprint associated with Phase 1 and Phase 2 construction. Compliance with existing local noise regulations along with the implementation of MM NOI-1 would reduce potential noise impacts. However, given the maximum roof heights of the proposed RCFE Building (i.e., 103 feet above the campus ground level and 133.5 feet above the vacant Flagler Lot below) and other proposed building(s) under the Phase 2 development program (i.e., up to 71.5 feet above the campus ground level and 101.5 feet above the vacant Flagler Lot below), construction of noise barriers to a height necessary to break the line of sight from surrounding sensitive receptors would be infeasible. With implementation of a noise barrier, sensitive receptors would not be directly impacted by construction noise until development reached a height that exceeded the noise barrier. However, as development would exceed the noise barrier, noise levels would exceed the Federal Transit Administration's (FTA's) residential criterion (8-hour L_{eq} of 80 dBA or 30-day average L_{dn} of 75 dBA). Therefore, *significant and unavoidable* noise impacts would occur during portions of the proposed construction – including for the Phase 1 preliminary site development plan and the Phase 2 development program.

Transportation

Construction activities associated with Phase 1 of the proposed Project would generate up to approximately 1,825 haul truck trips for export of demolished asphalt and excavated soil, and 2,000 haul truck trips for export of demolition debris. Additionally, construction of the proposed

RCFE Building would require approximately 1,237 truck trips for concrete delivery. Backfill of the Beach Cities Health Center basement would require approximately 875 truck trips for import of clean soil (refer to Section 2.5.1.3, *Construction Activities*). Construction activities associated with the Phase 2 development program would require approximately 1,660 trips associated with export of demolition debris and excavated soil and approximately 2,149 trips associated with concrete and steel deliveries (refer to Section 2.5.2.4, *Construction Activities*). Construction-related haul truck trips and worker vehicle trips would result in additional trips per day on the surrounding street network – including Pacific Coast Highway and Interstate (I-) 405 – throughout the construction period, which would increase vehicle miles traveled (VMT), disrupt traffic flows, reduce lane capacities, and generally slow traffic movement. In addition, such traffic could interfere with or delay transit operations and disrupt bicycle and pedestrian mobility and safety. However, construction-related increases in traffic would be intermittent throughout the construction period associated with the Phase 1 preliminary site development plan and the Phase 2 development program, and would be temporary in nature. Haul trucks would exit the I-405 freeway on 190th Street or Hawthorne Avenue to 190th Street and reach the site using Del Amo Street to North Prospect Avenue to avoid residential streets to the maximum extent feasible. MM T-2 would reduce this impact by requiring preparation and implementation of a Construction Traffic and Access Management Plan, which would include provisional measures to reduce construction-related traffic and maintain public safety. With the implementation of MM T-2, construction-related transportation impacts would be reduced to *less than significant with mitigation*.

Implementation of Phase 1 is estimated to reduce existing trip generation by approximately 1,919 daily trips, 234 AM peak hour trips, and 158 PM peak hour trips. Therefore, Phase 1 of the proposed Project would reduce VMT. However, following the development of under Phase 2, the proposed Project would result in an increase in daily trip generation associated with the Aquatics Center and the relocation of the Center for Health and Fitness (CHF) back to the campus. The net trip generation from Phase 2 of the proposed Project is expected to be 376 additional daily trips, with 37 fewer AM peak hour trips and 28 fewer PM peak hour trips (refer to Table 3.14-7 in Section 3.14, *Transportation*). While the implementation of the Phase 2 development program is expected to generate an increase in daily trips and associated VMT, BCHD generates a shorter average trip length than typical uses in the South Bay Cities Council of Governments (SBCCOG) subregion by nature of its service area. As described in Table 3.14-11, the Southern California Association of Governments (SCAG) Regional Travel Demand model determined that home-based work VMT generated within the Project Transportation Analysis Zone (TAZ) does not exceed the threshold of 16.8 percent below the regional average, and impacts related to home-

based work VMT under the proposed Project are considered to be *less than significant*. However, the TAZ home-based VMT per capita would exceed the threshold of 16.8 percent below the regional average. Therefore, based on the SCAG model, implementation of proposed Project could result in a potentially significant impact associated with home-based VMT. However, the proposed Assisted Living units would generate vehicle trips and VMT at a lower level than typical residential uses contained in the SCAG model forecast as explained under Impact T-2 in Section 3.14, *Transportation*. Further, the proposed Project would implement several transportation-related sustainability features that are not accounted for in the SCAG Regional Travel Demand model estimation of home-based VMT (e.g., shared vans for the Assisted Living, Memory Care, and Program of All-Inclusive Care for the Elderly [PACE] service to transport several participants at once, bicycle sharing program, etc.). Therefore, impacts with regard to Project-related operational VMT would be *less than significant* (refer to Section 3.14, *Transportation*). While the proposed Project would not generate VMT that would result in a significant transportation impact, MM T-1 is recommended to provide additional information regarding the proposed Transportation Demand Management (TDM) plan consistent with the requirements of RBMC Section 10-2.2406. Implementation of the TDM plan would further reduce VMT associated with the proposed Project.

5.4 ALTERNATIVES CONSIDERED BUT REJECTED FROM FURTHER ANALYSIS

As previously described, CEQA Guidelines Section 15126.6(c) requires that an EIR disclose alternatives that were considered and rejected for further analysis, and provide a brief explanation as to why such alternatives were eliminated from detailed consideration. As required by the CEQA Guidelines, the selection of alternatives for the proposed Project included a screening process to determine which alternatives could avoid or substantially reduce the environmental impacts associated with the proposed Project while also feasibly meeting the Project Objectives. The following alternatives were considered but eliminated from further analysis due to infeasibility or inconsistency with Project Objectives.

Upgrade the Beach Cities Health Center (No Seismic Retrofit)

This alternative would involve interior renovation of the Beach Cities Health Center, including demolition of interior walls, upgrades to existing electrical and plumbing systems, and reconfiguration of interior space to better accommodate potential tenants. This alternative would not include retrofits to address seismic-related structural deficiencies and potential public safety hazards due to the infeasible financial cost of such retrofits. However, the interior renovation of the Beach Cities Health Center would address other existing maintenance issues (e.g., outdated electrical and plumbing systems) and would provide space configurations that would be better

suited for potential tenants. Upgrade of the Beach Cities Health Center would require BCHD to end existing leases with the current tenants in order to allow the time and space necessary to complete the renovations. The financial investment required to renovate the Beach Cities Health Center, along with the long-term or permanent end to existing leases, would be financially infeasible for BCHD. Therefore, this alternative would require a substantial reduction in the level of existing community health and wellness programs and services provided by BCHD. Upgrade of the Beach Cities Health Center would not meet any of the Project Objectives, including eliminating seismic safety hazards of the Beach Cities Health Center or providing public open space to accommodate community health programs.

Development on Alternate Site

Alternate sites for the relocation of existing BCHD uses and the development of proposed services and facilities were considered. Such sites would need to be located within Redondo Beach, Hermosa Beach, or Manhattan Beach and have similar attributes to the Project site. For example, an alternative site would need to be large enough (i.e., 9.78 acres or greater) to accommodate the development footprint and uses associated with the proposed Healthy Living Campus. Additionally, the alternative site would need to be designated P (Public or Institutional) land use and zoned Community Facility (P-CF), or the Hermosa Beach or Manhattan Beach equivalent of this land use designation, to support the uses associated proposed Health Living Campus Master Plan. Very few sites within the Beach Cities are large enough to accommodate these uses, and those that do are currently occupied by other essential facilities, such as public school and public works facilities.

1100 North Harbor Drive, Redondo Beach is currently occupied by AES Redondo Beach LLC, which plans to continue operation of the site as a natural gas-fired power plant through 2021. Although AES Redondo Beach LLC finalized the sale of the site to a private developer in March 2020, the new owner of the site is currently considering future redevelopment options with the City of Redondo Beach and California Coastal Commission. The site is large enough (approximately 51 acres) to support the uses associated with the proposed BCHD Healthy Living Campus Master Plan. The site is also located along Beach Cities Transit Line 102, and in close

proximity to bicycle and pedestrian facilities as well as the Redondo Beach Pier, which is a major commercial center. However, the site is zoned as P-GP (Generating Plant), which would allow for recreational facilities but would not permit hospitals, medical offices and health-related facilities, or residential care facilities. The site could also present additional constraints related to soil contamination from previous operations. All other Public or Institutional sites within the City of Redondo Beach are developed with public schools, public



The property at 1100 North Harbor Drive, which supports the AES Redondo Beach Power Plant, was initially considered as an alternative site for the proposed BCHD Healthy Living Campus, but was removed from consideration due to the incompatible zoning (P-GP) at the site.

parcs, or plant nurseries. BCHD could apply for a zoning change; pursuant to Measure DD, which was approved in 2008, any such zoning changes would require a public vote.

Alternative sites within Hermosa Beach would require a PF (Public Facility) land use designation to support the uses associated with the proposed BCHD Healthy Living Campus Master Plan. Existing properties designated PF within Hermosa Beach are developed with public schools (e.g., Hermosa Valley School, Hermosa View Elementary School), public parks (e.g., Valley Park), public service facilities (e.g., Hermosa Beach City Hall, Hermosa Beach Police Department, Los Angeles County Fire Department Station 100), community facilities (e.g., Hermosa Beach Community Center, Hermosa Beach Historical Society, Hermosa Beach Farmers Market) or public parking that provides coastal access. There are no undeveloped or underdeveloped sites designated as PF within Hermosa Beach, which are also large enough to support the uses associated with the proposed BCHD Healthy Living Campus Master Plan.

Similarly, a majority of the properties designated Public Facilities within Manhattan Beach are developed with public schools (e.g., Mira Costa High School, Meadows Elementary School, Manhattan Beach Middle School), public service facilities (e.g., Manhattan Beach City Hall, Manhattan Beach Police Department, Manhattan Beach Fire Department Station 1, Manhattan Beach Library), community facilities (e.g., Joslyn Community Center) and public parking. One Public Facilities site, which includes the properties at 3621 Bell Avenue and 3601 Bell Avenue,

5.0 ALTERNATIVES

comprises a large site (approximately 11 acres) within northern Manhattan Beach. These properties are currently developed with the Manhattan Beach Public Works Yard and National Guard Armory, respectively, and are not currently available for purchase. Another site south of Sand Dune Park and north of Grandview Elementary School is an undeveloped Public Facilities site within Manhattan Beach. However,



Development of the proposed Healthy Living Campus at 3621 Bell Avenue and 3601 Bell Avenue in Manhattan Beach could be constrained by hazardous materials contamination from existing operations at the National Guard Armory.

this site comprises less than 3 acres and therefore, is not large enough to support the uses associated with the proposed BCHD Healthy Living Campus Master Plan.

Development at alternate sites within the Beach Cities may also be constrained (e.g., presence of historic resources, contamination with hazardous materials, etc.) in ways that would result in a similar or greater level environmental impacts as the proposed Project, including impacts related to aesthetics, criteria pollutant and greenhouse gas (GHG) emissions, geology and soils, hazardous materials, noise, and transportation. Additionally, none of the potential alternate sites within the Beach Cities are under ownership or management of BCHD, and it would be economically infeasible for BCHD to purchase a new site for the proposed development. Therefore, alternative locations in the Beach Cities were determined not to be feasible for development of the proposed BCHD Healthy Living Campus Master Plan.

Development of Hospital, Medical Office, or Assisted Living

Under this alternative, BCHD would demolish the existing Beach Cities Health Center to proactively address seismic-related structural deficiencies and potential public safety hazards. Following demolition of the Beach Cities Health Center, BCHD would redevelop the existing campus to support one of the following alternative uses: a new hospital, purpose-built medical offices, or assisted living units. Each of these alternative uses would involve construction activities, including demolition, grading, soil hauling, materials delivery, and development of new facilities. Additionally, given the trip-making characteristics of these uses, some alternative uses may result in an increase in operational impacts (e.g., an increase in daily trips and VMT). Development of any one of these alternative uses would allow for smaller building space and

reduced building heights as compared to the buildings included as part of the proposed Project (i.e., 6-story RCFE building in Phase 1 and Phase 2 parking structure with up to 8.5 above ground levels). Therefore, all of the alternate uses considered for the BCHD campus would result in less severe impacts to public views than those described under Phase 1 and Phase 2 of the proposed Project.

- **Hospital.** The Beach Cities Health Center was originally constructed in 1958 as the publicly owned South Bay Hospital, providing hospital beds, surgery rooms, and emergency operating areas. However, in 1998 the South Bay Hospital closed due to competition with nearby privately owned hospitals, such as Torrance Memorial Medical Center and Little Company of Mary. These hospitals continue to exist today (Little Company of Mary is now Providence Little Company of Mary Medical Center) as well as others (e.g., Providence Medical Institute in Redondo Beach and Torrance Memorial Urgent Care in Manhattan Beach). The existing hospitals in the region continue to meet the existing demand; therefore, there is currently no long-term need or demand for an additional hospital serving the Beach Cities.
- **Medical Office Building.** The BCHD campus currently provides dedicated medical office space within the Beach Cities Health Center, Beach Cities Advanced Imaging Building, and Providence Little Company of Mary Medical Institute Building. Leasing such spaces to tenants is a major source of BCHD revenues that in turn support existing BCHD programs and services. This alternative would include demolition of the existing Beach Cities Health Center and replacement with one or several medical office buildings. These offices would generate additional revenue for BCHD, which would be potentially sufficient funding to replace revenue that would be lost from discontinued leases within the Beach Cities Health Center. However, there is increased competition from purpose-built medical office space provided elsewhere, notably in close proximity to active hospitals in the region. As such, provision of additional medical office space may not be economically viable. Further, medical offices are one of the primary vehicle trip generators on the existing BCHD campus. Redevelopment of the campus with new purpose-built medical office space would result in potentially significant transportation-related impacts to the surrounding roadway network. Under this alternative, existing programs and services located within the Beach Cities Health Center would not be relocated or reconstructed on-site. Discontinuation of these programs and services would not support BCHD's mission of enhancing community health and wellbeing for all residents of Beach Cities and nearby South Bay communities. This alternative would not support project objectives relating to

enhancing public open space, addressing the growing need for community integrated assisted living facilities, and providing for the future health needs of the community.

- **Assisted Living.** Redeveloping the BCHD campus to support additional Assisted Living units was also considered. An Assisted Living and Memory Care Market Feasibility Study was prepared in 2019 in support of the proposed Project (MDS Research Company, Inc. 2019). The Market Feasibility Study assessed the practicality of relocating 60 Silverado Memory Care units and developing 157 new Assisted Living units based on senior demographics in the local areas, population of income qualifying households in the primary market area, and occupancy rates of competitor senior residential housing options. These options include independent living communities (i.e., Brookdale South Bay, Seasons Senior Apartments, etc.), stand-alone assisted living / residential care communities (i.e., Canterbury Retirement Community, Palos Verdes Villa, etc.), and Alzheimer's / memory care facilities (i.e., Well Brook Senior Living, Sunrise of Hermosa Beach, etc.) The study also took into consideration future planned senior residential housing options (i.e., Kensington, which began operation in the Summer of 2019). Given the existing competitor senior housing options in the area and given the current and projected senior demographic populations in the Redondo Beach area, the study concluded there is sufficient size and depth of the qualified target market to introduce 157 new Assisted Living units. Under this alternative, the Project site would be redeveloped with a greater number of Assisted Living units that surpasses the quantity assessed in the market feasibility study. This alternative may not be economically viable due to existing and planned competitor senior residential housing options in the vicinity. Further, this alternative would not include the Youth Wellness Center, Aquatics Center, CHF, Blue Zone café with a Demonstration Kitchen, or associated programs, reducing BCHD's capacity to meet its mission of enhancing community health through partnerships, programs, and services for all residents of Beach Cities and nearby cities. Without these programs and services, Project Objectives to provide intergenerational programs, shared gathering spaces, and facilities integrated with the broader community, as well as to meet future community health needs, would not be met.

5.5 ALTERNATIVES ANALYSIS

This section discusses alternatives to the proposed Project that were carried forward for detailed analysis, including the No Project Alternative, pursuant to CEQA Guidelines Section 15126.6(e). Each of these considers the ability of a particular alternative to substantially reduce or eliminate one or more of the significant environmental impacts associated with the proposed Project (refer

to Section 5.3, *Summary of Potentially Significant Impacts*), while still meeting most of the basic Project Objectives. These alternatives include:

- Alternative 1 – No Project Alternative (Demolish and Replace with Limited Open Space)
- Alternative 2 – Sale and Redevelopment of the BCHD Campus
- Alternative 3 – Revised Access and Circulation
- Alternative 4 – Phase 1 Preliminary Site Development Plan Only
- Alternative 5 – Relocate CHF Permanently and Reduced Parking Structure
- Alternative 6 – Reduced Height Alternative

5.5.1 Alternative 1 – No Project Alternative (Demolish and Replace with Limited Open Space)

Pursuant to CEQA Guidelines Section 15126.6(e)(2), the No Project Alternative analysis shall discuss the existing conditions at the time the NOP is published. The No Project Alternative is compared to the impacts described for the proposed Project, which in this case includes the Phase 1 preliminary site development plan and the more general Phase 2 development program, collectively intended to address building maintenance issues, seismic safety, and better support public health programs and services provided by BCHD. Under the No Project Alternative, the proposed BCHD Healthy Living Campus Master Plan would not be implemented and the existing BCHD campus would not be redeveloped. Additionally, BCHD would continue to lease the vacant Flagler Lot as a construction staging area and a source of operational revenue.

The No Project Alternative assumes that the existing facilities on the BCHD campus – including the Beach Cities Health Center (514 North Prospect Avenue), Beach Cities Advanced Imaging Building (510 North Prospect Avenue), and the Providence Little Company of Mary Medical Institute Building (520 North Prospect Avenue) – would continue to be used to provide for BCHD programs and services as well as tenant operations. This would include the continued operation of Community Services, CHF, Beach Cities Silverado Memory Care Community, and other tenant operations (e.g., outpatient medical office) in the Beach Cities Health Center. Additionally, tenant operations (e.g., outpatient medical office) would continue in the Beach Cities Advanced Imaging Building and the Providence Little Company of Mary Medical Institute Building. BCHD would continue to provide building maintenance as required. However, as described Section 1.6, *Project Background*, escalating maintenance costs are beginning to outpace the revenue generated by tenants that are currently leasing space in these buildings. Within the near future (i.e., approximately 2 to 3 years), BCHD would be required to make financial decisions regarding the termination of tenant leases as well as relocation and substantial reductions in BCHD program

offerings. For example, the existing CHF would be permanently relocated off-site and would remain operational; however, community health and wellness programs and services provided to the Beach Cities would be substantially reduced. In addition to addressing on-going building maintenance, BCHD would continue to monitor the structural stability of the Beach Cities Health Center and the Beach Cities Advanced Imaging Building.

Local Bond Measure and Seismic Retrofit

Under the No Project Alternative, BCHD would first attempt to place a local bond measure on the ballot to fund seismic retrofits, which would include the addition of new exterior steel braced frames, new or strengthened concrete walls, and the addition of steel reinforcing bars to the concrete columns. (The seismic retrofit of the Beach Cities Health Center and Beach Cities Advanced Imaging Building would require temporary, but prolonged closure of existing uses during construction. BCHD would not renew, or would be required to terminate, existing leases, which would eliminate a significant source of funding, thereby requiring the local bond measure.) If successful, BCHD would implement the seismic retrofit, which would be exempt from CEQA (e.g., CEQA Guidelines Section 15302[a]). Following the completion of the seismic retrofit, BCHD would once again lease building space to fund community health and wellness programs and services, similar to existing conditions. However, the success of a local bond measure is speculative, particularly given the history of recent bond measure initiatives in the South Bay. For example, despite having relatively low school taxes, Hermosa Beach voters rejected local bond measures in 2008, 2010, and 2014, the latter of which was a \$54 million bond that would have increased property taxes by \$29.50 per \$100,000 in assessed valuation. A \$59 million bond was eventually passed in 2016 with 59 percent of the vote. BCHD would not be able to continue to provide community health and wellness programs and services over a period of multiple election cycles with multiple campaigns at securing bond funding.

Demolition and Creation of Limited Open Space

If a local bond measure cannot be placed on the ballot, or if the local bond measure is otherwise unsuccessful, BCHD would eventually address the seismic safety hazards by demolishing the existing Beach Cities Health Center using existing funding reserves, and would create open space with landscaped turf and limited hardscape, but generally lacking programmable space or public amenities, as described further below.

Demolition of the Beach Cities Health Center would occur as described for the Phase 1 preliminary site development plan (refer to Section 2.5.1.6, *Construction Activities*). Following the vacation of the building, demolition of the Beach Cities Health Center would occur over a 1-month period.

Demolition activities would generate approximately 32,000 cy of demolition debris – including structural steel, wood, glass, flooring, and utility material such as pipes and cables – which would be exported from the Project site in approximately 2,000 haul truck trips. Following the completion of demolition activities, the existing basement would be filled with approximately 14,000 cy of soil imported to the Project site in 875 truck trips over a period of 1 month.

Demolition would require the use of standard construction equipment, including an excavator, bulldozers, backhoes, and excavators to break up and remove existing asphalt, concrete, and building materials. A high-reach excavator would be used along with a variety of attachments (e.g., shears, crushers, and hydraulic hammers) to dismantle the structure to avoid flying debris and minimize dust and noise. Haul trucks would be used to export large amounts of debris to a mixed construction and demolition (C&D) debris recycling facility approved by the City of Redondo Beach pursuant to a Construction & Demolition Waste Management Plan. Where needed, any existing hazardous materials found during the demolished buildings (i.e., ACM, LBP, PCBs) or soil vapor contamination (i.e., tetrachloroethylene [PCE]) would be properly handled and disposed of in accordance with regulatory requirements.

When necessary, the existing Beach Cities Advanced Imaging Building would also be demolished following the end of existing tenant leases. The demolition of the Beach Cities Advanced Imaging Building would occur over a 3-month period and would involve the export of 8,550 cy of demolition debris. Demolition debris would be exported off-site in 972 haul truck trips.

Following the completion of demolition activities, the footprint of the existing buildings would be graded and redeveloped with landscaped turf and limited hardscaping. Given the funding limitations associated with the No Project Alternative and the need for BCHD to minimize costs associated with future maintenance activities, no restrooms or other park-like facilities (e.g., slides, recreational fields, etc.) would be constructed under the No Project Alternative and this area of the Project site would be used as a passive open space. (However, given the zoning designation of P-CF, it is unclear whether Redondo Beach would seek to require such facilities as a part of Planning Commission Design Review.) BCHD would fund limited long-term operational maintenance activities necessary for the landscaped turf and would use this area for community health and wellness services and programs (e.g., fitness classes, etc.) and other outdoor events, as feasible. However, given that the open space would not be surrounded by complementary uses (e.g., Assisted Living, Aquatics Center, CHF, etc.), its utility for these purposes would be much more limited than the open space described for the proposed Project. Additionally, with the reduction in revenue associated with the No Project Alternative, the capacity of BCHD to provide community health and wellness programs and services would be substantially reduced.

The medical offices in the Providence Little Company of Mary Medical Institute Building would remain along with the existing surface parking lots and the ground parking structure at 512 North Prospect Avenue.

The impacts associated with the No Project Alternative are described below and are presented in comparison with the impacts associated with the proposed Project, which are described in detail in Section 3.0, *Environmental Impact Analysis and Mitigation Measures*.

Aesthetics and Visual Resources

Implementation of the No Project Alternative would result in the continued use of the Beach Cities Health Center, Beach Cities Advanced Imaging Building, and Providence Little Company of Mary Medical Institute Building until building maintenance becomes financially infeasible over the next 2 to 3 years. At this point, BCHD would not renew or would terminate its leases with existing tenants and would begin demolition of the Beach Cities Health Center and potentially the Beach Cities Advanced Imaging Building, as needed.

Following the completion of demolition activities, the existing development of the BCHD campus would be substantially reduced in terms of its existing density. The central area of the campus (i.e., the existing footprint of the Beach Cities Health Center) would be flat and would allow for views across the Project site from North Prospect Avenue (e.g., Representative View 5). Similarly, the footprint of the Beach Cities Advanced Imaging Building would also be flat; however, views across this area of the Project site from Flagler Lane and Flagler Alley (e.g., Representative View 2) would remain limited due to the existing topography. Following the completion of demolition activities, the remaining facilities would include the Providence Little Company of Mary Medical Institute Building as well as the parking structure at 512 North Prospect Avenue. The existing surface parking lots and subterranean parking garage would also remain. These remaining facilities at the BCHD campus would be relatively inconsistent with one another visually and would not form a campus-type environment. Additionally, the vacant Flagler Lot would remain undeveloped and would continue to be leased as a staging area for nearby construction projects. Therefore, existing views of this area from Beryl Street and Flagler Lane would continue to be characterized by exposed gravel and dirt and construction staging equipment.

Air Quality

Construction activities associated with the No Project Alternative would be limited to ongoing interior maintenance activities, until the demolition of the Beach Cities Health Center and potentially the Beach Cities Advanced Imaging Building. However, with the exception of

demolition, limited grading, and installation of landscaped turf and limited hardscaping, no additional construction activities would be required. Therefore, criteria air pollutant emissions associated with this alternative would be substantially reduced as compared to the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program.

Following the demolition of the Beach Cities Health Center and the Beach Cities Advanced Imaging Building stationary source emissions (e.g., heating, ventilation, and air conditioning [HVAC]) from these buildings would be eliminated. Additionally, the daily vehicle trips associated with these buildings would also be eliminated. Stationary source emissions at the Project site would be limited to those from the Providence Little Company of Mary Medical Institute Building, and mobile source emissions would be limited to operational vehicle trips associated with the medical office building and landscaped open space. Therefore, operational emissions associated with the BCHD campus would be substantially reduced as compared to the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program.

Biological Resources

Implementation of the No Project Alternative would involve the removal of landscaping adjacent to the Beach Cities Health Center and potentially the Beach Cities Advanced Imaging Building during demolition. However, the No Project Alternative would not require the removal of any of the landscaped trees along the eastern boundary of the Project site. Therefore, there would be a minor reduction in the potential for disturbance of nesting birds and other urban wildlife as compared to the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program.

Cultural Resources and Tribal Cultural Resource

Under the No Project Alternative, construction activities would be limited to ongoing interior maintenance activities, until the demolition of the Beach Cities Health Center and potentially the Beach Cities Advanced Imaging Building. However, with the exception of limited grading and installation of turf landscaping and limited hardscaping, no additional ground disturbance would be required. Therefore, the potential for disturbance or other impacts to unknown buried cultural resources or tribal cultural resources would be substantially reduced as compared to the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program.

Energy

The existing electricity, natural gas, and transportation energy demand associated with the BCHD campus would continue as described in Section 3.5.1, *Environmental Setting* until the leases with tenants are not renewed or are terminated within the next 2 to 3 years. However, with the exception of demolition, limited grading, and installation of turf landscaping and hardscaping, no additional construction activities would be required. As such, construction-related energy use would be temporary and negligible over the long-term.

Following the demolition of the Beach Cities Health Center and potentially the Beach Cities Advanced Imaging Building, electricity, natural gas, and transportation energy demand from these buildings would be eliminated. Energy demand associated with the BCHD campus would be limited to the Providence Little Company of Mary Medical Institute Building. As described in Section 3.5.1, *Existing Setting*, the existing annual electricity demand of the Beach Cities Health Center alone is approximately 2,378,070 kilowatt-hours (kWh) and the existing annual natural gas demand of the Beach Cities Health Center is approximately 22,532 therms. Therefore, implementation of the No Project Alternative would substantially reduce the operational energy demand associated with the BCHD campus compared to existing conditions.

Geology and Soils

With the exception of demolition, limited grading, and installation of turf landscaping and limited hardscaping, the No Project Alternative would not involve additional ground disturbing activities such as excavation or trenching. Therefore, the potential for soil erosion associated with this alternative would be substantially reduced as compared to the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program.

Following the demolition of the Beach Cities Health Center and potentially the Beach Cities Advanced Imaging Building, the central area of the campus (i.e., the existing footprint of the Beach Cities Health Center) would be landscaped with turf and there would be no exposed soils on the BCHD campus. However, the vacant Flagler Lot would remain undeveloped and would be characterized by exposed gravel and dirt with moderate slopes. Therefore, the potential for soil erosion at the vacant Flagler Lot would remain.

Greenhouse Gas Emissions and Climate Change

Construction activities associated with the No Project Alternative would be limited to ongoing interior maintenance activities, until the demolition of the Beach Cities Health Center and potentially the Beach Cities Advanced Imaging Building. However, with the exception of

demolition, limited grading, and installation of turf landscaping and limited hardscaping, no additional construction activities would be required. Therefore, GHG emissions associated with construction under this alternative would be substantially reduced as compared to the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program.

Operationally, the GHG emissions associated with the BCHD campus would remain the demolition of the Beach Cities Health Center and potentially the Beach Cities Advanced Imaging Building. Following the demolition of these buildings, GHG emissions from area, energy, waste, and water from these buildings would be eliminated. Additionally, the vehicle trips associated with these facilities would also be eliminated. Mobile source GHG emissions for this alternative would be limited to those operational vehicle trips associated with the Providence Little Company of Mary Medical Institute Building and limited open space turf landscaping. Therefore, operational emissions associated with the BCHD campus would be substantially reduced compared to the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program. Implementation of the No Project Alternative would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs; however, the No Project Alternative would not include the sustainable design features described for the proposed Project, such as photovoltaic solar panels, solar hot water systems, and energy efficient HVAC systems, intended to reduce overall GHG impacts.

Hazards and Hazardous Materials

As previously described, the No Project Alternative would require the demolition of the Beach Cities Health Center in the next 2 to 3 years. Eventually, the demolition of the Beach Cities Advanced Imaging Building may also be required due to seismic-related safety issues. As described in Section 3.8, *Hazards and Hazardous Materials*, ACM, LBP, PCBs, and mold could potentially occur within the Beach Cities Health Center and other buildings on-site. Therefore, construction workers, employees, and visitors, and other members of the public could be exposed to these hazardous materials during demolition as well as hauling of demolition debris from Project site. Similar to the proposed Project, a comprehensive survey of ACM, LBP, PCBs, and mold would be conducted prior to and during the demolition activities and all demolition and hauling would occur in compliance with existing mandatory regulations and BMPs related to the treatment, handling, and disposal of ACM, LBP, PCBs and mold.

With the exception of demolition, limited grading, and installation of turf landscaping and limited hardscaping, no additional ground disturbing activities would be required. Therefore, the potential

for impacts related to exposure of existing soil contaminants (i.e., PCE, benzene, and chloroform) would be substantially reduced compared to the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program. Given the reduced scope and duration of construction activities, impacts associated with the temporary use of petroleum, oils, and lubricants for heavy construction equipment would also be substantially reduced. However, since no excavation or trenching would occur under the No Project Alternative, the existing concentrations of PCE, benzene, and chloroform beneath the Project site would not be removed and would remain as described in Section 3.8.1, *Environmental Setting*.

Hydrology and Water Quality

As previously described, the No Project Alternative would require the demolition of the Beach Cities Health Center in the next 2 to 3 years. Eventually, the demolition of the Beach Cities Advanced Imaging Building may also be required due to seismic-related safety issues. With the exception of demolition activities, minor grading, and installation of turf landscaping, no other ground disturbing construction activities (e.g., excavation, utilities trenching, etc.) would be required. Similar to the proposed Project, all stormwater generated during construction would continue to be directed to the existing storm drain system and all elements of this alternative would be required to comply with the Construction General Permit (SWRCB Order No. 2009-0006-Data Quality Assessment). Implementation of BMPs developed in accordance with the requirements of the Construction General Permit would prevent violation of water quality standards and minimize the potential for contributing polluted runoff. Therefore, construction-related impacts to water quality standards, waste discharge requirements, and the municipal storm drain system would be reduced compared to the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program.

Following demolition of the Beach Cities Health Center and potentially the Beach Cities Advanced Imaging Building, the No Project Alternative would redevelop the Project site with turf landscaping within the general footprint of these buildings. The existing surface parking lots on-site would remain. While installation of the turf landscaping would increase pervious area on-site as compared to existing conditions, the No Project Alternative would result in a smaller area of pervious surfaces as compared to the proposed Project. Additionally, the No Project Alternative would not involve construction of an infiltration system on-site, which would reduce runoff from the Project site as described for the proposed Project (refer to Section 3.9, *Hydrology and Water Quality*). Therefore, this alternative would not provide the same level of beneficial impacts as described for the proposed Project.

Land Use and Planning

BCHD would not renew, or would terminate, its leases with existing tenants and would begin demolition of the Beach Cities Health Center and potentially the Beach Cities Advanced Imaging Building, as needed. Following the completion of demolition activities, the existing footprints of the Beach Cities Health Center and Beach Cities Advanced Imaging Building would be landscaped with turf. Implementation of the No Project Alternative would not conflict with applicable land use plans, policies, and regulations, including SCAG's 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS; Connect SoCal), Los Angeles County Metropolitan Transportation Authority's (Metro's) 2020 Long Range Transportation Plan (LRTP), South Bay Bicycle Master Plan, Redondo Beach and Torrance General Plans, and municipal code development standards.

Noise

Construction activities associated with the No Project Alternative would be limited to ongoing interior maintenance activities, until the demolition of the Beach Cities Health Center in the next 2 to 3 years. Eventually, the demolition of the Beach Cities Advanced Imaging Building may also be required due to seismic-related safety issues. However, with the exception of demolition, limited grading, and installation of turf landscaping and limited hardscaping, no additional construction activities would be required. Therefore, construction noise associated with this alternative would be substantially reduced as compared to the proposed Project – including the Phase 1 preliminary site development plan and the Phase 2 development program.

Following the demolition of the Beach Cities Health Center and the Beach Cities Advanced Imaging Building, stationary source noise from these buildings would be eliminated. The vehicle trips associated with these facilities would also be eliminated. Therefore, operational noise at the Project site would be limited to parking lot and vehicle noise associated with vehicle trips to the Providence Little Company of Mary Medical Institute Building and open space landscaped turf area. Therefore, operational noise associated with the BCHD campus would be substantially reduced as compared to the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program.

Population and Housing

As previously described, implementation of the No Project Alternative would require the demolition of the Beach Cities Health Center within the next 2 to 3 years. Eventually, the demolition of the Beach Cities Advanced Imaging Building may also be required due to seismic-

related safety issues. At this point, the population associated with these buildings would be eliminated and the total population at the BCHD campus would be limited to employees and medical patients at the Providence Little Company of Mary Medical Institute Building. Similar to the proposed Project, demolition activities and the installation of turf landscaping would generate a minor and temporary increase in employment; however, given the limited scope and duration of the demolition and landscaping activities under this alternative, the number of construction workers required would be reduced as compared to the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program. Following the demolition of the Beach Cities Health Center and potentially the Beach Cities Advanced Imaging Building, the No Project Alternative would not generate any new employment or population growth. Therefore, the No Project Alternative would result in a net reduction in population and employment as compared to existing conditions and would displace 60 Memory Care units (120 beds).

Public Services

The No Project Alternative would result in a long-term net reduction in population and employment as compared to existing conditions due to the eventual vacation and demolition of the Beach Cities Health Center and potentially the Beach Cities Advanced Imaging Building. As a result, implementation of the No Project Alternative would incrementally decrease the demand for fire protection emergency medical services (EMS) provided by Redondo Beach Fire Department (RBFD) and as well as police protection services provided by the Redondo Beach Police Department (RBPD). Similar to the proposed Project, the No Project Alternative would not result in an increase enrollment within the Redondo Beach Union School District or the Torrance Union School District and would not result in an increased need for library services, resources, and facilities. Therefore, this alternative would have no potential to impact public schools, parks and recreational facilities, or libraries. Additionally, the development of publicly accessible passive open space would result in a beneficial impact to recreational facilities; however, unlike the proposed Project, this alternative would not provide active open space to accommodate programs that meet community health and wellness needs.

Transportation

Construction activities associated with the No Project Alternative would be limited to ongoing interior maintenance activities, until the demolition of the Beach Cities Health Center in the next 2 to 3 years. Eventually, the demolition of the Beach Cities Advanced Imaging Building may also be required due to seismic-related safety issues. However, with the exception of demolition,

limited grading, and installation of turf landscaping and hardscaping, no additional construction activities would be required. Accordingly, construction-related haul truck trips would be limited to export of demolition debris associated with the Beach Cities Health Center and potentially the Beach Cities Advanced Imaging Building, import of clean backfill soil, and import of concrete for the hardscape improvements. Construction-related haul truck trips would be reduced from 9,544 total trips associated with Phase 1 and Phase 2 of the proposed Project (refer to Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*) to approximately 3,409 truck trips under the No Project Alternative (see Table 5.5-1).

Table 5.5-1. Estimated Number of Haul Truck Trips Under the No Project Alternative

	Number of Haul Truck Trips
<i>Export</i>	
Beach Cities Health Center Demolition Debris	2,000
Beach Cities Advanced Imaging Building Demolition Debris	534
<i>Import</i>	
Soil for Backfill of Beach Cities Health Center Basement	875
Total Number of Trips	3,409

Notes: The number of trips calculated for the export of demolition debris from the Beach Cities Advanced Imaging Building was calculated by applying the proportion of demolition debris from the Beach Cities Advanced Imaging Building to the total number of truck trips for export of demolition debris for both the Beach Cities Advanced Imaging Building and above ground parking garage. Export of demolition debris from the Beach Cities Advanced Imaging Building would constitute approximately 55 percent of the 972 total trips estimated for export of both the Beach Cities Advanced Imaging Building and above ground parking garage.

As previously described, the No Project Alternative would result in a long-term net reduction in population and employment as compared to existing conditions due to the eventual vacation and demolition of the Beach Cities Health Center and potentially the Beach Cities Advanced Imaging Building. Following demolition of the Beach Cities Health Center and the Beach Cities Advanced Imaging Building, operational vehicle trips associated with these buildings would be eliminated. Operational vehicle trips to the Project site would be limited to those associated with the Providence Little Company of Mary Medical Institute Building and passive open space on-site. Therefore, the No Project Alternative would substantially reduce the number of operational vehicle trips and associated VMT as compared to the proposed Project.

The No Project Alternative would result in no conflicts with transportation plans, policies, or regulations, no transportation design hazards, and no effects on emergency access to the Project site.

Utilities and Service Systems

Implementation of the No Project Alternative would require the demolition of the Beach Cities Health Center in the next 2 to 3 years. Eventually, the demolition of the Beach Cities Advanced Imaging Building may also be required due to seismic-related safety issues. At that point, BCHD would not renew, or would terminate, its leases with existing tenants and would begin demolition of the facilities, as needed. Construction-related impacts associated with the No Project Alternative would include temporary water use for dust control, equipment cleaning, and re-compaction and grading activities and disposal of demolition debris. Temporary impacts related to construction would occur for a period of at least 1 month during the demolition of the Beach Cities Health Center and at least 3 months for the Beach Cities Advanced Imaging Building. Given the limited scope and duration of construction for the No Project Alternative, construction-related impacts to utilities would be substantially reduced as compared to the proposed Project – including the Phase 1 preliminary site development plan and the more general Phase 2 development program.

Following the demolition of the Beach Cities Health Center and the Beach Cities Advanced Imaging Building, water demand, wastewater generation, and solid waste generation from these buildings would be eliminated. Accordingly, the No Project Alternative would substantially reduce demand on existing utilities at the BCHD campus as compared to existing conditions as well as the proposed Project (see Table 5.5-2).

Table 5.5-2. Estimated Project Site Water Demand Comparison for Existing, No Project Alternative, and Proposed Project Conditions

	Water Demand (gal/year)	Wastewater Generation (gpd)	Solid Waste Generation (tons/year)
Existing Project Site	39,231,667	68,925	330.22
Proposed Project	56,426,355	116,286	660.51
No Project Alternative	8,868,944	11,925	13.32

Notes: gal/year = gallons per year; gpd = gallons per day

Water demand for the No Project Alternative includes water demand of the Providence Little Company of Mary Medical Institute Building and irrigation demand for the turf landscaping. Water demand estimates for irrigation demand are based on the water generation factor used for the proposed Project (Redondo Beach Water Front Project Water Supply Assessment). The area of landscaping was conservatively assumed as equal to the floor area of the Beach Cities Health Center (i.e., 158,000 sf).

The Proposed Project represents total buildout of the Phase 2 development program.

Source: John Labib & Associates 2020 (see Appendix H).

Achievement of Project Objectives

The implementation of the No Project Alternative would eventually eliminate seismic safety and other hazards on the BCHD campus (Project Objective 1). However, continued operation and eventual demolition of the Beach Cities Health Center would not generate revenue through

mission-derived services to support the current level of BCHD programs and services (Project Objective 2), create a modern campus designed to meet the future health needs of residents (Project Objective 5), or address growing future community health needs (Project Objective 6). Rather, the implementation of the No Project Alternative would result in an approximately \$2 million reduction in annual funding due to the elimination of tenant-generated revenues from tenants solely within the Beach Cities Health Center. Therefore, the implementation of the No Project Alternative would require a substantial reduction in the level of BCHD programs and services, and would not meet BCHD's mission to *“enhance community health through partnerships, programs, and services for people who live and work in Hermosa Beach, Manhattan Beach, and Redondo Beach.”* Further, the No Project Alternative would eliminate the revenue-generating uses that would allow BCHD to provide intergenerational programs and shared gathering spaces (Project Objective 4). While implementation of the No Project Alternative would redevelop the footprint of the Beach Cities Health Center with simple turf landscaping and limit hardscaping following building demolition, this area would not provide sufficient active open space to accommodate programs that meet community health program and service needs (Project Objective 3). Overall, the No Project Alternative would achieve only one of the Project Objectives.

5.5.2 Alternative 2 – Closure, Sale, and Redevelopment of the BCHD Campus

The demolition of the Beach Cities Health Center and the Advanced Imaging Building described for the No Project Alternative would result in a substantial reduction in the funding for BCHD to provide community health and wellness services, undermining its mission as a California Healthcare District. Additionally, these demolition activities may not comply with the Principal Preservation Policy (6130) approved by the BCHD Board of Directors on May 24, 2017, which states:

“It is the policy of the Board of Directors of the Beach Cities Health District (“District”) to establish guidelines that will insure that the District maintains an Unrestricted Fund Balance generated from rent proceeds, taxes and investment income in an amount sufficient to insure sources of funding for operating the District Services focused on preventive health-related services and programs provided to the three beach cities, including the publicly-owned health facilities known as the Center for Health & Fitness and Adventure Plex. In addition for prudent long term management of District assets, it is further the policy of the Board of Directors to maintain a Committed Fund Balance to be used for continued capital investments in the District.”

Under this alternative BCHD would not renew, or would terminate, existing leases with tenants occupying the Beach Cities Health Center, Beach Cities Advanced Imaging Building, and Providence Little Company of Mary Medical Institute Building. BCHD would not demolish, retrofit, or otherwise redevelop any of the facilities the existing campus, but would instead divest itself of the existing facilities and its current programs and services. Following closure of the Beach Cities Health Center, BCHD would sell the BCHD campus and the vacant Flagler Lot for redevelopment. This could include the sale of both parcels in their entirety or subdivision and a sale of a portion thereof. This one-time influx of capital would be used by BCHD to invest in another property or properties in a different location to generate funds required to provide community health and wellness programs and services. As described in Section 5.4, *Alternatives Considered but Rejected from Further Analysis* it is not anticipated that BCHD would be able to find a property that would allow for the complete off-site development of the proposed Healthy Living Campus; however, BCHD could make investments in smaller properties to that could support some of these uses. Following the sale of the campus, its future redevelopment remains highly speculative. The range of potential likely development scenarios is discussed below.

Given the land use designation and zoning (P-CF) of the existing BCHD campus, permitted future uses for the site include recreational facilities and open space and accessory use/structures (e.g., storage shed, maintenance building, concession stands, etc.) pursuant to RBMC Section 10-2.1110. It is highly unlikely that the BCHD campus would be developed as a recreational facility unless it is acquired by the City of Redondo Beach or the City of Torrance. Other uses permitted on the campus subject to approval of a Conditional Use Permit (CUP) by the City of Redondo Beach include but are not limited to public buildings in recreation areas, agricultural and horticultural uses, child day care centers, community centers, cultural institutions, government offices and maintenance facilities, public gymnasiums and athletic clubs, and performance art facilities. Building setbacks, heights, and densities (i.e., floor area ratio [FAR]) in the P-CF zone are unrestricted, but are subject to Planning Commission Design Review (RBMC Section 10-2.1116).

The vacant Flagler Lot, zoned C-2 (Commercial), would permit commercial uses such as animal feed and supplies, artist's studios, banks and savings and loans, commercial printing, food and beverage sales, maintenance and repair services, recycling collection facilities, restaurants, and government offices. Other uses permitted on the vacant Flagler Lot subject to approval of a CUP by the City of Redondo Beach include but are not limited to ambulance services, bars and cocktail lounges, body art studios, building material sales, business and trade schools, hotels and motels, laboratories, liquor stores, massage businesses, mortuaries, vehicle sales and services, churches, adult day care centers, and senior housing (RBMC Section 10-2.620). Building heights on C-2

properties are restricted to two stories (30 feet) or less and the FAR shall not exceed 0.5 (RBMC Section 10-2.622).

Alternatively, a developer could apply for a zoning change for the BCHD campus and/or the vacant Flagler Lot. However, pursuant to Measure DD, which was approved in 2008, any such zoning changes by the City of Redondo Beach would require a public vote. If the zoning change were to be successful, the BCHD campus and/or the vacant Flagler Lot could be redeveloped as mixed-used multi-family housing that would help the City of Redondo Beach to meet the SCAG's allocation of 1,397 housing units within the City for the 2014-2021 Regional Housing Needs Assessment (RHNA) planned period (refer to Section 3.12, *Population and Housing*).

Construction and Operational Impacts

Given the speculative nature of the redevelopment under this alternative, potential environmental impacts are described generally and qualitatively as compared to the proposed Project. Future development involving discretionary actions by the City of Redondo Beach would require the preparation of a CEQA-compliant environmental document that would analyze the construction-related and operational impacts of the redevelopment.

Given the age and seismic safety hazards as well as the configuration of the Beach Cities Health Center (former South Bay Hospital originally developed in 1958), it can reasonably be assumed that this building would be demolished following sale of the BCHD campus. Demolition of the Beach Cities Health Center would likely occur as described for the Phase 1 preliminary site development plan (refer to Section 2.5.1.6, *Construction Activities*). Demolition activities would occur over a 1-month period and would generate approximately 32,000 cy of demolition debris – including structural steel, wood, glass, flooring, and utility material such as pipes and cables – which would be exported from the Project site in approximately 2,000 haul truck trips. Following the completion of demolition activities, the existing basement would be filled with approximately 14,000 cy of soil imported to the Project site in 875 truck trips over a period of 1 month.

Depending on the whether the BCHD campus is subdivided prior to its sale, the demolition of the Beach Cities Advanced Imaging Building and Providence Little Company of Mary Medical Institute Building may also be desired or required to support redevelopment.

Demolition activities would require the use of typical construction equipment, including an excavator, bulldozers, backhoes, and excavators to break up and remove existing asphalt, concrete, and building materials. A high-reach excavator would be used along with a variety of attachments (e.g., shears, crushers, and hydraulic hammers) to dismantle the structure to avoid flying debris

and minimize dust and noise. Haul trucks would be used to export large amounts of debris to a mixed C&D debris recycling facility approved by the City of Redondo Beach pursuant to a Construction & Demolition Waste Management Plan. Where needed, any existing hazardous materials found during the demolished buildings (i.e., ACM, LBP, PCBs) or soil vapor contamination (i.e., PCE) would be properly handled and disposed of in accordance with regulatory requirements.

Following the completion of demolition activities, the scale and duration of construction activities under this alternative would be dependent upon a specific proposal for redevelopment. For example, if one or both of the parcels were rezoned for residential use, a mixed-use housing development may result in shorter buildings with a larger developed footprint (i.e., reduced open space as compared to the proposed Project). Alternatively, a mixed-use housing development could result in buildings that are taller than what is currently proposed under the Phase 1 preliminary site development plan as well as the Phase 2 development program. Regardless, based on the size of the Project site, it is reasonable to assume that construction activities would occur for a period of between 1 and 3 years, and potentially more depending on the height and density of development. Therefore, construction-related impacts to criteria air pollutant and GHG emissions, noise, and construction traffic associated with this alternative would generally be comparable with the impacts described for the proposed Project. This alternative would also result in ground disturbance involving potential soil erosion and impacts due to soil vapor contamination and hazardous materials at the Project site.

Depending upon the type of uses that would be developed on the BCHD campus and the vacant Flagler Lot (e.g., mixed-use housing), this alternative could also result in substantial increases in operational impacts associated with criteria air pollutant and GHG emissions, noise, and VMT, and increased demand for public services (e.g., police and fire protection, parks, libraries), and utilities (e.g., water, wastewater, etc.).

Relationship of Alternative to Project Objectives

Implementation of this alternative would not include any of BCHD's existing programs and services (e.g., Community Services, CHF, and Memory Care) or community programs and services included in the proposed Project (e.g., Assisted Living, Youth Wellness Center, Wellness Pavilion, Aquatics Center). Therefore, this alternative use would not support Project Objectives to provide intergenerational programs, shared gathering spaces, and facilities integrated with the broader community, or BCHD's mission to meet future community health needs.

Although BCHD owns or leases other small properties within the Beach Cities, the Beach Cities Health Center is BCHD's largest block of medical office building space and provides a substantial portion of BCHD's overall revenue used for community health and wellness program and services. While the one-time influx of capital would be used by BCHD to invest in another property or properties off-site to generate funds required to provide community health and wellness services, closure of the Beach Cities Health Center would eliminate a significant portion BCHD's annual funding for community health and wellness services and many of these programs and services would be reduced or eliminated. Implementation of this alternative would not support BCHD's mission to *"enhance community health through partnerships, programs, and services focused on people who live and work in Redondo Beach, Hermosa Beach, and Manhattan Beach, but with many services available to residents from nearby cities and throughout the South Bay."* Further, this alternative would not involve the addition of public open space to accommodate programs that meet community health needs, provide Assisted Living units with intergenerational programs and shared gathering spaces, create a modern campus that meets the future health needs of residents, or generate sufficient revenue to continue the current level of BCHD programs and services. Therefore, this alternative only meets one of the Project Objectives and generally does not meet BCHD's mission as a California Health District.

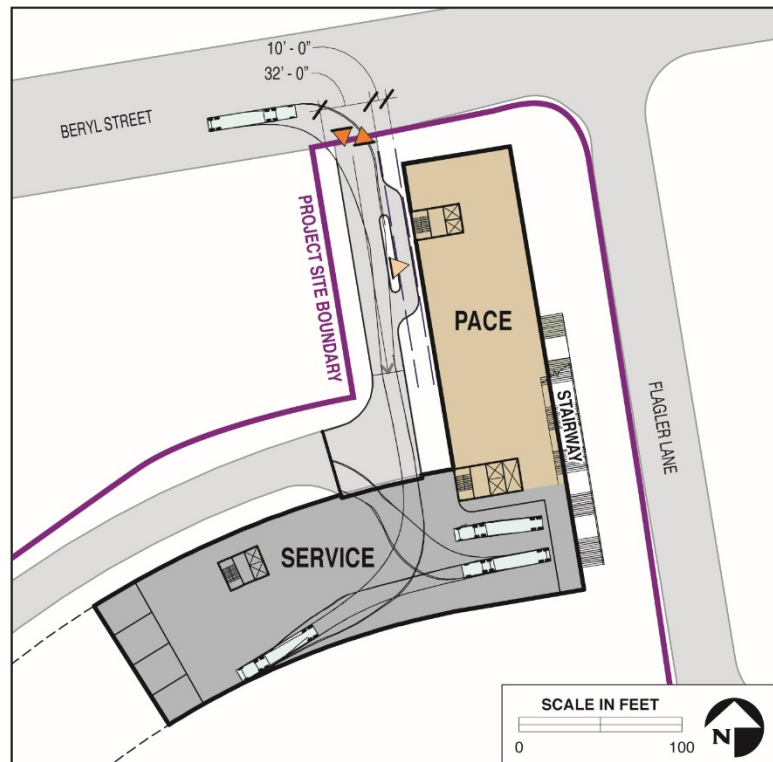
5.5.3 Alternative 3 – Revised Access and Circulation

The Revised Access and Circulation Alternative (Alternative 3) would involve implementation of the development of the proposed BCHD Healthy Living Campus Master Plan in two phases, with the same uses described in the Phase 1 preliminary site development Plan and the more general Phase 2 development program. However, this alternative would include a revised access and circulation design in Phase 1 to address concerns raised by the City of Torrance and the residents of the Torrance neighborhood to the east of the Project site related to the proposed vehicle access along Flagler Lane. For example, as described in Section 3.10, *Land Use and Planning*, the one-way driveway and pick-up/drop-off zone exit onto Flagler Lane as well as the service area and loading dock entry/exit onto Flagler Lane may potentially be inconsistent with TMC Section 92.30.8, which prohibits site access to commercial properties from local streets when access from an arterial road is available. The City of Torrance is also considering the potential removal of the southbound vehicle movement along Flagler Lane, between Beryl Street and Towers Street, to address neighborhood concerns regarding existing cut-through traffic, particularly as it relates to pick-up and drop-off at Towers Elementary School. If approved by the City of Torrance, this change to the transportation network would prevent service vehicles from entering the

5.0 ALTERNATIVES

subterranean service area and loading dock under the proposed Project. Accordingly, this alternative reconfigures the proposed entries/exits along Flagler Lane.

Under Alternative 3, the one-way driveway and pick-up/drop-off zone exit onto Flagler Lane as well as the service area and loading dock entry/exit onto Flagler Lane would be removed and the one-way driveway would be reconfigured. Under Alternative 3, the one-way driveway and passenger pick-up/drop-off zone would be located immediately adjacent to the west of the RCFE Building. Access to the subterranean service area and loading dock beneath the RCFE Building would also be provided immediately adjacent to the west of the RCFE Building. Vehicles

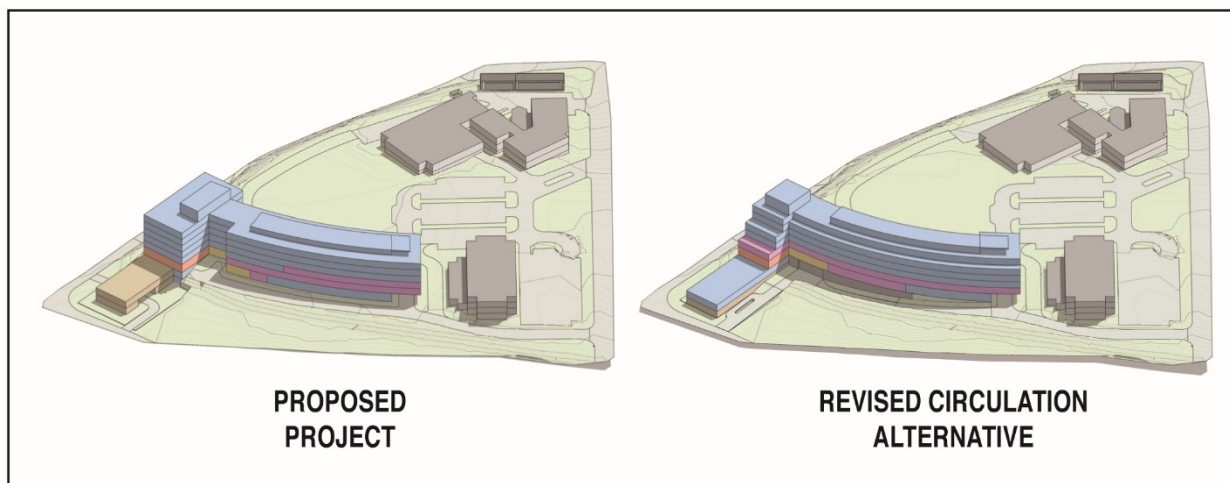


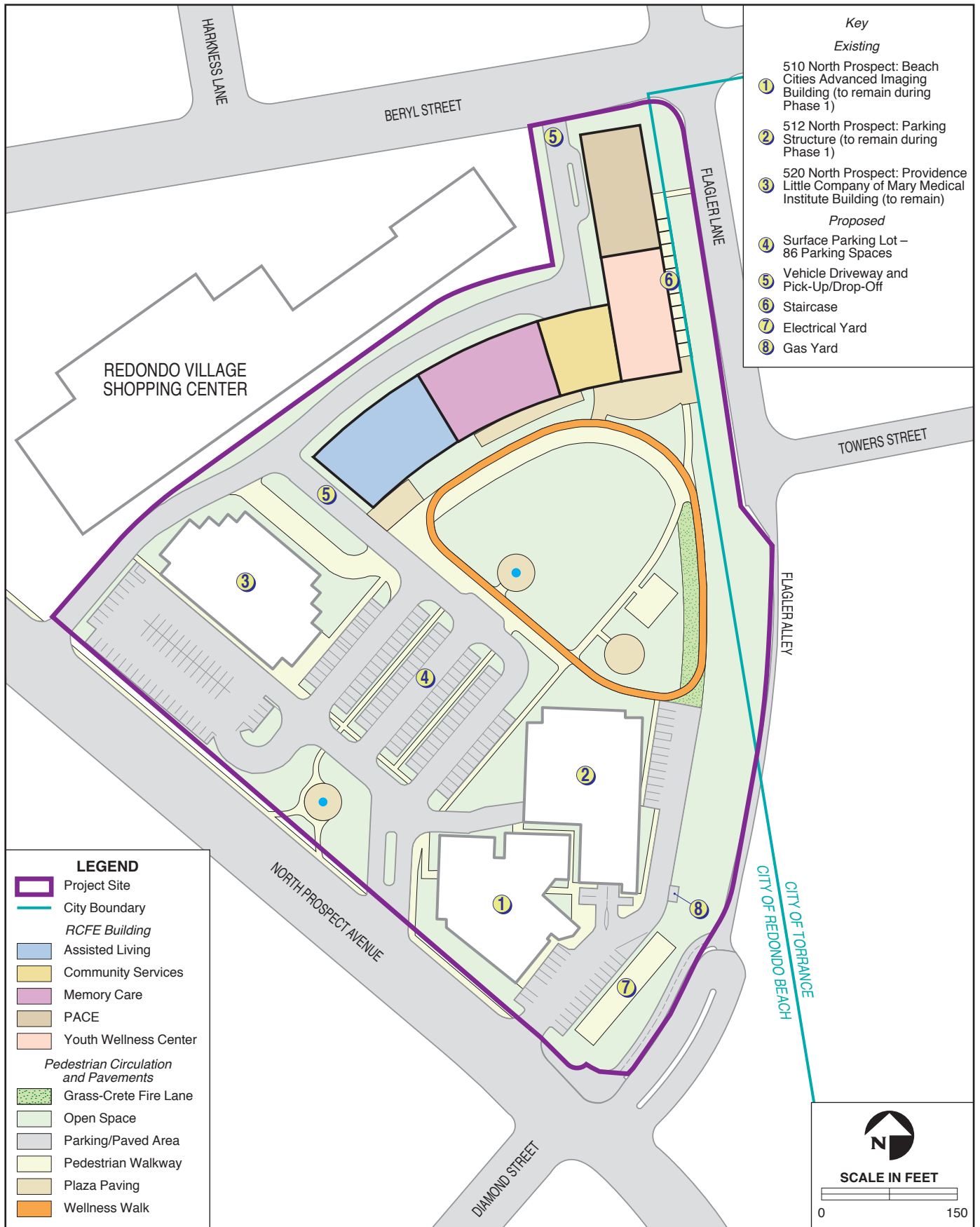
picking up or dropping off at the RCFE Building or service vehicles exiting the RCFE Building would continue along a new, paved, internal access road that follows the northern perimeter of the Project site. Vehicles traveling along this one-way perimeter road would continue straight and exit the Project site onto northbound North Prospect Avenue (see Figure 5-1).

The primary entrance to the BCHD campus (i.e., the entrance access to long-term parking on campus) would continue to be provided off of North Prospect Avenue. The main entrance to the campus would be located at the signalized driveway intersection with North Prospect Avenue, approximately 275 feet to the northwest of the intersection of North Prospect Avenue & Diamond Street. This main entrance would continue to provide access to the surface parking lot and subterranean parking garage serving the Providence Little Company of Mary Medical Institute Building. The main entrance would also provide access to the new surface parking lot located within the footprint of the existing Beach Cities Health Center. A secondary driveway would be located approximately 100 feet northwest of the intersection of North Prospect Avenue and Diamond Street, and would provide access to the parking structure located at 512 North Prospect Avenue (see Figure 5-1).

As described for the proposed Project, Alternative 3 would provide 157 Assisted Living units and 60 replacement Memory Care units. The RCFE Building would also include space for PACE, Community Services, and the Youth Wellness Center as generally described for the proposed Project. However, the configuration of the new vehicle entrance and northern perimeter road would displace the proposed grass-crete secondary emergency access to the north of the RCFE Building resulting in an overall reduction in ground level open space.

While the maximum roof height of the RCFE Building would remain the same as for the proposed Project (i.e., approximately 103 feet above the campus ground level and 133.5 feet above the vacant Flagler Lot below), the reconfiguration of the one-way vehicle driveway and pick-up/drop-off zone would allow for PACE to occupy the entire ground floor of the RCFE Building. As such, this alternative would allow for step backs on each floor of the RCFE Building fronting Beryl Street. With this design change, the northern portion of the RCFE Building would decrease in floor area with each successive level, creating terraces that face Beryl Street and setting back the building façade to further minimize the RCFE Building's perceived height from the pedestrian perspective at street level.





The Phase 2 development program would be the same as the proposed Project. Construction activities under Alternative 3 would be the same as those described for Phase 1 and Phase 2 of the proposed Project (refer to Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*). The proposed programs and operational activities also would be the same as those described for Phase 1 and Phase 2 of the proposed Project.

Aesthetics and Visual Resources

Under Phase 1 of Alternative 3, impacts to aesthetics and visual resources would be similar, but reduced compared to those described for the proposed Project. For example, the maximum roof height of the RCFE Building in Phase 1 would remain at 103 feet above the campus ground level and 133.5 feet above the vacant Flagler Lot below as described for the proposed Project. However, the reconfiguration of the one-way vehicle driveway and pick-up/drop-off zone would allow for PACE to occupy the entire ground floor of the RCFE Building. As a result, this alternative would allow for step backs on each floor of the RCFE Building fronting Beryl Street. With this design change, the northern portion of the RCFE Building would decrease in floor area with each successive level, creating terraces that face Beryl Street and setting back the building façade to minimize the RCFE Building's perceived height from the pedestrian perspective at street level (e.g., Representative View 3). However, given that the maximum roof height of the RCFE Building, Alternative 3 would still result in potentially significant impacts resulting from the interruption of views of the ridgeline of the Palos Verdes hills from the highpoint of 190th Street & Flagler Lane (i.e., Representative View 6). As described for the proposed Project, MM VIS-1 would require a reduction in the height of the RCFE Building such that it would no longer interrupt this ridgeline. Therefore, impacts to this scenic vista would be *less than significant with mitigation*, as described for the proposed Project.

Implementation of the Phase 2 development program under Alternative 3 would be the same as Phase 2 of the proposed Project. As described for the proposed Project, the heights of the proposed building(s) under the Phase 2 development program would be up to 71.5 feet above the campus ground level and 101.5 feet above the vacant Flagler Lot below, depending upon the final site plan. Following implementation of the Phase 2 development program, views across the Project site from North Prospect Avenue (i.e., Representative View 2) would be obstructed by the proposed building(s) and parking structure. However, as with the proposed Project, the proposed development would meet the development standards described in Redondo Beach General Plan and municipal code. Therefore, similar to the proposed Project, impacts to existing visual character and quality of the site and surrounding areas under Alternative 3 would be *less than significant*.

Alternative 3 would remove the one-way driveway exit onto Flagler Lane and the service area and loading dock entry/exit onto Flagler Lane as described under the proposed Project. Rather than exit onto Flagler Lane, the proposed one-way driveway under Alternative 3 would lead to a new, paved, internal access road that follows the northern perimeter of the Project site. Therefore, Alternative 3 would eliminate vehicle traffic onto Flagler Lane and would completely eliminate the less than significant light impacts from vehicle headlights shining towards the Torrance neighborhood east of Flagler Lane.

Given that the maximum roof heights of the proposed buildings under Alternative 3 would remain the same as for the proposed Project, impacts to shade and shadow would remain similar. The step backs on the proposed RCFE Building would incrementally reduce shading on the Torrance neighborhood to the east, Towers Elementary School, and the multi-family residences north of Beryl Street. As with the proposed Project, implementation of the Phase 1 preliminary site development plan and the Phase 2 development program under this alternative would incrementally increase existing shading on Torrance neighborhood to the east as compared to shadows from the existing Beach Cities Health Center and parking structure; however, this shading would occur only in the evenings (i.e., after 6:00 p.m. in the Summer, after 5:00 p.m. in the Fall, and after 4:00 p.m. in the Winter). Therefore, impacts to shading from Alternative 3 would be *less than significant*.

Air Quality

Construction Emissions

Construction activities under Alternative 3 would be the same as those described for Phase 1 and Phase 2 of the proposed Project (refer to Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*). Therefore, construction-related impacts to air quality would also be the same as those described for Phase 1 and Phase 2 of the proposed Project (refer to Section 3.2, *Air Quality*). For example, peak daily construction emissions would remain below the SCAQMD thresholds of significance as described for the proposed Project. Similar to the proposed Project, on-site construction emissions would exceed LSTs for PM₁₀ and PM_{2.5}; however, implementation of MM AQ-1 would require watering of exposed surfaces three times daily and prohibiting demolition when wind speed is greater than 25 mph, and would reduce on-site construction emissions for PM₁₀ and PM_{2.5} below the SCAQMD LSTs (refer to Impact AQ-2 in Section 3.2, *Air Quality*). Therefore, with implementation of MM AQ-1, impacts with regard to localized construction emissions would be less than *significant with mitigation*. Additionally, as described for the proposed Project, the use of USEPA Tier 4 engines on all construction equipment (except crushing equipment) would reduce DPM emissions from combustion by 79 to 94 percent.

With the use of Tier 4 engines, DPM emissions anticipated during Phase 1 construction of Alternative 3 would not exceed SCAQMD thresholds for cancer risk (refer to Impact AQ-2 in Section 3.2, *Air Quality*). Therefore, construction-related impacts to air quality under Alternative 3 would be the same as those described for the proposed Project and would be *less than significant with mitigation*.

Operational Emissions

The proposed programs and operational activities would be the same as those described for Phase 1 and Phase 2 of the proposed Project. Additionally, operational vehicle trips and VMT anticipated under Alternative 3 would be the same as those described for the proposed Project. Therefore, operational emissions generated by Alternative 3 – including vehicle trips, electricity and natural gas consumption, and landscaping maintenance – would be to the same as those described for Phase 1 and Phase 2 of the proposed Project. Under Alternative 3, operational air pollutant emissions would continue to be below the SCAQMD mass daily thresholds and LSTs for all air pollutants. Additionally, operation of proposed development under Alternative 3 would not release substantial amounts of toxic air contaminants (TACs), and future residents or visitors of the Project site would not be adversely affected by TAC emissions originating from off-site. Therefore, under Alternative 3, operational air pollutant emissions would be the same as the proposed Project, and would be *less than significant*.

As discussed in Section 3.2, *Air Quality*, the proposed Project would contribute to cumulative traffic in the area and would increase carbon monoxide (CO) levels at nearby intersections, but would not exceed CO thresholds. Similar to the proposed Project, increases in CO emissions associated with this alternative would not cause an exceedance of the Federal or State CO standards and CO hotspot impacts would be *less than significant*.

Additionally, this alternative would include the same uses as described for the proposed Project and would also not result in objectionable odor impacts. Therefore, similar to the proposed Project, impacts related to odors under Alternative 3 would be *less than significant*.

Biological Resources

As previously described, construction activities under Alternative 3 would be the same as those described for Phase 1 and Phase 2 of the proposed Project (refer to Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*). Accordingly, implementation of Alternative 3 would result in the removal of existing landscaped trees, shrubs, and other ground cover that may provide nesting and roosting habitat for migratory birds, including Cooper's hawk

(*Accipiter cooperii*). Vegetation removal during Phase 1 development would include landscaped trees along Diamond Street, Flagler Alley, and Flagler Lane within the jurisdiction of the City of Torrance as well as in the northern area of the Project site to provide space for the proposed footprint of the proposed RCFE Building. Implementation of the Phase 2 development program would also require the removal of vegetation within the interior of the existing BCHD campus. All vegetation removal would occur in compliance with the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code, and vegetation removal within the jurisdiction of the City of Torrance would be subject to compliance with City of Torrance policies, including Policy CR.18.1 of the Torrance General Plan which encourages planting of new trees. Implementation of MM BIO-1 would require that construction activities not disturb active nests during the nesting bird season (i.e., between February 15 and August 31). As described for the proposed Project, BCHD would submit and implement landscape plans that comply with RBMC Section 10-5.1900 (Landscaping Regulations) prior to the initiation of demolition and construction activities for Phase 1 and Phase 2 of Alternative 3. The proposed landscaping, with its emphasis on native trees, would provide enhanced roosting or nesting habitat for resident and migratory birds, including Cooper's hawk. Therefore, long-term impacts to resident and migratory birds protected under the MBTA and California Fish and Game Code would be *less than significant* as described for the proposed Project.

Cultural Resources and Tribal Cultural Resources

Implementation of Alternative 3 would result in the same impacts to historical resources as described for the proposed Project. Phase 1 of Alternative 3 would involve the demolition of the existing Beach Cities Health Center and the attached maintenance building, which are both historic-period structures that are more than 50 years old; however, the Historical Resources Assessment prepared for the BCHD campus in 2018 determined that these buildings did not meet any of the criteria for listing as a historic resource in the California Register of Historical Resources (CRHR) or designation as a local landmark under the Redondo Beach Historic Ordinance (Ord. No. 2554) (refer to Section 3.4, *Cultural Resources and Tribal Cultural Resources*). The other existing structures on the Project site were constructed in 1976 and 1989 and because they are less than 50 years old they are not eligible for listing on the CRHR. Therefore, the demolition of the Beach Cities Health Center and the attached maintenance building under Alternative 3 would not result in a significant impact to historic built resources under the criteria set forth in CEQA Section 15064.5b(3). Further, as described for the proposed Project, implementation of Alternative 3 would not physically damage or substantially change the existing land use or historic context of any historic structures, including the Morell House and the Queen Anne House located 0.12 miles

to the north of the Project site. Therefore, potential impacts to historic structures associated with the Phase 1 preliminary site development plan and Phase 2 development program of Alternative 3 would be *less than significant*, as described for the proposed Project.

Potential impacts to previously unidentified archaeological and paleontological resources, human remains, and tribal cultural resources under this alternative would also be similar to those under the proposed Project. Construction activities, including ground disturbing activities (e.g., excavation, trenching, grading, etc.), under Alternative 3 would be the same as those described for Phase 1 and Phase 2 of the proposed Project (refer to Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*). For example, Phase 1 would begin with the demolition of the existing surface parking lot and associated perimeter circulation road located at the northern edge of the Project site. Subsequent construction of the RCFE Building in Phase 1 would begin with a 26-foot-deep excavation for the subterranean service area and loading dock. Phase 1 construction would also include extensive trenching for installation of utilities, grading to level the site, and demolition of the Beach Cities Health Center and the attached maintenance building. Ground disturbing construction activities associated with the Phase 2 development program would include demolition of the existing above ground parking structure and Beach Cities Advanced Imaging Building, excavation of approximately 11,000 cy of soil, and grading. Given the extensive previous disturbance at and in the immediate vicinity of the Project site, the Project site is unlikely to contain any intact, previously undisturbed archaeological resources, human remains, or tribal cultural resources (refer to Impact CUL-2 in Section 3.4, *Cultural Resources and Tribal Cultural Resources*). Similar to the proposed Project, MM CUL-1 and MM CUL-2 would also apply to this alternative and would substantially reduce potential impacts related to inadvertent discovery of any previously unknown archaeological resources, human remains, and tribal cultural resources to *less than significant with mitigation*.

Energy

As previously described, construction activities under Alternative 3 would be the same as those described for Phase 1 and Phase 2 of the proposed Project (refer to Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*). As such, construction of Alternative 3 would require the same amount of energy consumption for on-site demolition and construction activities, transport of demolition debris, soil, and construction materials, and construction worker commute trips as described for the proposed Project. Electricity would be used during demolition and construction activities to provide temporary power for lighting, electronic equipment, and certain construction equipment (e.g., electric-powered hand tools and other equipment). Energy use during construction would generally not result in a substantial increase in on-site electricity

consumption and would be substantially less than the ongoing energy use on-site under existing conditions at the BCHD campus. Construction-related electricity use would be temporary and negligible over the long-term. Diesel fuel would be required to power heavy construction equipment and haul trucks exporting demolition debris and soil and delivering construction materials to the Project site. Similar to the proposed Project, Alternative 3 would require approximately 1,910,839 gallons of construction fuel, which would represent a very small fraction – less than 1 percent – of Los Angeles County’s total annual fuel consumption. Overall energy impacts related to construction of Alternative 3 would be *less than significant*, as described for the proposed Project.

While operation of Alternative 3 would result in the daily consumption of vehicle fuel for trips, Alternative 3 would support sustainable mobility options by locating residential, medical office, office, gym, and restaurant land uses at an infill location close to existing off-site commercial, retail, and recreation (e.g., Dominguez Park) destinations as described for the proposed Project. Additionally, the Project site is close to several stops along Beach Cities Transit Line 102 and would include bicycle parking spaces, lockers, and showers to encourage employees and visitors to use alternative modes of transportation such as bicycling. Therefore, Alternative 3 would not cause wasteful, inefficient, or unnecessary use of transportation energy and impacts would be *less than significant*, as described for the proposed Project.

As described for the proposed Project, operation of Alternative 3 would decrease electricity demand following buildout of the Phase 1 preliminary site development plan and permanently increase the electricity demand following buildout of the Phase 2 development program as compared to existing conditions. The natural gas demand for operation of Alternative 3 would also increase as compared to existing conditions. However, Alternative 3 would incorporate the same sustainability features as described for the proposed Project, such as the installation of photovoltaic solar panels, solar hot water systems, energy-efficient HVAC systems, high-performance insulation, and lighting systems designed with occupancy sensors and dimmers to minimize energy use as described for the proposed Project (refer to Section 2.5.1.5, *Sustainability Features*). New buildings would also meet the equivalent of Leadership in Energy and Environmental Design (LEED) Gold Certification and would be WELL Building Certified. The combination of energy-saving and energy-generating features demonstrates the commitment of Alternative 3 to renewable energy supplies and ensures that operation of Alternative 3 would not use energy in a wasteful or inefficient manner and impacts would be *less than significant*, as described for the proposed Project.

Similar to the proposed Project, Alternative 3 would support the energy conservation and GHG reduction goals and policies established in the Redondo Beach General Plan, Climate Action Plan, Sustainable Development Plan, and Sustainable City Plan, as well as the Torrance General Plan and TMC. Implementation of the sustainable design features described above demonstrate the commitment of Alternative 3 to reduce overall energy demand, including the reliance on non-renewable energy supplies, as called for in the Redondo Beach General Plan, Climate Action and Adaptation Plan, Sustainable Development Plan, and Sustainable City Plan, and the Torrance General Plan and TMC.

Geology and Soils

Impacts related to geological resources and paleontological resources under Alternative 3 would be the same as those described under the proposed Project as geological impacts are generally site-specific and existing geology and soil conditions would be the same as those described for the Project site under Impact GEO-1 in Section, 3.6, *Geology and Soils*. As with the proposed Project, implementation of MM GEO-1 would be required to address geologic impacts related to seismic-related ground failure and liquefaction-related dynamic settlement, drainage and soil erosion during excavation, and potential collapse of excavated slopes. Standard regulatory conditions requiring compliance with the Uniform Building Code (UBC), California Building Code (CBC), RBMC, and TMC would address geologic hazards under this alternative. As with the proposed Project, mitigation and compliance with regulatory conditions would reduce impacts to geology and soils under Alternative 3 to *less than significant with mitigation*.

Additionally, given that this alternative would result in the same area and depth of ground disturbance as the proposed Project, impacts to paleontological resources would be the same (refer to Impact GEO-4 in Section 3.6, *Geology and Soils*). While the Pleistocene-aged alluvium deposits underlying the Project site have a low potential for containing paleontological resources, paleontological resources may still be present and would be protected or collected and deposited in accordance with MM GEO-2a and -2b. Therefore, potential impacts to paleontological resources under this alternative would be *less than significant with mitigation*, as described for the proposed Project.

Greenhouse Gas Emissions and Climate Change

Impacts related to GHG emissions and climate change under Alternative 3 would be the same as those described for the proposed Project. Given that the construction activities and the proposed programs and operational activities under Alternative 3 would be the same as those described for Phase 1 and Phase 2 of the proposed Project, GHG emissions anticipated under Alternative 3 would

be the same as those estimated for the proposed Project (refer to Section 3.7, *Greenhouse Gas Emissions and Climate Change*). Further, because this alternative would include the uses as well as the same sustainability features as the proposed Project, impacts related to conflicts with plans and policies related to reduction in GHG emissions would be the same as those identified in Impact GHG-1 for the proposed Project and would be *less than significant*.

Hazards and Hazardous Materials

Impacts related to hazards and hazardous materials under Alternative 3 would be the same as those described for the proposed Project under Impact HAZ-1 through Impact HAZ-5 in Section 3.8, *Hazards and Hazardous Materials*. This alternative would require similar site preparation activities, including demolition and excavation. Accordingly, this alternative would result in similar risks of exposure to hazardous materials, including potential ACM, LBP, PCBs, and mold that could be released during demolition of the Beach Cities Health Center and the attached maintenance building during implementation of the Phase 1 preliminary site development plan and demolition of above ground parking garage and potentially the Beach Cities Advanced Imaging Building during implementation of the Phase 2 development program (refer to Impact HAZ-2 in Section 3.8, *Hazards and Hazardous Materials*). As described for the proposed Project, Alternative 3 would provide a subterranean service area and loading dock below the Project site in Phase 1 as well as the potential for subterranean parking depending upon the Phase 2 development program option. As such, the area of excavation and trenching would be similar to the proposed Project. Therefore, the potential for exposure to contaminated soils (i.e., PCE, benzene, and chloroform) would be similar (refer to Impact HAZ-2 in Section 3.8, *Hazards and Hazardous Materials*). Overall, impacts with regard to hazards and hazardous materials under this alternative would be similar to those described under the proposed Project. As such, MM HAZ-1, MM HAZ-2a through -2d, and MM HAZ-3 would require hazardous materials surveys, standard protocols following discovery of contamination, soils management plan, soil vapor monitoring, and enrollment in the California Geologic Energy Management Division's (CalGEM's) Well Review Program. Compliance with standard regulatory conditions and mitigation measures would reduce impacts to *less than significant with mitigation*, as describe for the proposed Project.

Hydrology and Water Quality

Construction

Construction-related impacts related to hydrology and water quality under Alternative 3 would be the same as those described for the proposed Project. As previously described, construction activities under Alternative 3 would be the same as those described for Phase 1 and Phase 2 of the

proposed Project (refer to Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*). As with the proposed Project, construction of Alternative 3 would involve major earthwork, including excavation and shoring for subterranean levels, grading, and trenching for utilities, which would disturb the underlying soils and expose them to potential erosion and sediment transport into adjacent storm drain inlets – particularly during storm events or during on-site watering. This stormwater runoff could also contain eroded C&D debris and associated hazardous materials that would potentially further degrade surface water quality in the vicinity of the Project site, including the Santa Monica Bay. Potential adverse effects on water quality associated with Alternative 3 would be reduced through compliance with the requirements of the Construction General Permit (SWRCB Order No. 2009-0006-Data Quality Assessment). Implementation of BMPs developed in accordance with the requirements of the Construction General Permit would prevent violation of water quality standards and minimize the potential for contributing polluted runoff during construction of Alternative 3. Therefore, construction-related impacts to water quality would be *less than significant*, as described for the proposed Project.

Similar to the proposed Project, Alternative 3 would include excavation to a maximum depth of 26 feet below ground surface (bgs) for the subterranean service area and loading dock of the RCFE Building during Phase 1 as well as the subterranean levels of the proposed parking structure depending upon the Phase 2 development program option. Given that the depth to groundwater at the Project site is greater than 61.5 feet bgs, dewatering activities would not be required. Additionally, construction activities associated with Alternative 3 (e.g., equipment cleaning, dust control, and production of concrete) would not substantially deplete groundwater supplies as water demand would be nominal and less than the existing water demand occurring on-site. Therefore, construction impacts to groundwater levels would be *less than significant*, as described for the proposed Project.

Operation

As described for the proposed Project, implementation of Alternative 3 would improve water quality and groundwater recharge by reducing the volume of runoff and improving infiltration at the Project site. Alternative 3 would develop impervious surfaces that are relatively similar in type to those currently on the Project site (e.g., rooftops, roadways, driveways, pedestrian walkways, etc.). Alternative 3 would require the construction of a paved perimeter access road, which would displace the proposed grass-crete and incrementally increase impervious surfaces compared to the proposed Project (refer to Figure 5-1). Nevertheless, Alternative 3 would still result in a net reduction in the total amount impervious surface area compared to existing conditions and would reduce the potential for pollutants to become exposed during storm events. The reduction in the

amount of impervious surfaces on-site and compliance with all applicable State and local regulations, such as the Redondo Beach Stormwater Management and Discharge Control Ordinance, would ensure that operational impacts to water quality would be *less than significant*. Further, implementation of Alternative 3 would improve groundwater recharge at the Project site and there would be *no impact* to groundwater quality, as described for the proposed Project.

Additionally, as described for the proposed Project in Impact HYD-3, Phase 1 of Alternative 3 would involve the construction of an on-site infiltration system designed to retain, treat, and infiltrate the 85th percentile storm into the groundwater. The existing storm drain infrastructure discharging to the City of Torrance municipal storm drain system at the storm drain line beneath Flagler Lane would be abandoned in place. Any flows larger than the design storm would be conveyed to North Prospect Avenue, where it would be conveyed through the curb and gutter to the nearest catch basin maintained by the City of Redondo Beach. These facilities have excess capacity and would continue to adequately serve the Project site with the implementation of Alternative 3. Therefore, as described for the proposed Project, Alternative 3 would have a *less than significant* impact on drainage capacity in the vicinity of the Project site.

Similar to the proposed Project, Alternative 3 would be required to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) Construction General Permit. Alternative 3 would also implement BMPs, such as sediment and erosion controls, to prevent polluted discharge or runoff that would adversely affect water quality. Therefore, through compliance with the NPDES program, Alternative 3 would be consistent with the California Ocean Plan (Ocean Plan) and the Water Quality Control Plan for the Los Angeles Basin (Basin Plan). Additionally, Alternative 3 would support objectives of the Groundwater Basin Master Plan (GBMP) by increasing the area of impervious surfaces and associated infiltration on the Project site. Since Alternative 3 would generate the same amount of water demand as the proposed Project, implementation of Alternative 3 would not increase water demand to a level beyond what can be adequately met by existing and future water supplies as described for the proposed Project. Therefore, Alternative 3 would not conflict with implementation of any water quality control plans or sustainable groundwater management plans (i.e., the Ocean Plan, Basin Plan, GBMP, and 2015 Urban Water Management Plan [UWMP]) and impacts would be *less than significant*.

Land Use and Planning

As previously described, Alternative 3 would include an alternative access and circulation design in Phase 1, which would remove the one-way driveway and pick-up/drop-off zone exit onto Flagler Lane and the service area and loading dock entry/exit onto Flagler Lane. This would remove the

need for a grading or building permit from the City of Torrance. (Landscape plan approval would still be required for the proposed landscaping within the City of Torrance right-of-way.) Under Alternative 3, the one-way driveway would be reconfigured with entry provided via a right-turn along Beryl Street, located immediately adjacent to the west of the RCFE Building. Rather than exit onto Flagler Lane, the proposed one-way driveway would lead to a new, paved, internal access road that follows the northern perimeter of the Project site. As described in Section 3.10, *Land Use and Planning*, TMC Section 92.30.8 prohibits site access to commercial properties from local streets when access from an arterial road is available. Additionally, the City of Torrance is also considering the potential removal of the southbound traffic along Flagler Lane between Beryl Street and Towers Street, to address neighborhood concerns regarding existing cut-through traffic. If approved by the City of Torrance, this change to the transportation network would prevent service vehicles from entering the subterranean service area and loading dock under the proposed Project. Implementation of Alternative 3 would remove vehicle access from Flagler Lane within the City of Torrance and therefore, would be consistent with TMC Section 92.30.8. Alternative 3 would be consistent with all other applicable land use plans, policies, and regulations. Therefore, impacts to land use and planning under Alternative 3 would be *less than significant*.

Noise

Construction

Under Alternative 3, impacts related to construction noise would be the same as those described for the proposed Project. The maximum roof height of the RCFE Building in Phase 1 would 103 feet above the campus ground level and 133.5 feet above the vacant Flagler Lot below, as described for the proposed Project. Additionally, the proposed building(s) under the Phase 2 development program would be up to 71.5 feet above the campus ground level and 101.5 feet above the vacant Flagler Lot below, depending upon final site plan. As described for the proposed Project, construction activities would result in increased noise levels that would impact surrounding noise-sensitive receptors. The necessary noise barrier heights required to mitigate the noise from construction activities above 30 feet are considered infeasible (refer to Impact NOI-1 in Section 3.11, *Noise*). Compliance with existing local noise regulations along with the implementation of MM NOI-1, which would require preparation and implementation of a Construction Noise Management Plan, would reduce potential noise impacts. However, *significant and unavoidable* noise impacts would occur throughout the duration of the proposed construction activities.

Similar to the proposed Project, ground-borne vibration would be generated from the use of heavy construction equipment at the Project site, which could potentially expose existing sensitive land

uses in the vicinity to excessive vibration. However, vibration levels as described for the proposed Project, these impacts would be *less than significant*.

Operation

Under Alternative 3, impacts related to operational vehicle noise would be similar to, but less severe than under the proposed Project. Under this alternative, the one-way driveway and pick-up/drop-off loading zone would be located immediately adjacent to the west of the RCFE Building and would be reconfigured, with entry provided via a right-turn along Beryl Street. Rather than exit onto Flagler Lane, the proposed one-way driveway under Alternative 3 would lead to a drop-off/pick-up zone as well as access to a subterranean service area and loading dock beneath the RCFE Building. As a result, Alternative 3 would further reduce less than significant operational noise levels at nearby sensitive receptors from vehicles exiting the one-way driveway onto Flagler Lane (refer to Impact NOI-3 in Section 3.11, *Noise*). Alternative 3 would also further reduce less than significant noise levels at nearby sensitive receptors from trash pick-up and delivery operations, including compacting operations and travel along Flagler Lane.

Long-term operational noise impacts from HVAC equipment, parking operations, and on-site noise activities associated with Alternative 3 (i.e., outdoor seating, fitness classes, amplified music, etc.) would be the same as those described for the proposed Project (refer to Impact NOI-3 in Section 3.11, *Noise*). Therefore, impacts related to operational noise under Alternative 3 would be reduced compared to the proposed Project and *less than significant with mitigation*.

Population and Housing

Impacts related to population and housing under Alternative 3 would be the same as those described for the proposed Project under Impact PH-1 in Section 3.12, *Population and Housing*. As described for the proposed Project, Alternative 3 would provide 157 Assisted Living units and 60 replacement Memory Care units for a total of 217 residential units. Assuming 100 percent occupancy of the 157 new Assisted Living units (177 new permanent residents) and that none of the Assisted Living residents would come from the existing population of Redondo Beach, implementation of Alternative 3 would increase the population of the Redondo Beach by less than 1 percent (0.3 percent increase); therefore, the maximum population increase would be negligible. This minor increase in population would be consistent with and well within SCAG's growth projections. Increases in employment under Alternative 3 would also be similar to the proposed Project. Since the Project site is already served by existing roads and infrastructure, Alternative 3 would not require the creation of new roads or other infrastructure that would induce new development and population growth beyond this alternative. Local job availability would be

expected to increase negligibly by approximately 170 jobs (0.5 percent), in line with SCAG growth projections. Employment opportunities would likely be filled by members of the local and regional labor force. Potential increases in the low- and moderate-income work force within Redondo Beach could incrementally increase demand for affordable housing within the City; however, it is expected that most employees would live in surrounding nearby cities and commute to Redondo Beach, as described for the proposed Project. This impact would be *less than significant* as there is sufficient regional housing availability to meet these demands.

Public Services

Under Alternative 3, impacts to demand for fire protection and EMS provided by RBFD as well as police protection services provided by RBPd would be the same as those described for the proposed Project under Impact PS-1 and Impact PS-2. Alternative 3 – including the Phase 1 preliminary site development plan and the Phase 2 development program – would result in an increase in residents, employees, and visitors at the BCHD campus, and could incrementally increase the demand for fire protection and EMS services provided by RBFD as well as other non-emergency services as compared to existing conditions at the Project site. However, as described for the proposed Project, the BCHD campus would generate a conservative estimate of 244 emergency calls per year, which would constitute approximately 3 percent of the total RBFD responses. Development under Alternative 3 would continue well within the 6-minute fire response time area and 6-minute and 20-second EMS response time for the RBFD. As described for the proposed Project, prior to the issuance of Certificates of Occupancy for the development under Phase 1 and Phase 2, BCHD would coordinate with the RBFD and the RBPd to prepare an Emergency Response Plan for the BCHD campus. Additionally, the addition of 177 Assisted Living residents to the BCHD campus would not substantially alter the existing ratio of police officers to residents. Therefore, environmental impacts resulting from increased demands for fire protection and EMS provided by RBFD as well as police protection provided by RBPd for Phase 1 and Phase 2 of Alternative 3 would be *less than significant*.

Transportation

Construction Traffic

Construction activities under Alternative 3 would be the same as those described for Phase 1 and Phase 2 of the proposed Project (refer to Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*). Therefore, construction-related impacts to the transportation network would be the same as those described for Phase 1 and Phase 2 of the proposed Project. For example, as with the proposed Project, construction activities associated with Alternative 3

would result in approximately 5,927 haul truck trips during the 29-month Phase 1 construction period and approximately 3,809 haul truck trips during the 28-month Phase 2 construction period. Construction-related increases in VMT would occur intermittently and would be temporary and short-term in nature. Increased construction traffic on freeways and streets, particularly large haul trucks and other heavy equipment (e.g., cement trucks and cranes), may disrupt traffic flows, reduce lane capacities, and generally slow traffic movement. In addition, such traffic could interfere with or delay transit operations and disrupt bicycle and pedestrian circulation, particularly on North Prospect Avenue and Beryl Street (refer to Impact T-3 in Section 3.14, *Transportation*). Implementation of MM T-2 would reduce impacts related to construction traffic, associated VMT, and public safety by requiring the preparation of a Construction Traffic and Access Management Plan (refer to Section 3.14, *Transportation*). Therefore, Alternative 3 impacts to transportation during construction would be the same as those described for the proposed Project and *less than significant with mitigation*, as described for the proposed Project.

Operational Traffic

Under Alternative 3, the one-way driveway and pick-up/drop-off zone would be reconfigured with entry provided via a right-turn along Beryl Street, located immediately adjacent to the west of the RCFE Building. Rather than exiting onto Flagler Lane, the proposed one-way driveway would lead to a new, paved, internal access road that follows the northern perimeter of the Project site. Vehicles traveling along this one-way perimeter road would continue straight and exit the Project site onto northbound North Prospect Avenue (refer to Figure 5-1). As with the proposed Project, implementation of Alternative 3 would generate an increase in vehicle entry into Flagler Lot provided via a right-turn along Beryl Street. The implementation of Alternative 3 could result in an increase in vehicle-bus conflicts associated with stopped buses at the Beach Cities Transit stop and vehicles turning right into the proposed one-way driveway (refer to Impact T-3 in Section 3.14, *Transportation*). Therefore, MM T-3 would require the existing Beach Cities Transit Line 102 bus stop be relocated to the east of the proposed one-way driveway entrance along Beryl Street to avoid the potential for safety hazards associated with transit.

Increased vehicle entry along eastbound Beryl Street could also block, delay, or increase traffic hazards associated with existing pedestrian and bicyclist traffic along the south side of Beryl Street. As described for the proposed Project, the proposed one-way driveway under Alternative 3 would be designed in accordance with applicable RBMC standards, and sight distances would be approved by the Redondo Beach Community Development Department during site plan approval.

As described in Section 3.14, *Transportation*, if the City of Torrance's temporary one-way closure of southbound traffic on Flagler Lane is successful and neighborhood residents support it, the one-way closure could become permanent. Implementation of a permanent closure of southbound traffic on Flagler Lane south of Beryl Street would preclude access for service and delivery vehicles to the subterranean proposed service area and loading dock under the proposed Project. Therefore, under the proposed Project service and delivery vehicles would be required to drive through the Torrance neighborhood to enter the service area and loading dock entrance, which would present a potential conflict associated with cut-through traffic. Under Alternative 3, the alternative access and circulation design would remove the one-way driveway and pick-up/drop-off zone exit onto Flagler Lane and the service area and loading dock entry/exit onto Flagler Lane. Service and delivery vehicles would be directed to the reconfigured one-way driveway off of Beryl Street. Therefore, service and delivery vehicles would not require access along Flagler Lane and implementation of the one-way closure of southbound traffic on Flagler Lane would not present a conflict with Alternative 3 associated with cut-through traffic.

Given that the proposed programs and operational activities under Alternative 3 would be the same as those described for Phase 1 and Phase 2 of the proposed Project, operational vehicle trips and VMT would also be the same as those described for Phase 1 and Phase 2 of the proposed Project. While not required to mitigate a significant impact, implementation of the recommended MM T-1 would include preparation and implementation of a comprehensive TDM plan, which would provide trip reduction strategies for BCHD employees, tenants, and campus visitors, as described for the proposed Project (refer to Section 3.14, *Transportation*).

Utilities and Service Systems

Water Infrastructure and Supply

As previously described, construction activities under Alternative 3 would be the same as those described for Phase 1 and Phase 2 of the proposed Project (refer to Section 2.5.1.6, *Construction*



Implementation of MM T-3 would permanently relocate the existing Beach Cities Transit Line 102 bus stop located west of Flagler Lot to the east of the proposed one-way driveway along eastbound Beryl Street.

Activities and Section 2.5.2.4, *Construction Activities*). As such, construction-related impacts to water infrastructure and supply under Alternative 3 would also be the same as those described for Phase 1 and Phase 2 of the proposed Project (refer to Section 3.15.1, *Water Infrastructure and Supply*). Construction-related impacts associated with Alternative 3 would include temporary water use for dust control, equipment cleaning, and re-compaction and grading activities and disposal of demolition debris. As described for the proposed Project, temporary impacts related to construction would occur for a period of approximately 29 months during implementation of the Phase 1 preliminary site plan and 28 months during implementation of the Phase 2 development program. Alternative 3 would connect to California Water Company's (Cal Water's) water supply system with a new 8-inch lateral installed within the Project site, which would connect to the proposed RCFE Building to the 8-inch water line along North Prospect Avenue adjacent to the northwest of the central driveway. No other water lines would be affected by Alternative 3. In addition to the proposed laterals, Alternative 3 may also include a connection to the existing 4-inch diameter purple pipe along Diamond Street, Flagler Alley, and Flagler Lane (for recycled water). As described for the proposed Project, all work associated with the proposed water lateral would be subject to review and approval by the Redondo Beach Department of Public Works. Alternative 3 impacts on water infrastructure from construction activities would be *less than significant*, as described for the proposed Project.

The existing water flow and pressure at the Project site is adequate to serve Alternative 3 in accordance with Appendix B of the 2016 California Fire Code (John Labib & Associates 2020). Cal Water's potable water system has the infrastructure and the capacity to serve Alternative 3. Cal Water provided a will serve letter to BCHD on November 12, 2019 indicating that after all of the required permits are obtained, Cal Water will provide water service in accordance with the rules and regulations of the California Public Utilities Commission (CPUC) (Cal Water 2019). Given that Alternative 3 would result in the same building square footage and uses as the proposed Project, Alternative 3 would be adequately served by Cal Water's existing water entitlements. Additionally, Alternative 3 may also include a connection to the existing 4-inch diameter purple pipe along Diamond Street, Flagler Alley, and Flagler Lane (for recycled water), as described for the proposed Project. Recycled water could be used for landscape irrigation and architectural water features, water for mechanical cooling towers, and water for toilet flushing in order to reduce overall water demand under Alternative 3. Therefore, Alternative 3 would be consistent with local policies and operational impacts on potable water use would be *less than significant*, as described for the proposed Project.

Wastewater Collection, Conveyance, and Treatment

Construction-related impacts to wastewater under Alternative 3 would also be the same as those described for Phase 1 and Phase 2 of the proposed Project (refer to Section 3.15.2, *Wastewater Collection, Conveyance, and Treatment*). As described for the proposed Project, portable toilets would be provided by a private waste management company during C&D activities under Phase 1 and Phase 2 of Alternative 3, and all waste would be disposed of off-site. No groundwater is anticipated to be encountered and/or discharged to the existing sewer system during construction, including ground disturbing activities such as excavation. Therefore, construction activities would not generate wastewater flows and would not, along with existing and projected wastewater flows, approach the existing capacity of the Joint Water Pollution Control Plant (JWPCP).

Construction impacts would primarily involve trenching on-site to install the new sewer connections to the existing sewer lines along Diamond Street and Beryl Street. Prior to ground disturbance, all proposed work associated with the sewer connections would be subject to review and approval by the Redondo Beach Department of Public Works. (Neither the existing facilities nor the proposed facilities on the BCHD campus would discharge wastewater to the City of Torrance sewer system.) All appropriate permits would be obtained, and the construction contractor would be required to notify the Redondo Beach Public Works Department in advance of ground disturbance activities to avoid disruption of sewer service to off-site properties. Similar to the proposed Project, impacts on wastewater infrastructure from construction activities associated with Alternative 3 would be *less than significant*.

Given that Alternative 3 would result in the same building square footage and uses as the proposed Project, operation of Alternative 3 would generate the same amount of wastewater as the proposed Project. Therefore, development proposed under the Phase 1 preliminary site development plan would decrease wastewater generation at the Project site compared to existing conditions. Implementation of the Phase 2 development program under Alternative 3 would increase wastewater generation at the Project site compared to Phase 1 and existing conditions. However, the Sewer Capacity Study prepared for the proposed Project concluded, after calculating the proposed sewer flow, the existing sewer lines along Diamond Street and Beryl Street could adequately accommodate the proposed sewer flow without upgrades. Additionally, the Los Angeles County Sanitation District (LACSD) South Bay Cities Main Trunk Sewer has adequate remaining capacity (2.1 million gallons per day [mgd]) to convey the increase in sewage flow of 47,361 gallons per day (gpd) (118,402.5 gpd peak flow) associated with Alternative 3. Therefore, implementation of Alternative 3 would result in a *less than significant* impact on existing wastewater infrastructure.

In addition, the JWPCP, which receives and treats wastewater from the Project site, has approximately 139 mgd of additional capacity and could adequately accommodate the increase in wastewater generation resulting from Alternative 3. Therefore, impacts related to wastewater treatment capacity would be *less than significant*, as described for the proposed Project.

Solid Waste Management Services

Similar to the proposed Project, Alternative 3 would be required to comply with the Redondo Beach Construction and Demolition Ordinance, including submittal of a waste management plan that would divert at least 50 percent of materials generated during C&D from landfills. The C&D waste would be delivered to certified C&D waste processors within the region where it would be recycled, as feasible. Given that Alternative 3 would develop the same building square footage and land uses as the proposed Project, the solid waste associated with Alternative 3 would be the same as that described for the proposed Project. The solid waste associated with Alternative 3 would represent a very small percentage of the inert waste disposal capacity in the region. Therefore, Alternative 3 create a need for additional solid waste disposal facilities to adequately handle Project construction-generated inert waste and impacts would be *less than significant*.

Relationship of Alternative to Project Objectives

Alternative 3 would attain all of the Project Objectives. By vacating and demolishing the Beach Cities Health Center in Phase 1, Alternative 3 would eliminate the seismic safety and other hazards of this building (Project Objective 1). Development of the 157 Assisted Living units and 60 replacement Memory Care units in Phase 1 would generate sufficient revenue to support BCHD's current level of programs and services as well as address future community health needs (Project Objectives 2 and 6). As described for the proposed Project, Alternative 3 would integrate these Assisted Living and Memory Care facilities with the broader community through intergenerational programs and shared gathering spaces within the other public health and wellness facilities on campus, such as the Aquatics Center and CHF (Project Objective 4). The proposed space for PACE, Community Services, and the Youth Wellness Center included in the Phase 1 preliminary site development plan as well as the Wellness Pavilion, Aquatics Center, and CHF included in the Phase 2 development program would support programs that address growing future community health needs (Project Objective 6). Redevelopment of the BCHD campus with the proposed RCFE Building in Phase 1 and proposed buildings(s) included in the Phase 2 development program would create a modern campus with facilities designed to meet the future health needs of residents (Project Objective 5). Although the configuration of the new vehicle entrance and northern perimeter road would eliminate the grass-crete as described for the proposed Project all other

public open space (e.g., central lawn, Main Street promenade, sensory gardens, etc.) would be developed as described for the proposed Project. The public open space proposed for the interior of the Project site would be able to accommodate programs that meet community health needs and provide a meeting space for public gatherings and interactive education (Project Objectives 3 and 5).

5.5.4 Alternative 4 – Phase 1 Preliminary Site Development Plan Only

Alternative 4 would include the development described for the Phase 1 preliminary site development plan under the proposed Project; however, none of the uses under the Phase 2 development program (i.e., Wellness Pavilion, Aquatics Center, and CHF) would be developed on the BCHD campus.

Alternative 4 would include development of the RCFE Building including the 157 new Assisted Living units and 60 replacement Memory Care units as well as the PACE, Community Services, and Youth Wellness Center described under Section 2.5.1, *Phase 1 Preliminary Site Development Plan*. Following the development of the RCFE Building, demolition of the Beach Cities Health Center would also occur as described for the proposed Project. The maximum roof height of the RCFE Building would be the same as for the proposed Project (i.e., approximately 103 feet above the campus ground level and 133.5 feet above the vacant Flagler Lot below). Given the potential inconsistency of the proposed Project with the TMC Section 92.30.8 and the City of Torrance's ongoing consideration of the removal of the southbound movement along Flagler Lane, this alternative would also include the alternative access and circulation design described in Alternative 3, with a right-turn access from Beryl Street and no vehicle entry/exit onto Flagler Lane. Similar to Alternative 3, the alternative access and circulation design under this alternative would allow for step backs on each floor of the RCFE Building fronting Beryl Street. As such, this northern portion of the RCFE Building would incrementally decrease in floor area with each successive level, creating terraces that face Beryl Street and setting back the building façade to minimize the effect of the RCFE Building's perceived height from the pedestrian perspective at street level.

Given that none of the uses described under the Phase 2 development program (i.e., Wellness Pavilion, Aquatics Center, and CHF) would be developed on the BCHD campus, the CHF would remain off-site permanently. Additionally, the landscaped 40,725-sf landscape surface parking lot constructed within the footprint of the Beach Cities Health Center would remain in place. Alternative 4 would not involve the demolition of the Beach Cities Advanced Imaging Building or the parking structure located at 512 North Prospect Avenue and a new parking structure would

not be constructed. As such, this alternative would provide more publicly accessible open space within the interior of the Project site.

Construction activities under Alternative 4 would be limited to those described under Section 2.5.1.6, *Construction Activities*. Therefore, this alternative would have only one phase of construction that would occur over a period of 29 months. Operational activities under Alternative 4 would be the same as those described for Phase 1 of the proposed Project.

Aesthetics and Visual Resources

Long-term impacts to aesthetics and visual resources would be the same as those described for Phase 1 under Alternative 3. The reconfiguration of the one-way vehicle driveway and pick-up/drop-off zone would allow for step backs on each floor of the RCFE Building fronting Beryl Street. With this design change, the northern portion of the RCFE Building would incrementally decrease in floor area with each successive level, creating terraces that face Beryl Street and setting back the building façade to minimize the effect of the RCFE Building's perceived height from the pedestrian perspective at street level. However, given that the maximum roof height of the RCFE Building in Phase 1 would remain as described for the proposed Project, Alternative 4 would still result in potentially significant impacts related to interruption of views of the Palos Verdes hills ridgeline from the highpoint at 190th Street & Flagler Lane (i.e., Representative View 6). As described for the proposed Project, MM VIS-1 would require a reduction in the height of the RCFE Building so that it would not interrupt the ridgeline. Therefore, impacts to this scenic vista from 190th Street would be *less than significant with mitigation*, as described for the proposed Project.

Under Alternative 4, construction and operational activities proposed under the Phase 2 development program would not occur. As such, under this alternative, views across the Project site and to the RCFE Building from North Prospect Avenue (i.e., Representative View 5) would not be obstructed. As with the proposed Project, the proposed development under Phase 1 would meet the development standards described in Redondo Beach General Plan and municipal code. Therefore, similar to the proposed Project, impacts to existing visual character and the visual quality of the Project site and surrounding areas would be *less than significant*.

As with the proposed Project, the implementation of the Phase 1 preliminary site development plan under this alternative would incrementally increase existing shading on Torrance neighborhood to the east as compared to shadows from the existing Beach Cities Health Center and parking structure; however, as with the proposed Project shading under this alternative would occur only in the evenings (i.e., after 6:00 p.m. in the Summer, after 5:00 p.m. in the Fall, and after 4:00 p.m. in the Winter). Therefore, impacts to shading from Alternative 4 would be *less than significant*, as

described for the proposed Project. Additional shading impacts associated with the Phase 2 development program would be eliminated since this alternative would not include the construction of an Aquatic Center, Wellness Pavilion, CHF development, or the parking structure proposed under the Phase 2 development program (refer to Impact VIS-4 in Section 3.1, *Aesthetics and Visual Resources*).

Air Quality

Construction Emissions

Construction activities under Alternative 4 would be the same as those described for Phase 1 of the proposed Project (refer to Section 2.5.1.6, *Construction Activities*). However, under this alternative, none of the construction activities described under the Phase 2 development program would occur.

Similar to the proposed Project, on-site construction emissions during Phase 1 would exceed LSTs for PM₁₀ and PM_{2.5}; however, implementation of MM AQ-1 would require watering of exposed surfaces three times daily and prohibiting demolition when wind speed is greater than 25 mph, reduce on-site construction emissions for PM₁₀ and PM_{2.5} below the SCAQMD LSTs (refer to Impact AQ-2 in Section 3.2, *Air Quality*). Therefore, with implementation of MM AQ-1, impacts with regard to localized construction emissions would be less than *significant with mitigation*, as described for the proposed Project. Additionally, as described for the proposed Project, the use of USEPA Tier 4 engines on all construction equipment (except crushing equipment) would reduce DPM emissions from combustion by 79 to 94 percent. With the use of Tier 4 engines, DPM emissions anticipated during Phase 1 construction of Alternative 4 would not exceed SCAQMD thresholds for cancer risk (refer to Impact AQ-2 in Section 3.2, *Air Quality*). Therefore, construction-related impacts to air quality under Alternative 4 would be the same as those described for the Phase 1 proposed Project and would be *less than significant with mitigation*.

Operational Emissions

The proposed programs and operational activities would be the same as those described for Phase 1 of the proposed Project; however, the proposed programs and operational activities described for Phase 2 (i.e., Wellness Pavilion, Aquatics Center, CHF) would not occur under Alternative 4. Additionally, operational vehicle trips and VMT anticipated under Alternative 4 would be the same as those described for Phase 1 of the proposed Project. Therefore, operational emissions generated by Alternative 4 (including vehicle trips, electricity and natural gas consumption, and landscaping maintenance) would be similar to those described for Phase 1 of the proposed Project but those

described under Phase 2 would not occur. Under Alternative 4, demolition of the existing Beach Cities Health Center without construction of the Wellness Pavilion, Aquatics Center, and CHF under Phase 2, operational air pollutant emissions would be substantially reduced compared to the proposed Project and existing conditions. Additionally, operation of proposed development under Alternative 4 would not release substantial amounts of TACs, and future residents or visitors of the Project site would not be adversely affected by TAC emissions originating from off-site. Therefore, under Alternative 4, operational air pollutant emissions would be substantially reduced as compared to the proposed Project, and would be *less than significant*.

Without the development of the proposed Aquatics Center and with the permanent relocation of CHF off-site, Alternative 4 would eliminate the net new vehicle trips generated by the proposed Project (refer to section 3.14, *Transportation*). As such, implementation of Alternative 4 would likely result in reduced CO levels at nearby intersections, and would not exceed CO thresholds as compared to existing conditions. Therefore, impacts related to odors under Alternative 4 would be *less than significant*.

Additionally, this alternative would include the same uses as the proposed Project and, as such, would also not result in objectionable odor impacts, similar to the proposed Project. Therefore, impacts related to odors under Alternative 4 would be *less than significant*.

Biological Resources

As previously described, construction activities under Alternative 4 would be the same as those described for the Phase 1 preliminary site development plan (refer to Section 2.5.1.6, *Construction Activities*), and construction activities described for the Phase 2 development program in Section 2.5.2.4, *Construction Activities* would not occur. Because Alternative 4 would not involve construction activities associated with the Phase 2 development, landscaped trees and shrubs located within the interior of the existing BCHD campus would remain, resulting in slightly reduced impacts to biological resources than would occur under the proposed Project. All vegetation removal would occur in compliance with the MBTA and California Fish and Game Code, and vegetation removal within the jurisdiction of the City of Torrance would be subject to compliance with City of Torrance policies, including Policy CR.18.1 of the Torrance General Plan which encourages planting of new trees. Implementation of MM BIO-1 would require that construction activities not disturb active nests during the nesting bird season (i.e., between February 15 and August 31). As described for the proposed Project, BCHD would submit and implement landscape plans that comply with RBMC Section 10-5.1900 (Landscaping Regulations) prior to the initiation of demolition and construction activities for Phase 1. The

proposed landscaping, with its emphasis on native trees, would provide enhanced roosting or nesting habitat for resident and migratory birds, including Cooper's hawk. Therefore, long-term impacts to resident and migratory birds protected under the MBTA and California Fish and Game Code would be *less than significant*, as described for the proposed Project.

Cultural Resources and Tribal Cultural Resources

Implementation of Alternative 4 would result in the similar impacts to historical resources as described for the proposed Project. Similar to the proposed Project, Phase 1 of Alternative 4 would involve the demolition of the existing Beach Cities Health Center and the attached maintenance building, which are both historic-period structures that are more than 50 years old; however, the Historical Resources Assessment prepared for the BCHD campus in 2018 determined that these buildings did not meet any of the criteria for listing as a historic resource in CRHR or designation as a local landmark under the Redondo Beach Historic Ordinance (Ord. No. 2554) (refer to Section 3.4, *Cultural Resources and Tribal Cultural Resources*). Therefore, the demolition of the Beach Cities Health Center and attached maintenance building under Alternative 4 would not result in a significant impact to historic built resources under the criteria set forth in CEQA Section 15064.5b(3). Further, as described for the proposed Project, implementation of Alternative 4 would not physically damage or substantially change the existing land use or historic context of any historic structures, including the Morell House and the Queen Anne House located 0.12 miles to the north of the Project site. Therefore, potential impacts to historic structures associated with the Phase 1 preliminary site development plan would be *less than significant*, as described for the proposed Project.

Potential impacts to previously unidentified archaeological resources, human remains, and tribal cultural resources under this alternative would be less than those described for the proposed Project. Construction activities, including ground disturbing activities (e.g., excavation, trenching, grading, etc.), under Alternative 4 would still include those described for Phase 1 and of the proposed Project (refer to Section 2.5.1.6, *Construction Activities*). For example, Phase 1 would begin with the demolition of the existing surface parking lot and associated perimeter circulation road located at the northern edge of the Project site. Subsequent construction of the RCFE Building in Phase 1 would begin with a 26-foot-deep excavation for the subterranean service area and loading dock. Phase 1 construction would also include extensive trenching for installation of utilities, grading to level the site, and demolition of the Beach Cities Health Center and the attached maintenance building. However, under Alternative 4, none of the ground disturbing activities described for the Phase 2 development program would occur, including demolition of the existing above ground parking structure and Beach Cities Advanced Imaging Building, excavation of

approximately 11,000 cy of soil, or grading. Given the extensive previous disturbance at and in the immediate vicinity of the Project site, the Project site is unlikely to contain any intact, previously undisturbed archaeological resources, human remains, or tribal cultural resources (refer to Impact CUL-2 in Section 3.4, *Cultural Resources and Tribal Cultural Resources*). Similar to the proposed Project, MM CUL-1 and MM CUL-2 would also apply to this alternative during excavation and trenching activities proposed under the Phase 1 preliminary site development plan and would substantially reduce potential impacts related to inadvertent discovery of any previously unknown archaeological resources, human remains, and tribal cultural resources to *less than significant with mitigation*, as described for the proposed Project.

Energy

Construction of Alternative 4 would require the same amount of energy consumption for on-site demolition and construction activities, transport of demolition debris, soil, and construction materials, and construction worker commute trips as described for Phase 1 (refer to Section 2.5.1.6, *Construction Activities*). Electricity would be used during demolition and construction activities to provide temporary power for lighting, electronic equipment, and certain construction equipment (e.g., electric-powered hand tools and other equipment). Energy use during construction would generally not result in a substantial increase in on-site electricity consumption and would be substantially less than the ongoing energy use on-site under existing conditions at the BCHD campus. Construction-related electricity use would be temporary and negligible over the long-term. Diesel fuel would be required to power heavy construction equipment and haul trucks exporting demolition debris and soil and delivering construction materials to the Project site. However, under Alternative 4, without implementation of Phase 2, construction activities would require less diesel fuel than that required under the proposed Project. Alternative 4 would require approximately 887,767 gallons of construction fuel, or approximately 1,023,072 gallons less than what is required for construction of the proposed Project. Given that Alternative 4 would require substantially less construction fuel than the proposed Project, Alternative 4 construction fuel consumption would represent an even smaller fraction – far less than 1 percent – of the Los Angeles County’s total annual fuel consumption. This alternative would not result in the wasteful consumption of energy and overall impacts related to construction of Alternative 4 would be *less than significant*.

Operation of Alternative 4 would permanently reduce electricity demand as compared to existing settings. Following buildout of the Phase 1 preliminary site development plan, annual electricity demand of the site would be approximately 1,144,345 kWh per year, or 1,233,725 kWh per year less than existing conditions. The natural gas demand for operation of Alternative 4 would increase

by 6,578 therms per year as compared to existing conditions, however, Alternative 4 would require 18,897 therms per year less than annual demand under the proposed Project. Nevertheless, Alternative 4 would still incorporate the same sustainability features as described for the proposed Project, such as the installation of photovoltaic solar panels, solar hot water systems, energy-efficient HVAC systems, high-performance insulation, and lighting systems designed with occupancy sensors and dimmers to minimize energy use as described for the proposed Project (refer to Section 2.5.1.5, *Sustainability Features*). The RCFE Building would also meet the equivalent of LEED Gold Certification and would be WELL Building Certified. The combination of energy-saving and energy-generating features demonstrates the commitment to renewable energy supplies and ensures that Alternative 4 would not use energy in a wasteful or inefficient manner and impacts would be *less than significant*, as described for the proposed Project.

As described in for *Air Quality*, without the development of the proposed Aquatics Center and with the permanent relocation of CHF off-site, Alternative 4 would eliminate the net new vehicle trips generated by the proposed Project (refer to section 3.14, *Transportation*). Therefore, the daily consumption of fuel for vehicle trips would be reduced compared to existing conditions.

Similar to the proposed Project, Alternative 4 would support the energy conservation and GHG reduction goals and policies established in the Redondo Beach General Plan, Climate Action Plan, Sustainable Development Plan, and Sustainable City Plan, as well as the Torrance General Plan and TMC. Implementation of the sustainable design features described above demonstrate the commitment of Alternative 4 to reduce overall energy demand, including the reliance on non-renewable energy supplies, as called for in the Redondo Beach General Plan, Climate Action and Adaptation Plan, Sustainable Development Plan, and Sustainable City Plan, and the Torrance General Plan and TMC.

Geology and Soils

Impacts related to geological resources and paleontological resources under Alternative 4 would be similar to those described under the proposed Project as geological impacts are generally site-specific and existing geology and soil conditions would be the same as those described for the Project site under Impact GEO-1 in Section 3.6, *Geology and Soils*. Under Alternative 4, construction activities would result in the same depth of ground disturbance (i.e., 26 feet); however, total area of ground disturbance would be slightly less than that described under the proposed Project. Under Alternative 4, a 26-foot-deep excavation near the central area of the campus and the export of approximately 30,250 cy of soil associated with the parking structure and service areas proposed under Phase 2 would not occur. As with the proposed Project,

implementation of MM GEO-1 would be required to address geologic impacts related to seismic-related ground failure and liquefaction-related dynamic settlement, drainage and soil erosion during excavation, and potential collapse of excavated slopes. Standard regulatory conditions requiring compliance with the UBC, CBC, RBMC, and TMC would address geologic hazards under this alternative. As with the proposed Project, mitigation and compliance with regulatory conditions would reduce impacts to geology and soils under Alternative 4 to *less than significant with mitigation*.

Impacts to paleontological resources would remain similar to the proposed Project (refer to Impact GEO-4 in Section 3.6, *Geology and Soils*). While the Pleistocene-aged alluvium deposits underlying the Project site have a low potential for containing paleontological resources, paleontological resources may still be present and would be protected or collected and deposited in accordance with MM GEO-2a and -2b. Therefore, potential impacts to paleontological resources would be *less than significant with mitigation*, as described for the proposed Project.

Greenhouse Gas Emissions and Climate Change

Impacts related to GHG emissions and climate change under Alternative 4 would be less than those described for the proposed Project with the elimination of construction and operation associated with the Phase 2 development program. Given that the construction activities and the proposed programs and operational activities under Alternative 4 would be the same as those described for the Phase 1 preliminary site development plan of the proposed Project, GHG emissions anticipated under Alternative 4 would be the same as those estimated for Phase 1 of the proposed Project (refer to Section 3.7, *Greenhouse Gas Emissions and Climate Change*) and *less than significant*.

Hazards and Hazardous Materials

Impacts related to hazards and hazardous materials under Alternative 4 would be similar to those described for the proposed Project under Impact HAZ-1 through Impact HAZ-5 in Section 3.8, *Hazards and Hazardous Materials*. This alternative would require similar site preparation activities, including demolition, excavation, and grading. Accordingly, this alternative would result in similar risks of exposure to hazardous materials, including potential ACM, LBP, PCBs, and mold that could be released during demolition of the Beach Cities Health Center and the attached maintenance building during implementation (refer to Impact HAZ-2 in Section 3.8, *Hazards and Hazardous Materials*). Additionally, as described for the proposed Project, Alternative 4 would provide a subterranean service area and loading dock creating the potential for exposure to contaminated soils (i.e., PCE, benzene, and chloroform). MM HAZ-1, MM HAZ-2a through -2d, and MM HAZ-3 would require hazardous materials surveys, standard protocols

following discovery of contamination, soils management plan, soil vapor monitoring, and enrollment in the CalGEM's Well Review Program. Compliance with standard regulatory conditions and mitigation measures would reduce impacts to *less than significant with mitigation*, as described for the proposed Project. However, Alternative 4 would not include any additional excavation and grading associated with the parking structure proposed under Phase 2. Therefore, the potential for exposure to contaminated soils during Phase 2 would be slightly reduced compared to the proposed Project.

Hydrology and Water Quality

Construction

Impacts related to hydrology and water quality under Alternative 4 would be less than those described for the proposed Project with the elimination of the construction activities associated with the Phase 2 development program. Impacts to hydrology and water quality would be the same as those described for the Phase 1 preliminary site development plan of the proposed Project (refer to Section 3.9, *Hydrology and Water Quality*) and *less than significant*.

Similar to the proposed Project, Alternative 5 would include excavation to a maximum depth of 26 feet bgs for the subterranean service area and loading dock of the RCFE Building during Phase 1 preliminary site development as well as the subterranean levels of the proposed parking structure depending upon the Phase 2 development program option. Therefore, construction impacts to groundwater levels under Alternative 5 would be *less than significant*, as described for the proposed Project.

Operation

As described for the proposed Project, implementation of Alternative 4 would improve water quality and groundwater recharge from the existing setting by reducing the volume of runoff, reducing impervious surface area and improving infiltration at the Project site. However, the implementation of Alternative 4 would leave the BCHD campus with slightly more active green space, landscaping, and grass-crete (refer to Figure 5-1) than the proposed Project, which would result in the development of additional impervious surfaces during Phase 2. As such, Alternative 4 would result in a net reduction in the total amount of impervious surface area compared to the proposed Project, which would reduce the potential for pollutants to become exposed during storm events. The reduction in the amount of impervious surfaces on-site and compliance with all applicable State and local regulations, such as the Redondo Beach Stormwater Management and Discharge Control Ordinance, would ensure that operational impacts to water quality would be

less than significant. Further, implementation of Alternative 4 would improve groundwater recharge at the Project site and there would be *no impact* to groundwater quality as a result of Alternative 4.

Additionally, as described for the proposed Project in Impact HYD-3, Phase 1 of Alternative 4 would involve the construction of an on-site infiltration system designed to retain, treat, and infiltrate the 85th percentile storm into the groundwater. Any flows larger than the design storm would be conveyed to North Prospect Avenue, where it would be conveyed through the curb and gutter to the nearest catch basin maintained by the City of Redondo Beach. These facilities have excess capacity and would continue to adequately serve the Project site with the implementation of Alternative 4. Additionally, given the reduction in impervious surface area relative to the proposed Project, Alternative 4 would reduce surface water flows and would have a *less than significant* impact on drainage capacity in the vicinity of the Project site.

As with the proposed Project, Alternative 4 would not conflict with implementation of any water quality control plans or sustainable groundwater management plans (i.e., the Ocean Plan, Basin Plan, GBMP, and 2015 UWMP) and impacts would be *less than significant*.

Land Use and Planning

Alternative 4 would be implemented with the alternative access and circulation design described in Alternative 3, with a right-turn access from Beryl Street and no vehicle entry/exit onto Flagler Lane. Implementation of the alternative access and circulation design would remove vehicle access from Flagler Lane within Torrance and therefore, would be consistent with TMC Section 92.30.8. This would also remove the need for a grading or building permit from the City of Torrance. (Landscape plan approval would still be required for the proposed landscaping within the City of Torrance right-of-way.) Alternative 4 would be consistent with all other applicable land use plans, policies, and regulations. Therefore, impacts to land use and planning under Alternative 4 would be *less than significant*.

Noise

Construction

Under Alternative 4, the construction-related noise impacts described under 29-month duration of Phase 1 would be the same as those described for the proposed Project (refer to Impact NOI-1 in Section 3.11, *Noise*). However, Alternative 4 would eliminate construction noise and vibration impacts associated with the 28-month Phase 2 development program described for the proposed Project. Compliance with existing local noise regulations along with the implementation of MM

NOI-1, which would require preparation and implementation of a Construction Noise Management Plan, would reduce potential noise impacts. While the duration of construction noise would be reduced, noise levels would exceed FTA thresholds, and *significant and unavoidable* noise impacts would occur through implementation of proposed construction. Vibration levels from construction equipment and haul trips associated with BCHD development remain *less than significant* as described for the proposed Project.

Operational

As previously described, Alternative 4 would be implemented with the alternative access and circulation design described in Alternative 3, with a right-turn access from Beryl Street and no vehicle entry/exit onto Flagler Lane. Under Alternative 4, the less than significant impacts related to operational vehicle noise would be further reduced as compared to the proposed Project (refer to Impact NOI-3 in Section 3.11, *Noise*).

Because the existing parking structure at 512 North Prospect Avenue would remain in place, Alternative 4 would also eliminate noise impacts (e.g., engine idling, car alarms, screeching tires) associated with operation of the proposed 8.5-level parking structure in the Phase 2 development program of the proposed Project. Additionally, long-term operational outdoor noise impacts would likely be reduced given that the lack of the Wellness Pavilion, Aquatics Center, and CHF may reduce some of the programming involving amplified noise (e.g., outdoor fitness classes). Therefore, impacts related to operational noise under Alternative 4 would be slightly reduced compared to the proposed Project.

Population and Housing

Impacts related to population and housing under Alternative 4 would be slightly reduced as compared to those described for the proposed Project under Impact PH-1 in Section 3.12, *Population and Housing*. As described for the proposed Project, Alternative 4 would provide 157 Assisted Living units and 60 replacement Memory Care units for a total of 217 residential units, creating a negligible increase in local population. The estimate increase in population would be minor and consistent with and well within SCAG's growth projections. Given that Alternative 4 would remove most of uses associated with the Beach Cities Health Center and would not any of the uses described under the Phase 2 development program for the proposed Project, Alternative 4 is not expected to result in an increase in employment on-site. Therefore, employment under Alternative 4 would remain similar to existing conditions and would be reduced as compared to the proposed Project. Further, it is expected that most of Project employees would live in surrounding nearby cities and commute to Redondo Beach, as described for the proposed Project.

5.0 ALTERNATIVES

This impact would be *less than significant* because there is sufficient regional housing availability to meet these demands.

Public Services

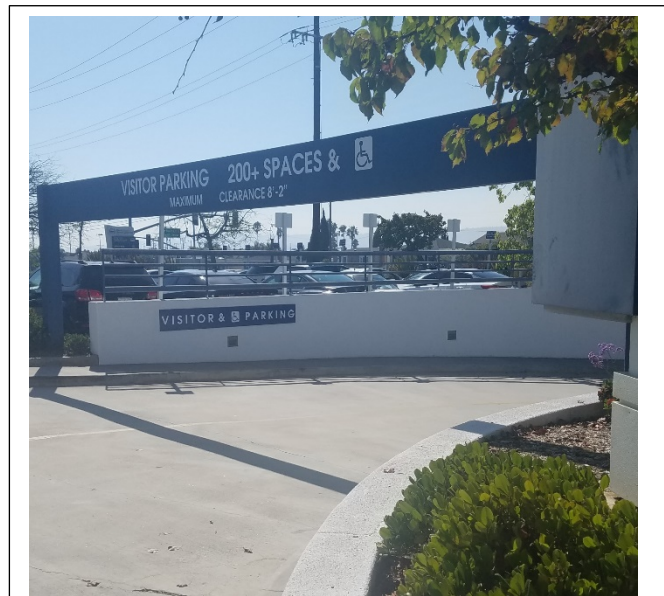
Under Alternative 4, impacts to demand for fire protection and EMS provided by RBFD as well as police protection services provided by RBPD would remain similar to those described for the proposed Project under Impact PS-1 through Impact PS-2. The increase in residents would be the same as that described under the proposed Project; however, Alternative 4 would result in fewer employees and a substantial reduction in visitors to the BCHD campus than described under the proposed Project. Therefore, Alternative 4 would slightly reduce the demand for fire protection and EMS services provided by the RBFD as well as other non-emergency services as compared to existing conditions at the Project site. Therefore, Alternative 4 would not result in substantial adverse physical impacts associated with the provision of new or physically governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, and impacts under Alternative 4 would be *less than significant*.

Transportation

Construction Traffic

Under Alternative 4, construction-related transportation impacts described under 29-month duration of Phase 1 would be the same as those described for the proposed Project. However, Alternative 4 would eliminate construction-related impacts associated with the 28-month Phase 2 development program described for the proposed Project.

Construction activities associated with Alternative 4 would result in approximately 5,927 haul truck trips during the 29-month Phase 1 construction period. Increased construction traffic on freeways and streets, particularly large haul trucks and other heavy equipment (e.g., cement trucks and cranes),



The CHF is anticipated to be the largest contributor to vehicle trips to the Project site. However, under Alternative 4, relocation of the CHF off-site would be permanent and the Health and Wellness Pavilion and Aquatics Center proposed under the Project would not be constructed. As such, Alternative 4 would not create a new demand for parking space and traffic impacts would be substantially reduced under Alternative 4.

may disrupt traffic flows, reduce lane capacities, and generally slow traffic movement. In addition, such traffic could interfere with or delay transit operations and disrupt bicycle and pedestrian circulation, particularly on North Prospect Avenue and Beryl Street (refer to Impact T-3 in Section 3.14, *Transportation*). However, as described for the proposed Project, the implementation of MM T-2 would reduce impacts related to construction traffic and public safety during Phase 1 by requiring the preparation of a Construction Traffic and Access Management Plan.

Operational Traffic

Alternative 4 would be implemented with the alternative access and circulation design described in Alternative 3, with a right-turn access from Beryl Street and no vehicle entry/exit onto Flagler Lane. The alternative access and circulation design would reconfigure the one-way driveway included in Phase 1 of the proposed Project to address concerns raised by the City of Torrance and the Torrance neighborhood residents related to vehicle access along Flagler Lane. Potential impacts associated with this alternative access and circulation design are described in detail for Alternative 3.

Given that Alternative 4 development would be limited to the Phase 1 preliminary site development plan, operational vehicle trips and VMT would be limited to those described for Phase 1 of the proposed Project. For example, Alternative 4 operations would reduce existing trip generation by approximately 1,919 daily vehicle trips as described for implementation of the Phase 1 preliminary site development plan (refer to Section 3.14, *Transportation*). While not required to mitigate a significant impact, implementation of recommended MM T-1 would include preparation and implementation of a comprehensive TDM plan, which would provide trip reduction strategies for BCHD employees, tenants, and campus visitors, as described for the proposed Project.

Utilities and Service Systems

Water Infrastructure and Supply

As previously described, construction activities under Alternative 4 would be the same as those described for Phase 1 and eliminate all construction activities described under Phase 2 of the proposed Project (refer to Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*). As such, construction-related impacts to water infrastructure and supply under Alternative 4 would also be the same as those described for Phase 1 of the proposed Project (refer to Section 3.15.1, *Water Infrastructure and Supply*).

As described for the proposed Project, the existing water flow and pressure at the Project site would be adequate to serve the development under Alternative 4 in accordance with Appendix B

of the 2016 California Fire Code (John Labib & Associates 2020). Cal Water provided a will serve letter to BCHD on November 12, 2019 indicating that after all of the required permits are obtained, Cal Water will provide water service in accordance with the rules and regulations of the CPUC (Cal Water 2019). Given that under Alternative 4 the CHF and Aquatics Center proposed under the Phase 2 development program would not be developed, net water use would be reduced under Alternative 4 (see Table 5.5-3), and would be adequately served by Cal Water's existing water entitlements. Therefore, Alternative 4 would be consistent with local policies and operational impacts on potable water use would be *less than significant*, as described for the proposed Project.

Table 5.5-3. Estimated Project Site Water Demand Comparison for Existing, Alternative 4, and Proposed Project Conditions

	Water Demand (gal/year)	Wastewater Generation (gpd)	Solid Waste Generation (tons/year)
Existing Project Site	39,231,667	68,925	330.22
Phase 1 Preliminary Site Development Plan Only Alternative	45,822,139	62,606	466.27
Proposed Project	56,426,355	116,286	660.51

Wastewater Collection, Conveyance, and Treatment

As described earlier, construction-related impacts to wastewater infrastructure under Alternative 4 would also be the same as those described for Phase 1 (refer to Section 3.15.2, *Wastewater Collection, Conveyance, and Treatment*). Given that Alternative 4 would not include the Phase 2 development program described for the proposed Project, operation of Alternative 4 would generate substantially less wastewater than the proposed Project. Therefore, implementation of Alternative 4 would result in a *less than significant* impact on existing wastewater infrastructure.

Solid Waste Management Services

Similar to the proposed Project, Alternative 4 would be required to comply with the Redondo Beach Construction and Demolition Ordinance, including submittal of a waste management plan that would divert at least 50 percent of materials generated during C&D from landfills. The C&D waste would be delivered to certified C&D waste processors within the region where it would be recycled, as feasible. Given that Alternative 4 would not demolish the existing parking structure located at 512 North Prospect Avenue and would not develop the parking structure and other uses associated with the Phase 2 development program (i.e., Wellness Pavilion, Aquatics Center, and CHF), the solid waste associated with Alternative 4 would remain well below that described for the proposed Project and *less than significant*.

Relationship of Alternative to Project Objectives

By vacating and demolishing the Beach Cities Health Center in Phase 1, Alternative 4 would eliminate the seismic safety and other hazards of this building (Project Objective 1). Development of the 157 Assisted Living units and 60 replacement Memory Care units in Phase 1 and continued operation of the Providence Little Company of Mary Medical Institute Building would generate sufficient revenue to support BCHD's current level of programs and services as well as address future community health needs (Project Objectives 2 and 6). Additionally, the campus would provide Assisted Living and Memory Care facilities with intergenerational programs and shared gathering spaces to integrate the housing with the broader community (Project Objective 4). Alternative 4 may implement the new vehicle entrance and northern perimeter road described under Alternative 2 and 4, eliminating the backyard garden lounge private open space dedicated for Assisted Living and Memory Care residents. Following demolition of the existing Beach Cities Health Center, the interior of the Project site would be converted to open space that would be sufficiently large to accommodate programs that meet community health needs and provide a meeting space for public gatherings and interactive education such as outdoor fitness classes and health fair expositions (Project Objectives 3). While the public open space proposed for the interior of the Project site would be able to accommodate programs that meet community health needs and provide a meeting space for public gatherings and interactive education (Project Objectives 3 and 5). While the RCFE Building would support PACE, Community Services, and the Youth Wellness Center, the community health and wellness benefits supported by the Wellness Pavilion and Aquatics Center would not be provided under this alternative. As such, the Assisted Living residents and PACE participants would not be able to enjoy special programming (e.g., aquatic aerobics and use of the heated therapy pool). Further, the CHF would be permanently relocated off-site, precluding programming for Assisted Living and Memory Care residents as well as PACE participants. Without these programs and services, this alternative's ability to create a modern campus designed to meet the future health needs of residents (Project Objective 5), or address growing future community health needs (Project Objective 6) would be limited. Therefore, Alternative 4 would not meet Project Objectives 5 and 6 to the same extent as the proposed Project.

5.5.5 Alternative 5 – Relocate CHF Permanently and Reduced Parking Structure

Alternative 5 would include development of the RCFE Building including the 157 new Assisted Living units and 60 replacement Memory Care units as well as the PACE, Community Services, and Youth Wellness Center described under Section 2.5.1, *Phase 1 Preliminary Site Development Plan*. Following the development of the RCFE Building, demolition of the Beach Cities Health Center would also occur as described for the proposed Project. The maximum roof height of the

RCFE Building would be the same as for the proposed Project (i.e., approximately 103 feet above the campus ground level and 133.5 feet above the vacant Flagler Lot below). Given the potential inconsistency of the proposed Project with the TMC Section 92.30.8 and the City of Torrance's ongoing consideration of the removal of the southbound movement along Flagler Lane, this alternative would also include the alternative access and circulation design described in Alternative 3, with a right-turn access from Beryl Street and no vehicle entry/exit onto Flagler Lane. Similar to Alternative 3, the alternative access and circulation design under this alternative would allow for step backs on each floor of the RCFE Building fronting Beryl Street. As such, this northern portion of the RCFE Building would incrementally decrease in floor area with each successive level, creating terraces that face Beryl Street and setting back the building façade to minimize the effect of the RCFE Building's perceived height from the pedestrian perspective at street level.

Similar to the Phase 2 development program described for the proposed Project, Phase 2 of this alternative would begin with the demolition of the parking structure located at 512 North Prospect Avenue. Additionally, Phase 2 may also include the demolition of the Beach Cities Advanced Imaging Building and redevelopment with a 3-story, 50,000-sf, purpose-built medical office building, which would rise to a height of 45 feet, with a small parapet extending to 55 feet (refer to Section 2.5.2.3, *Example Site Plan Scenarios*). Additionally, this alternative would include the construction of a single building or multiple buildings supporting a 37,150-sf Wellness Pavilion and a 31,300-sf Aquatics Center. However, under this alternative, the CHF, which would be relocated prior to the beginning of construction activities during Phase 1, would remain off-site permanently and would not be relocated to the Project site. By eliminating one of the greatest contributors to parking demand from the Project site, Alternative 5 would substantially reduce the number of parking spaces required on-site during Phase 2 and the parking garage could be reduced by approximately 200 spaces. This would result in a total height reduction of approximately 2 levels, or 30 feet.

Phase 1 construction activities under Alternative 5 would be the same as those described under Section 2.5.1.6, *Construction Activities* of this EIR. Phase 2 construction activities under Alternative 5 would be similar to those described for the proposed Project under Section 2.5.2.4, *Construction Activities*, but could be reduced in duration by between 4 to 6 months due to the elimination of the 20,000-sf CHF. Additionally, this alternative would eliminate the need for between 140 and 184 concrete truck trips as well as between 15 to 18 construction material (i.e., steel) delivery trips. With the exception of the CHF, which would remain off-site permanently, operational activities under Alternative 5 would be similar to those described for Phase 1 and Phase 2 of the proposed Project.

Aesthetics and Visual Resources

Under Phase 1 of Alternative 5, impacts to aesthetics and visual resources would be similar, but slightly reduced compared to those described for the proposed Project. For example, the maximum roof height of the RCFE Building in Phase 1 would remain at 103 feet above the campus ground level and 133.5 feet above the vacant Flagler Lot below as described for the proposed Project. However, the reconfiguration of the one-way vehicle driveway and pick-up/drop-off zone would allow for PACE to occupy the entire ground floor of the RCFE Building. As such, this alternative would allow for step backs on each floor of the RCFE Building fronting Beryl Street. With this design change, the northern portion of the RCFE Building would incrementally decrease in floor area with each successive level, creating terraces that face Beryl Street and setting back the building façade to minimize the effect of the RCFE Building's perceived height from the pedestrian perspective at street level. However, given that the maximum roof height of the RCFE Building would remain as described for the proposed Project, Alternative 5 would result in potentially significant impacts related to interruption of views of the ridgeline of the Palos Verdes hills from the highpoint at 190th Street & Flagler Street (i.e., Representative View 6). As described for the proposed Project, MM VIS-1 would require a reduction in the height of the RCFE Building such that it would no longer interrupt the ridgeline of the Palos Verdes hills. Therefore, impacts to this scenic vista would be *less than significant with mitigation*.

Under Alternative 5, the CHF would be permanently relocated off-site prior to the beginning of construction activities during Phase 1, thereby eliminating one of the greatest contributors to parking demand from the Project site. As such, Alternative 5 would substantially reduce the number of parking spaces required on-site during Phase 2 and the proposed parking garage could be reduced by approximately 200 spaces. This would result in a total height reduction of approximately 2 levels, or 30 feet. As with the proposed Project, the proposed development would meet the development standards described in Redondo Beach General Plan, zoning ordinance, and municipal code. Additionally, Planning Commission Design Review would ensure that the height and design of Alternative 5 would not degrade visual character and would ensure that light and views of the clear sky are adequately maintained. Therefore, similar to the proposed Project, Alternative 5 impacts to existing visual character and quality of the site and surrounding areas would be *less than significant*.

Since Alternative 5 would also implement the alternative access and circulation design described under Alternative 3, this alternative could remove the one-way driveway and pick-up/drop-off zone exit onto Flagler Lane and the service area and loading dock entry/exit onto Flagler Lane as described under the proposed Project. Rather than exit onto Flagler Lane, the proposed one-way

driveway under Alternative 5 would lead to a new, paved, internal access road that follows the northern perimeter of the Project site. Therefore, Alternative 5 would further reduce impacts from vehicle headlights shining towards the Torrance neighborhood east of Flagler Lane. Impacts related to substantial new sources of light and glare from development under Alternative 5 would be incrementally reduced compared to those described for the proposed Project and *less than significant*.

Given that the maximum roof heights of the proposed RCFE under Alternative 5 would remain the same as for the proposed Project, impacts to shade and shadow would remain similar. The step backs on the proposed RCFE Building may incrementally reduce shading on the Torrance neighborhood to the east of the Project, Towers Elementary School, and the multi-family residences north of Beryl Street. Shading associated with the Phase 2 development program would vary depending on the development program option selected (refer to Section 2.5.2.3 *Development Options*). However, the reduced height of the parking structure under Alternative 5 would also incrementally reduce shading during Phase 2. As with the proposed Project, the implementation of the Phase 1 preliminary site development plan and the Phase 2 development program under this alternative would slightly increase existing shading on Torrance neighborhood to the east as compared to shadows from the existing Beach Cities Health Center and parking structure; however, this shading would occur only in the evenings (i.e., after 6:00 p.m. in the Summer, after 5:00 p.m. in the Fall, and after 4:00 p.m. in the Winter). Therefore, impacts to shading from Alternative 5 would be *less than significant* as described for the proposed Project.

Air Quality

Construction Emissions

Construction activities under Alternative 5 would be the same as those described for Phase 1 of the proposed Project (refer to Section 2.5.1.6, *Construction Activities*). However, the elimination of the 20,000 sf CHF and proposed under the Phase 2 development program would reduce the Phase 2 construction period by 4 to 6 months (refer to Section 2.5.2.4, *Construction Activities*). As such, under Alternative 5, construction-related impacts to air quality would be the same as those described for Phase 1 and slightly reduced from those described under Phase 2 of the proposed Project (refer to Section 3.2, *Air Quality*). Peak daily construction emissions would remain below the SCAQMD thresholds of significance as described for the proposed Project. Similar to the proposed Project, on-site construction emissions would exceed LSTs for PM₁₀ and PM_{2.5}; however, implementation of MM AQ-1 would require watering of exposed surfaces three times daily and prohibiting demolition when wind speed is greater than 25 mph, reduce on-site

construction emissions for PM₁₀ and PM_{2.5} below the SCAQMD LSTs (refer to Impact AQ-2 in Section 3.2, *Air Quality*). Therefore, with implementation of MM AQ-1, impacts with regard to localized construction emissions would be less than *significant with mitigation*. As described for the proposed Project, the use of USEPA Tier 4 engines on all construction equipment (except crushing equipment) would reduce DPM emissions from combustion by 79 to 94 percent. With the use of Tier 4 engines, DPM emissions anticipated during Phase 2 construction of Alternative 5 would not exceed SCAQMD thresholds for cancer risk (refer to Impact AQ-2 in Section 3.2, *Air Quality*). Therefore, construction-related impacts to air quality under Alternative 5 would be *less than significant with mitigation*, as described for the proposed Project.

Operational Emissions

Phase 1 operational activities associated with Alternative 5 would be the same as those described for Phase 1 of the proposed Project. Therefore, peak daily operational emissions associated with Phase 1 of this alternative would be the same as those described for the proposed Project under Impact AQ-4 in Section 3.2, *Air Quality*.

Given that the CHF would be permanently relocated off-site under Alternative 5, peak daily operational emissions associated with building operations and VMT generation would be slightly reduced relative to Phase 2 of the proposed Project. Since the CHF is projected to generate the majority of trips and VMT under the proposed Project, Alternative 5 would substantially reduce daily vehicle trips and VMT-related emissions as compared to the proposed Project. As such, implementation of Alternative 5 would likely result in reduced CO levels at nearby intersections, and would not exceed CO thresholds as compared to existing conditions. Similar to the Project, increases in CO emissions associated with this alternative would not cause an exceedance of the Federal or State CO standards and CO hotspot impacts would be *less than significant*.

As described in Section 3.2, *Air Quality*, operation air emissions would continue to be below the SCAQMD mass daily thresholds and LSTs for all air pollutants. Additionally, operation of proposed development under Alternative 5 would not release substantial amounts of TACs, and future residents or visitors of the Project site would not be adversely affected by TAC emissions originating from offsite. Therefore, under Alternative 5, operational air pollutant emissions would be reduced as compared to the proposed Project, and would be *less than significant*.

Additionally, this alternative would include the same uses as the proposed Project and, as such, would also not result in objectionable odor impacts, similar to the proposed Project. Therefore, impacts related to odors under Alternative 5 would be *less than significant*, as described for the proposed Project.

Biological Resources

Construction activities under Alternative 5 would be the same as those described for the Phase 1 preliminary site development plan under Section 2.5.1.6, *Construction Activities*. Construction activities would be similar to those described for Phase 2, but could be reduced in duration by between 4 to 6 months due to the elimination of the 20,000-sf CHF. Nevertheless, implementation of the Phase 2 development program would still require the removal of landscaped trees and shrubs within the interior of the existing BCHD campus. As described for the proposed Project, all vegetation removal would occur in compliance with the MBTA and California Fish and Game Code, and vegetation removal within the jurisdiction of the City of Torrance would be subject to compliance with City of Torrance policies, including Policy CR.18.1 of the Torrance General Plan which encourages planting of new trees. Implementation of MM BIO-1 would require that construction activities not disturb active nests during the nesting bird season (i.e., between February 15 and August 31). As described for the proposed Project, BCHD would submit and implement landscape plans that comply with RBMC Section 10-5.1900 (Landscaping Regulations) prior to the initiation of demolition and construction activities for Phase 1 and Phase 2 of Alternative 5. The proposed landscaping, with its emphasis on native trees, would provide enhanced roosting or nesting habitat for resident and migratory birds, including Cooper's hawk. Therefore, long-term impacts to resident and migratory birds protected under the MBTA and California Fish and Game Code would be *less than significant*, as described for the proposed Project.

Cultural Resources and Tribal Cultural Resources

Implementation of Alternative 5 would result in the same impacts to historical resources as described for the proposed Project. Additionally, potential impacts to previously unidentified archaeological resources, human remains, and tribal cultural resources under this alternative would also be similar to those under the proposed Project. Given the extensive previous disturbance at and in the immediate vicinity of the Project site, the Project site is unlikely to contain any intact, previously undisturbed archaeological resources, human remains, or tribal cultural resources (refer to Impact CUL-2 in Section 3.4, *Cultural Resources and Tribal Cultural Resources*). Similar to the proposed Project, MM CUL-1 and MM CUL-2 would also apply to this alternative and would substantially reduce potential impacts related to inadvertent discovery of any previously unknown archaeological resources, human remains, and tribal cultural resources to *less than significant with mitigation*.

Energy

Construction

Construction and operational activities under Alternative 5 would be the same as those described for Phase 1 of the proposed Project but slightly reduced under Phase 2 with the elimination of the 20,000 sf CHF. As such, Phase 1 construction of Alternative 5 would require the same amount of energy consumption for on-site demolition and construction activities, transport of demolition debris, soil, and construction materials, and construction worker commute trips as described for Phase 1 (refer to Section 2.5.1.6, *Construction Activities*). Electricity would be used during demolition and construction activities to provide temporary power for lighting, electronic equipment, and certain construction equipment (e.g., electric-powered hand tools and other equipment). Construction-related electricity use would be temporary and negligible over the long-term. Diesel fuel would be required to power heavy construction equipment and haul trucks exporting demolition debris and soil and delivering construction materials to the Project site. However, with the elimination of the 20,000 sf CHF proposed under the Phase 2 development program, construction energy consumption would be slightly reduced from those described for the proposed Project. Overall energy impacts related to construction of Alternative 5 would be *less than significant*, as described for the proposed Project.

Operation

Operational activities under Alternative 5 would decrease electricity demand following buildout of the Phase 1 preliminary site development plan and permanently increase the electricity demand following buildout of the Phase 2 development program as compared to existing conditions. However, because Alternative 5 would involve the permanent relocation of CHF off-site and would not include construction of a new 20,000-sf CHF building, the operational electricity consumption of Alternative 5 would be slightly reduced as compared to the proposed Project. Similarly, the natural gas demand for operation of Alternative 5 would increase from existing conditions but would be slightly reduced as compared to the proposed Project. Alternative 5 would incorporate the same sustainability features as described for the proposed Project, such as the installation of photovoltaic solar panels, solar hot water systems, and energy-efficient HVAC systems, high-performance insulation, and lighting systems designed with occupancy sensors and dimmers to minimize energy use as described for the proposed Project (refer to Section 2.5.1.5, *Sustainability Features*). New buildings would also meet the equivalent of LEED Gold Certification and would be WELL Building Certified. The combination of energy-saving and energy-generating features demonstrates the commitment of Alternative 5 to renewable energy

supplies and ensures that Alternative 5 would not use energy in a wasteful or inefficient manner. Similar to the proposed Project, Alternative 5 would support the energy conservation and GHG reduction goals and policies established in Redondo Beach General Plan, Climate Action Plan, Sustainable Development Plan, and Sustainable City Plan, as well as Torrance General Plan and TMC. Implementation of the sustainable design features described above demonstrate the commitment of Alternative 5 to reduce overall energy demand, including the reliance on non-renewable energy supplies, as called for in the Redondo Beach General Plan, Climate Action and Adaptation Plan, Sustainable Development Plan, and Sustainable City Plan, and the Torrance General Plan and TMC.

Geology and Soils

Impacts related to geological resources and paleontological resources under Alternative 5 would remain similar to those described under the proposed Project as geological impacts are generally site-specific and existing geology and soil conditions would be the same as those described for the Project site under Impact GEO-1 in Section 3.6, *Geology and Soils*. As with the proposed Project, implementation of MM GEO-1 would be required to address geologic impacts related to seismic-related ground failure and liquefaction-related dynamic settlement, drainage and soil erosion during excavation, and potential collapse of excavated slopes. Standard regulatory conditions requiring compliance with the UBC, CBC, RBMC, and TMC would address geologic hazards under this alternative. Additionally, given that this alternative would result in the same depth of ground disturbance, as the proposed Project, impacts to paleontological resources would remain similar (refer to Impact GEO-4 in Section 3.6, *Geology and Soils*). While the Pleistocene-aged alluvium deposits underlying the Project site have a low potential for containing paleontological resources, paleontological resources may still be present and would be protected or collected and deposited in accordance with MM GEO-2a and -2b. Therefore, potential impacts to paleontological resources would be *less than significant with mitigation*, as described for the proposed Project.

Greenhouse Gas Emissions and Climate Change

Construction activities and the proposed programs and operational activities under Alternative 5 would remain similar to those described for Phase 1. However, because duration of Phase 2 construction activities would be reduced by 4 to 6 months due to elimination of the 20,000-sf CHF, GHG related emissions during construction and operational activities under Alternative 5 would be slightly less than those described for Phase 2 of the proposed Project. Further, since this alternative would include the same uses and sustainability features as the proposed Project, impacts

related to conflicts with plans and policies related to reduction in GHG emissions would be the same as those identified in Impact GHG-1 for the proposed Project and would be *less than significant*, as described for the proposed Project.

Hazards and Hazardous Materials

Impacts related to hazards and hazardous materials under Alternative 5 would be similar to those described for the proposed Project under Impact HAZ-1 through Impact HAZ-5 in Section 3.8, *Hazards and Hazardous Materials*. This alternative would require similar site preparation activities, including demolition and excavation. Accordingly, this alternative would result in similar risks of exposure to hazardous materials, including potential ACM, LBP, PCBs, and mold that could be released during demolition of the Beach Cities Health Center and the attached maintenance building during implementation of the Phase 1 preliminary site development plan and demolition of above ground parking garage and potentially the Beach Cities Advanced Imaging Building during implementation of the Phase 2 development program (refer to Impact HAZ-2 in Section 3.8, *Hazards and Hazardous Materials*). As described for the proposed Project, Alternative 5 would provide a subterranean service area and loading dock below the proposed RCFE Building in Phase 1 as well as the potential for subterranean parking levels and service areas depending upon the Phase 2 development program option. As such, the area of excavation and trenching would be similar to the proposed Project. Therefore, the potential for exposure to contaminated soils (i.e., PCE, benzene, and chloroform) would be similar (refer to Impact HAZ-2 in Section 3.8, *Hazards and Hazardous Materials*). Overall, impacts with regard to hazards and hazardous materials under this alternative would be similar to those described under the proposed Project. As such, MM HAZ-1, MM HAZ-2a through -2d, and MM HAZ-3 would require hazardous materials surveys, standard protocols following discovery of contamination, soils management plan, soil vapor monitoring, and enrollment in the CalGEM's Well Review Program. Compliance with standard regulatory conditions and mitigation measures would reduce impacts to *less than significant with mitigation*, as described for the proposed Project.

Hydrology and Water Quality

Construction

Construction activities under Alternative 5 would be the same as those described for Phase 1 (refer to Section 2.5.1.6, *Construction Activities*). Construction activities under Phase 2 would be similar to those described under the proposed Project but the duration of the construction period would be 4 to 6 months less than due to the elimination of the 20,000-sf CHF. Therefore, construction-related impacts to water quality would be *less than significant*.

Similar to the proposed Project, Alternative 5 would include excavation to a maximum depth of 26 feet bgs for the subterranean service area and loading dock of the RCFE Building during Phase 1 preliminary site development as well as the subterranean levels of the proposed parking structure depending upon the Phase 2 development program option. Therefore, construction impacts to groundwater levels under Alternative 5 would be the same as those described for the proposed Project and *less than significant*.

Operation

As described for the proposed Project, implementation of Alternative 5 would improve water quality and groundwater recharge by reducing the volume of runoff and improving infiltration at the Project site. The reduction in the amount of impervious surfaces on-site and compliance with all applicable State and local regulations would ensure that operational impacts to water quality would be *less than significant*. Further, implementation of Alternative 5 would improve groundwater recharge at the Project site and as described for the proposed Project there would be *no impact* to groundwater quality as a result of Alternative 5.

Additionally, as described for the proposed Project in Impact HYD-3, Phase 1 of Alternative 5 would involve the construction of an on-site infiltration system designed to retain, treat, and infiltrate the 85th percentile storm into the groundwater. The existing storm drain infrastructure discharging to the City of Torrance municipal storm drain system at the storm drain line beneath Flagler Lane would be abandoned in place. Any flows larger than the design storm would be conveyed to North Prospect Avenue, where it would be conveyed through the curb and gutter to the nearest catch basin maintained by the City of Redondo Beach. These facilities have excess capacity and would continue to adequately serve the Project site with the implementation of Alternative 5. Therefore, similar to the proposed Project, Alternative 5 would have a *less than significant* impact on drainage capacity in the vicinity of the Project site.

As with the proposed Project, Alternative 5 would not conflict with implementation of any water quality control plans or sustainable groundwater management plans (i.e., the Ocean Plan, Basin Plan, GBMP, and 2015 UWMP) and impacts would be *less than significant*.

Land Use and Planning

Alternative 5 would be implemented with the alternative access and circulation design described in Alternative 3, with a right-turn access from Beryl Street and no vehicle entry/exit onto Flagler Lane. Implementation of the alternative access and circulation design would remove vehicle access from Flagler Lane within Torrance and therefore, would be consistent with TMC Section 92.30.8.

This would also remove the need for a grading or building permit from the City of Torrance. (Landscape plan approval would still be required for the proposed landscaping within the City of Torrance right-of-way.) Alternative 5 would be consistent with all other applicable land use plans, policies, and regulations. Therefore, impacts to land use and planning under Alternative 5 would be *less than significant*.

Noise

Construction

Under Alternative 5, the construction-related noise impacts would be similar to those described for the proposed Project. However, since Alternative 5 would not include the construction of the 20,000-sf CHF, the Phase 2 construction period and associated noise impacts would be reduced by approximately 4 to 6 months. Nevertheless, the proposed building(s) under the Phase 2 development program would be up to 71.5 feet above the campus ground level and 101.5 feet above the vacant Flagler Lot below. Therefore, as described for the proposed Project, construction activities would produce increased noise levels that would impact surrounding noise-sensitive receptors, as the necessary noise barrier heights required to mitigate the construction noise are considered infeasible (refer to Impact NOI-1 in Section 3.11, *Noise*). Compliance with existing local noise regulations along with the implementation of MM NOI-1, which would require preparation and implementation of a Construction Noise Management Plan, would reduce potential noise impacts. However, *significant and unavoidable* noise impacts would occur throughout the proposed construction. Vibration levels from construction equipment and haul trips associated with BCHD development remain *less than significant* as described for the proposed Project.

Operation

As described earlier, Alternative 5 would be implemented with the alternative access and circulation design described in Alternative 3, with a right-turn access from Beryl Street and no vehicle entry/exit onto Flagler Lane. Under Alternative 5, impacts related to operational vehicle noise would be similar to, but incrementally reduced as compared to the proposed Project (refer to Impact NOI-3 in Section 3.11, *Noise*).

5.0 ALTERNATIVES

Because the CHF is projected to generate the majority of vehicle trips to the Project site under the proposed Project and Alternative 5 would permanently relocate the CHF off-site, Alternative 5 would reduce impacts from traffic-related noise. Alternative 5 would also reduce parking spaces developed on-site compared to the proposed Project. Additionally, long-term operational outdoor noise impacts would likely be reduced given that the lack of the CHF may reduce some of the programming involving

amplified noise (e.g., outdoor fitness classes). Therefore, impacts related to operational noise under Alternative 5 would be incrementally reduced compared to the proposed Project and *less than significant with mitigation*.



Alternatives 3, 4, 5, and 6 would implement an alternative access and circulation scheme than described in the proposed Project. The reconfigured roadways would eliminate vehicle entry on to Flagler Lane, including trash pick-up and delivery operations and other traffic related noise, thereby reducing vehicle noise levels within the adjacent Torrance neighborhood.

Population and Housing

Impacts related to population and housing under Alternative 5 would remain similar to those described for the proposed Project under Impact PH-1 in Section 3.12, *Population and Housing*. However, increases in employment under Alternative 5 would be slightly reduced from the 170 new jobs expected under the proposed Project, since the CHF would be permanently located off-site. As described for the proposed Project, employment opportunities would likely be filled by members of the local and regional labor force. Potential increases in the low- and moderate-income work force within the Redondo Beach could incrementally increase demand for affordable housing within the City; however, it is expected that the majority of employees would live in surrounding nearby cities and commute to Redondo Beach, as described for the proposed Project. This impact would be *less than significant* as there is sufficient regional housing availability to meet these demands.

Public Services

Under Alternative 5, impacts to demand for fire protection and EMS by the RBFD as well as police protection services provided by RBPB would remain similar to those described for the proposed

Project under Impact PS-1 through Impact PS-2. Alternative 5 would result in an increase in residents, employees, and visitors at the BCHD campus, and could incrementally increase the demand for fire protection and EMS services RBFD as well as other non-emergency services as compared to existing conditions at the Project site. However, the number of employees and visitors would be slightly reduced given the removal of the 20,000-sf CHF from the Phase 2 development program. Therefore, Alternative 5 would not result in substantial adverse physical impacts associated with the provision of new or physically governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, and impacts under Alternative 5 would be *less than significant*.

Transportation

Construction Traffic

As previously described, construction activities under Alternative 5 would be the same as those described for Phase 1 and similar to those described for Phase 2 of the proposed Project, with slight reductions due to the elimination of the 20,000-sf CHF. As such, construction-related impacts on the transportation network would be the same as those described for Phase 1 but duration of Phase 2 of the proposed Project could be reduced in by 4 to 6 months due to the elimination of the 20,000-sf CHF. As with the proposed Project, construction activities associated with Alternative 5 would result in approximately 5,927 haul truck trips during the 29-month Phase 1 construction period; however, Alternative 5 would eliminate the need for between 140 and 184 concrete truck trips as well as between 15 to 18 construction material (i.e., steel) delivery trips during the Phase 2 construction period, requiring only 3,607 to 3,654 haul truck trips. Increased construction traffic on freeways and streets, particularly large haul trucks and other heavy equipment (e.g., cement trucks and cranes), may disrupt traffic flows, reduce lane capacities, and generally slow traffic movement. In addition, such traffic could interfere with or delay transit operations and disrupt bicycle and pedestrian circulation, particularly on North Prospect Avenue and Beryl Street. Implementation of MM T-2 would reduce impacts related to construction traffic and public safety by requiring the preparation of a Construction Traffic and Access Management Plan.

Operational Traffic

Alternative 5 would be implemented with the alternative access and circulation design described in Alternative 3, with a right-turn access from Beryl Street and no vehicle entry/exit onto Flagler Lane. The alternative access and circulation design would reconfigure the one-way driveway included in Phase 1 of the proposed Project to address concerns raised by the City of Torrance and the Torrance neighborhood residents related to vehicle access along Flagler Lane. Potential

impacts associated with this alternative access and circulation design are described in detail for Alternative 3.

Since the CHF is one of the primary trip generators on the existing BCHD campus, Alternative 5 would substantially reduce daily trip generation and VMT as compared to the proposed Project. Further, permanent relocation of the CHF would substantially reduce the number of parking spaces required on-site during Phase 2. While not required to mitigate a significant impact, implementation of recommended MM T-1 would include preparation and implementation of a comprehensive TDM plan, which would provide trip reduction strategies for BCHD employees, tenants, and campus visitors, as described for the proposed Project (refer to Section 3.14, *Transportation*).

Utilities and Service Systems

Water Infrastructure and Supply

As previously described, construction activities under Alternative 5 would be the same as those described for Phase 1 and Phase similar to those described 2 of the proposed Project, with slight reductions due to the elimination of the 20,000-sf CHF (refer to Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*). The construction period for the Phase 2 development program would be reduced by 4 to 6 months from the proposed Project. Therefore, construction-related impacts to water infrastructure and supply under Alternative 5 would be slightly reduced compared to those described for the proposed Project (refer to Section 3.15.1, *Water Infrastructure and Supply*).

As described for the proposed Project, the existing water flow and pressure at the Project site is adequate to serve the development under Alternative 5 in accordance with Appendix B of the 2016 California Fire Code (John Labib & Associates 2020). Cal Water provided a will serve letter to BCHD on November 12, 2019 indicating that after all of the required permits are obtained, Cal Water will provide water service in accordance with the rules and regulations of the CPUC (Cal Water 2019). As described in Section 3.15, *Utilities and Service Systems*, existing water entitlements would adequately meet water demand under the proposed Project. Because Alternative 5 would permanently relocate the CHF off-site, annual water demand would be 55,243,495 gallons, or 1,182,860 gallons less than under the proposed Project (see Table 5.5-4). As such, Alternative 5 would be adequately served by Cal Water's existing water entitlements. Additionally, Alternative 5 may also include a connection to the existing 4-inch diameter purple pipe along Diamond Street, Flagler Alley, and Flagler Lane (for recycled water), as described for the proposed Project. Recycled water could be used for landscape irrigation and architectural water

features, water for mechanical cooling towers, and water for toilet flushing in order to reduce overall water demand under Alternative 5. Therefore, Alternative 5 would be consistent with local policies and operational impacts on potable water use would be *less than significant*, as described for the proposed Project.

Table 5.5-4. Estimated Project Site Water Demand Comparison for Existing, Alternative 5, and Proposed Project Conditions

	Water Demand (gal/year)	Wastewater Generation (gpd)	Solid Waste Generation (tons/year)
Existing Project Site	39,231,667	68,925	330.22
Relocate CHF Permanently Alternative	55,243,495	100,286	600.00
Proposed Project	56,426,355	116,286	660.51

Wastewater Collection, Conveyance, and Treatment

Construction-related impacts to wastewater under Alternative 5 would be the same as those described for Phase 1 and similar to those described 2 of the proposed Project, with slight reductions due to the elimination of the 20,000-sf CHF (refer to Section 3.15.2, *Wastewater Collection, Conveyance, and Treatment*).

Given that Alternative 5 would result in 20,000 sf less building square footage as compared to the proposed Project due to the elimination of the on-site CHF, operation of Alternative 5 would generate slightly less wastewater as the proposed Project. Development proposed under the Phase 1 preliminary site development plan would incrementally decrease wastewater generation at the Project site as compared to existing conditions. Implementation of the Phase 2 development program under Alternative 5 would increase wastewater generation at the Project site as compared to Phase 1 and existing conditions but would decrease wastewater generation as compared to the proposed Project by 16,000 gpd. The Sewer Capacity Study prepared for the proposed Project concluded, after calculating the proposed sewer flow, the existing sewer lines could adequately accommodate the proposed sewer flow without upgrades. Additionally, the LACSD South Bay Cities Main Trunk Sewer has adequate remaining capacity (2.1 mgd) to convey the increase in sewage flow of 31,361 gpd (118,402.5 gpd peak flow) associated with proposed Project. Therefore, implementation of Alternative 5 would result in a *less than significant* impact on existing wastewater infrastructure, as described for the proposed Project.

Solid Waste Management Services

Similar to the proposed Project, Alternative 5 would be required to comply with the Redondo Beach Construction and Demolition Ordinance, including submittal of a waste management plan that would divert at least 50 percent of materials generated during C&D from landfills. The C&D waste would be delivered to certified C&D waste processors within the region where it would be recycled, as feasible. The solid waste associated with Alternative 5 would represent a very small percentage of the inert waste disposal capacity in the region. Therefore, as described for the proposed Project, Alternative 5 would not create a need for additional solid waste disposal facilities to adequately Project construction-generated inert waste and impacts would be *less than significant*.

Relationship of Alternative to Project Objectives

Alternative 5 would attain all of the Project Objectives. By vacating and demolishing the Beach Cities Health Center in Phase 1, Alternative 5 would eliminate the seismic safety and other hazards of this building (Project Objective 1). Development of the 157 Assisted Living units and 60 replacement Memory Care units in Phase 1 would generate sufficient revenue to support BCHD's current level of programs and services as well as address future community health needs (Project Objectives 2 and 6). As described for the proposed Project, Alternative 5 would integrate these Assisted Living facilities with the broader community through intergenerational programs and shared gathering spaces within the other public health and wellness facilities on campus, such as the Aquatics Center and Youth Wellness Center (Project Objective 4). However, since the CHF would be permanently relocated off-site under Alternative 5, this alternative would not provide benefits related to space efficiency and overlapping programs. For example, the Aquatic Center and CHF programs would not benefit from having shared locker rooms and showers on-site as for the proposed Project. Additionally, the CHF would preclude programming for Assisted Living and Memory Care residents as well as PACE participants, such as health and fitness classes specially designed for older adults and senior citizens. Nonetheless, the proposed space for PACE, Community Services, and the Youth Wellness Center included in the Phase 1 preliminary site development plan as well as the Wellness Pavilion and Aquatics Center included in the Phase 2 development program would support programs that address growing future community health needs (Project Objective 6). Redevelopment of the BCHD campus with the proposed RCFE Building in Phase 1 and proposed buildings(s) included in the Phase 2 development program would create a modern campus with facilities designed to meet the future health needs of residents (Project Objective 5). Public open space (e.g., central lawn, Main Street promenade, sensory gardens, etc.) and the new landscaping of this alternative would also be similar to that described

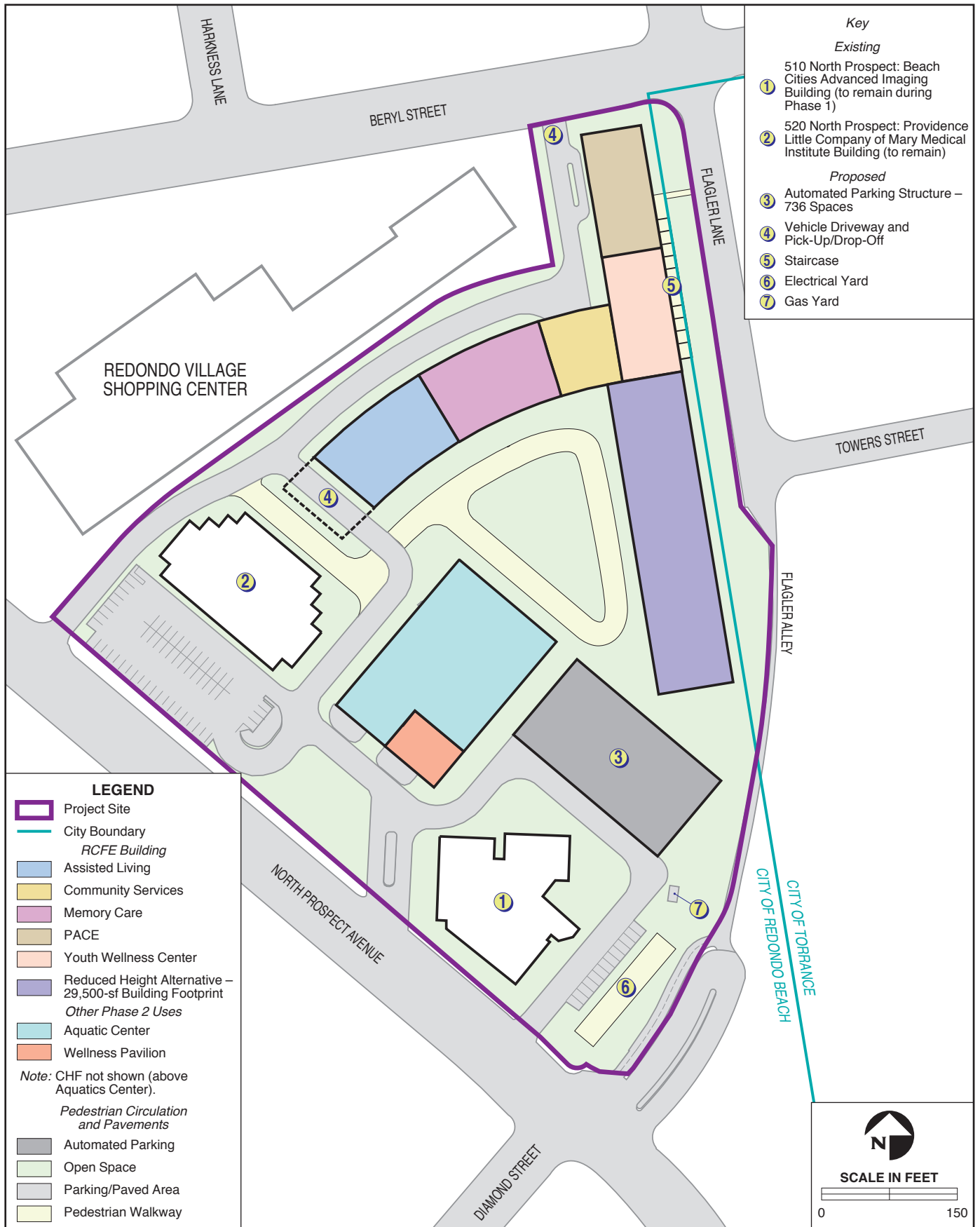
for the proposed Project. All public open space (e.g., central lawn, Main Street promenade, sensory gardens, etc.) would be developed as described for the proposed Project. The public open space proposed for the interior of the Project site would be able to accommodate programs that meet community health needs and provide a meeting space for public gatherings and interactive education (Project Objectives 3 and 5).

5.5.6 Alternative 6 – Reduced Height Alternative

As described in Section 3.1, *Aesthetics and Visual Resources*, the proposed Project would result in potentially significant impacts related to interruption of views of the ridgeline of the Palos Verdes hills from the highpoint at 190th Street & Flagler Street (i.e., Representative View 6). MM VIS-1 would require a reduction in the height of the RCFE Building such that it would no longer interrupt the ridgeline of the Palos Verdes hills. Therefore, impacts to this scenic vista would be *less than significant with mitigation*. However, the financial feasibility of implementing MM VIS-1 is not certain at this time. A reduction in floor height would remove programmable revenue-generating space in the RCFE Building. Additionally, excavation to recess the building further below the ground surface would be costly.

Under Alternative 6, approximately 88,800 sf of building space would be removed from the top 2 stories of the RCFE Building to avoid the impact to scenic vistas. However, unlike MM VIS-1, this alternative would add this space back to the RCFE Building as an addition that wraps around the eastern perimeter of the campus (see Figure 5-2). Each floor of the building addition would allow for approximately 29,500 sf; therefore, the addition to the RCFE Building would require 3 stories to replace the 88,800 sf of building square footage removed from the upper levels of the RCFE Building.

As with the proposed Project, Alternative 6 would include development of the RCFE Building including the 157 new Assisted Living units and 60 replacement Memory Care units as well as the PACE, Community Services, and Youth Wellness Center described under Section 2.5.1, *Phase I Preliminary Site Development Plan*. The maximum roof height of the RCFE Building would be approximately 76 feet above the campus ground level and 106.5 feet above the vacant Flagler Lot below. The addition to the RCFE Building along the eastern perimeter of the campus would rise to a height of approximately 41 feet above the campus ground level.



Given the potential inconsistency of the proposed Project with the TMC Section 92.30.8 and the City of Torrance's ongoing consideration of the removal of the southbound movement along Flagler Lane, this alternative would also include the alternative access and circulation design described in Alternative 3, with a right-turn access from Beryl Street and no vehicle entry/exit onto Flagler Lane. Similar to Alternative 3, the alternative access and circulation design under this alternative would allow for step backs on each floor of the RCFE Building fronting Beryl Street. As such, this northern portion of the RCFE Building would incrementally decrease in floor area with each successive level, creating terraces that face Beryl Street and setting back the building façade to minimize the effect of the RCFE Building's perceived height from the pedestrian perspective at street level.

The Phase 2 development program would be the same as that described for the proposed Project. Construction activities under Alternative 6 would be similar to those described under Section 2.5.1.6, *Construction Activities* of this EIR, but would result in a greater area of ground disturbance. Construction activities under Alternative 6 would be the same as those described for Phase 2 under Section 2.5.2.4, *Construction Activities* of this EIR.

Aesthetics and Visual Resources

Under Phase 1 of Alternative 6, the maximum roof height of the RCFE Building in Phase 1 would be reduced by approximately 27 feet as compared to the proposed Project (i.e., 76 feet above the existing ground level and 106.5 feet above the vacant Flagler Lot below). As viewed from the highpoint at the intersection of 190th Street & Flagler Lane (i.e., Representative View 6), the reduced RCFE Building height under Alternative 6 would not interrupt views of the Palos Verdes hills ridgeline unlike the proposed Project. Therefore, impacts to this scenic vista would be *less than significant*, and MM VIS-1 would not be required. Additionally, given that Alternative 6 would be implemented with the alternative access and circulation design described in Alternative 3, the reconfiguration of the one-way vehicle driveway and pick-up/drop-off zone would allow for PACE to occupy the entire ground floor of the RCFE Building. As such, this alternative would allow for step backs on each floor of the RCFE Building fronting Beryl Street. With this design change, the northern portion of the RCFE Building would incrementally decrease in floor area with each successive level, creating terraces that face Beryl Street and setting back the building façade to further minimize the effect of the RCFE Building's perceived height from the pedestrian perspective at street level. These step backs would allow for more views of the open sky from the intersection of Beryl Street & Flagler Lane (i.e., Representative View 3) and would minimize potential impacts to visual character or quality as compared to the proposed Project. However, Alternative 6 would require a 3-story addition to the eastern side of the RCFE Building along the

eastern perimeter of the Project site to replace the building square footage from the upper 2 stories of the RCFE Building that would be removed to reduce the maximum roof height under this alternative. The addition to the RCFE Building along the eastern perimeter of the campus would rise to a height of approximately 41 feet above the campus ground level. As such, the building mass as viewed from Flagler Lane & Towers Street (i.e., Representative View 2) would be slightly greater as compared to the proposed Project.

Since Alternative 6 would also implement the access and circulation design described under Alternative 3, this alternative would remove the one-way driveway and pick-up/drop-off zone exit onto Flagler Lane and the service area and loading dock entry/exit onto Flagler Lane as described under the proposed Project. Rather than exit onto Flagler Lane, the proposed one-way driveway under Alternative 6 would lead to a new, paved, internal access road that follows the northern perimeter of the Project site. Therefore, Alternative 3 would eliminate vehicle traffic onto Flagler Lane and would completely eliminate the less than significant light impacts from vehicle headlights shining towards the Torrance neighborhood east of Flagler Lane.

The reduced building height and step backs on the proposed RCFE Building would reduce the total area and duration shading on the adjacent Torrance neighborhood, Towers Elementary School, and the multi-family residences north of Beryl Street as compared to the proposed Project. However, shading associated with the Phase 2 development program would be the same as those described for the proposed Project (refer to Section 3.1, *Aesthetics and Visual Resources*). As with the proposed Project, the implementation of the Phase 1 preliminary site development plan and the Phase 2 development program under this alternative would incrementally increase existing shading on Torrance neighborhood to the east as compared to shadows from the existing Beach Cities Health Center and parking structure; however, this shading would occur only in the evenings (i.e., after 6:00 p.m. in the Summer, after 5:00 p.m. in the Fall, and after 4:00 p.m. in the Winter). Therefore, impacts to shading from Alternative 5 would be *less than significant*.

Air Quality

Construction Emissions

Construction activities under Alternative 6 would remain similar to those described for Phase 1 and Phase 2 of the proposed Project (refer to Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*). However, the addition to the RCFE Building would require a greater building footprint and thus, a greater area of ground disturbance during construction. Additionally, construction activities associated with this addition would be located closer to the Torrance neighborhood to the east. As such, on-site construction-related PM₁₀ and PM_{2.5} emissions

would be greater than those described for the proposed Project. Similar to the proposed Project, on-site construction emissions would exceed LSTs for PM₁₀ and PM_{2.5}; however, implementation of MM AQ-1 would require watering of exposed surfaces three times daily and prohibiting demolition when wind speed is greater than 25 mph (refer to Section 3.2, *Air Quality*). With implementation of MM AQ-1, on-site construction emissions for PM₁₀ and PM_{2.5} would be reduced to levels below the SCAQMD LSTs. Therefore, with implementation of MM AQ-1, impacts with regard to localized construction emissions would be less than *significant with mitigation*. Additionally, the use of USEPA Tier 4 engines on all construction equipment (except crushing equipment) would reduce DPM emissions. With the use of Tier 4 engines, DPM emissions anticipated during Phase 1 construction of Alternative 6 would not exceed SCAQMD thresholds for cancer risk (refer to Impact AQ-2 in Section 3.2, *Air Quality*). Therefore, construction-related impacts to air quality under Alternative 6 would remain similar to those described for the proposed Project and would be *less than significant with mitigation*.

Operational Emissions

The proposed programs and operational activities under Alternative 6 would be the same as those described for Phase 1 and Phase 2 of the proposed Project. Additionally, operational vehicle trips and VMT anticipated under Alternative 6 would be the same as those described for the proposed Project. Therefore, operational emissions generated by Alternative 6 (including vehicle trips, electricity and natural gas consumption, and landscaping maintenance) would be the same as those described for Phase 1 and Phase 2 of the proposed Project and *less than significant*.

As discussed in Section 3.2, *Air Quality*, the proposed Project would contribute to cumulative traffic in the area and would incrementally increase CO levels at nearby intersections, but would not exceed CO thresholds. As with the proposed Project, increases in CO emissions associated with this alternative would not cause an exceedance of the Federal or state CO standards and CO hotspot impacts would be *less than significant*.

Additionally, this alternative would include the same residential, medical office, and public health uses as the proposed Project and, as such, would also not result in objectionable odor impacts, similar to the proposed Project. Therefore, impacts related to odors under Alternative 6 would be *less than significant*, as described for the proposed Project.

Biological Resources

As previously described, construction activities under Alternative 6 would remain similar to those described for Phase 1 and Phase 2 of the proposed Project (refer to Section 2.5.1.6, *Construction*

Activities and Section 2.5.2.4, *Construction Activities*). However, construction associated with Alternative 6 would result in an increase area of ground disturbance on-site related to the addition to the eastern side of the RCFE Building. Therefore, Alternative 6 would result in the removal of additional landscaped trees, shrubs, and other ground cover as compared to the proposed Project. Nevertheless, all vegetation removal would occur in compliance with the MBTA and California Fish and Game Code, and vegetation removal within the jurisdiction of the City of Torrance would be subject to compliance with City of Torrance policies, including Policy CR.18.1 of the Torrance General Plan which encourages planting of new trees. Implementation of MM BIO-1 would require that construction activities not disturb active nests during the nesting bird season (i.e., between February 15 and August 31). As described for the proposed Project, BCHD would submit and implement landscape plans that comply with RBMC Section 10-5.1900 (Landscaping Regulations) prior to the initiation of demolition and construction activities for Phase 1 and Phase 2 of Alternative 6. The proposed landscaping, with its emphasis on native trees, would provide enhanced roosting or nesting habitat for resident and migratory birds, including Cooper's hawk. Therefore, long-term impacts to resident and migratory birds protected under the MBTA and California Fish and Game Code would be *less than significant*, as described for the proposed Project.

Cultural Resources and Tribal Cultural Resources

Implementation of Alternative 6 would result in the same *less than significant* impacts to historical resources as described for the proposed Project. Potential impacts to previously unidentified archaeological resources, human remains, and tribal cultural resources under this alternative would also be similar to those under the proposed Project. The addition to the eastern side of the RCFE Building under Alternative 6 would result in a greater building footprint as compared to the proposed Project and thus, a greater area of ground disturbance during construction. However, the type of ground disturbing activities (e.g., excavation, trenching, grading, etc.) and depth of excavation (i.e., 26 feet) would be the same as those described for Phase 1 and Phase 2 of the proposed Project (refer to Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*). Given the extensive previous disturbance at and in the immediate vicinity of the Project site, the Project site is unlikely to contain any intact, previously undisturbed archaeological resources, human remains, or tribal cultural resources (refer to Impact CUL-2 Section 3.4, *Cultural Resources and Tribal Cultural Resources*). Similar to the proposed Project, MM CUL-1 and MM CUL-2 would also apply to this alternative and would substantially reduce potential impacts related to inadvertent discovery of any previously unknown archaeological

resources, human remains, and tribal cultural resources to *less than significant with mitigation*, as described for the proposed Project.

Energy

As previously described, construction activities under Alternative 6 would be the same as those described for the Phase 1 preliminary site development plan and would be similar to those described for the Phase 2 development program of the proposed Project (refer to Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*). Construction of Alternative 6 would require a similar amount of energy consumption for on-site demolition and construction activities, transport of demolition debris, soil, and construction materials, and construction worker commute trips as described for the proposed Project. Electricity would be used during demolition and construction activities to provide temporary power for lighting, electronic equipment, and certain construction equipment (e.g., electric-powered hand tools and other equipment). Construction-related electricity use would be temporary and negligible over the long-term. Diesel fuel would be required to power heavy construction equipment and haul trucks exporting demolition debris and soil and delivering construction materials to the Project site. Alternative 6 may require slightly more haul truck trips to export asphalt demolition debris and soil associated with construction of the eastern addition to the RCFE Building. Therefore, Alternative 6 would use more construction fuel than the 1,910,839 gallons described for the proposed Project; however, impacts associated with Alternative 6 would be *less than significant*, as described for the proposed Project.

As described for the proposed Project, operation of Alternative 6 would decrease electricity demand following buildout of the Phase 1 preliminary site development plan and permanently increase the electricity demand following buildout of the Phase 2 development program by approximately 2,611,552 kWh per year as compared to existing conditions. The natural gas demand for operation of Alternative 6 would increase by approximately 25,475 therms per year as compared to existing conditions. However, Alternative 6 would incorporate the same sustainability features as described for the proposed Project, such as the installation of photovoltaic solar panels, solar hot water systems, energy-efficient HVAC systems, high-performance insulation, and lighting systems designed with occupancy sensors and dimmers to minimize energy use as described for the proposed Project (refer to Section 2.5.1.5, *Sustainability Features*). New buildings would also meet the equivalent of LEED Gold Certification and would be WELL Building Certified. The combination of energy-saving and energy-generating features demonstrates the commitment of Alternative 6 to renewable energy supplies and would ensure that Alternative 6 would not use energy in a wasteful or inefficient manner.

Similar to the proposed Project, Alternative 6 would support the energy conservation and GHG reduction goals and policies established in the Redondo Beach General Plan, Climate Action Plan, Sustainable Development Plan, and Sustainable City Plan, as well as the Torrance General Plan and TMC. Implementation of the sustainable design features described above demonstrate the commitment of Alternative 6 to reduce overall energy demand, including the reliance on non-renewable energy supplies, as called for in the Redondo Beach General Plan, Climate Action and Adaptation Plan, Sustainable Development Plan, and Sustainable City Plan, and the Torrance General Plan and TMC.

Geology and Soils

Impacts related to geological resources and paleontological resources under Alternative 6 would be the same as those described under the proposed Project as geological impacts are generally site-specific and existing geology and soil conditions would be the same as those described for the Project site under Impact GEO-1 in Section, 3.6, *Geology and Soils*. As with the proposed Project, implementation of MM GEO-1 would be required to address geologic impacts related to seismic-related ground failure and liquefaction-related dynamic settlement, drainage and soil erosion during excavation, and potential collapse of excavated slopes. Standard regulatory conditions requiring compliance with the UBC, CBC, RBMC, and TMC would address geologic hazards under this alternative. As with the proposed Project, compliance with regulatory requirements and the implementation of MM GEO-1 would reduce impacts to geology and soils under Alternative 6 to *less than significant with mitigation*.

While the addition to the eastern side of the RCFE Building under Alternative 6 would result in a greater area of ground disturbance as compared to the proposed Project, this alternative would result in the same depth of ground disturbance as the proposed Project. Therefore, impacts to paleontological resources would remain similar to those described for the proposed Project (refer to Impact GEO-4 in Section 3.6, *Geology and Soils*). While the Pleistocene-aged alluvium deposits underlying the Project site have a low potential for containing paleontological resources, paleontological resources may still be present and would be protected or collected and deposited in accordance with MM GEO-2a and -2b. Therefore, potential impacts to paleontological resources would be *less than significant with mitigation*.

Greenhouse Gas Emissions and Climate Change

Impacts related to GHG emissions and climate change under Alternative 6 would remain similar to those described for the proposed Project. Given that the construction activities and the proposed programs and operational activities under Alternative 6 would remain similar to those described

for Phase 1 and Phase 2 of the proposed Project, GHG emissions anticipated under Alternative 6 would remain similar to those estimated for the proposed Project (refer to Section 3.7, *Greenhouse Gas Emissions and Climate Change*). Further, since this alternative would include the same uses as well as the same sustainability features as the proposed Project, impacts related to conflicts with plans and policies related to reduction in GHG emissions would be the same as those identified in Impact GHG-1 for the proposed Project and would be *less than significant*.

Hazards and Hazardous Materials

Impacts related to hazards and hazardous materials under Alternative 6 would be similar to those described for the proposed Project under Impact HAZ-1 through Impact HAZ-5 in Section 3.8, *Hazards and Hazardous Materials*. This alternative would require similar site preparation activities, including demolition and excavation. Accordingly, this alternative would result in similar risks of exposure to hazardous materials, including potential ACM, LBP, PCBs, and mold that could be released during demolition of the Beach Cities Health Center and the attached maintenance building during implementation of the Phase 1 preliminary site development plan and demolition of the parking structure and potentially the Beach Cities Advanced Imaging Building during implementation of the Phase 2 development program (refer to Impact HAZ-2, in Section 3.8, *Hazards and Hazardous Materials*). As described for the proposed Project, Alternative 6 would provide a subterranean service area and loading dock below the Project site in Phase 1 as well as the potential for subterranean parking depending upon the Phase 2 development program option. As such, the area of excavation and trenching would be similar to the proposed Project. Therefore, the potential for exposure to contaminated soils (i.e., PCE, benzene, and chloroform) would be similar (refer to Impact HAZ-2 in Section 3.8, *Hazards and Hazardous Materials*). Overall, impacts with regard to hazards and hazardous materials under this alternative would be similar to those described under the proposed Project. As such, MM HAZ-1, MM HAZ-2a through -2d, and MM HAZ-3 would require hazardous materials surveys, standard protocols following discovery of contamination, soils management plan, soil vapor monitoring, and enrollment in the CalGEM's Well Review Program. Compliance with standard regulatory conditions and mitigation measures would reduce impacts to *less than significant with mitigation*.

Hydrology and Water Quality

Construction

Construction-related impacts related to hydrology and water quality under Alternative 6 would remain similar to those described for the proposed Project. As with the proposed Project, construction of Alternative 6 would involve major earthwork, including excavation and shoring

for subterranean levels, grading, and trenching for utilities, which would disturb the underlying soils and expose them to potential erosion and sediment transport into adjacent storm drain inlets – particularly during storm events or during on-site watering. Alternative 6 would result in an additional disturbance footprint of approximately 29,500 sf along the eastern boundary of the campus, which would slightly increase the potential for erosion. However, implementation of BMPs developed in accordance with the requirements of the Construction General Permit would prevent violation of water quality standards and minimize the potential for contributing polluted runoff during construction of Alternative 6. Therefore, construction-related impacts to water quality associated with Alternative 6 would be *less than significant*, as described for the proposed Project.

Similar to the proposed Project, Alternative 6 would include excavation to a maximum depth of 26 feet bgs for the subterranean service area and loading dock of the RCFE Building during Phase 1 as well as the subterranean levels of the proposed parking structure and service areas under the Phase 2 development program. However, construction impacts to groundwater levels would be *less than significant*, as described for the proposed Project.

Operation

As with the proposed Project, Alternative 6 would result in a net reduction in the total amount impervious surface area compared to existing condition, which would reduce the potential for pollutants to become exposed during storm events. However, given the increase in the building footprint associated with the addition to the eastern side of the proposed RCFE Building, Alternative 6 would reduce pervious surface area by approximately 29,500-sf as compared to the proposed Project. Nevertheless, compliance with all applicable State and local regulations, would ensure that operational impacts to water quality would be *less than significant*. Further, implementation of Alternative 6 would improve groundwater recharge at the Project site and there would be *no impact* to groundwater quality as a result of Alternative 6.

Additionally, as described for the proposed Project in Impact HYD-3, Phase 1 of Alternative 6 would involve the construction of an on-site infiltration system designed to retain, treat, and infiltrate the 85th percentile storm into the groundwater. The existing storm drain infrastructure discharging to the City of Torrance municipal storm drain system at the storm drain line beneath Flagler Lane would be abandoned in place. Any flows larger than the design storm would be conveyed to North Prospect Avenue, where it would be conveyed through the curb and gutter to the nearest catch basin maintained by the City of Redondo Beach. These facilities have excess capacity and would continue to adequately serve the Project site with the implementation of

Alternative 6. Therefore, Alternative 6 would have a net increase in the impacts to drainage capacity as compared to the proposed Project; however, this increase would be *less than significant*.

Similar to the proposed Project, Alternative 6 would not conflict with implementation of any water quality control plans or sustainable groundwater management plans (i.e., the Ocean Plan, Basin Plan, GBMP, and 2015 UWMP) and impacts would be *less than significant*, as described for the proposed Project.

Land Use and Planning

Alternative 6 would be implemented with the alternative access and circulation design described in Alternative 3, with a right-turn access from Beryl Street and no vehicle entry/exit onto Flagler Lane. Implementation of the alternative access and circulation design would remove vehicle access from Flagler Lane within Torrance and therefore, would be consistent with TMC Section 92.30.8. This would also remove the need for a grading or building permit from the City of Torrance. (Landscape Plan approval would still be required for the proposed landscaping within the City of Torrance right-of-way.) Alternative 6 would be consistent with all other applicable land use plans, policies, and regulations. Therefore, impacts to land use and planning under Alternative 4 would be *less than significant*.

Noise

Construction

Under Alternative 6, impacts related to construction-related noise impacts would be increased compared to the proposed Project. Construction associated with the addition on the along the eastern boundary of the Project site would increase the intensity of construction activity along the eastern perimeter of the BCHD campus, which is located adjacent to sensitive receptors within the Torrance neighborhood. Similar to the proposed Project, these construction noise levels would exceed FTA's residential construction noise impact criterion. The necessary noise barrier heights required to mitigate noise from construction activities above 30 feet are considered infeasible (refer to Impact NOI-1 in Section 3.11, *Noise*). Therefore, construction-related noise impacts would be *significant and unavoidable*, as described for the proposed Project. However, the height of the RCFE Building under Alternative 6 would be reduced as compared to the proposed Project, as such the total duration of construction above the noise barrier would also be reduced.

Similar to the proposed Project, ground-borne vibration would be generated from the use of heavy construction equipment at the Project site, which could potentially expose existing sensitive land

uses in the vicinity to excessive vibration. Vibration levels generated during construction associated with Alternative 6 would be similar to those described for the proposed Project and *less than significant*.

Operation

As previously described, Alternative 6 would be implemented with the alternative access and circulation design described in Alternative 3, with a right-turn access from Beryl Street and no vehicle entry/exit onto Flagler Lane. Under Alternative 6, less than significant impacts related to operational vehicle noise would further reduced as compared to the proposed Project (refer to Impact NOI-3 in Section 3.11, *Noise*). Long-term operational noise impacts from HVAC equipment, parking operations, and on-site noise activities associated with Alternative 6 (i.e., outdoor seating, fitness classes, amplified music, etc.) would remain similar to those described for the proposed Project.

Population and Housing

Impacts related to population and housing under Alternative 6 would be the same as those described for the proposed Project under Impact PH-1 in Section 3.12, *Population and Housing*. As described for the proposed Project, these impacts would be *less than significant* under Alternative 6 as there is sufficient regional housing availability to meet these demands.

Public Services

Alternative 6 would result in the same demand for public services as described for the proposed Project. Therefore, environmental impacts resulting from increased demand for fire protection and police protection services for Phase 1 and Phase 2 of Alternative 6 would be *less than significant* as described for the proposed Project.

Transportation

Construction Traffic

While Alternative 6 would include an alternative access and circulation design and a reconfiguration of the RCFE Building, the proposed floor area of the RCFE Building would remain the same (i.e., 283,070 sf); therefore, the scope and duration of Phase 1 construction activities would be the same as those described for Phase 1 of the proposed Project (refer to Section 2.5.1.6, *Construction Activities*). Construction activities under Alternative 6 would remain similar to those described for Phase 2 of the proposed Project (refer to Section 2.5.2.4, *Construction Activities*). Implementation of MM T-2 would reduce impacts related to construction traffic and public safety

by requiring the preparation of a Construction Traffic and Access Management Plan. Therefore, Alternative 6 impacts to transportation during construction would be *less than significant*, as described for the proposed Project.

Operational Traffic

Alternative 6 would be implemented with the alternative access and circulation design described in Alternative 3, with a right-turn access from Beryl Street and no vehicle entry/exit onto Flagler Lane. The alternative access and circulation design would reconfigure the one-way driveway included in Phase 1 of the proposed Project to address concerns raised by the City of Torrance and the Torrance neighborhood residents related to vehicle access along Flagler Lane. Potential impacts associated with this alternative access and circulation design are described in detail for Alternative 3.

Given that the proposed uses under Alternative 6 would be the same as those described for Phase 1 and Phase 2 of the proposed Project, operational vehicle trips and VMT would also be the same as those described for Phase 1 and Phase 2 of the proposed Project. While not required to mitigate a significant impact, implementation of recommended MM T-1 would include preparation and implementation of a comprehensive TDM plan, which would provide trip reduction strategies for BCHD employees, tenants, and campus visitors, as described for the proposed Project (refer to Section 3.14, *Transportation*).

Utilities and Service Systems

Water Infrastructure and Supply

Construction activities under Alternative 6 would be similar to those described for Phase 1 and the same as those Phase 2 of the proposed Project (refer to Section 2.5.1.6, *Construction Activities* and Section 2.5.2.4, *Construction Activities*). Alternative 6 would result in an additional disturbance footprint of approximately 29,500 sf along the eastern boundary of the campus, which would slightly increase the need for water use for dust control. However, impacts would remain *less than significant*, as described for the proposed Project.

As described for the proposed Project, the existing water flow and pressure at the Project site is adequate to serve Alternative 6 in accordance with Appendix B of the 2016 California Fire Code (John Labib & Associates 2020). Cal Water's potable water system has the infrastructure and the capacity to serve the development under Alternative 6. Cal Water provided a will serve letter to BCHD on November 12, 2019 indicating that after all of the required permits are obtained, Cal Water will provide water service in accordance with the rules and regulations of the CPUC (Cal

Water 2019). Given that Alternative 6 would result in the same building square footage and uses as the proposed Project, Alternative 6 would be adequately served by Cal Water's existing water entitlements. Therefore, Alternative 6 would be consistent with local policies and operational impacts on potable water use would be *less than significant*.

Wastewater Collection, Conveyance, and Treatment

Construction-related impacts to wastewater under Alternative 6 would also remain similar to those described for Phase 1 and Phase 2 of the proposed Project (refer to Section 3.15.2, *Wastewater Collection, Conveyance, and Treatment*). Given that Alternative 6 would result in the same building square footage and uses as the proposed Project, operation of Alternative 6 would generate the same amount of wastewater as the proposed Project. Therefore, implementation of Alternative 6 would result in a *less than significant* impact on existing wastewater infrastructure.

Solid Waste Management Services

Similar to the proposed Project, Alternative 6 would be required to comply with the Redondo Beach Construction and Demolition Ordinance, including submittal of a waste management plan that would divert at least 50 percent of materials generated during C&D from landfills. The C&D waste would be delivered to certified C&D waste processors within the region where it would be recycled, as feasible. Given that Alternative 6 would develop the same building square footage and land uses as the proposed Project, the solid waste associated with Alternative 6 would be the same as that described for the proposed Project. The solid waste associated with Alternative 6 would represent a very small percentage of the inert waste disposal capacity in the region. Therefore, Alternative 6 would not create a need for additional solid waste disposal facilities to adequately handle construction-generated inert waste and impacts would be *less than significant*.

Relationship of Alternative to Project Objectives

Alternative 6 would attain all of the Project objectives. By vacating and demolishing the Beach Cities Health Center in Phase 1, Alternative 6 would eliminate the seismic safety and other hazards of this building (Project Objective 1). Development of the 157 Assisted Living units and 60 replacement Memory Care units in Phase 1 would generate sufficient revenue to support BCHD's current level of programs and services as well as address future community health needs (Project Objectives 2 and 6). As described for the proposed Project, Alternative 6 would integrate these assisted living facilities with the broader community through intergenerational programs and shared gathering spaces within the other public health and wellness facilities on campus, such as the Aquatics Center and CHF (Project Objective 4). The proposed space for PACE, Community

Services, and the Youth Wellness Center included in the Phase 1 preliminary site development plan as well as the Wellness Pavilion, Aquatics Center, and CHF included in the Phase 2 development program would support programs that address growing future community health needs (Project Objective 6). Redevelopment of the BCHD campus with the proposed RCFE Building in Phase 1 and proposed buildings(s) included in the Phase 2 development program would create a modern campus with facilities designed to meet the future health needs of residents (Project Objective 5). The configuration of the new vehicle entrance and northern perimeter road would eliminate the backyard garden lounge private open space dedicated for Assisted Living and Memory Care residents. Additionally, the 3-story addition to the eastern side of the RCFE Building would replace some of the public open space (i.e., central lawn) proposed for the interior of the Project site under the proposed Project (refer to Figure 5-2). The public open space that would be provided under Alternative 6 would be able to accommodate programs that meet community health needs and provide a meeting space for public gatherings and interactive education (Project Objectives 3 and 5), although to a lesser extent than the proposed Project.

5.6 IDENTIFICATION OF ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Section 15126.6(e)(2) of the CEQA Guidelines indicates that an analysis of alternatives shall identify an environmentally superior alternative among the alternatives evaluated in the EIR. In general, the environmentally superior alternative as defined by CEQA should minimize adverse impacts to the project site and its surrounding environment.

Table 5.5-5 compares the environmental impacts of the proposed Project and the analyzed alternatives. Of the alternatives considered, the No Project Alternative generates the fewest environmental impacts; therefore, it is generally environmentally superior to any project that proposes to change existing conditions through the addition of increased development with associated impacts. However, CEQA Guidelines Section 15126.6 states that if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative from among the other alternatives.

According to CEQA Guidelines Section 15126.6(a), the purpose of an alternatives analyses is to identify alternative developments that would feasibly attain most of the basic objectives of the project but that would avoid or substantially reduce any of the significant effects of the proposed Project. Other than the No Project Alternative, none of the remaining alternatives would avoid the significant and unavoidable construction-related noise impacts at nearby sensitive receptors. Daily construction-related impacts would be similar to those described for the proposed Project (i.e.,

construction noise levels would be similar; however, the total duration of construction noise would be reduced due to the elimination of the Phase 2 development program).

Table 5.5-5. Impact Comparison of Alternatives to the Proposed Project

Issue Area	Project	Comparison to Project				
		No Project	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Aesthetics and Visual Resources	Less than Significant with Mitigation	Less	Slightly Less	Slightly Less	Similar	Slightly Less
Air Quality	Less Than Significant with Mitigation	Less	Similar	Less	Slightly Less	Similar
Biological Resources	Less Than Significant with Mitigation	Slightly Less	Similar	Slightly Less	Similar	Similar
Cultural Resources and Tribal Cultural Resources	Less Than Significant with Mitigation	Less	Similar	Slightly Less	Similar	Similar
Energy	Less Than Significant	Less	Similar	Less	Slightly Less	Similar
Geology and Soils	Less Than Significant with Mitigation	Less	Similar	Less	Similar	Similar
Greenhouse Gas Emissions and Climate Change	Less Than Significant	Less	Similar	Less	Slightly Less	Similar
Hazards and Hazardous Materials	Less Than Significant with Mitigation	Less	Similar	Slightly Less	Similar	Similar
Hydrology and Water Quality	Less Than Significant	Less	Similar	Slightly Less	Slightly Less	Similar
Land Use and Planning	Less Than Significant	Less	Less	Slightly Less	Slightly Less	Slightly Less
Noise	Significant and Unavoidable	Less	Similar	Less	Slightly Less	Similar
Population and Housing	Less Than Significant	Slightly Greater	Similar	Slightly Less	Similar	Similar
Public Services	Less Than Significant with Mitigation	Less	Similar	Slightly Less	Similar	Similar
Transportation	Less Than Significant with Mitigation	Less	Slightly Less	Less	Less	Slightly Less
Utilities and Service Systems	Less Than Significant	Less	Similar	Less	Slightly Less	Similar
Meets Most of the Project Objectives?	Yes	No	Yes	No	Yes	Yes

Alternative 5 would reduce the maximum roof height of the RCFE Building and would retain the existing views of the Palos Verdes hills from the highpoint at the intersection of 190th Street & Flagler Lane (i.e., Representative View 6); however, this alternative would include a 3-story addition to the eastern side of the RCFE Building, which would increase the building mass and reduce views of open sky as viewed from the Torrance residential neighborhood to the east. This alternative may also increase the intensity of construction related air quality and noise impacts in the Torrance neighborhood to the east of the campus.

Alternatives 3, 4, 5, and 6 would all be implemented with the alternative access and circulation design described for Alternative 3. This alternative access and circulation design would ensure consistency with TMC Section 92.30.8 (refer to Section 3.10, *Land Use and Planning*) and would avoid potential constraints associated with the City of Torrance's ongoing consideration of the removal of the southbound movement along Flagler Lane (refer to Section 3.14, *Transportation*). As described in Section 3.10, *Land Use and Planning*, the one-way driveway and pick-up/drop-off exit onto Flagler Lane and the service area and loading dock entry/exit onto Flagler Lane may potentially be inconsistent with TMC Section 92.30.8, which prohibits site access to commercial properties from local streets when access from an arterial road is available. Additionally, the City of Torrance is also planning to pilot the temporary removal of the southbound vehicle movement along Flagler Lane between Beryl Street and Towers Street, to address neighborhood concerns regarding existing cut-through traffic, particularly as it relates to pick-up and drop-off at Towers Elementary School. If the pilot is successful, the City of Torrance may permanently remove southbound traffic along Flagler Lane south of Beryl Street. This change to the transportation network would prevent service vehicles from entering the subterranean service area and loading dock. The alternative access and circulation design would direct service and delivery vehicles to the reconfigured one-way driveway off of Beryl Street, which would provide access to the subterranean service area and loading dock. Under the alternative access and circulation design, less than significant impacts related to potential inconsistency with TMC Section 92.30.8 and cut-through traffic in the Torrance neighborhood would be eliminated.

Additionally, less than significant impacts related to vehicle headlights and operational noise associated with the one-way driveway exit onto Flagler Lane and the service area and loading dock entry/exit onto Flagler Lane would be eliminated under the alternative access and circulation design. For example, the alternative access and circulation design would eliminate the one-way driveway exit onto Flagler Lane and associated potential for minor light impacts from vehicle headlights shining towards the residences east of Flagler Lane. The alternative access and circulation design would also further reduce operational noise levels (e.g., vehicle traffic, trash

compacting and delivery truck operations) at nearby sensitive receptors (i.e., the Torrance neighborhood to the east of the Project site) from vehicles entering/exiting the driveways and traveling on Flagler Lane under the proposed Project.

Alternative 4 is the environmentally superior alternative because it would substantially reduce the severity of the construction-related noise impacts, which would be significant and unavoidable under the proposed Project. This alternative would reduce the total duration of construction-related noise to 29 months over one phase of development. Additionally, this alternative would similarly reduce the duration of construction-related criteria pollutant and GHG emissions. Finally, Alternative 4 would eliminate the net increase in trips associated with Phase 2 and would instead result in a substantial reduction relative to existing conditions. However, while this is the environmentally superior alternative, it is unclear if this alternative would be financially feasible given the required reduction in the height of the proposed RCFE Building required by MM VIS-1, without any replacement of the square footage (e.g., as described for Alternative 6). As such, Alternative 4 may not be able to meet the Project Objective 6 to “[g]enerate sufficient revenue through mission-derived services and facilities to address growing future community health needs.”

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