

# 1301 Shoreway

## Draft Environmental Impact Report

SCH # 2024060880

**October 2024**

CITY OF BELMONT

Kimley»Horn

# Draft Environmental Impact Report for the

# 1301 Shoreway Project EIR

SCH #2024060880

*Prepared by:*

City of Belmont
Community Development Department
1 Twin Pines Lane
Suite 310
Belmont, California 94002

*With assistance from:*

Kimley»Horn

10 S Almaden Boulevard, Suite 1250
San Jose, California 95113

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# 1 Executive Summary

This Draft Environmental Impact Report (EIR) has been prepared by the City of Belmont (city) for the 1301 Shoreway Project (project). The city is the "public agency which has the principal responsibility for carrying out or approving the project," and as such is the "Lead Agency" under the California Environmental Quality Act (CEQA), as defined in CEQA Guidelines Section 15367. CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action.

This Executive Summary summarizes the requirements of the CEQA Statute and Guidelines, provides an overview of the proposal, discloses the primary findings of the EIR (potential impacts, recommended mitigation measures, level of significance after mitigation, and a summary of project alternatives), and identifies areas of potential controversy.

## 1.1 Project Overview

### 1.1.1 Project Location

The 6.91-acre project site is on Belmont's east side, located at 1301 Shoreway Road at the northeast intersection of Shoreway Road and Sem Lane. The site is located on one parcel (Assessor Parcel Number [APN] 040-371-110) and bounded by Shoreway Road to the west, Sem Lane to the north, Belmont Creek and Redwood City to the east, and a PG&E electrical substation to the south. Shoreway Road serves as a frontage road for Highway 101. The project is within the city limits of Belmont in San Mateo County, CA.

### 1.1.2 Project Description Summary

The applicant is proposing an office and life science/research campus and an associated parking structure for the subject property. The proposed development includes 542,035 square feet of employment uses (e.g. office and laboratory space), a 442,690 square foot parking garage, and landscape improvements including a central courtyard. See **Figure 3-4** for the Proposed Project Site Plan.

The proposed project would include two commercial office/life science laboratory buildings: Building 1 would be located on the western portion of the project site adjacent to Shoreway Road and Building 2 would be on the northeastern portion of the project site along Sem Lane. Building 1 and 2 are proposed to be 8 and 7 stories tall, respectively. While no tenants have been identified, the applicant has indicated that the life science use could potentially be occupied with laboratories with a biosafety level (BSL) of up to BSL-3. The southeast portion of the property would be developed with a 9-level parking garage to serve both buildings, with a total of 1,626 spaces. The site would also be developed with a central plaza as well as other amenities such as landscaped areas and sports courts.

The project applicant is requesting a rezoning from the current Regional Commercial (RC) designation to a Planned Unit Development ("PD") zoning designation with an associated Conceptual and Detailed Development Plan (CDP & DDP) to allow for life science/laboratory and research uses along with increased building height. The PD District is designed to accommodate various types of development, such as professional and administrative areas, commercial service centers, industrial parks, and other uses or a combination of uses, to allow flexibility of design, in accordance with the objectives and spirt of the General Plan.

### 1.1.3 City of Belmont CEQA Evaluation Process

This EIR has been prepared to evaluate and disclose changes in the environment that could result from implementation of the proposed project. The California Environmental Quality Act (CEQA) requires the

Lead Agency with discretionary authority over the project to consider the information contained in the EIR prior to taking any discretionary action. This EIR provides information to the Lead Agency and other public agencies, the general public, and decision makers regarding the potential environmental impacts from the construction and operation of the proposed project. Public review of the EIR is essential to provide an objective evaluation of the proposal consistent with CEQA requirements.

The city has the authority to take discretionary actions relating to development of the proposed project and may approve, conditionally approve or deny the project permits. This EIR evaluates the potential environmental consequences of the project, and identifies feasible mitigation measures and/or alternatives to resolve those consequences. As required by CEQA, the EIR also discloses growth-inducing effects; impacts found not to be significant; and an evaluation of cumulative impacts of past, present, and reasonably anticipated future projects.

## 1.2 Areas of Controversy and Issues to be Resolved

This EIR addresses environmental impacts associated with the project that are known to the city, raised during the Notice of Preparation (NOP) scoping process, or were raised during preparation of the EIR. The EIR addresses potentially significant impacts and areas of controversy such as: aesthetics (including visual changes and community character), air quality and health risk, biological resources, cultural resources, energy, geology and soils, greenhouse gases, hazards and hazardous materials, hydrology and water quality, land use and planning, noise and vibration, public services and recreation, transportation and circulation, tribal cultural resources, and utilities and service systems. During the NOP process, comment letters were received from 10 individuals, organizations and/or agencies. The comments are summarized in Chapter 2, Introduction, and are also provided in **Appendix A**.

## 1.3 Summary of Environmental Impacts

Table 1-1: Summary of Significant Impacts of the Proposed Project provides a summary of project impacts and proposed mitigation measures that could avoid or minimize potential impacts. The mitigation measures associated with each impact are to be implemented by the project applicant to reduce the environmental impacts to a less than significant level, where feasible.

**Table 1-1: Summary of Significant Impacts of the Proposed Project**

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| **Aesthetics** | | | |
| **Impact AES-1**: The project would alter the visual character or quality of the site and its surroundings as seen from public viewpoints. | Significant | **MM AES-1.1 Construction Screening**<br>To minimize and soften the visual effects of construction as seen from nearby businesses and adjacent land uses, the project proponent shall incorporate construction fencing or screening around the perimeter of the site. The screening material shall be of sufficient height to mask ground-level activities. Screening shall remain in place during site preparation and new building construction. Screening shall not be necessary during the final stages of construction when architectural coatings, detailing and landscaping are applied. | Less than significant |
| **Impact AES-2**: The project's proposed building heights would be inconsistent with existing zoning for this site. Existing zoning includes standards that govern scenic quality. | Less than significant | None required. | Less than significant |
| **Impact AES-3**: The project would introduce new sources of light and glare to the project site and project area. | Significant | **MM AES-3.1 Light/Glare Reduction and Design**<br>Prior to the issuance of building permits, final improvement, lighting and architectural plans shall clearly demonstrate the light glare reducing features and finishes of the project. Lighting and finishes shall be selected to reduce reflective glare, bird strike, and light spill to neighboring properties and habitat areas. | Less than significant |
| **Impact AES-4**: The project would not significantly contribute to cumulatively considerable visual or aesthetic impacts. | Less than significant | None required | Less than significant |
| **Air Quality** | | | |
| **Impact AQ-1:** The project would not conflict with or obstruct with | Less than significant | None required | Less than significant |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| implementation of the applicable air quality plan. | | | |
| **Impact AQ-2:** The project could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard. | Significant | General Plan EIR Mitigation Measure AQ-1: Require Tier 4 Engines on Construction Equipment<br>General Plan EIR Mitigation Measure AQ-3: Require Low-VOC Coatings During Construction<br>General Plan EIR Mitigation Measure AQ-4**:** Require Fugitive Dust Best Practices<br>General Plan EIR mitigation measures are implemented through project Conditions of Approval. | Less than significant |
| **Impact AQ-3:** The project could expose sensitive receptors to substantial pollutant concentrations and health risks. | Less than significant | None required | Less than significant |
| **Impact AQ-4:** The project could result in other emissions (such as those leading to odors) that have the potential to adversely affect a substantial number of people. | Less than significant | None required | Less than significant |
| **Biological Resources** | | | |
| **Impact BIO-1**: The project could have a direct or indirect adverse effect on special status species. | Significant | **MM BIO-1.1 Avoidance and Preconstruction Surveys**<br>**Seasonal Avoidance**. Tree removal, demolition, and the start of construction activities shall be scheduled to avoid the nesting season. If such activities take place outside the nesting season, all impacts on nesting birds protected under the MBTA and California Fish and Game Code will be avoided. The nesting season for most birds in San Mateo County extends from February 1 through August 31.<br>**Preconstruction/Pre-disturbance Surveys**. If it is not possible to schedule construction activities between September 1 and January 31, then preconstruction surveys for nesting birds shall be conducted | Less than significant |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| | | by a qualified biologist to ensure that no nests of migratory birds will be disturbed during project implementation. These surveys shall be conducted no more than 7 days prior to the initiation of tree removal, demolition, ground disturbance, or construction activities for each construction phase. During this survey, the biologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, buildings, and the ground) in and immediately adjacent to the impact areas for migratory bird nests.<br><br>**Buffers**. If an active nest is found within areas that would be disturbed by project activities, the ornithologist will determine the extent of a construction-free buffer zone to be established around the nest (typically 300 ft for raptors and 100 ft for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation.<br><br>**Inhibition of Nesting**. If construction activities will not be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) that are scheduled to be removed by the project may be removed prior to the start of the nesting season (e.g., prior to February 1). This will preclude the initiation of nests in this vegetation and prevent the potential delay of the project due to the presence of active nests in these substrates. | |
| | | **MM BIO-1.2 Project Construction Precautionary Measures**<br><br>**Worker Environmental Awareness Program**. Before any construction activities begin, a qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training will include descriptions of the salt marsh harvest mouse and salt marsh wandering shrew, their habitats, the laws protecting them, the general measures that are being implemented to conserve | |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| | | these species as they relate to the project, and the boundaries within which the project may be accomplished.<br><br>**Exclusion Barrier**. Prior to the start of construction activities along the eastern edge of the project site, a barrier will be installed at the outer limits of the work area on the east side of the project site to exclude salt marsh harvest mice and salt marsh wandering shrews from the project site. This barrier will consist of a 3-ft tall, tight cloth, smooth plastic, or sheet-metal (or similar material) fence toed into the soil at least 3 inches deep and supported with stakes placed on the inside of the barrier. Following the installation of the barrier, designated construction personnel will check its integrity each morning that construction activities occur and will initiate repairs immediately as needed.<br><br>**Environmentally Sensitive Area Fencing**. Prior to the start of construction activities along the eastern edge of the project site, the project limits on the east side of the site will be clearly demarcated with highly visible Environmentally Sensitive Area fencing to avoid inadvertent disturbance of any habitat outside of the designated construction area during construction activities. This fencing may be combined with the exclusion barrier but must not be outside that barrier.<br><br>**Immediate Work Stoppage**. If a salt marsh harvest mouse, salt marsh wandering shrew, or an animal that could be one of these species is observed on the project site during project activities, all work that could result in the injury or death of the animal will stop immediately and a qualified biologist will be immediately notified. The animal will be allowed to leave the area on its own and shall not be handled except by a qualified biologist authorized to do so. | |

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| | | **MM BIO-1.3 Water Quality**<br>During construction, the contractor shall employ the following measures to treat and minimize runoff from the project site.<br>▪ All relevant erosion control, sediment control, source control, treatment control, material management, and stormwater management measures consistent with the latest edition of the California Stormwater Quality Association "Stormwater Best Management Practices Handbook," will be implemented.<br>▪ Spill prevention kits shall always be in close proximity when using hazardous materials (e.g., crew trucks and other logical locations).<br>▪ If any fueling of equipment needs to occur in areas directly draining to the wetlands along Belmont Creek, containment shall be provided in such a manner that any accidental spill of fuel shall not be able to enter the water or contaminate sediments that may come in contact with water.<br>▪ A hazardous materials management/fuel spill containment plan will be developed and implemented by the construction contractor and given to all contractors working on the project, with at least one copy of the plan located on the site at all times.<br>▪ Vehicles will be checked daily for oil or fuel leaks and will be washed only at an approved area. No washing of vehicles will occur within areas directly draining to the wetlands along Belmont Creek.<br>▪ Within 100 ft of tidal wetlands along Belmont Creek, the work site, areas adjacent to the site, and access areas will be maintained in an orderly condition, free and clear from debris and discarded materials. Personnel will not sweep, grade, or flush surplus materials, rubbish, debris, or dust onto adjacent areas or wetlands or waterways. Upon completion of work, all building materials, debris, unused materials, concrete forms, and other construction-related materials will be removed from the project site. | |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
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| | | ▪ Stockpiled materials in areas draining to the tidal wetlands along Belmont Creek will be covered by plastic sheeting, tarps, or similar material that can be secured during wind and rain. A sediment fence or berm will be installed around stockpiled dredged material to prevent runoff from transporting sediment into sensitive habitats (such as wetlands and open waters).<br>▪ Water conservation methods will ensure that water used in the project site does not create surface flows capable of carrying pollutants to the nearby slough channel.<br>▪ Silt fencing will be erected along the limits of disturbance between the project site and wetlands along Belmont Creek during construction activities that could potentially result in siltation of wetlands and open waters of Belmont Creek. | |
| | | **MM BIO-1.4 Project Lighting**<br>The following measures shall be identified on the project's final improvement plans and incorporated into the project design to reduce the effects of glare or increased luminance experienced by migratory birds and wildlife using Belmont Creek:<br>▪ Exterior lighting shall be minimized (e.g., by turning lights off) in accordance with recommendations from the International Dark-Sky Association (2011) from midnight until dawn, at a minimum, except as needed for safety and City code compliance.<br>▪ Spillage of lighting from building interiors shall be minimized using occupancy sensors, dimmers, or other mechanisms from midnight until dawn, at a minimum, during bird migration seasons (February–May and August–November). This measure may be voluntarily implemented year-round. | |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
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| **Impact BIO-2:** The project could have an adverse effect on sensitive natural communities, including riparian habitat. | Significant | Refer to MM BIO-1.3 | Less than significant |
| **Impact BIO-3**: The project could have an adverse effect on protected wetlands. | Significant | Refer to MM BIO-1.3 | Less than significant |
| **Impact BIO-4**: The project could interfere with the movement of native resident or migratory wildlife and/or associated nursery sites. | Significant | Refer to MM BIO-1.4 | Less than significant |
| **Impact BIO-5:** The removal of approximately 156 trees for construction for the project could conflict with local policies and ordinances regarding tree preservation. | Significant | Compliance with City of Belmont Tree Ordinance | Less than significant |
| **Impact BIO-6:** The project could contribute to cumulatively considerable effects on biological resource. | Less than significant | None required | Less than significant |
| **Cultural Resources** | | | |

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| **Impact CR-1:** The project would not result in a substantial adverse change in the significance of a historical resource as defined by the significance criteria established by CEQA. | Less than significant | None required | Less than significant |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| **Impact CR-2:** The project has the potential to cause a substantial adverse change to unknown archaeological and cultural resources**.** | Significant | **MM CR-2.1 Cultural Resource Awareness Training**<br><br>Prior to any project-related ground disturbance, all construction workers shall receive training overseen by a qualified professional archaeologist who is experienced in teaching non-specialists to ensure that contractors can recognize archaeological resources in the event that any are discovered during construction. The construction staff directly overseeing excavation, or operating ground-disturbing vehicles, will be required to participate in this preconstruction training. | Less than significant |
| | | **MM CR-2.2 Inadvertent Discovery of Archaeological Resources**<br><br>If unknown precontact or historic-period archaeological materials are encountered during project activities, all work in the immediate vicinity of the find shall halt until a qualified archaeologist can evaluate the find and make recommendations. Cultural resources materials may include precontact resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants. If the qualified archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations shall be required to mitigate adverse impacts from project implementation. These additional studies may include, but are not limited to, recordation, archaeological excavation, or significance evaluation.<br><br>The applicant shall inform its contractor(s) of the sensitivity of the project site for archaeological deposits and include the following directive in the appropriate contract documents:<br><br>“The subsurface of the construction site may contain archaeological deposits. If archaeological deposits are encountered during project subsurface construction, all ground-disturbing activities within 25 feet shall be redirected and a qualified archaeologist shall assess the | |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
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| | | situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. Project personnel shall not collect or move any archaeological materials. Archaeological deposits can include, but are not limited to, shellfish remains; bones, including human remains; flakes of, and tools made from, obsidian, chert, and basalt; mortars and pestles; historical trash deposits containing glass, ceramics, and metal artifacts; and structural remains, including foundations and wells."<br><br>The City shall verify that the language has been included in the grading plans prior to issuance of a grading permit or permit for other project actions that include ground-disturbing activities on the project site. | |
| **Impact CR-3**: The project has the potential to cause a disturbance to human remains, including those interred outside of dedicated cemeteries. | Significant | **MM CR-3.1 Inadvertent Discovery of Human Remains**<br><br>In the event that human remains are identified during project construction, the remains will be treated in accordance with California Health and Safety Code Section 7050.5 and PRC Section 5097.98, as appropriate. In the event of the discovery or recognition of any human remains in any location other than a dedicated cemetery, Section 7050.5 of the California Health and Safety Code states that there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains were discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the NAHC within 24 hours of identification. The NAHC will identify a Native American MLD to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. PRC Section 5097.98 states that the NAHC, upon notification of the discovery of Native American human remains, pursuant to California Health and Safety Code Section 7050.5, shall immediately notify those persons (i.e., the MLD) it believes to be descended from the deceased. With | Less than significant |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
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| | | permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for the treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site. | |
| **Impact CR-4**: The project may incrementally contribute to the cumulative change or disturbance to historic or prehistoric resources known to exist in the vicinity of the project. | Less than significant | None required | Less than significant |
| **Energy** | | | |
| **Impact ER-1:** The project could result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. | Less than significant | None required | Less than significant |
| **Impact ER-2**: The project would not obstruct a State or Local plan for renewable energy or energy efficiency. | Less than significant | None required | Less than significant |
| **Impact ER-3:** The project would not contribute to cumulatively considerable impacts to energy consumption. | Less than significant | None required | Less than significant |
| **Geology and Soils** | | | |
| **Impact GEO-1**: The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death | Less than significant | None required | Less than significant |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
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| involving rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map. | | | |
| **Impact GEO-2**: The proposed project could be subject to strong seismic ground shaking during a seismic event. | Less than significant | None required | Less than significant |
| **Impact GEO-3:** The project could be subject to seismic related ground failure, including liquefaction, during a seismic event. | Less than significant | None required | Less than significant |
| **Impact GEO-4**: The project's susceptibility to landslide conditions is low. | Less than significant | None required | Less than significant |
| **Impact GEO-5**: The project could result in minor soil erosion or the loss of topsoil. | Less than significant | None required | Less than significant |
| **Impact GEO-6**: The project is located on a geologic unit or soil that could be either unstable, or that could become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction, collapse or expansive soils. | Significant | **MM GEO-6.1 Final Geotechnical Evaluation**<br>A final construction level geotechnical evaluation shall be required for the project. The project shall be required to adhere to and incorporate all standards and recommended engineering measures to mitigate for settlement concerns related to lateral spreading from compression of underlying near-surface soils layers and Bay Mud layers. The final geotechnical evaluation will be provided to the City for review and approval prior to the issuance of building permits. | Less than significant |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| **Impact GEO-7**: The project could directly or indirectly destroy a unique paleontological resource or site or unique geologic features during construction. | Significant | **MM GEO-7.1 Inadvertent Discovery of Paleontological Resources**<br>In the event that fossils or fossil-bearing deposits are discovered during construction activities, work shall be temporarily halted with a 25-foot radius of the discovered materials and workers should avoid altering the materials and their context until a qualified paleontologist has evaluated the situation and provided appropriate recommendations. Construction and potential impacts to the area(s) within a radius determined by the paleontologist shall not recommence until the assessment is complete.<br>If it is determined that the proposed development could damage unique paleontological resources, mitigation shall be implemented in accordance with Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines. Possible mitigation under Public Resources Code Section 21083.2 requires that reasonable efforts be made for resources to be preserved in place or left undisturbed. If preservation in place is not feasible, the applicant shall mitigate significant effects. Excavation as mitigation shall be limited to those parts of resources that would be damaged or destroyed by a project. Possible mitigation under CEQA emphasizes preservation-in-place measures, including planning construction avoid paleontological sites, incorporating sites into parks and other open spaces, covering sites with stable soil, and deeding the site into a permanent conservation easement. Under CEQA Guidelines, when preservation in place is not feasible, data recovery through excavation shall be conducted with a data recovery plan in place. | Less than significant |
| **Impact GEO-8:** The project will not contribute incrementally or combine with the effects of other projects to create significant geologic impacts. | Less than significant | None required | Less than significant |
| **Greenhouse Gas Emissions** | | | |
| **Impact GHG-1**: The project would not generate greenhouse gas emissions, | Less than significant | None required | Less than significant |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| either directly or indirectly, that could have a significant impact on the environment. | | | |
| **Impact GHG-2**: The project will not conflict with a plan, policy or regulation adopted for the purpose of reducing greenhouse gas emissions | Less than significant | None required | Less than significant |
| **Impact GHG-3**: The project will not result in a reasonably foreseeable cumulatively considerable contribution to global climate change | Less than significant | None required | Less than significant |
| **Hazards and Hazardous Materials** | | | |
| **Impact HAZ-1**: The project has the potential to create a hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. | Significant | **MM HAZ-1.1 Pre-Demolition Surveys and Management Plan**<br>Prior to demolition and removal of material from the site, the project applicant shall conduct surveys and testing for asbestos containing building materials (ACBMs), lead based paints and products, mercury and polychlorinated biphenyl caulking products. If such materials are not identified, no further action is required. If these materials are identified, the applicant shall prepare and implement an Operation and Management (O&M) Plan for removal and disposal. The O&M Plan shall be prepared consistent with National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines for the removal of potentially friable ACBMs and other materials if present. The plan shall be reviewed and approved by the City of Belmont prior to implementation. Removal and disposal work will be completed pursuant to all federal, State and local regulations by certified professionals.<br>**MM HAZ-1.2 Imported Fill**<br>Prior to depositing fill on the project site, all imported soil and fill material shall be tested to ensure any contaminants of concern are within DTSC and U.S. Environmental Protection Agency Regional | Less than significant |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| | | Screen Levels for the intended land use. To minimize the possibility of introducing contaminated soil and fill material the applicant shall document the origins of the soil or fill material and, if applicable, conduct sampling to ensure that the imported soil and fill material meets screening levels outlined in the Preliminary Endangerment Assessment (PEA) Guidance Manual. | |
| | | **MM HAZ-1.3 Management of Potentially Hazardous Materials**<br>If BSL 3 certification is pursued, the life science laboratory/office buildings shall be designed and constructed as BSL 3 facilities. For any BSL level, the project sponsor shall independently pursue and obtain all necessary federal, state and local approvals, permits, certifications and/or licenses for the design, operation, transport, use and disposal of materials used. Proof of compliance and all related management plans shall be provided to the City of Belmont prior to building occupancy. | |
| **Impact HAZ-2**: The project could 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. | Significant | **MM HAZ-2.1 Emergency Response Plan and First Responder Training**<br>Prior to building occupancy for BSL 3 use, the project sponsor or lab operator shall prepare and submit an emergency response plan to the City of Belmont and San Mateo Consolidated Fire Department (SMC Fire) tailored to the specific lab operations, hazardous materials and class of pathogens expected to be present. Based on those specific pathogens or other hazardous substances, the project sponsor or lab operator shall also conduct specialized training and education session(s) with SMC Fire hazmat personnel and the Redwood City Fire Department regarding lab operations. This training shall be specific to the biohazards present at the facility, strategy for response and potential need for specialized equipment and/or vaccination protocols, if warranted. Training shall be periodic and updated as needed based on the biohazards present.<br>See also: MM HAZ-1.3 | Less than significant |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| **Impact HAZ-3**: The project would not handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. | Less than significant | None required | Less than significant |
| **Impact HAZ-4**: The project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. | Less than significant | None required | Less than significant |
| **Impact HAZ-5**: The project is located within two miles of a public airport or public use airport, and located within the Airport Influence Area, but would result in a less than significant safety hazard for people residing or working in the project area. | Less than significant | None required | Less than significant |
| **Impact HAZ-6**: The project would not significantly impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. | Less than significant | None required | Less than significant |
| **Impact HAZ-7**: The project, in conjunction with other development projects as identified by the City, would not contribute to cumulatively considerable impacts from hazards and hazardous materials. | Less than significant | None required | Less than significant |
| **Hydrology and Water Quality** | | | |
| **Impact HYD-1**: The project would not violate any water quality standards or | Less than significant | None required | Less than significant |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| waste discharge requirements or otherwise substantially degrade surface or ground water quality. | | | |
| **Impact HYD-2**: The project will not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. | Less than significant | None required | Less than significant |
| **Impact HYD-3**: The project would not 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:<br>i) result in a substantial erosion or siltation on- or off-site;<br>ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;<br>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<br>iv) impede or redirect flood flows. | Less than significant | None required | Less than significant |
| **Impact HYD-4**: The project would not result in flood hazard, tsunami, or seiche zones, that would risk the | Less than significant | None required | Less than significant |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| release of pollutants due to project inundation. | | | |
| **Impact HYD-5**: The project would not conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan. | Less than significant | None required | Less than significant |
| **Land Use, Population, and Housing** | | | |
| **Impact LU-1**: The project would not substantially conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. | Less than significant | None required | Less than significant |
| **Impact LU-2**: The project could indirectly induce unplanned growth in the area surrounding the project. | Less than significant | None required | Less than significant |
| **Impact LU-3**: The project will not substantially contribute to cumulatively considerable land use, planning, population or housing impacts. | Less than significant | None required | Less than significant |
| **Noise and Vibration** | | | |
| **Impact N-1**: The project would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. | Significant | **MM N-1.1 Construction Noise Control Plan**<br>The applicant shall identify site-specific noise attenuation measures to be included with construction plans to reduce noise to levels below the FTA threshold of 80 dBA Leq. Prior to commencement of construction activities, the applicant shall submit the construction noise control plan to the City for review and approval. Noise attenuation measures shall be identified in the plan and implemented to reduce noise levels to the greatest extent feasible. Noise measures may include, but are not limited to, the following: | Less than significant |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| | | ▪ Using smaller equipment with lower horsepower or reducing the hourly utilization rate of equipment on the site to reduce noise levels at 50 feet to the allowable level.<br>▪ Locating construction equipment as far as feasible from noise-sensitive uses.<br>▪ Requiring that all construction equipment powered by gasoline or diesel engines have sound control devices that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation.<br>▪ Prohibiting gasoline or diesel engines from having unmuffled exhaust systems.<br>▪ Not idling inactive construction equipment for prolonged periods (i.e., more than 2 minutes).<br>▪ Constructing a solid plywood barrier around the construction site and adjacent to operational businesses, residences, or other noise-sensitive land uses.<br>▪ Using temporary noise control blanket barriers.<br>▪ Monitoring the effectiveness of noise attenuation measures by taking noise measurements.<br>▪ Using “quiet” gasoline-powered compressors or electrically powered compressors and electric rather than gasoline- or diesel-powered forklifts for small lifting. | |
| | | **MM N-1.2 Reduce Noise from Project Mechanical Equipment**<br>To reduce potential noise effects resulting from project heating, cooling, and ventilation equipment as well as project emergency generators at the proposed project, a supplemental noise analysis shall be prepared to estimate the actual noise levels of project-specific equipment once the equipment models and design features to attenuate noise have been selected. The analysis shall be conducted prior to the issuance of building permits and shall be | |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| | | prepared by persons qualified in acoustical analysis and/or engineering, demonstrating with reasonable certainty that the mechanical equipment selected for the project and the attenuation features incorporated into project design would not result in an exceedance of the applicable City noise standards of 45 dBA Leq and 65 dBA Lmax during the nighttime and 55 dBA Leq and 70 dBA Lmax during the daytime.<br>Options to reduce noise from heating and cooling equipment include enclosing equipment in mechanical equipment rooms, shielding equipment with mechanical screens at least as tall as the equipment, and selecting quieter equipment models.<br>All recommendations from the acoustical analysis necessary to ensure that noise sources meet the above standards shall be incorporated into the building design and operations. This measure should be implemented concurrently with MM AES-1.1 (Construction Screening) to provide a barrier that addresses both visual and noise effects. | |
| **Impact N-2**: The project would not generate excessive groundborne vibration or groundborne noise levels. | Less than significant | None required | Less than significant |
| **Impact N-3**: The project would not contribute to cumulatively considerable noise impacts. | Less than significant | None required | Less than significant |
| **Public Services and Recreation** | | | |
| **Impact PSR-1**: The project would intensify land use and increase the number of employees in the City, incrementally increasing demands upon fire protection facilities and corresponding service ratios. | Less than significant | None required | Less than significant |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| **Impact PSR-2**: The project would intensify land use and increase the number of employees in the City, incrementally increasing demands upon police protection facilities and corresponding service ratios. | Less than significant | None required | Less than significant |
| **Impact PSR-3**: The project could increase the usage of existing local parks or other recreational facilities such that physical deterioration of the facility could occur or be accelerated. | Less than significant | None required | Less than significant |
| **Impact PSR-4**: The project would intensify land use and increase the number of employees associated with the project site. This intensification could incrementally increase demand on local public school facilities. | Less than significant | None required | Less than significant |
| **Impact PSR-5:** The project would not incrementally increase demands upon library services and civic facilities. | Less than significant | None required | Less than significant |
| **Impact PSR-6:** The project, in conjunction with regional background growth and implementation of other similar projects, would incrementally increase demand upon public services and recreation impacts. | Less than significant | None required | Less than significant |
| **Transportation and Circulation** | | | |
| **Impact TRA-1:** The project would conflict or be inconsistent with adopted Vehicle Miles Traveled policies, plans, | Significant | **MM TRA-1: Final Transportation Demand Management Program**<br>Prior to occupancy, the project shall prepare and implement a final transportation demand management (TDM) program to reduce the project's VMT to below the significance threshold as noted in Table | Less than significant |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| or programs per CEQA Guidelines section 15064.3. | | 17-1. The program includes encouraging employees to use alternative modes of transportation to single-occupant vehicles. The City of Belmont has an adopted TDM policy requiring projects that exceed 50,000 square feet to achieve 18 TDM points. Compliance with the City's TDM policy would reduce the project trips and the VMT by an estimated 15 percent or more, which would be more than the required 7.4 percent reduction needed if using the C/CAG VMT estimation tool and the 6.0 percent reduction needed if using the C/CAG travel demand model. The effectiveness of the TDM plan shall be reviewed annually and adjusted as necessary to maintain these trip and VMT reductions. | |
| **Impact TRA-2:** The project could conflict with a program, plan, ordinance, or policy addressing transit facilities. | Significant | **MM TRA-2: Transit Improvements**<br>To enhance transit service and facilities consistent with City policy, the project sponsor shall coordinate with the City and Commute.org to reestablish local shuttle service such as the Redwood LIFE Caltrain shuttle stop at the project site that connects to the San Carlos Belmont Caltrain Station and Redwood Shores community. Because the feasibility, demand and location of additional shuttle stops are ultimately determined by Commute.org and the transit operator, the applicant's responsibility is limited to supporting a shuttle stop on the property, participating in applicable employer-based funding mechanisms, identifying a shuttle stop location on the project's final improvement plans, and promoting use of the shuttle and alternative modes of transportation through the project's TDM program. | Less than significant |
| **Tribal Cultural Resources** | | | |
| **Impact TR-1:** The proposed project would not change the significance of an identifiable site, feature, place, or cultural landscape with cultural value to a California Native American tribe that is listed or eligible for listing as a historical resource. | Less than significant | None required | Less than significant |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| **Impact TR-2:** The project has the potential to cause a substantial adverse change in the significance of a tribal cultural resource as determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1**.** | Significant | See MM CR-2.1, MM CR-2.2, and MM CR-3.1 | Less than significant |
| **Impact TR-3:** The project would not contribute to the cumulative change or disturbance to tribal cultural resources known to exist in the vicinity of the project. | Less than significant | None required | Less than significant |
| **Utilities and Service Systems** | | | |
| **Impact UTIL-1:** The project will require construction to connect and/or upgrade service systems to service the project. | Significant | See General Plan EIR mitigation measures AQ-1, AQ-3 and AQ-4, MM N-1.1, and MM AES-1.1 | Less than significant |
| **Impact UTIL-2:** The project would have sufficient water supplies to serve the project and reasonably foreseeable development during normal, dry and multiple dry years. | Less than significant | None required | Less than significant |
| **Impact UTIL-3:** The wastewater conveyance system (City of Belmont) and wastewater treatment provider (Silicon Valley Clean Water) have sufficient capacity within the wastewater system to accommodate the project. | Less than significant | None required | Less than significant |

| Impact | Significance Before Mitigation | Mitigation Measure | Significance After Mitigation |
|---|---|---|---|
| **Impact UTIL-4:** The project will not generate solid waste beyond the capacity of existing infrastructure or landfills, and would comply with federal, State and local statutes related to solid waste. | Less than significant | None required | Less than significant |
| **Impact UTIL-5:** The project could contribute to cumulatively considerable utilities and service system impacts. | Less than significant | None required | Less than significant |

## 1.4 Alternatives to the Proposed Project

Section 15126.6 of the CEQA Guidelines states that an EIR must address "a range of reasonable alternatives to 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." Based on the significant impacts identified in this EIR, along with the proposed project objectives, several alternatives were considered as summarized below and discussed in detail in Chapter 20, Alternatives.

Four alternatives were identified for examination and analysis in this EIR:

### 1.4.1 Alternative A: No Project/No Development Alternative

This required alternative assumes that no project would be built, and that the owner would not pursue development of the property for the foreseeable future. The property is assumed to remain in its current condition with the existing medical office building, which could be leased and re-occupied instead of being demolished.

### 1.4.2 Alternative B: Development Consistent with Existing Zoning/Specific Plan

This alternative assumes that the property would be developed to the maximum allowed under the existing RC zoning designation (Belmont Zoning Ordinance Section 5.4). Hypothetically this could result in a project with one or more office buildings with an FAR of 1.8 and a maximum building height of 55 feet. To reach an FAR of 1.8 with existing building heights, the design of the project would require a much larger building footprint, greater site coverage and minimal setbacks. To reach a maximum FAR of 1.8 and provide adequate parking, site coverage could be 75 percent or more to accommodate office buildings and a parking structure. With a maximum building height of 55 feet, a more realistic development scenario assumes two 4-story buildings of approximately 150,000 square feet each for a total of 300,000 square feet of office space, plus a 5-level parking garage. While the RC district allows for a range of permitted and conditionally permitted uses, this alternative assumes commercial office use/R&D consistent with the project objectives.

### 1.4.3 Alternative C: Reduced Parking Alternative

This alternative assumes a reduction in total parking from 1,626 proposed vehicle spaces to 1,300 (20 percent reduction from the minimum office parking standard). The alternative may require adjustments to the development program to accommodate the new parking plan or a smaller parking structure. A smaller parking structure could be designed with either a lower height, or slightly smaller footprint. Under this scenario, parking standards would be relaxed, with the project relying more heavily on Transportation Demand Management (TDM) measures to manage and reduce parking demand.

### 1.4.4 Alternative D: Office Use Only

This alternative concept assumes that the proposed buildings are constructed and used only for professional office space, with no programmed laboratory or manufacturing uses. Multiple tenants could occupy the space, or the buildings could be leased to one or more larger tenants. The type of potential tenants could be wide ranging, such as financial services, technology, academics and research (non-laboratory), consulting services, corporate headquarters, medical office or similar uses. Ground floor spaces could also include limited supporting commercial uses such as food service/cafes and convenience services. The total number of employees occupying the buildings under Alternative D could

be slightly greater, as laboratory spaces could involve larger interior working spaces and higher ceilings (compared to typical private offices and work stations). All other aspects of the development program and design would remain the same.

### 1.4.5 Environmentally Superior Alternative

Pursuant to the CEQA Guidelines, Alternative D, Office Use Only, would be the Environmentally Superior Alternative. With the removal of life science laboratory uses up to BSL-3, this alternative would reduce the degree of impact in several areas including total air quality and GHG emissions, energy use, water consumption and noise. Alternative D would also remove concerns regarding the use and transport of hazardous at the project site.

However, the project as proposed does not result in any significant unavoidable environmental effects, and the feasible alternatives analyzed, by comparison, do not eliminate or reduce one or more significant effects to a less than significant level once project mitigation is applied.

# 2 Introduction

This Environmental Impact Report (EIR) has been prepared to identify and evaluate the potential environmental impacts associated with the 1301 Shoreway Project (project, proposed project, or 1301 Shoreway) in the City of Belmont. Four Corners Properties (the project applicant) has submitted a development application to the City of Belmont (city) requesting a Conceptual and Detailed Development Plan (CDP & DDP) to allow for greater building heights than permitted under the city's existing zoning for the property and to allow for flexibility in land use (office and life science). The buildings would be constructed as a campus on a 6.91-acre parcel located at 1301 Shoreway Road. The development includes 542,035 square feet of employment uses (e.g., commercial office and/or life science space), a parking structure, and landscape improvements including a central courtyard.

Specifically, the proposed project would include two commercial office/life science buildings. Building 1 would be located on the western portion of the project site and Building 2 would be on the northeastern portion of the property. Building 1 is proposed for approximately 270,452 square feet within 8 stories and Building 2 would be approximately 271,583 square feet within 7 stories. The taller Building 1, at its highest point, would be 144 feet.

In addition to the two buildings, the project includes a 9-level, 442,690 square foot parking structure with 1,432 spaces, and a total of 1,626 parking spaces on the property. The project also includes outdoor amenities such as an open central plaza, sport court, planted meadow area, pedestrian promenade and inclusion of public art. Please see Chapter 3 for a detailed description of the project.

Though the architecture and exterior of the physical buildings may have the appearance of typical office or business park uses, a life science facility can have specific operational demands and characteristics that are unique. One of those characteristics is Biosafety Levels, or BSLs. The Centers for Disease Control and Prevention (CDC) defines biosafety as the application of safety precautions that reduce a laboratory or lab worker's risk. There are four BSLs (BSL-1 through BSL-4). BSL-1 presents the lowest risk of microbes, while BSL-4 represents the highest. While tenants have not been identified, potential life science uses and research could include biology, chemistry, biochemistry, tissue culture, sequencing, mass spectrometry, imaging technology and similar uses. The project could include up to BSL-3 facilities and associated precautions, laboratory practices, safety equipment and specific facility construction such as decontamination equipment, specific exhaust and airflow requirements and two sets of self-closing and locking doors.

The 6.91-acre project site is on Belmont's east side, located at 1301 Shoreway Road. The site is located on one parcel (Assessor Parcel Number [APN] 040-371-110) and bounded by Shoreway Road to the west, Sem Lane to the north, Belmont Creek to the east, and a PG&E electrical substation to the south. The project is within the city limits of Belmont, San Mateo County, CA.

The City of Belmont is the public agency with the principal responsibility for approving the project, and as such is the Lead Agency under the California Environmental Quality Act (CEQA) as defined in CEQA Guidelines Section 15367. CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action on the proposal. This EIR is intended to serve as an informational document to be considered by the city and other responsible or permitting agencies during their respective processing of permits and approvals for the proposed project.

## 2.1 Purpose and Intended Uses of the EIR

This EIR has been prepared to evaluate the environmental consequences that may result from implementation of the proposed project. The EIR provides an evaluation of the proposed project at a project-level pursuant to the Guidelines for the California Environmental Quality Act (State CEQA Guidelines) (CCR Title 14, Chapter 3, Sections 15000-15387), Sections 15161 and 15168(a)(2), respectively. According to Section 15161 of the State CEQA Guidelines, a project-level EIR is appropriate for specific development projects for which information is available for all phases of the project, including planning, construction, and operation.

CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action. This EIR provides information to the Lead Agency and other public agencies, the general public, and decision makers regarding the potential environmental impacts from the construction and operation of the proposed project.

Public review and involvement is a central objective of CEQA. The purpose of the public review of the EIR is to evaluate the adequacy of the environmental information in a transparent and publicly available setting. Section 15151 of the CEQA Guidelines states the following regarding standards by which adequacy is judged:

> *An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts. The courts have not looked for perfection but for adequacy, completeness, and a good faith effort at full disclosure.*

Under CEQA, "The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the proposed project, and to indicate the manner in which those significant effects can be mitigated or avoided" (PRC Section 21002.1[a]). An EIR is the most comprehensive form of environmental documentation identified in CEQA and the CEQA Guidelines and provides the information needed to assess the environmental consequences of a proposed project. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts.

As required by State CEQA Guidelines Section 15128, this EIR must identify the effects of the project determined to be significant. Chapter 4 of this EIR identifies the subject matter that is the focus of analysis, and also identifies where certain environmental issues will have no resulting impact from the project.

## 2.2 EIR Organization

Pursuant to State CEQA Guidelines, Section 15120(c), this EIR contains the information and analysis required by Sections 15122 through 15131. Each of the required elements is covered in one of the EIR chapters and appendices, organized as follows.

- **Executive Summary**. A concise overview of the project description, summary impacts and mitigation measures, project alternatives, and key findings of the EIR document.
- **Introduction**. A discussion of the background, purpose and need for the project, briefly describing the project, and outlining the public agency's use of the EIR.
- **Project Description**. Detailed description of all aspects the proposed project.
- **Environmental Analysis:** A comprehensive analysis and assessment of impacts and mitigation measures for the proposed project. This section is divided into separate chapters for each environmental resource and contains the environmental settings, analysis and potential impacts of the proposed project. A description of the approach to cumulative impacts analysis is presented in Chapter 4: Introduction to Environmental Analysis, and cumulative impacts are discussed at the end of each environmental resource chapter.
- **Alternatives**. This chapter includes an explanation of the alternatives evaluation process, as well as a description of alternatives considered but eliminated from further analysis and the rationale thereof. This section also includes an analysis and assessment of impacts for a range of feasible alternatives, including the No Project Alternative.
- **Other CEQA Considerations**. A discussion of growth-inducing effects, long-term implications of the project, and significant environmental effects that cannot be avoided if the proposed project is implemented.
- **EIR Preparers and Organizations Consulted**
- **Appendices.** Copies of project-related appendices are available on the City of Belmont's public-facing website.

## 2.3 Environmental Review Process

Figure 2-1: The EIR Process, provides a flowchart of the main steps in the environmental review process. CEQA requires the Lead Agency to provide the public with a full disclosure of the expected environmental consequences of the proposed project and with an opportunity to provide comments. Consistent with CEQA, the opportunities for public participation in the review process are provided in the following steps:

### 2.3.1 Notice of Preparation (NOP), Public Scoping, and Summary of Comments Received

Pursuant to Section 15082 of the CEQA Guidelines, as amended, the city prepared and circulated a NOP to affected agencies and interested parties for a 37-day public review period beginning on June 19, 2024, and ending on July 26, 2024. A public scoping meeting was held on July 16, 2024, during a regularly scheduled meeting of the Planning Commission, at City Hall and via Zoom.

Comments were received from 10 individuals, organizations and/or agencies, received as both written letters and emails. Additional comments were heard at the public scoping meeting. Concerns raised in response to the NOP and scoping meeting have been considered during preparation of the Draft EIR, throughout the individual chapters. The NOP and responses by interested parties are presented in **Appendix A** to this Draft EIR.

Public and agency comments on the NOP expressed an interest to see the following issues addressed in the EIR. It should be noted that the responsibility of the EIR is to disclose environmental effects of the project, and not all comments, letters and subjects submitted are subject to evaluation under CEQA.

- Aesthetics (visual quality and visual access)
- Effects of project lighting, reflective surfaces and noise upon wildlife and nesting birds
- BCDC jurisdiction and policy issues
- Protection of the Belmont Creek riparian corridor, special status species, tidal marshes/tidal flats
- Treatment and protection of cultural/tribal cultural resources and AB 52 compliance
- Local geology and soils, geologic hazards, fill and erosion
- Hydrology, groundwater, sea level rise and inundation risk
- Water quality standards, erosion risk and discharge requirements
- Public access and access to public recreation and amenities
- Vehicle miles travelled (VMT), public transit and alternative forms of transportation
- Building heights relative to San Carlos Airport (aeronautics)
- Issues specific to life science/laboratory land use (including BSL levels, biohazards, emergency response, energy and water use and waste disposal)

### 2.3.2 Draft EIR

This Draft EIR addresses the potential environmental effects of the project and was prepared following input from the public and the responsible and affected agencies, through the EIR scoping process, as discussed above. The Draft EIR contains a project description, an environmental setting description, identification of project impacts, mitigation measures for impacts found to be significant, and an analysis of project alternatives. Upon completion of the Draft EIR, a Notice of Completion (NOC) was filed with the Governor's Office of Planning and Research to begin the public review period pursuant to PRC Section 21161.

### 2.3.3 Public Notice/Public Review

The public comment period for this Draft EIR will be a minimum of 45 days. A Notice of Availability (NOA) has been prepared separately to accompany this EIR, consistent with CEQA Guidelines Section 15087. Written comments may be sent to the City of Belmont at the address below. Comments must be received no later than 5:00 p.m. upon the last day of the comment period.

**City of Belmont**
Christopher Dacumos, Senior Consulting Planner
City of Belmont, Community Development Department
Belmont City Hall
1 Twin Pines Lane, Belmont CA 94002
cdacumos@goodcityco.com

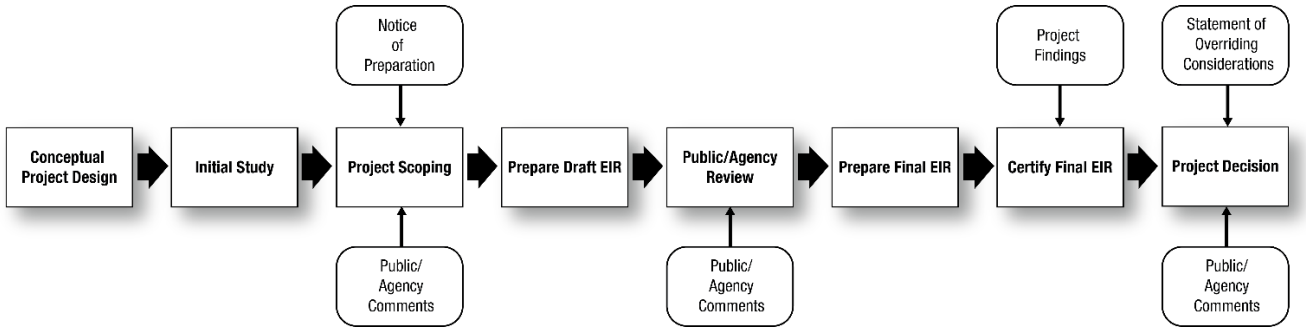
### 2.3.4 Response to Comments/Final EIR Process

Following the close of the public comment period, a Final EIR will be prepared to respond to all substantive comments related to environmental issues surrounding the content of the Draft EIR. Pursuant to Section 15088.5(f)(2) of the CEQA Guidelines, the city requests that reviewers limit their comments to the content of the Draft EIR. The city will respond to all comments related to the disposition of environmental effects made during the Draft EIR public review period.

The Final EIR will be available prior to Planning Commission and City Council public hearings to consider this Draft EIR and the proposed project.

Concurrent with the city's consideration of the Final EIR, the City Council will also consider the merits of the project itself. This consideration may render a request to revise the project, or an approval or denial. If the project is approved, the City Council may require mitigation measures specified in this Draft EIR as conditions of project approval. Alternatively, the City Council could require other mitigation measures deemed to be effective mitigations for the identified impacts, or it could find that the mitigation measures cannot be feasibly implemented. For any identified significant impacts for which no mitigation measure is feasible, or where mitigation would not reduce the impact to a less-than-significant level, the City Council would be required to adopt a finding that the impacts are considered acceptable because specific overriding considerations indicate that the project's benefits outweigh the impacts in question.

**Figure 2-1: The EIR Process**



# 3 Project Description

## 3.1 Project Location

The 6.91-acre project site is on Belmont's east side, located at 1301 Shoreway Road at the northeast intersection of Shoreway Road and Sem Lane. The site is located on one parcel (Accessor Parcel Number [APN] 040-371-110) and bounded by Shoreway Road to the west, Sem Lane to the north, Belmont Creek and Redwood City to the east, and a PG&E electrical substation to the south. Shoreway Road serves as a frontage road for Highway 101. The project is within the city limits of Belmont in San Mateo County, CA.

Regional vehicular access to the project site is provided by U.S. Highway 101/Bayshore Freeway (Highway 101) via the Ralston Avenue interchange which connects to Shoreway Road via Marine Parkway, approximately 0.26-mile northeast of the project site. South of the site, access is provided via the Highway 101/Holly Street interchange, via Twin Dolphin Drive to Cormorant Drive. Two driveways along the northern extent of Sem Lane provide direct access to the project site. The Belmont Caltrain station is located approximately 1.2 miles east of the project site, providing weekday service from San Francisco to Gilroy and weekend service from San Francisco to San Jose.

The project's regional location is shown in **Figure 3-1: Regional Location**. A focused location map is provided in **Figure 3-2: Project Vicinity Map**.

## 3.2 Existing Site and Surrounding Conditions

The project site is currently developed with a 148,919 square foot multi-tenant medical office building that was constructed in 1983, and associated surface parking and landscaping. The southeastern corner of the project site includes outdoor amenities for the public consisting of a seating area with benches, barbeque grills and a basketball court that is accessed by a pedestrian walkway connected to the surface parking area and a pedestrian walkway connected to the adjacent trail along Belmont Creek. Separate amenities are also provided to the tenants including a sports court and courtyards. Because the project site fronts Belmont Creek, a riparian area with a hydraulic connection to San Francisco Bay, approximately 55 feet of the eastern edge of the property is within the jurisdiction of the Bay Conservation and Development Commission (BCDC).

There are 176 existing trees on the project site, a majority of which are non-native landscape trees. The project site elevation is approximately 10 feet above mean sea level and the topography in the vicinity of the project site slopes downward gently to the northeast toward Belmont Creek. Frontage improvements include paved sidewalks along Shoreway Road and along the southeastern extent of Sem Road. Existing street lighting is located along Shoreway Road and Sem Road, and site lighting is provided within the existing surface parking areas.

Surrounding land uses are primarily commercial and include hotels and a City of Belmont Public Works Corporation Yard to the north, a PG&E electrical substation to the south, office uses in neighboring Redwood City to the east beyond Belmont Creek, and Shoreway Drive to the west with U.S. 101 beyond. The project vicinity is largely developed with established urban uses, including hotels, commercial and office/technology. However, the east side of the project site is adjacent to Belmont Creek. Across the creek is the Redwood Shores neighborhood of Redwood City and a stretch of the San Francisco Bay Trail which follows along the northbound section of Twin Dolphin Drive. San Carlos Airport and Hiller Aviation Museum, a general aviation airfield, is located approximately 4,500 feet to the south. An aerial view of the site and surrounding uses is shown in **Figure 3-3: Surrounding Land Uses**.

Existing infrastructure systems near the project site include an existing 8-inch water main along Shoreway Road, a 12-inch water main along Sem Lane, an 18-inch sanitary sewer main along Shoreway Road and an existing 6-inch sanitary sewer main along Sem Lane. The sanitary sewer mains flow towards the southeast and ultimately enter a 26-inch sanitary sewer main that flows northeast to the Island Parkway Pump Station. The site is also served by existing storm drains, natural gas, electricity and cable infrastructure.

With proximity of Highway 101 immediately to the west, ambient noise levels are high, and the environment is typical of a developed light industrial or commercial area.

## 3.3 General Plan Land Use Designations and Zoning

On November 14, 2017, the city adopted its 2035 General Plan. The General Plan was a collaborative effort between the city, its residents, and stakeholders to create a vision and a blueprint for development through 2035. The project site has a General Plan land use designation of Regional Commercial (COM-R) and corresponding zoning of Regional Commercial (RC). The COM-R designation and RC zoning allow for a broad range of community-serving retail and services, visitor- and retail-serving auto-oriented commercial services (such as lodging, service stations), car dealerships, and commercial office uses. Some light industrial and research and development (R&D) uses may also be permitted. The adopted maximum floor area ratio (FAR) for the COM-R designation/RC zoning is 1.8, with a maximum building height of 55 feet.




Source: ESRI, 2024

**Figure 3-1: Regional Location**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn




Source: Nearmap, 2024

**Figure 3-2: Project Vicinity Map**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn




Source: Nearmap, 2024

**Figure 3-3: Surrounding Land Uses**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn

## 3.4 Project Objectives

### 3.4.1 Background

Section 15124 of the CEQA Guidelines requires that a clearly written statement of objectives be presented in an EIR to help lead agencies develop a reasonable range of alternatives, and to aid the decision makers in preparing findings of significant effects or a statement of overriding considerations, as necessary.

### 3.4.2 Statement of Project Objectives

#### Project Purpose

The applicant is proposing a life science office / research campus and an associated parking structure at 1301 Shoreway Road, consistent with allowable uses for the property under the 2035 General Plan. The project would create life science/laboratory research space and supporting office that would generate economic and jobs growth within the city. The project, or alternatives to the project, must meet all or most of the following stated objectives:

#### Project Objectives

1. Create an integrated office and/or research and technology campus in an underutilized area of Belmont with a cohesive courtyard and with sufficient parking.
2. Build a project in a highly visible and accessible corridor to increase employment opportunities in the City of Belmont.
3. Create additional green space.
4. Provide Transportation Demand Management measures to reduce and mitigate vehicle miles traveled generated by the project.
5. Achieve architectural compatibility with surrounding vicinity through well-articulated buildings.
6. Address flood elevation requirements.
7. Improve site aesthetics through enhanced landscaping and amenities.
8. Provide access to and amenities on lands within Bay Conservation and Development Conservation (BCDC) jurisdiction consistent with BCDC guidelines.
9. Deliver a sustainable and energy efficient project to reduce carbon load impact.
10. Improve street and pedestrian safety as well as vehicular, pedestrian and bicycle access through design efficiencies.

## 3.5 Project Components

### 3.5.1 Proposed Uses

The proposed project would result in:

- The demolition of the existing 148,919 sf medical office building and surface parking lot,
- The removal of 156 trees, planting of 160 new trees, and the transplanting of 20 trees, including 3 protected trees
- The development of a new office/research and technology complex

The project site consists of a 6.91-acre parcel and is located at 1301 Shoreway Road. The proposed development includes 542,035 square feet of employment uses (e.g. office and laboratory space), a 442,690 square foot parking garage, and landscape improvements including a central courtyard. The

interior square footage is assumed to be 50 percent life science laboratory and 50 percent supporting office use. A series of outdoor amenities are proposed along the rear of the property, accessible from the slough and adjacent trail. See **Figure 3-4: Proposed Site Plan**, and the descriptions below.

The project applicant is requesting a rezoning to the Planned Unit Development ("PD") zoning designation and associated Conceptual and Detailed Development Plan (CDP & DDP) to allow for greater building heights than permitted under the city's existing zoning for the property and to allow for flexibility in land use (office and life science). The PD District is designed to accommodate various types of development, such as professional and administrative areas, commercial service centers, industrial parks, and other uses or a combination of uses, to allow flexibility of design, in accordance with the objectives and spirt of the General Plan.

### Building Program

The proposed project would include two commercial office/life science laboratory buildings: Building 1 would be located on the western portion of the project site adjacent to Shoreway Road and Building 2 would be on the northeastern portion of the project site along Sem Lane. Building 1 would be approximately 270,452 square feet with 8 stories. The proposed building would be approximately 128 feet in height to the roof line and would extend to approximately 144 feet including rooftop screening. Building 1 would include 21 Class 2 bike racks (42 bike parking spaces) along the northwestern side of the building. Building 2 would be approximately 271,583 square feet with 7 stories. The proposed building height would be approximately 112 feet to the roofline and approximately 128 feet including rooftop screening. Building 2 would include 20 Class 2 bike racks (40 bike parking spaces) along the northern side of the building. The proposed 9-level parking garage would serve both buildings with a total of 1,626 spaces.

While tenants have not yet been identified, potential end users could include a single or multiple tenants such as professional services, corporate headquarters, research and development, life science, biotechnology companies, and limited supporting retail commercial. For analysis purposes, and as noted above, this EIR assumes an equivalent mix of life science laboratory and supporting office use.

Life sciences as a more specialized type of research and development use is becoming more common in the greater Bay Area, taking advantage of growing demand coupled with the presence of several world-class research, education, and medical institutions nearby. While the architecture and exterior of the physical buildings may have the appearance of typical office or business park uses, this type of research and laboratory facility can have specific operational demands and characteristics that are unique.

One of those characteristics is Biosafety Levels, or BSLs. According to the Centers for Disease Control and Prevention (CDC), biosafety is the application of safety precautions that reduce a laboratory or lab worker's risk of exposure to potentially infectious microbes and limit contamination of the work environment and community. There are four BSLs (BSL 1 through BSL 4). Each biosafety level builds on the controls of the level before it. BSL 1 presents the lowest risk of microbes, while BSL 4 represents the highest and is generally limited to government facilities. Every microbiology laboratory, regardless of biosafety level, follows standard microbiological practices.

Potential life science uses and research could include biology, infectious diseases, chemistry, microbiology, biochemistry, tissue culture, sequencing, mass spectrometry, imaging technology and similar uses. The life science/laboratory buildings assume accessory office space for researchers as well as laboratory space and related equipment. While the majority of microbiology laboratories operate in a BSL 2 environment or below, the project assumes BSL 3 facilities and associated precautions, laboratory

practices, safety equipment and specific facility construction such as decontamination equipment, specific exhaust and airflow requirements and two sets of self-closing and locking doors.

### Architectural Design Concept

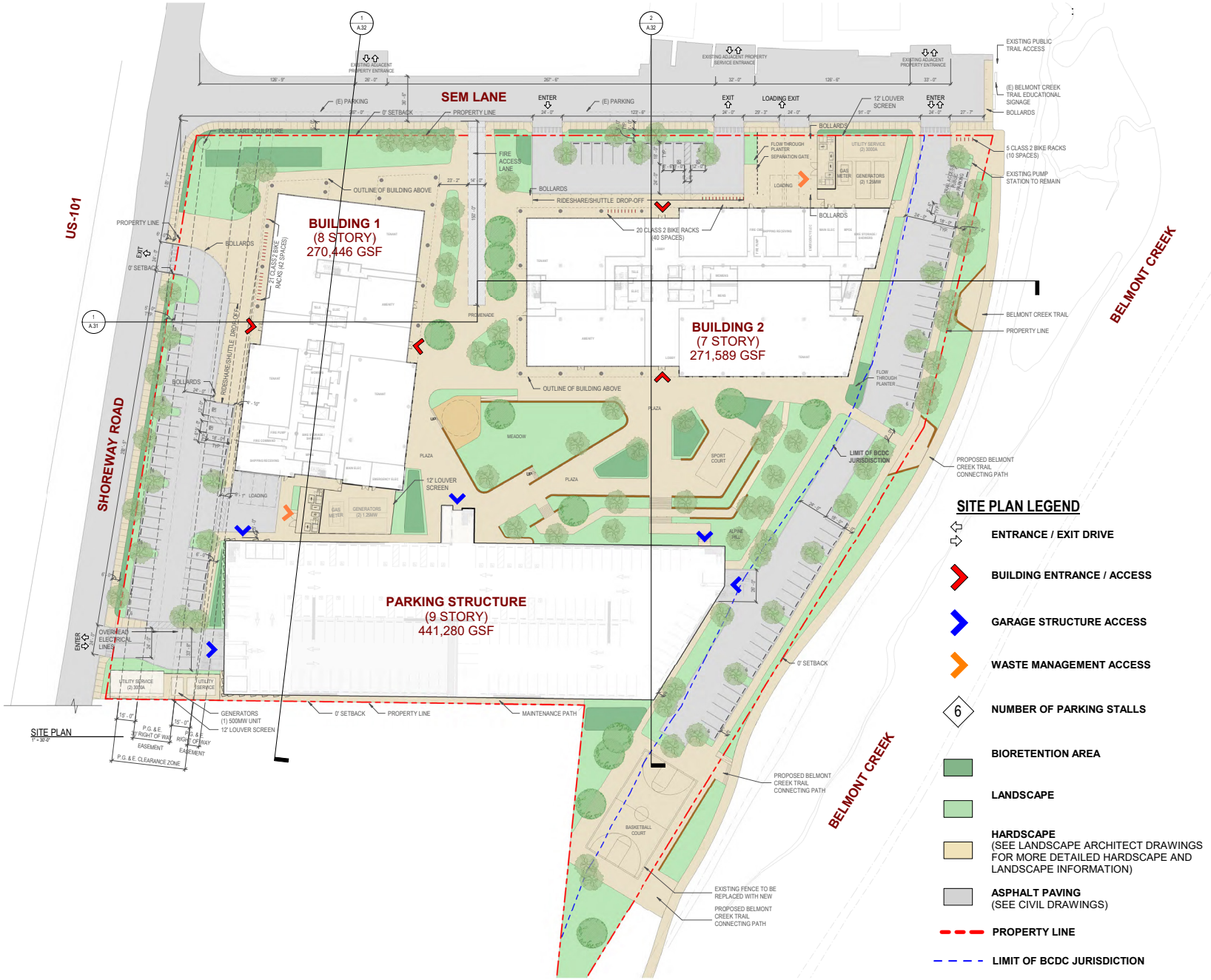
The preliminary architectural design calls for a range of building materials and finishes for façade articulation. The office buildings would include a mixture of solid and glazed panels on the exterior of the buildings. The general vision for the project design includes contemporary, geometric shapes and lines, and a mix of modern/industrial materials such as glass, aluminum, and concrete. The parking garage and buildings facades incorporate louvered screening with aluminum fins and perforated metal panels adorning the structures. See **Figure 3-5**, **Figure 3-6**, **and Figure 3-7**. The applicant's design package specifically calls for bird-safe building treatments such as non-reflective and partially opaque glazing, materials and glazing that create patterns to break up the exterior expanse of glass, minimization of external lighting and recessing the first two levels from the upper floors.

### Landscape Improvements and Open Space

The proposed landscaping plan and plant palette is provided as **Figure 3-8: Proposed Landscape Plan**. The project site currently has mature landscape vegetation including trees and shrubs along the site boundaries and within the parking areas. Project implementation would remove existing vegetation, including 156 trees, 51 of which are protected trees. Tree removal is subject to Belmont Municipal Code Chapter 25 which requires project applicants to obtain and comply with a Tree Removal Permit. Based on the city's Tree Removal Permit requirements, for each protected tree removed the applicant must plant a preferred species tree, minimum 15 gallons, or pay an in lieu of planting fee. The project's tree planting plan identifies planting 132 replacement trees ranging in size from 24 gallons to 60-inch boxes. Additionally, the project proposes to transplant 20 of the existing trees on the project site.

Other landscaping throughout the site would include a mix of grasses, shrubs, and groundcover. The project proposes outdoor amenities and open space features including an approximately 28,182 square foot central plaza, 6,864 square foot planted meadow area, 14,449 square foot "alpine hill" feature, 4,813 square foot sport court and 8,031 square foot basketball court. The project would also provide a pedestrian promenade throughout the site and an entry plaza, with a public art/sculpture installation at the corner of Sem Lane and Shoreway Road. Landscape features throughout the project site would include a variety of seating options and shade structures for site employees and guests. See **Figure 3-9: Outdoor Landscape and Amenities**.

Overall, project landscaping would cover approximately 27 percent (84,150 square feet) of the project site. The proposed landscape plan is designed to meet the Water Efficiency in Landscape Ordinance (WELO), adopted by the city's water provider, Mid-Peninsula Water District (MPWD). Proposed features include a low flow irrigation system equipped with a weather based smart controller. On-site landscaping would meet State water efficient landscape standards and Stage 2 drought restrictions. Final landscape plans would be subject to review during Development Plan Review to ensure compliance.




Source:Applicant Planning Package, February 2024

**Figure 3-4: Proposed Site Plan**

1301 Shoreway Project
*Draft EIR*

Not to scale

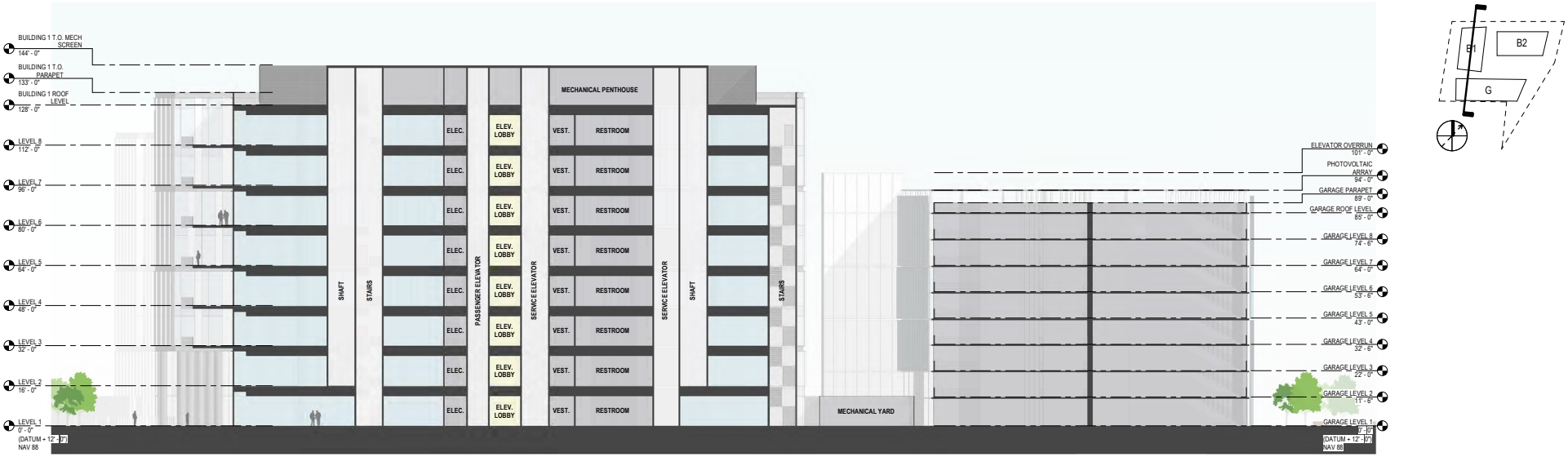
Kimley»Horn







**SECTION - THROUGH BUILDING 2 AND GARAGE LOOKING EAST**







**SECTION - THROUGH BUILDING 1 AND GARAGE LOOKING EAST**

Source: Applicant Planning Package, February 2024

## Figure 3-5: Site Elevations

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn

1

VISION GLASS A

1" INSULATED GLAZING WITH LOW-TINT CLEAR GLASS

SOLARBAN 90 SOLAR CONTROL LOW-E GLASS STARPHIRE



2

SPANDREL GLASS A

1" INSULATED GLAZING WITH LOW-TINT CLEAR GLASS

SOLARBAN 90 SOLAR CONTROL LOW-E GLASS W/CERAMIC FRIT



3

VISION GLASS B

1" INSULATED GLAZING WITH LOW-TINT CLEAR GLASS

SOLARBAN 60 SOLAR CONTROL LOW-E GLASS



4

SPANDREL GLASS B

1" INSULATED GLAZING WITH LOW-TINT CLEAR GLASS

SOLARBAN 60 SOLAR CONTROL LOW-E GLASS W/CERAMIC FRIT



5

MULLION EXTENDED FINS

FLUROPON MICA FINISH

COLOR: STONE

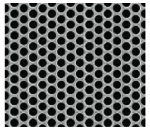


6

ALUMINIUM COLUMN COVER

FLUROPON MICA FINISH

COLOR: PEWTER

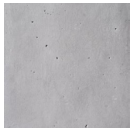


7

PERFORATED METAL PANEL

POWDER COATED ALUMINUM

COLOR: GRADIENT/ VARIES



8

ARCHITECTURAL CONCRETE

CAST IN PLACE



9

ALUMINIUM COMPOSITE WALL PANEL

ANODIZED FINISH



10

ALUMINIUM COMPOSITE PANEL SOFFIT

NATURAL WOODGRAIN FINISH



11

SHADOW BOX PANEL

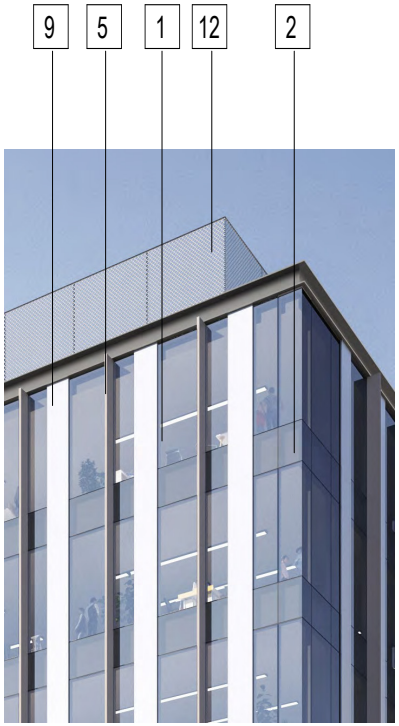
1" INSULATED GLAZING WITH LOW-TINT CLEAR GLASS

SOLARBAN 90 SOLAR CONTROL LOW-E GLASS STARPHIRE

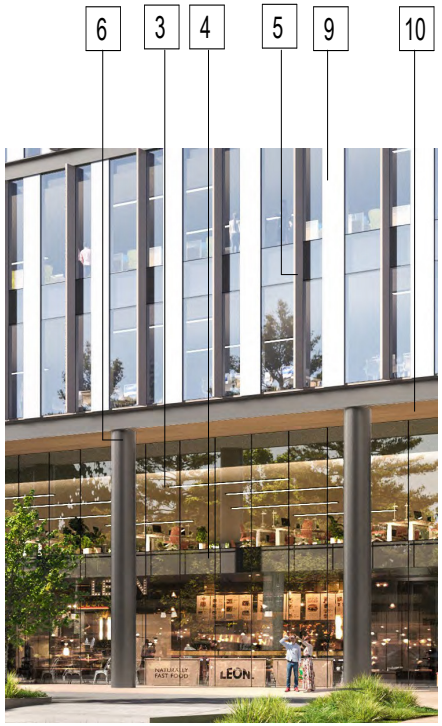


12

ARCHITECTURAL LOUVER SCREEN




BUILDINGS 1 & 2




BUILDINGS 1 & 2




PARKING GARAGE

Source: Applicant Planning Package, February 2024

**Figure 3-6: Architechtural Finishes**

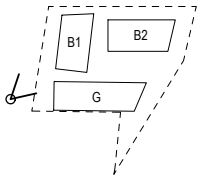
1301 Shoreway Project
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Not to scale

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VIEW FROM US-101 LOOKING NORTH



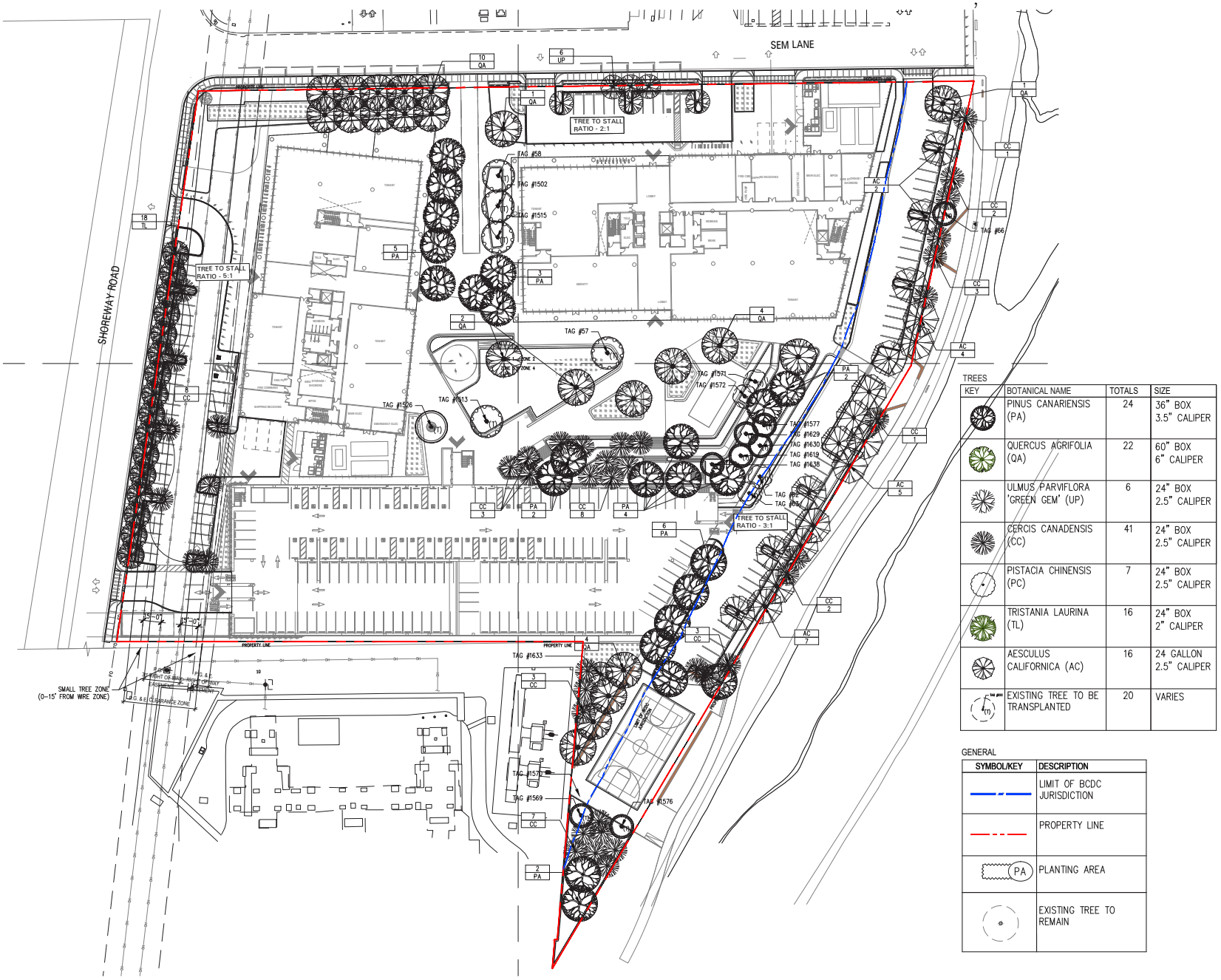

Source: Applicant Planning Package, February 2024

**Figure 3-7: Perspective Rendering**

1301 Shoreway Project
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Not to scale

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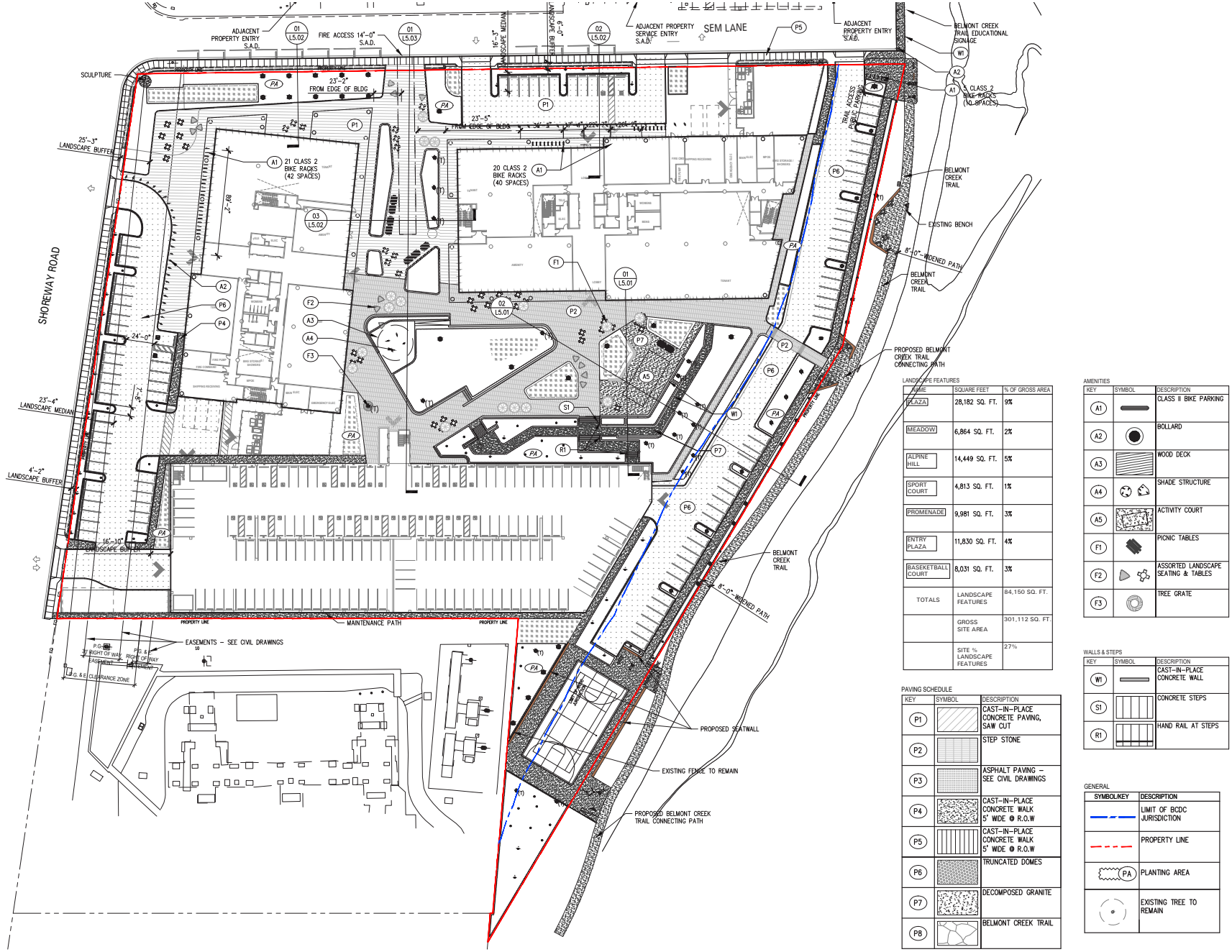

Source:Applicant Planning Package, February 2024

**Figure 3-8: Proposed Landscape Plan**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn




LANDSCAPE FEATURES

| NAME | SQUARE FEET | % OF GROSS AREA |
|---|---|---|
| PLAZA | 28,182 SQ. FT. | 9% |
| MEADOW | 6,864 SQ. FT. | 2% |
| ALPINE HILL | 14,449 SQ. FT. | 5% |
| SPORT COURT | 4,813 SQ. FT. | 1% |
| PROMENADE | 9,981 SQ. FT. | 3% |
| ENTRY PLAZA | 11,830 SQ. FT. | 4% |
| BASEKETBALL COURT | 8,031 SQ. FT. | 3% |
| TOTALS | LANDSCAPE FEATURES | 84,150 SQ. FT. |
| | GROSS SITE AREA | 301,112 SQ. FT. |
| | SITE % LANDSCAPE FEATURES | 27% |

PAVING SCHEDULE

| KEY | SYMBOL | DESCRIPTION |
|---|---|---|
| P1 | | CAST-IN-PLACE CONCRETE PAVING, SAW CUT |
| P2 | | STEP STONE |
| P3 | | ASPHALT PAVING – SEE CIVIL DRAWINGS |
| P4 | | CAST-IN-PLACE CONCRETE WALK 5' WIDE @ R.O.W |
| P5 | | CAST-IN-PLACE CONCRETE WALK 5' WIDE @ R.O.W |
| P6 | | TRUNCATED DOMES |
| P7 | | DECOMPOSED GRANITE |
| P8 | | BELMONT CREEK TRAIL |

AMENITIES

| KEY | SYMBOL | DESCRIPTION |
|---|---|---|
| A1 | | CLASS II BIKE PARKING |
| A2 | | BOLLARD |
| A3 | | WOOD DECK |
| A4 | | SHADE STRUCTURE |
| A5 | | ACTIVITY COURT |
| F1 | | PICNIC TABLES |
| F2 | | ASSORTED LANDSCAPE SEATING & TABLES |
| F3 | | TREE GRATE |

WALLS & STEPS

| KEY | SYMBOL | DESCRIPTION |
|---|---|---|
| W1 | | CAST-IN-PLACE CONCRETE WALL |
| S1 | | CONCRETE STEPS |
| R1 | | HAND RAIL AT STEPS |

GENERAL

| SYMBOL/KEY | DESCRIPTION |
|---|---|
| | LIMIT OF BCDC JURISDICTION |
| | PROPERTY LINE |
| PA | PLANTING AREA |
| | EXISTING TREE TO REMAIN |

Source: Applicant Planning Package, February 2024

**Figure 3-9: Outdoor Landscape and Amenities**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn

### 3.5.2 Access, Circulation and Parking

Parking would be provided at grade internally along the project perimeter and within a 9-level, 442,690 square foot parking structure located on the southern portion of the project site. A total of 1,626 parking spaces are proposed, including 1,432 spaces in the parking garage, 93 valet parking spaces, and 101 additional uncovered surface parking spaces. The proposed parking garage would have a building height of 85 feet at roof level and would incorporate louvered screening with perforated metal paneling on the concrete structure. A proposed rooftop photovoltaic panel array would reach a height of 94 feet, with the elevator housing at 101 feet. See **Figure 3-10: Parking Garage Elevations**.

Access to the project site and onsite surface parking from Shoreway Road would be provided by a two-directional 24-foot wide driveway toward the southern end of the site connected to an exit only driveway toward the northern end of the site along Shoreway Road., serving a rideshare/shuttle drop-off area for Building 1. The two-directional full access driveway on Shoreway Road, would also provide direct access to the parking structure. Access to 11 surface parking spaces between Sem Lane and Building 2 would be provided from Sem Lane via two connecting driveways. These driveways would also serve a rideshare/shuttle drop-off area for Building 2. Additionally, a separate two-directional full access driveway at the end of Sem Lane would run along the back of the project parallel to Belmont Creek, providing access to three public parking spaces designated for trail access and public use, additional onsite surface parking, and the rear entrance to the parking garage.

A loading area for Building 1 is accessible from the connecting driveways along Shoreway Road. A second loading area for Building 2 is accessible from the connecting driveways along Sem Lane. A one-directional, exit-only, driveway would also be located on Sem Lane for use by trucks exiting the Building 2 loading area. Fire access to the project site would be provided by the sets of connecting driveways on Shoreway Road and Sem Lane, as well as a separate fire access road on the project site extending from Sem Lane.

The project would develop a pedestrian promenade that extends throughout the project site to provide access to Building 1 and Building 2 from the parking garage and provides access to on-site landscape amenities. Pedestrian access would be provided through common plaza areas and perimeter sidewalks enhanced with landscaping. Pedestrian connection points from Shoreway Road and Sem Lane would prohibit vehicular access through design elements such as bollards, landscaping and signage. With the project, existing sidewalks would remain along Shoreway Road, and additional improvements would be constructed along Sem Lane to improve pedestrian facilities adjacent to the project, as no sidewalk currently exists along the Sem Lane project frontage. The project would also provide 92 short-term bicycle parking throughout the site and 109 long-term bicycle parking spaces within the parking garage. See **Figure 3-11: Vehicular Circulation**.

### 3.5.3 Transportation Demand Management

The project applicant is required to prepare a Transportation Demand Management (TDM) plan as part of the overall project submittal and prior to entitlement. The intent of the TDM plan is to identify alternative transportation options available to employees to reduce vehicle trips and secondary effects such as vehicle emissions. The project's TDM plan, while still being prepared, is anticipated to include a combination of measures that meet or exceed the adopted City of Belmont TDM ordinance. A preliminary TDM plan is included in the project's transportation analysis.

### 3.5.4 Stormwater Management

The project site currently has approximately 251,142 square feet of impervious surfaces and 49,988 square feet of pervious surfaces. Project implementation would decrease the amount of impervious surfaces on site, resulting in a total of 188,861 square feet of impervious surfaces and 112,269 square feet of pervious surfaces. Additional pervious surface area would consist of 64,843 square feet of additional landscape area and 47,426 square feet of pervious pavement. Post-project conditions would decrease impervious surfaces by approximately 25 percent.

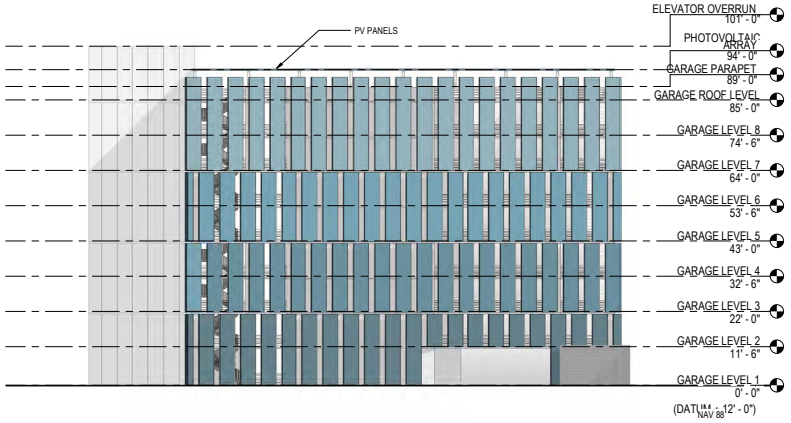
The preliminary stormwater management plan would require treatment areas sized by using the combination flow and volume-based sizing criteria in the 2014 San Mateo County C.3 Stormwater Technical Guidance Handbook. Stormwater treatment techniques would include a combination of integrated management practices, primarily bioretention areas and flow-through planters within 17 drainage management areas. See **Figure 3-12: Preliminary Stormwater Management Plan**.

### 3.5.5 Water, Wastewater, Solid Waste and Dry Utilities

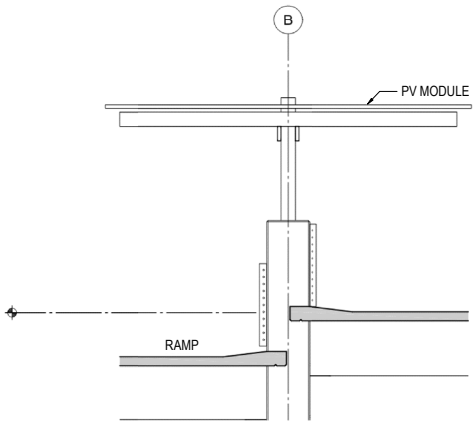
The project site would be served by local public utility and service providers, including:

- Pacific Gas and Electric
- Mid-Peninsula Water District
- Recology
- Comcast, AT&T, local cable and telecommunications providers

Connections for service to the project currently exist within public rights-of-way and would be upgraded as necessary to service the project's demands. Several new points of connection would be required to existing infrastructure in Shoreway Road and Sem Lane. **Figure 3-13: Preliminary Utility Plan** shows the project's preliminary utility connections.

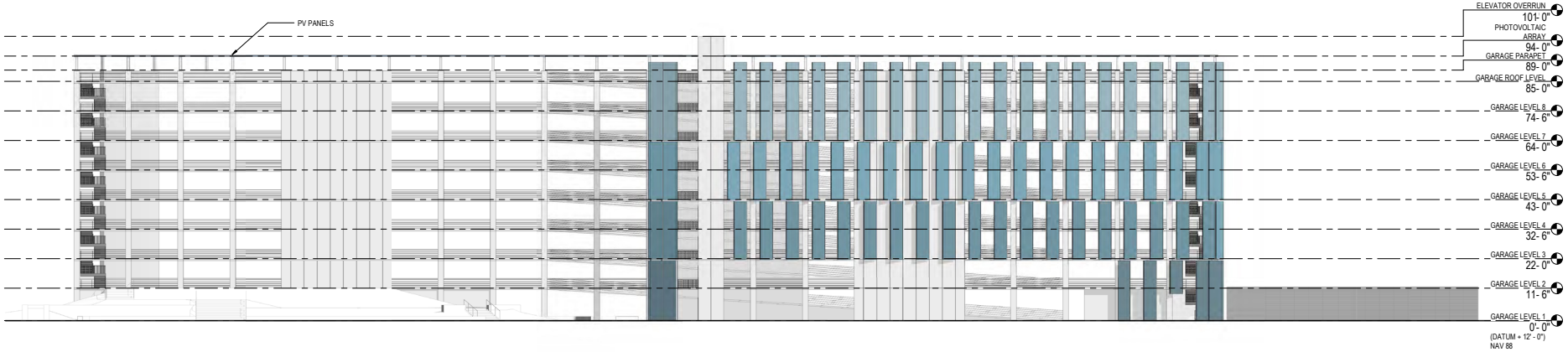



2 GARAGE - WEST ELEVATION
SCALE: 1/16" = 1'-0"

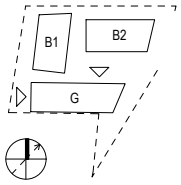



**PV DETAIL**

General Note:
PV's manufacturer and attachment details to be developed during documenation.




1 GARAGE - NORTH ELEVATION
SCALE: 1/16" = 1'-0"



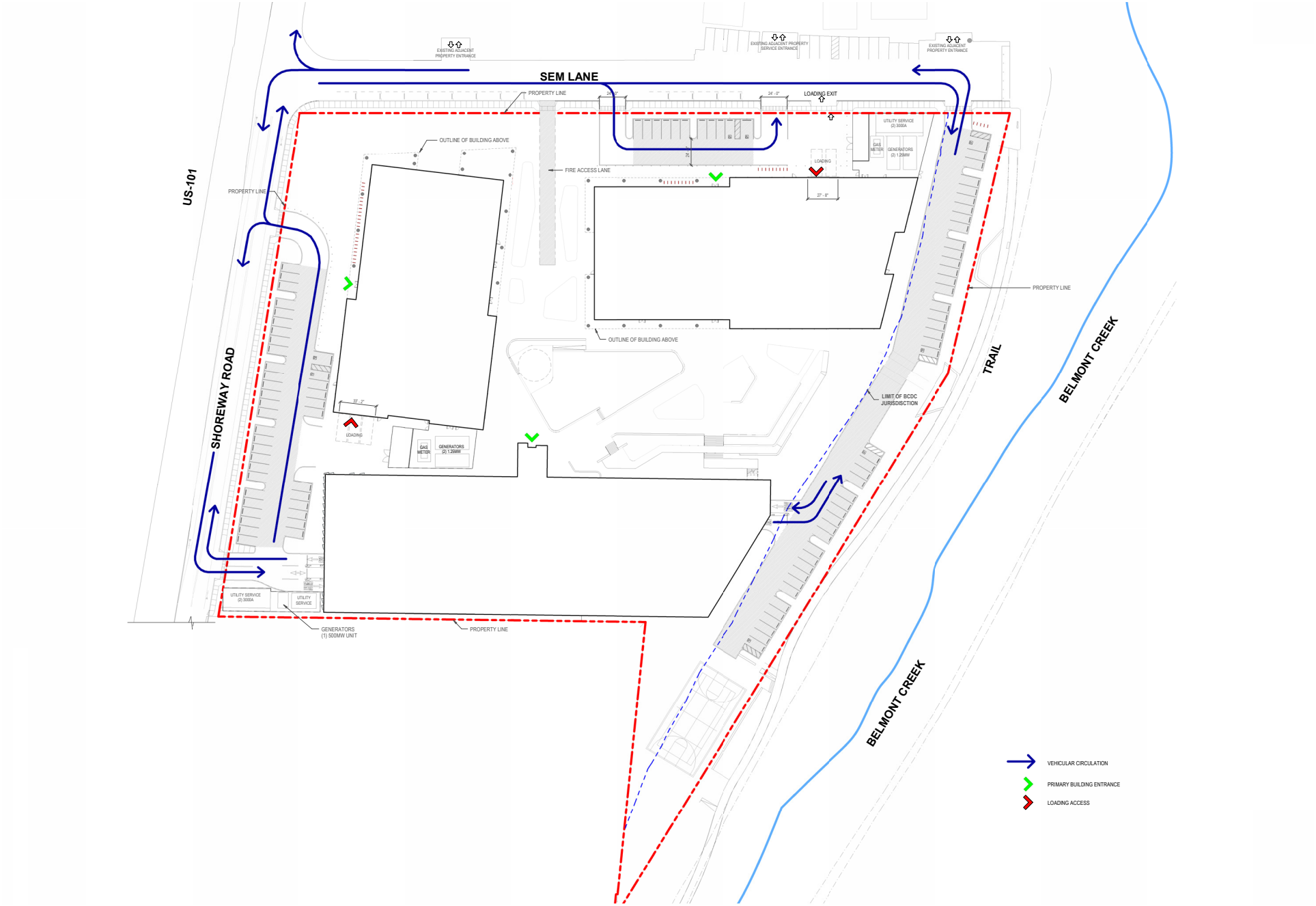

Source: Applicant Planning Package, February 2024

**Figure 3-10: Parking Garage Elevations**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn



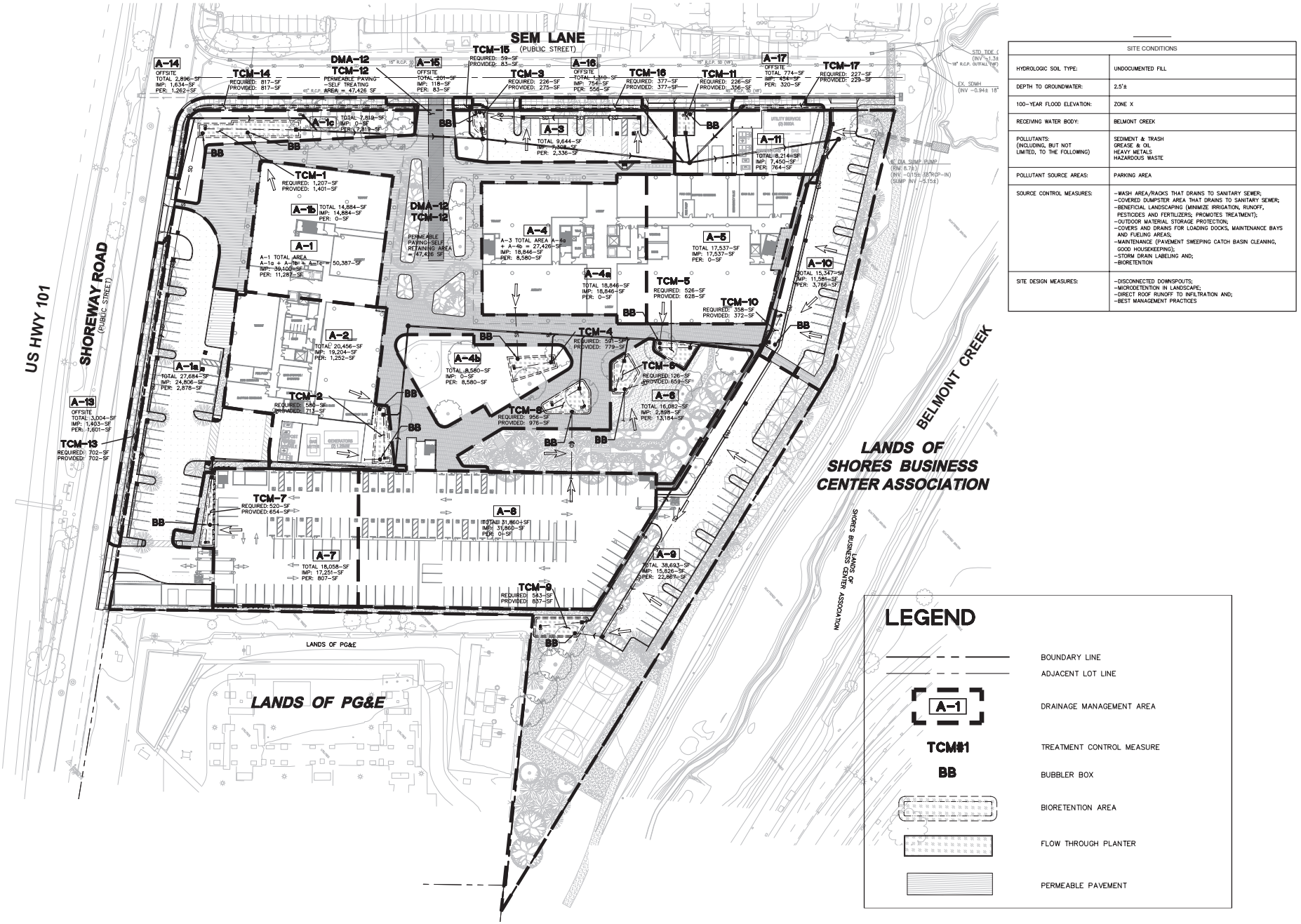

Source: Applicant Planning Package, June 2024

**Figure 3-11: Vehicular Circulation**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn



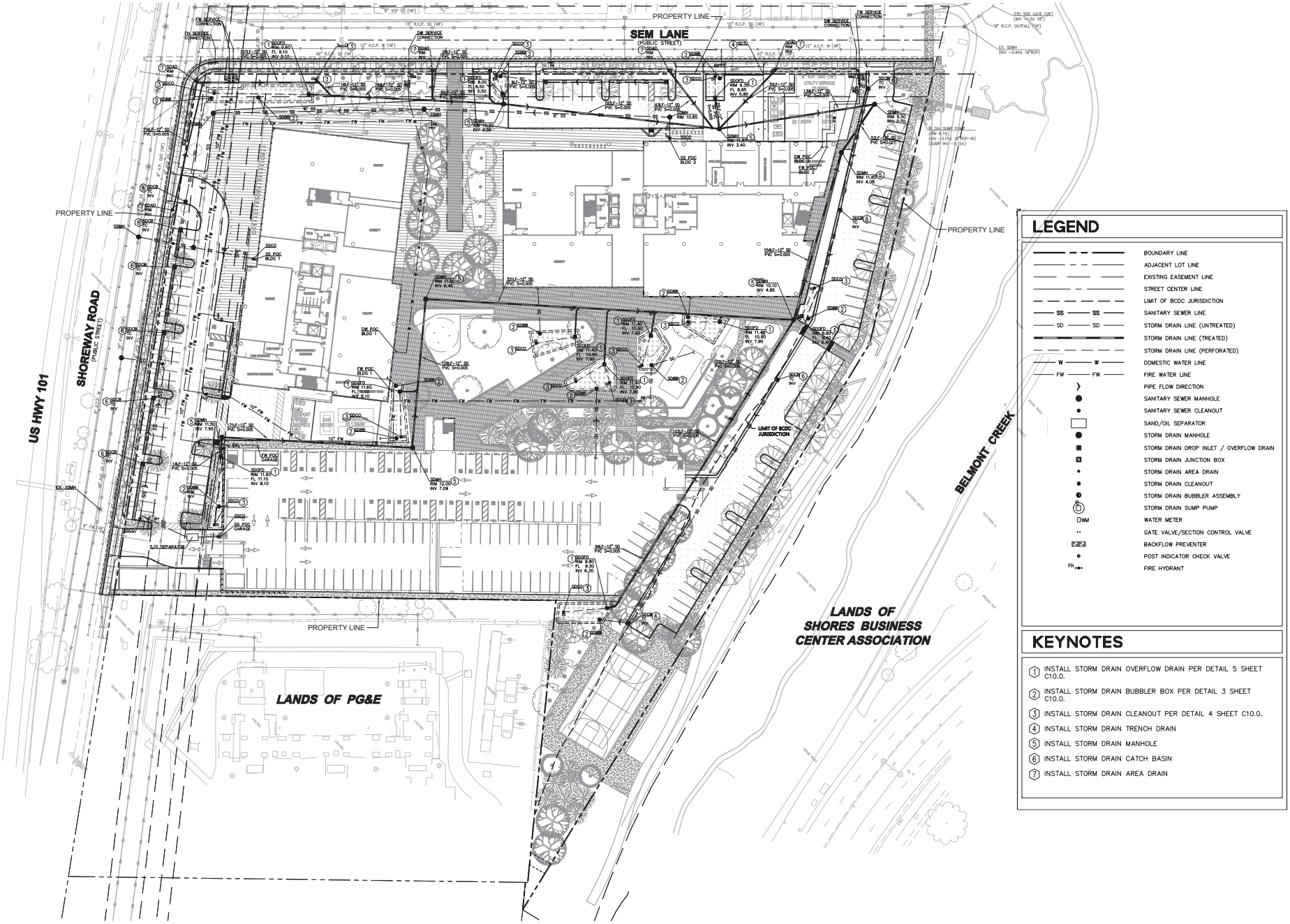

Source: Applicant Planning Package, February 2024

**Figure 3-12: Preliminary Stormwater Management Plan**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn




Source: Applicant Planning Package, February 2024

**Figure 3-13: Preliminary Utility Plan**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn

## 3.6 Project Phasing, Construction, and Staging

The project is proposed to be constructed as a single action/single phase, but with primary structures constructed in sequence to allow planned construction staging and flow of materials and equipment. The general sequence of activity would involve site clearing, grading and excavation, utility relocation, foundations, building erection, and final finishes. Equipment and materials would be staged and moved as necessary during construction.

Construction activities are anticipated to last approximately 18-20 months. Initial site grading, clearing and excavation is expected to last approximately four to six months. Consistent with the city's noise ordinance, construction would generally occur Monday through Friday and be limited to the hours of 8:00 a.m. to 5:00 p.m. on weekdays and from 10:00 a.m. to 5:00 p.m. on Saturdays. No work would take place on Sundays or federal, State or local holidays.

Construction work would consist of demolition and removal of the existing building, site preparation, excavation, shoring, erection of new structures, and all interior and exterior components. Demolition and construction equipment would include heavy equipment such as bulldozers, scrapers, backhoes, excavators, loaders, compactors, pile drivers, impact hammers, cranes and lifts, rollers, paving machine, and concrete pumping equipment. The proposed project is located in FEMA flood zone X. However, the project would raise the project site by 2 feet to address the city's requirement to establish sites 2 feet above the Federal Emergency Management Agency (FEMA) base flood elevation which is currently set at Elevation (EL) 10. Preliminary plans estimate that 8,000 cubic yards of soil fill (import) would be required to raise the base elevation to (EL) 12. All demolished material would be hauled off site for recycling and landfilling.

## 3.7 Project Operations and Maintenance

The professional office/research complex would operate year-round. Hours of operation are not known at this time and would be dependent upon the ultimate tenant(s). The parking structure and building entrances would be access controlled for privacy and security. Typical site maintenance would include regular landscaping maintenance, window washing, building maintenance and security.

## 3.8 Requested Entitlements and Permits

The applicant has filed applications with the City of Belmont seeking a series of related approvals, entitlements and permits to implement the 1301 Shoreway Project. Concurrent and/or subsequent applications and permits may include:

- Complex Project
- Design Review
- C/CAG Review for Airport Land Use Plan Compatibility
- Bay Conservation and Development Commission (BCDC) Clearance
- Planned Unit Development
- Conceptual Development Plan
- Detailed Development Plan
- Development Agreement

- EIR Certification
- Tree Removal Permit
- Sign Program/Permit Demolition, Grading, Building and other permits necessary for construction and occupancy

## 3.9 References

Application Materials and Project Plans (dated January 29, 2024)

City of Belmont General Plan and EIR (2017)

City of Belmont Zoning Ordinance

# 4 Introduction to Environmental Analysis

## 4.1 Environmental Assessment Methodology

This introductory chapter is for informational purposes, to assist the reader to understand the content of the EIR, common terms used in the impact analysis, and how a lead agency makes determinations regarding the significance of a project's impacts.

The following environmental topics are evaluated in Chapters 5 through 19 of this Draft EIR ("DEIR"):

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

### 4.1.1 Environmental Baseline/Existing Conditions

CEQA Guidelines Section 15125(a) requires that an EIR include a description of the existing physical environmental conditions in the project vicinity, from both a local and regional perspective. The baseline environmental conditions are used by the lead agency to determine whether the impacts of a project are considered significant based on recognized thresholds. The purpose of this requirement is to give the public and decision makers the most accurate and understandable picture of the project's likely near-term and long-term impacts.

The environmental baseline conditions in this EIR can be described generally as the on-site and surrounding exterior physical environmental conditions on the ground that existed as of June 19, 2024 (the time of publication of the Notice of Preparation [NOP]), pursuant to the California Environmental Quality Act (CEQA) Guidelines Section 15125. The existing physical conditions on the project site consist of a developed commercial lot with a multi-tenant commercial office and/or research/technology building and associated parking, surrounded by existing commercial uses and hotels. The subject property and its surroundings are typical of an active urban environment on the Peninsula, with environmental conditions are heavily influenced by the proximity of Highway 101. The environmental setting for each environmental topic is discussed at the beginning of the chapter.

### 4.1.2 Regulatory Framework

This subsection in each chapter of the EIR identifies applicable federal, State, regional, and local plans, policies, laws, and regulations that apply to the technical area of discussion. In some cases, the required application of these regulations serves to mitigate the potential environmental impacts of a project.

### 4.1.3 Thresholds of Significance

The environmental analysis identifies the significance thresholds (i.e., the condition or state, which if reached or surpassed by the proposed project, would signify a negative or adverse physical change to the environment [environmental impact]). These standards of significance are used to determine when thresholds are crossed and when the application of mitigation measures is necessary. These thresholds are derived primarily from Appendix G of the State CEQA Guidelines, General Plan policies, ordinances, generally accepted professional standards, and/or other quantified thresholds established by the City of Belmont or other agencies (such as congestion standards for traffic impacts and pollutant emission thresholds adopted by the Air Quality Management District).

### 4.1.4 Environmental Impacts and Mitigation Measures

#### Impacts

This subsection in each chapter of the EIR describes changes that would potentially result to the existing physical environment should the proposed project be approved, in accordance with State CEQA Guidelines Sections 15126 and 15126.2. Impact "statements" are numbered sequentially within each chapter. For example, impacts discussed in Chapter 5 (Aesthetics) are numbered AES-1, AES-2, etc.; impacts in Chapter 10 (Geology and Soils) are numbered GEO-1, GEO-2, etc. A discussion that provides supporting analysis and justification for the impact determination is presented. If mitigation is required – or if project impacts can be addressed by existing policies or regulations - those measures are identified, and a concluding statement is presented that describes the level of significance after mitigation is applied.

#### Mitigation

Pursuant to State CEQA Guidelines Sections 15002, 15021, and 15126.4, mitigation measures are required (as feasible) when significant impacts are identified. Mitigation measures are designed to provide a specific remedy for a specific environmental consequence of a project. Unless otherwise noted, all mitigation measures contained herein are proposed by the lead agency. If a mitigation measure itself would cause a significant impact, in addition to the impact caused by the proposed project alone, that impact is also discussed, although at a lesser level of detail than the project impact (pursuant to State CEQA Guidelines Section 15126.4 (A)(1)(d)). "Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments" (pursuant to State CEQA Guidelines Section 15126.4(A)(2)), and "mitigation measures must be consistent with all applicable constitutional requirements" (pursuant to State CEQA Guidelines Section 15126.4(A)(4)).

#### Mitigation Monitoring

Public Resources Code Section 21081.6 establishes two distinct requirements for agencies involved in the CEQA process. Subdivisions (a) and (b) of the section relate to mitigation monitoring and reporting, and the obligation to mitigate significant effects where possible. Pursuant to subdivision (a), whenever a public agency completes an EIR and makes a finding pursuant to Section 21081(a) of the Public Resources Code taking responsibility for mitigation identified in the EIR, the agency must adopt a program of monitoring or reporting which will ensure that mitigation measures are complied with during implementation of the proposed project.

### 4.1.5 Common Terminology Used in the Impact Analysis

This Draft EIR uses the following terminology to describe the environmental effects of the project:

- **No Impact**: Due to the nature or location of the project, this particular environmental impact will not occur. For example, underground facilities have no potential for causing long-term visual impacts.
- **Less Than Significant**: Although an impact may occur, it will not be at a significant level based on the standards and thresholds described above. For example, construction-related air emissions that fall below the adopted standards are less than significant.
- **Less Than Significant with Mitigation**: In this case, there is an impact that is clearly significant or potentially significant based on standards and thresholds. However, the significance of this impact will be reduced to less-than-significant levels through implementation of specific mitigation measures or compliance with existing laws and regulations.
- **Significant and Unavoidable**: This determination is made for a potentially significant impact where there is either no mitigation available, or the recommended mitigation measures are not sufficient to reduce the impact to less-than-significant levels. This determination requires a Statement of Overriding Considerations, pursuant to CEQA guidelines Section 15093 (this would need to be adopted by the City Council as part of the resolution, prior to approving the project).

## 4.2 Effects Not Found to Be Significant

Pursuant to the CEQA Guidelines §15128, "An EIR shall contain 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." This chapter of the Draft EIR describes the resource areas which were found not to pose any potentially significant effects.

Based on the scope of the proposed project, comment letters in response to the Notice of Preparation (NOP), site visits, review of project applicant materials and technical reports, and additional background research on the construction and operational features of the project, the following resource topics were found to not have impacts that would be considered potentially significant. These topics, therefore, are excluded from further detailed analysis in the EIR.

### 4.2.1 Agricultural and Forestry Resources

The project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance by the State Farmland Mapping and Monitoring Program (FMMP). It is designated as Urban and Built-Up Land (DOC, 2018). No Williamson Act contract applies to the project site. The project site does not contain or abut agricultural or forestry uses, and it is designated Regional Commercial pursuant to the City of Belmont General Plan. There would be no impact to agricultural and forestry resources.

### 4.2.2 Mineral Resources

The project site is not located within a Mineral Resource Zone as mapped by the California Department of Conservation (DOC) Division of Mines and Geology. The project site is not located within a mineral resource recovery zone and therefore there would be no impact to mineral resources.

### 4.2.3 Wildfire

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped the relative wildfire risk in areas of large population by intersecting residential housing density with proximate fire threat according to three risk levels, namely Moderate, High, and Very High. Wildfires are large-scale brush and grass fires in undeveloped areas. The proposed project is within an urbanized area and not within a Very-High Fire Hazard Severity Zone as mapped by CALFIRE. Therefore, there would be no impact at this project location.

## 4.3 Cumulative Impacts

### 4.3.1 CEQA Requirements

Under the CEQA Guidelines, "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the environmental impact report ("EIR") together with other projects causing related impacts" (14 CCR §15130(a)(1)). CEQA PRC §21000 et seq. specifies that an EIR must discuss cumulative impacts if the incremental effect of a project, combined with the effects of other projects is "cumulatively considerable" (14 CCR §15130(a)). Such incremental effects are to be "viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (14 CCR §15164(b)(1)). Together, these projects compose the cumulative scenario which forms the basis of the cumulative impact analysis.

Cumulative impacts analysis should highlight past actions that are closely related either in time or location to the project being considered, catalogue past projects and discuss how they have harmed the environment and discuss past actions even if they were undertaken by another agency or another person. Both the severity of impacts and the likelihood of their occurrence are to be reflected in the discussion, "but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion of cumulative impacts shall be guided by standards of practicality and reasonableness, and shall focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact" (14 CCR §15130(b)).

The analysis must be in sufficient detail to be useful to the decision maker in deciding whether, or how, to alter the program to lessen cumulative impacts. Most of these are either undergoing, or will be required to undergo, their own independent environmental review under CEQA. Significant adverse impacts of the cumulative projects would be required to be reduced, avoided or minimized through the application and implementation of mitigation measures. The net effect of these mitigation measures is assumed to be a general lessening of contribution to cumulative impacts.

#### Cumulative Impact Analysis Methodology

There are two commonly used approaches, or methodologies, for establishing the cumulative impact setting or scenario. One approach is to use a "list of past, present, and probable future projects producing related or cumulative impacts" (14 CCR §15130(b)(1)(A)). The other is to use a "summary of projects contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact" (14 CCR §15130(b)(1)(B)).

This EIR uses a hybrid of those two methods to provide a tangible understanding and context for analyzing the potential cumulative effects of the project. Regional C/CAG land use and growth projections through year 2040 are used in this EIR as a general forecast for expected environmental conditions in the vicinity of the project site. These forecasts are developed from the plans and forecasts from individual land use agencies, providing important information to monitor and assess regional planning issues such as jobs/housing balance, congestion, infrastructure and air quality.

However, the cities of Belmont, San Carlos and Redwood City are also reviewing and processing a series of larger, recently proposed projects in the geographic vicinity of 1301 Shoreway Road that represent increased intensification that may not be fully represented in each city's general plan or C/CAG forecasting. For this reason, the cumulative analysis will also consider the following projects that either would be expected to have similar environmental characteristics or concerns, and/or bear a geographic relationship (proximity) to 1301 Shoreway.

- **601 Harbor Boulevard, Belmont**: Approximately 380,000 square feet of life-sciences development in a four story, 65-foot tall building.
- **642 Quarry Road, San Carlos**. Two six-story buildings proposed for research and development, laboratory and office use, totaling 409,818 square feet.
- **10 Twin Dolphin, Redwood City**: Construction of three life-science laboratory buildings supported by amenities totaling 654,000 square feet.
- **Redwood Life, Redwood City**: Redevelopment of an 84-acre site between Belmont Slough and Marine Parkway consisting of an approximately 3.31 million square foot life sciences office campus and 104-room hotel.

Each chapter of the EIR considers the cumulative effect of the project when combined with potential future growth and intensification from these projects and background growth. However, as afforded by CEQA, the analysis is not as detailed as the project analysis, and often uses qualitative methods to draw conclusions.

While the cumulative analysis focuses on the hybrid approach described above, the area within which a cumulative effect can occur may also vary by resource. For example, air quality impacts generally affect a large area (such as the regional Air Basin), while cumulative transportation effects may be based on projected growth within a regional traffic model. For this reason, the geographic scope for the analysis of cumulative impacts is identified for each resource area in the following chapters.

The analysis of cumulative effects considers a number of variables, including geographic (spatial) limits, time (temporal) limits, and the characteristics of the resource being evaluated. The geographic scope of each analysis is based on the topography surrounding the project site and the natural boundaries of the resource affected, rather than jurisdictional boundaries. The geographic scope of cumulative effects will often extend beyond the scope of the direct effects, but not beyond the scope of the direct and indirect effects of the proposed project.

In addition, future projects and projections have their own implementation schedule, which may or may not coincide or overlap with the proposed project's schedule. This is a consideration for short-term impacts from the proposed project, such as construction. However, to be conservative, the cumulative analysis assumes that all growth projections in the cumulative scenario are built and operating during the operating lifetime of the proposed project.

## 4.4 References

City of Belmont. 2024. Current planning project data and public facing website. https://www.belmont.gov/our-city/city-projects/major-development-projects

City of Redwood City. 2024. Public facing website. https://www.redwoodcity.org/city-hall/current-projects

City of San Carlos. 2024. Public facing website. https://www.cityofsancarlos.org/city_hall/departments_and_divisions/community_development/planning/development_projects.php

California Department of Forestry and Fire Protection (CAL FIRE). 2019. FHSZ Viewer. Available online: https://egis.fire.ca.gov/FHSZ/. Accessed March 13, 2024.

Department of Conservation (DOC). 2018. *San Mateo County Important Farmland 2018*. Available online: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed March 13, 2024.

# 5 Aesthetics

## 5.1 Introduction

This section describes the potential aesthetic changes and effects upon existing visual resources that could be caused by implementation of the proposed project. The primary visual and aesthetic issues under review include potential obstruction of public views or vistas, scenic and aesthetic quality of the development (including scale and massing), the effects of shade and shadow, and the potential for additional sources of light and glare. Information used to prepare this section came from the following primary resources:

- Aerial/satellite imagery
- Site visit photographs and field analysis
- Project application materials and illustrative graphics
- Visual simulations
- City of Belmont 2035 General Plan -- Land Use Element, Circulation Element, and Conservation Element, 2017
- City of Belmont, City Code, as amended

## 5.2 Scoping Issues Addressed

During the NOP public comment and scoping period for the proposed project, several comments were received regarding aesthetics and visual impacts. Comments received were generally concerned with project consistency with the San Francisco Bay Conservation and Development Commission (BCDC) Bay Plan policies regarding visual access, visual quality (design) and visual setting; visual appearance (including rooftop equipment); and effects of additional reflective glare, and light and glare on wildlife. BCDC and Bay Plan consistency and light and glare are addressed in this chapter. Light and glare related to nearby biological resources, including bird strike, is addressed in Chapter 7, Biological Resources.

## 5.3 Determination of Existing Visual Quality and Viewer Sensitivity

Key viewing points (KVPs) were selected to be representative of the most critical locations from which the proposed project would be seen. These locations were selected based on their usefulness in evaluating existing landscapes and potential impacts on aesthetics and/or community character with various levels of viewer sensitivity from various vantage points. Locations typically considered for the establishment of KVPs include those: 1) along major or significant travel corridors; 2) along local roads; 3) from recreational access areas, public parks and trails; 4) at designated vista points; and 5) from locations that provide good examples of the existing landscape context and viewing conditions. In this urban sector of Belmont along the Belmont Creek shoreline, public views are primarily experienced from public roadways.

When analyzing existing aesthetic conditions, the elements of visual quality, viewer concern, visibility, number of viewers, and duration of view are considered. These parameters, rated from “low” to “high”, are then factored into an overall rating of viewer sensitivity.

**Visual Quality**. Visual quality is an expression of the visual impression or appeal of a given landscape (e.g. landforms, rock forms, water features, vegetative patterns, and cultural features). Visual quality is rated from low to high. Landscapes rated low are often dominated by visually discordant human alterations. Landscapes rated high generally are more memorable because of the way the individual landscape features combine in a coherent and harmonious visual pattern. Also, those landscapes are typically free from discordant human alterations, so they retain their visual integrity.

**Viewer Concern**. Viewer concern addresses the level of interest or concern (from low to high) of viewers regarding an area's aesthetic values and the potential for visible change to the landscape. Viewer concern is closely associated with viewers' expectations for a given viewshed (i.e., an area of land or water visible from a fixed vantage point) and reflects the importance placed on the human perceptions of the intrinsic beauty and visual interest of the existing landscape characteristics. Official statements of public values and goals and adopted local public policy pertaining to aesthetics or visual resources also reflect viewers' expectations regarding a visual setting and are given weight in determining levels of viewer concern.

Land uses associated with designated parks, monuments, and wilderness areas; scenic highways and corridors; recreational areas; conservation areas; and historic residential areas are generally considered to have high viewer concern. However, the existing landscape character may temper viewer concern on some State and locally designated scenic highways and corridors. In general, people driving for pleasure or engaged in recreational activities tend to have high viewer concern compared to daily commuters.

Travelers on other highways and roads, including those in rural or agricultural areas, may have moderate or high viewer concern depending on viewer expectations as conditioned by regional and local landscape conditions in these areas.

Commercial uses, including business parks and hotels, typically have low-to-moderate viewer concern, although some commercial developments have specific requirements related to visual quality with respect to landscaping, building height limitations, building design, and prohibitions.

Industrial uses and their tenant enterprises typically have the lowest viewer concern because they are commonly located in visually impacted areas of a community and adjacent to similar visually degraded uses with relatively low visual value. However, it is possible for some areas of lower visual quality and degraded visual character to contain views of substantially higher visual quality or interest to the public depending on their location.

Within established residential areas, viewer concern is frequently associated with neighborhood character and the architectural quality of the built environment.

**Visibility**. Visibility is a measure of how well an object can be seen. Visibility depends on the angle or direction of views; viewing distance; extent of visual screening; and elevated topographical relationships between the object and key public viewpoints (scenic vistas). Visibility takes into consideration any and all obstructions that may be in the sightline, including landforms, trees and other vegetation, buildings, transmission poles or towers, general air quality conditions such as haze, and general weather conditions, such as fog.

**Number of Viewers**. Number of viewers is a measure of the number of viewers per day who would have a view of a proposed project or a visual resource and can range from low to high. The types of viewers can include residents, employees, motorists, and recreationists.

**Duration of View**. Duration of view is the amount of time to view a project site or a visual resource. For example, a high or extended view of a project site is one experienced over the course of two minutes or more (e.g., in a park). In contrast, a low or brief duration of view is available in a short amount of time — generally less than 10 seconds (e.g., travelling on a public road).

**Viewer Exposure**. Viewer exposure is a function of three elements previously listed: visibility; number of viewers; and duration of view. Viewer exposure can range from low to high. A partially obscured and brief background view for a few motorists represents low viewer exposure, and an unobstructed foreground view from a large number of residences represents a high viewer exposure.

**Overall Visual Sensitivity**. Visual sensitivity is derived from three elements previously listed: visual quality; viewer concern; and viewer exposure and is a concluding assessment of an existing landscape's susceptibility to an adverse visual outcome. A landscape with a high degree of visual sensitivity can accommodate only a lower degree of adverse visual change without resulting in a significant aesthetic impact. A landscape with a low degree of visual sensitivity can accommodate a higher degree of adverse visual change before exhibiting a significant aesthetic impact. Visual sensitivity can range from low to high.

## 5.4 Environmental Setting

This section documents existing visual and aesthetic conditions in the study area. The current condition and quality of aesthetic and visual resources is used as the baseline against which to compare potential impacts of the project.

### 5.4.1 Surrounding Land Uses and Visual Setting

The project location within the City of Belmont is within a narrow finger of properties east of Highway 101, adjacent to the city limits of Redwood City and San Carlos, south of the Ralston interchange. This area of the city can be generally characterized as highly urbanized, developed with three hotels and a City of Belmont corporation yard to the northwest, with a PG&E substation and commercial/corporate uses to the southeast. Belmont Creek and Twin Dolphin Drive are located to the east, with Shoreway Road and Highway 101 immediately to the west.

The general area within this "finger" of the city is typical of land uses along the Highway 101 corridor. Local buildings, appearing to be built in the 1980s and 1990s, are generally 3-4 stories or lower with large areas of surface parking and landscaping. Further east, the Oracle technology and office campus and the Redwood Shores community and lagoon provide a more modern and open aesthetic appeal compared to the uses immediately adjacent to the highway.

Belmont Creek and its adjacent riparian corridor, including a shoreline trail, is the most visually interesting and significant aesthetic resource in this general area. The creek area provides a key natural feature and linkage to tidal waters of the San Francisco Bay. Significant sources of glare and nighttime lighting are generated by lighting and traffic along Highway 101.

### 5.4.2 Project Site

The 6.91-acre project site itself is a single parcel currently developed with a 148,919 square foot multi-tenant medical office building that was constructed in 1983, and associated surface parking and landscaping. The building, situated in the center of the parcel, is now largely vacant. The southeastern corner of the site includes a seating area with benches and basketball court, providing views toward the building and the Belmont Creek open space. There are 176 trees on the site, the majority of which are non-native trees incorporated into the landscaping and parking areas.

The building is a modern era office structure, and the site is visually and aesthetically unremarkable. Asphalt pavement and parking dominates the property, which incorporates the landscape trees, pole mounted light standards, power lines and monument signage. The proximity of the freeway and electrical substation significantly compromise the aesthetic setting of the site along the Shoreway Road frontage. The City of Belmont corporation yard on Sem Lane, with chain link fencing, barbed wire, Quonset hut and metal buildings, also detracts from the aesthetics of the site.

The eastern/rear of the property is more aesthetically pleasing and quieter, taking advantage of views toward Belmont Creek and the adjacent dirt trail. Overflights from small planes departing San Carlos Airport provide a periodic source of noise in addition to ambient highway noise.

The existing aesthetic setting of the site and its surroundings is portrayed in the series of photographs in **Figures 5-1A and 5-1B: Existing Visual Setting and Conditions**.

### 5.4.3 Scenic Vistas

Scenic vistas are typically areas of elevated expansive views toward a landscape or scenery of high visual quality. While the quality of views to and from the project site are not particularly high due to structures in the mid-ground, views from the site to the east across Belmont Creek and riparian area provide an interesting open view of this natural feature and built environment beyond. However, this private viewpoint from the property does not match the common understanding of a “scenic vista”.

### 5.4.4 Key Viewpoints (KVPs)

The project site can (and would) be viewed from several publicly accessible viewpoints, identified by walking and driving the area around the site. As shown in **Figure 5-2: Location of Key Viewpoints** and **Figures 5-3A through 5-3C: Key Viewpoints**, the KVPs were selected based on the overall potential for the project site to be visible within the public viewshed from several locations and angles looking towards the project site.

- KVP 1 – Shoreway Road (northeast)
- KVP 2 – Marine Parkway/Ralston Interchange (south)
- KVP 3 – Twin Dolphin Drive (west)

Additional points of view and photos from around the site are shown in **Figure 5-4: Existing Visual Context**.

#### KVP Characterizations

All three KVPs have different aesthetic conditions and characterizations based on the sensitivity criteria provided above. These KVPs were selected to characterize the typical visual condition of the project site

as viewed from surrounding locations and as seen to both motorized and non-motorized travelers using the public roadways. Viewpoints from private properties are outside the scope of analysis under CEQA.

### KVP 1 – From Shoreway Road/Highway 101 Edge

**Visual Quality:** *Low*. The viewpoint provided from KVP 1 represents what the typical motorist would experience from either Shoreway Road or Highway 101. The view is dominated by urban features such as buildings, parking, asphalt and power lines. There are no notable or remarkable features in this view.

**Viewer Concern:** *Low*. This view is typical of other properties along Highway 101 and potential changes to the view would be expected to raise little concern from nearby residents, employees and travelers.

**Viewer Exposure:** *Moderate*. KVP 1 is clearly visible from the heavily travelled freeway; however, while a large number of viewers (drivers) may pass the site, the duration and quality of this view is low.

**Overall Visual Sensitivity:** *Low*. With a single office building and aesthetic detractors noted previously, lack of visually interesting features and no discernable background or backdrop, the overall visual sensitivity or susceptibility to adverse impacts from this viewpoint can be considered low overall.

### KVP 2 – From Ralston Avenue at Highway 101 Ramps/Island Parkway Intersection

**Visual Quality:** *Low*. KVP 2 represents what motorists would see while entering or exiting the freeway at Ralston Avenue or approaching Ralston from Island Parkway. This public viewpoint is dominated by roadway infrastructure in the foreground and hotels in the midground. While some distant hills can be viewed in the background, this view is compromised by other features of the built environment.

**Viewer Concern:** *Low*. This view is typical of other highway ramps and roadways along the 101 corridor and changes to the viewpoint would also be expected to raise little concern from nearby residents, employees and travelers. This is also a more distant viewpoint toward the site that would be of low concern.

**Viewer Exposure:** *Moderate*. Similar to KVP 1, KVP 2 is readily visible from the freeway and major arterial roads; however, while a large number of viewers may be subject to this view, the duration would be short and quality of this view is low.

**Overall Visual Sensitivity:** *Low*. As a midground viewpoint intended to capture changes in building heights, KVP 2 is also compromised by aesthetic detractors noted previously, lacks specific visually interesting features, and the overall visual sensitivity or susceptibility to adverse impacts from this viewpoint can be also considered low overall.

### KVP 3 – From Twin Dolphin Drive Near Southeast Corner of Project

**Visual Quality:** *Low to Moderate*. While the existing buildings and built environment are dominant from KVP 3, the riparian vegetation and trees in the foreground provide a more pleasing view from Twin

Dolphin Drive compared to other local roadways. This view is also representative of the view from the public shore trails that run on both sides of Belmont Creek.

**Viewer Concern:** *Low*. This view is largely limited to employees and employers at local business complexes, hotel visitors and to a lesser degree residential traffic from Redwood Shores. Traffic from employment centers are less likely to be concerned with potential changes within this viewpoint considering the existing development on the site and adjacent parcels.

**Viewer Exposure:** *Moderate*. KVP 3 is visible from Twin Dolphin Drive in both directions. While the number of drivers seeing the site would be much lower than the volume of the freeway, the duration of the view is slightly longer due to slower vehicle speeds along this curving road. The exposure is considered moderate when weighing these factors.

**Overall Visual Sensitivity:** *Low to Moderate*. Twin Dolphin Drive is a four-lane road designed to help connect the office, technology, corporate headquarter and residential uses in the Redwood Shores area. While not a scenic roadway by any definition, the land use pattern of this urban area was designed as open, lower profile, and well landscaped, with Belmont Creek providing an appealing natural feature as seen from the public roadway.



View from Shoreway Drive looking north across the existing site parking.



Existing site parking and buildings along Sem Lane visible from eastern corner of project site looking northwest.



Existing outdoor amenities in eastern corner of project site.



View of hotel along Sem Lane looking northeast from southern corner of project site.

Source: Kimley Horn, 2024

**Figure 5-1A: Existing Visual Setting and Conditions**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn



View of existing building from the eastern corner of the project site looking west.



View of project site looking across Belmont Creek to the west, visible from the eastern bank public shore trail.



View of the public shore trail on the western bank of the Belmont Creek, immediately adjacent to the northeast edge of the project site.




Looking down Shoreway Drive to the northwest from the existing driveway at the southern corner of the project site.

Source: Kimley Horn, 2024

**Figure 5-1B: Existing Visual Setting and Conditions**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn




Source: Nearmap, 2024

**Figure 5-2: Location of Key Viewpoints**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn




Source: Google Earth, 2024

**Figure 5-3A: Key Viewpoint 1 -- Shoreway Road**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn




Source: Kimley-Horn, 2024

**Figure 5-3B: Key Viewpoint 2 -- Marine Parkway/Ralston Interchange**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn



Source: Kimley-Horn, 2024

**Figure 5-3C: Key Viewpoint 3 -- Twin Dolphin Drive**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn



**Looking towards the project site from the southern corner angle at Key Viewpoint 1.**



**Views of the foreground structures adjacent to the project site, including hotel uses along Shoreway Drive, from Key Viewpoint 2 on Marine Parkway next to US-101 ramps.**



**View from the public shore trail along the eastern bank of the Belmont Creek, looking west at the project site near Key Viewpoint 3.**



**Looking west towards project site from Twin Dolphin Drive, near Key Viewpoint 3.**

Source: Kimley-Horn, 2024

**Figure 5-4: Existing Visual Context**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn

## 5.5 Applicable Regulations, Plans, and Standards

### 5.5.1 Federal

None applicable.

### 5.5.2 State

#### California State Scenic Highway Program

In 1963, the California Legislature established the State's Scenic Highway Program, which is intended to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq.

The State Scenic Highways program, established by the Streets and Highways Code, is administered by the California Department of Transportation (Caltrans). The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or have been designated as such.

For Caltrans to grant an eligible route official status as a California State Scenic Highway, the local jurisdiction must implement a Corridor Protection Program by either adopting ordinances, zoning, and/or planning policies to preserve the scenic quality of the corridor or documenting that such regulations already exist in various portions of local codes. Policies to prevent visual degradation of these view corridors might include restriction of dense and continuous development, reflective surfaces, ridgeline development, extensive cut and fill grading, disturbed hillsides and landscape, exposed earth, and non-native vegetation (Caltrans, 2014).

Within San Mateo County, Interstate 280, State Route (SR) 35, and SR1 are State Scenic Highways. There are no designated State Scenic Highways in the City of Belmont.

#### Bay Conservation and Development Commission (BCDC) Bay Plan and Public Access Design Guidelines

The BCDC San Francisco Bay Plan (Bay Plan) contains several policies addressing visual quality around the waters of the Bayshore intended to enhance aesthetics and visual compatibility between natural areas and the built environment. Additionally, BCDC also provides Public Access Design Guidelines for Shoreline Spaces, containing specific development guidelines that address visual access, visual quality and the visual setting of the Bay.

#### California Building Code

Title 24 of the California Building Standards Code includes outdoor lighting requirements for development projects. The requirements are intended to improve the quality of outdoor lighting and reduce the impact of light pollution and glare. The standard regulates lighting characteristics, such as maximum power and brightness, shielding, and sensor controls to turn lighting on and off. Different lighting standards are set by classifying areas by lighting zone. The classification is based on population figures in the 2010 Census and the areas can be designated as LZ1 (dark), LZ2 (low), LZ3 (medium), or LZ4 (high). The project area is defined as an urban area and is, therefore, designated as LZ3 per the CEC classification standards.

## 5.5.3 Local

### City of Belmont General Plan

The City of Belmont General Plan is a policy document that lays the foundation for future development in the city. The Plan describes the community and character of the various neighborhoods within Belmont, including the East Belmont neighborhood, where commercial uses, including the project site, occupy much of the city east of Highway 101 along Shoreway Road. The General Plan includes goals and policies to support cohesive community design and enhance the visual quality of these neighborhoods in the city. The following are applicable to the project.

**Land Use Element**

- Policy 2.6-6: Ensure that commercial development is designed to include:
    - Integrated landscaping, parking (if required), signs, and site and building design.
    - Common ingress and egress, safe and convenient access and internal circulation (depending on site size), adequate off-street parking and loading facilities (if required), and accessibility by multiple modes of transportation.
    - Architecture that emphasizes establishing community identity while presenting tasteful, dignified, and visually appealing designs compatible with their surroundings.

**Goal 2.13**: Enhance Belmont's character and image as a desirable community with distinct visual qualities, small-town character, and connections to nature and open space.

- Policy 2.13-1: Ensure that new development is balanced with preservation of open space and natural features.
- Policy 2.13-3: Ensure that the scale and character of new development is appropriate to the setting and intended use. Promote development that is scaled and sited to respect the natural terrain, so that hills, parks, open space, trees, and distant vistas, rather than buildings, dominate the overall landscape, while also developing the Belmont Village PDA and other focus areas for economic growth as concentrated, urban-scale nodes of activity.
- Policy 2.13-4: Minimize light and glare from new development.
- Policy 2.13-5: In mixed-use, higher density residential, and commercial developments, require that building forms create coherent and consistent street frontages on blocks that emphasize the visibility of entrance doors, porches, stoops, and/or entrance patios.
- Policy 2.13-7: Require energy and telecommunication devices (such as solar panels) that are added to the exteriors of buildings, or otherwise visible on a site, to be designed to minimize impacts on scenic views and vistas from the public realm to the maximum extent feasible without interfering with their function.
- Policy 2.13-9: Provide both formal and informal public gathering spaces through pedestrian-oriented street design; sidewalk furniture and pedestrian-oriented development; well-designed, multi-use public spaces of different sizes including pocket parks, plazas, and monuments; and community events.
- Policy 2.13-10: Promote the incorporation of public art in the design of the public realm to add visual richness and foster a sense of place.

**Circulation Element**

- Policy 3.4-5: Design new roads and improvements to existing roads to minimize visual and environmental impacts.
- Policy 3.4-6: Locate, design, and landscape new roadways to preserve the beauty of the area, prevent erosion, and help shield residents from noise and air pollution. To the extent possible, retain trees and vegetative cover and minimize grading.

**Conservation Element**

- Policy 5.3-6: Avoid light pollution and unnecessary glare by requiring development projects to use design features and shielding methods that cast outdoor light downward and minimize glare and to install the minimum amount of outdoor lighting necessary for safety and security.
- Policy 5.3-7: Encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native vegetation, and ensure the maximum number and variety of well-adapted plants are maintained.
- Policy 5.4-4: Preserve and enhance the natural riparian environment along waterway corridors, including Belmont Creek, by minimizing environmental and visual impacts.

### Belmont City Code

#### Chapter 7 Article VII – Structures of Historic or Aesthetic Value

Belmont City Code Chapter 7, Article VII is in place to preserve, enhance, and perpetuate buildings, structures, and areas having special historical or aesthetic interest or value which contribute to community aesthetics and identity. The ordinance prescribes the procedure for altering, relocating, and demolishing such structures.

#### Chapter 17 Article V – Public Art Requirements for Private Development

Belmont City Code Chapter 17 Article V details the requirement for the funding or installation of public art for all private non-residential and mixed-use development involving 10,000 square feet or more of new floor area.

### City of Belmont Zoning Ordinance

The Belmont Zoning Ordinance Section 5, Commercial Districts, details guidelines for Regional Commercial zoning (Section 5.4), including site development standards (Section 5.4.11, and landscape design standards (Section 5.4.9). It also specifies that building heights shall not exceed 55 feet.

Section 13 of the City's Zoning Ordinance stipulates the requirements of design review, including site plan and architectural review for commercial development and landscape standards with plantings, public art, and public plazas and courtyards. The review procedure includes review by the Community Development Department, Zoning Administrator, and the planning commission to determine if the project design conforms to the goals and policies articulated in the General Plan. In this case, the applicant is requesting a rezoning to the Planned Unit Development ("PD") zoning designation to allow project specific development standards and design elements.

## 5.6 Environmental Impacts and Mitigation Measures

### 5.6.1 Significance Criteria

The following significance criteria for aesthetics were derived from the Environmental Checklist in CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address lead agency requirements and the full range of potential impacts related to this project.

An impact of the project would be considered significant and would require mitigation if it would meet one or more of the following criteria.

- Cause a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings with a State scenic highway.
- In rural areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage points.)
- In an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.
- Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

A significant aesthetic impact could also occur if the proposed project's incremental aesthetic impact would be cumulatively considerable.

#### Impact Assessment Methodology

To determine potential impacts, the impact significance criteria identified above were applied to the construction and operation of the proposed project. Impacts are identified as being either short-term or long-term in nature.

An adverse aesthetic (visual) impact may occur within public view when: (1) an action perceptibly changes existing features of the physical environment so that they no longer appear to be characteristic of the subject locality or region; (2) an action introduces new features to the physical environment that are perceptibly uncharacteristic of the region and/or locale; or (3) aesthetic features of the landscape become less visible (i.e., partially or totally blocked from view) or are removed. Changes that seem uncharacteristic are those that appear out of place, discordant, or distracting. The degree of the aesthetic impact depends upon how noticeable the adverse change may be, and conclusions can be subjective. The noticeability of an adverse aesthetic impact is a function of project features, context, and viewing conditions (e.g., angle of view, distance, primary viewing directions, and duration of view).

Views and viewpoints were assessed in the field by walking and driving all accessible areas in the vicinity of the project to search for and photograph prominent public vantage points. These views were compared to the project renderings to estimate aesthetic changes relative to the thresholds above.

## 5.6.2 Summary of No and/or Beneficial Impacts

### State-Designated Scenic Highway

The project site is not located within the viewshed of a state-designated scenic highway, and therefore would not impact or substantially alter scenic resources related to a scenic highway. There are no state-designated scenic highways in the City of Belmont.

### Scenic Vistas

Due to the relatively level topography of the site, presence of structures and urban development, and absence of elevated or expansive viewpoints, the project would have no impact on a scenic vista as no scenic vistas currently exist in the immediate vicinity. While it is noted that views to and from the site across Belmont Creek are more appealing than other viewpoints, these views are compromised by urban improvements and not considered a scenic vista. There are no high quality or expansive public views within the immediate area that showcase the closest hills, mountains or other remarkable scenic features or landscapes. While the new project structures may alter localized views associated with the skyline as seen from adjacent areas, these are not public viewpoints or public vistas.

## 5.6.3 Impacts of the Proposed Project

**Impact AES-1**: **The project would alter the visual character or quality of the site and its surroundings as seen from public viewpoints. Based on CEQA thresholds, this is a less than significant impact with mitigation incorporated.**

### Construction

Construction of the project would involve demolition and removal of the existing building, the removal of existing ornamental trees and asphalt, grubbing, grading (including raising the base elevation), and building construction activity for approximately 18-20 months. While temporary, the visual character and quality of the site in the immediate area, including the trail along the creek, would be degraded while construction is underway compared to existing conditions. However, it is acknowledged that the site is not visually significant, consisting of low visual quality overall and no significant visual features or landmarks on site. Short term visual changes caused by construction activity in and around the construction area would be experienced by trail users, adjacent hotels, businesses and motorists.

### MM AES-1.1 Construction Screening

To minimize and soften the visual effects of construction as seen from nearby businesses and adjacent land uses, the project proponent shall incorporate construction fencing or screening around the perimeter of the site. The screening material shall be of sufficient height to mask ground-level activities. Screening shall remain in place during site preparation and new building construction. Screening shall not be necessary during the final stages of construction when architectural coatings, detailing and landscaping are applied.

Implementation of MM AES 1.1 would reduce construction-related visual impacts to a less than significant level by effectively screening these temporary effects.

### Operation

This CEQA threshold specifically pertains to projects in rural settings, where the overall nature of the visual character of an area may be fundamentally altered by the introduction of new development to an undeveloped area, or where the rural, aesthetic quality of public viewpoints would be clearly compromised.

Nonetheless, it is common for a CEQA lead agency to consider more urban projects under this standard. Using the general guidance under the Methodology discussion above, the project will change existing features of the physical environment by redeveloping an existing 4 story office building site surrounded by urban development with a new 7 and 8 story R&D/office campus and parking structure.

Despite the intensification, redeveloping an existing office use with a larger and intensified commercial office campus would be visually characteristic of this area of the city and the Highway 101 corridor through Belmont and the Peninsula.

The project will not block or remove significant aesthetic features of the landscape, and while the resulting changes would clearly be noticeable and different from existing conditions, such changes are not necessarily discordant or distracting in this urban setting. The primary public viewpoints from where the project would be visible are public roadways. Drivers (or cyclists/pedestrians on local roads) may note the larger structures, as would trail users along the creek. The visual relationship of Belmont Creek and project site as currently developed is representative of a natural feature (riparian area) in an urban setting. This visual relationship between built and natural features will not significantly change with the project even though structures and building footprint are larger.

The hotel uses immediately north of the project are not public property (or provide public views) but do cater to the general public and visitors. Views from the hotel properties (primarily from rooms within the Extended Stay America) would be altered with larger office/laboratory buildings more visibly prominent as seen looking to the south. However, views to the south are not particularly scenic and are heavily compromised by the freeway and other urban development in the foreground and background, including the existing building and PG&E substation.

The project's landscape plan will also incorporate new replacement trees and formal landscaping around and within the project boundaries and along the riparian edge. For these reasons and within this context, changes to the visual character of the area as seen from public viewpoints will be **less than significant**.

**Impact AES-2**: **The project's proposed building heights would be inconsistent with existing zoning for this site. Existing zoning includes standards that govern scenic quality. Based on CEQA thresholds, this is a less than significant consequence of the project.**

### Construction

Construction of the project would be subject to standard city ordinances, regulations and conditions of specific permit approvals. Compliance with all standard development regulations would adequately address the temporary effects of project construction in terms of scenic quality.

### Operation

Visual character is the overall perceptible aesthetic quality of an area created by its unique combination of visual features such as form, bulk, scale, texture, color and viewing range. The key factors in determining the potential for an adverse effect on visual character are (1) substantial changes to the existing physical features of the landscape that are characteristic of the region or locale; or (2) the introduction of new features to the physical landscape that are perceptibly uncharacteristic of the region or locale that become visually dominant from common viewpoints. It is the introduction of new features (larger and taller structures as compared to the existing building) that are most relevant here.

As described in the Environmental Setting, the visual quality of the site is limited due to the existing on site building surrounding urban development (including an electrical substation), resulting in generally low visual quality of the site. The relative change to the visual character of the site and its surroundings once the project is constructed is best illustrated from the key viewpoints (KVPs) identified previously.

From all three viewpoints, the visual appearance of the project site would be changed and altered. Taller structures up to 8 stories would be introduced closer to the existing hotels, Belmont Creek and adjacent trails. At up to 144 feet (including rooftop equipment) such structures are considerably taller than the existing 4-story office building and adjacent 3-4 story hotels. See **Figures 5-5A through 5-5C: Visual Simulations**.

### Design Standards, Size, Scale and Mass

"Size", "scale" and "mass" are terms often used when describing how a building or project "fits" in relationship to its surroundings or neighboring properties. For the 1301 Shoreway project, relative scale is best represented in the elevations (profiles) and schematic renderings (see **Figure 3-5: Site Elevations** and the visual simulations noted above). Whether or not a project or structure is too large (or too small for that matter) is often a matter of opinion, as CEQA thresholds do not specifically speak to size as a significant impact. These issues are addressed by CEQA in terms of "visual character" from public viewpoints, and also if the project is consistent with applicable zoning and other regulations governing scenic quality.

The site is designated in the General Plan and zoning code as Regional Commercial (RC). The RC land use designation allows a maximum floor area ratio (FAR) of 1.8, with a maximum building height of 55 feet. This designation allows for a range of commercial uses, including commercial office and research and development. To allow the proposed building heights, the project is proposing a rezoning of the property to Planned Unit Development (PD) process as part of the requested entitlements. The PD

zoning district is designed to accommodate a range of development types such as professional and administrative areas, commercial service centers, industrial parks or combinations of uses to allow flexibility of land use and design in accordance with the objectives and spirt of the Geneal Plan. In this case, the City of Belmont has worked closely with the applicant on design parameters and public benefits consistent with the intent of the PD district.

Given the city's existing development standards, and the project's height of up to 144 feet, the project would be significantly taller than currently allowed. However, the uses surrounding the project – hotels, a major freeway and technology/corporate campuses - are not uses that are particularly sensitive to taller structures in this active urban environment. The proposed R&D/office campus in this location appears compatible with its surroundings despite the proposed height, scale and mass of the structures, and none of the stated qualifiers (such as being discordant, distracting, out of place or uncharacteristic) appear to apply to this setting. Intensification of underutilized sites in East Belmont has also been identified and anticipated in the General Plan, and the project's building heights will be consistent with the proposed PD zoning upon approval.

BCDC Bay Plan policies are also relevant considering a portion of the property is within BCDC jurisdiction along Belmont Creek. The primary waters of the Bay as a visual resource are located east of and beyond the project site as seen from Highway 101. The existing conditions of the site and adjacent properties do not currently allow for quality views of the Bay from the highway, and those conditions would not be significantly different with the project as proposed. The project site plan provides for enhanced public access to the Belmont Creek Trail and designated parking for that access, and the vertical design of the project allows for open landscaped areas that will allow for views toward the creek from the property. The buildings themselves will be new and architecturally interesting with significant landscape features and can be considered visually complementary to the environs of Belmont Creek and the Bay beyond. Employees and visitors within the structures will also be afforded high quality elevated views of the Bay and shoreline. Furthermore, the project will have a stormwater management system, public amenities, will avoid adverse effects on wildlife, and will not induce shoreline erosion. For these reasons, the project is viewed as consistent with the visual and aesthetic policies of the Bay Plan.

### Shade and Shadow

To determine potential effects of additional shadow cast by the project, a shadow analysis has been conducted to determine if surrounding land uses could be affected by the shadow created by the new structures during the day. The results of the study are shown in **Figures 5-6A and 5-6B: Shade and Shadow Studies**. The analysis is focused on the hotel (Extended Stay America) building directly to the north, as that is the developed site that could be the most directly affected by changes to shade and shadow.

As the images show, additional shadow cast by the project is most pronounced at sunrise and sunset, represented at 90 minutes post-sunrise and pre-sunset, with the location shifting during the year. In the summer months (represented by the July 10 images) about 75 percent of the hotel building to the north would experience additional shade and shadow during the morning. In the evening, the shadows fall only on the PG&E substation and across the creek and Twin Dolphin Parkway where there are no habitable structures.

In the winter months (represented by the January 10 images) morning shadow is more pronounced with the rising sun lower on the horizon. Portions of all three hotels and the City of Belmont corporation yard experience increased shadow during the early to mid-morning. In the evening hours, shadows would extend across Belmont Creek but would not affect any structures.




Source: Kimley-Horn, 2024

**Figure 5-5A: Visual Simulation 1**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn




Source: Kimley-Horn, 2024

**Figure 5-5B: Visual Simulation 2**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn



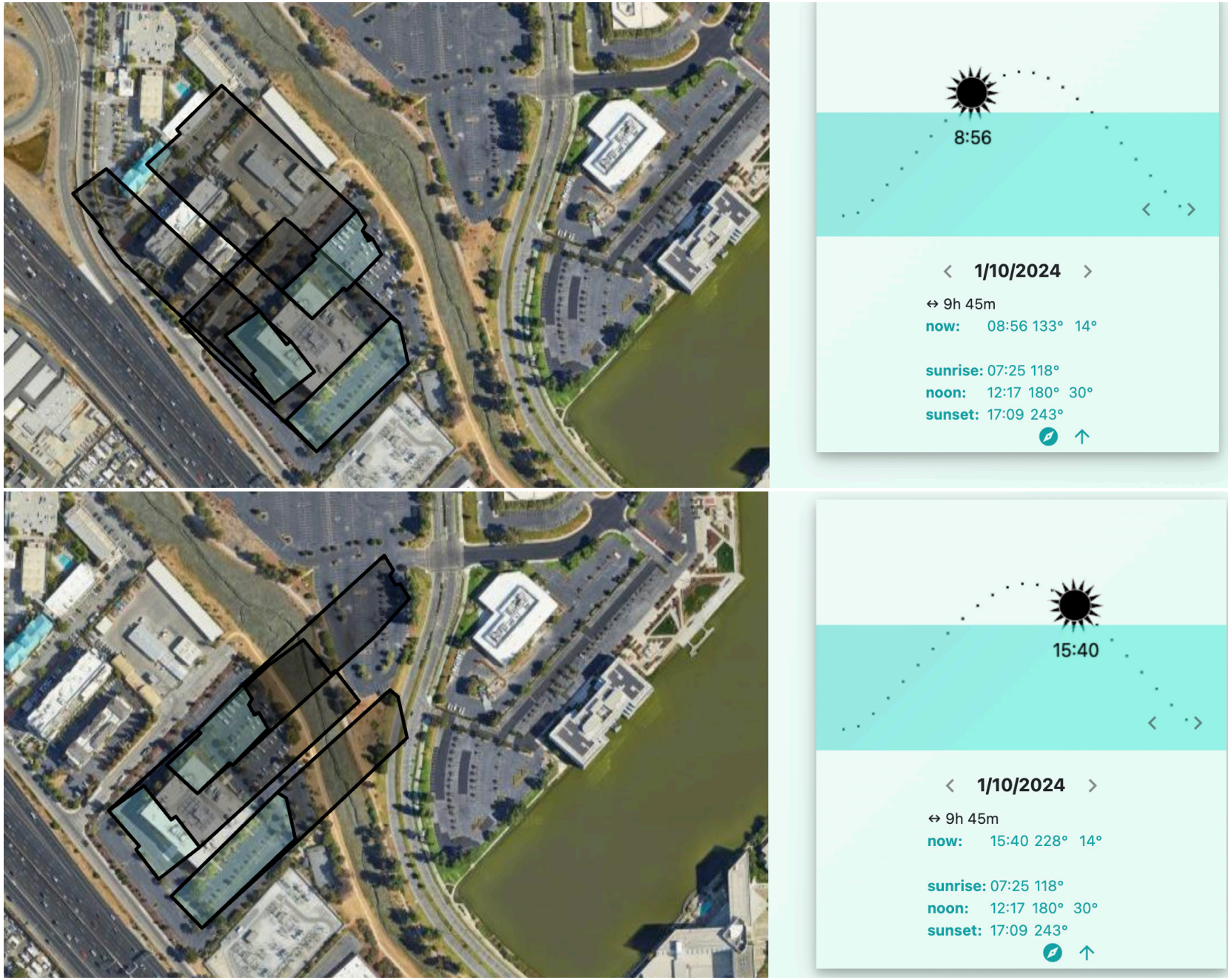
Source: Kimley-Horn, 2024

**Figure 5-5C: Visual Simulation 3**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn



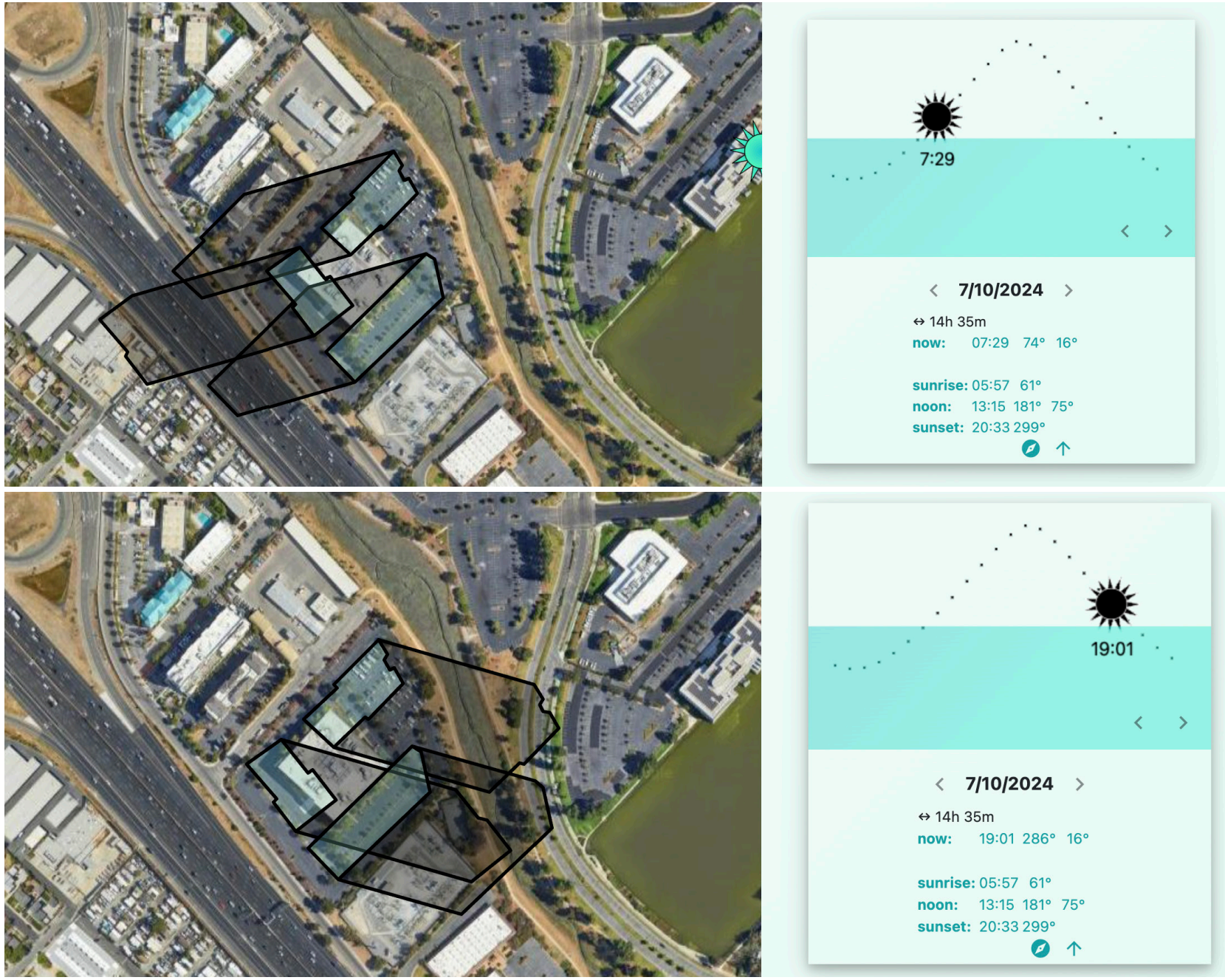

Source: Shadow Calculator, 2024

**Figure 5-6A: Shade and Shadow Studies (Winter)**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn




Source: Shadow Calculator, 2024

**Figure 5-6B: Shade and Shadow Studies (Summer)**

1301 Shoreway Project
*Draft EIR*

Not to scale

Kimley»Horn

While shadow and shade are not itself a significance threshold under CEQA, it is a factor related to overall visual character or quality, particularly in urban settings with residential land uses. The project as proposed will result in longer periods and more pronounced shadow on adjacent hotel uses in the immediate area, as described above. However, based on the location and nature of these uses, changes in shadow and shade created by the project in an urban environment – as a result of proposed changes to existing zoning standards - would be **less than significant**.

**Impact AES-3**: **The project would introduce new sources of light and glare to the project site and project area. This is a less than significant impact with implementation of mitigation and existing city policy and lighting standards.**

### Construction

Construction activity associated with the project would not result in unusual or permanent light sources that would significantly affect day or nighttime views in the area. During darker winter months some flood lighting or work lighting may be necessary near the beginning or end of the workday but would not be considered significant or obtrusive. All lighting required for construction would be temporary and subject to standard construction conditions, as well as applicable FAA requirements given the proximity to San Carlos Airport.

### Operations

Outside lighting associated with the project would include lighting and signage associated with the new buildings, themed lighting associated with public areas, pedestrian level bollards, pole lighting and custom lighting to allow for safety, security and way finding, and vehicle lights internal to the circulation system and parking areas. All lighting must be consistent with performance standards identified in the city's development code (Section 35-110), regarding type, intensity and direction. Lighting sources consistent with existing codes would be less than significant and obtrusive to the existing land uses.

With respect to glare the project is expected produce new sources of glare from windows and reflective surfaces that are more intensive than the existing office building. Given the project height and nearly unobstructed sun exposure, new sources of glint or glare from windows and reflective surfaces could affect neighboring properties and (to a lesser degree and shorter duration) Highway 101 at certain times of the day and year if efforts are not taken to reduce these effects. The project design, as submitted, addresses this issue through the proposed use of selected materials and finishes. The architectural package submitted identifies a series of bird-friendly building treatments, which include non-reflective window glazes and external materials to limit the expanse of glass. While these treatments would serve to reduce unwanted or excessive glare that reflect off the buildings, as well as limit bird strike, the following mitigation is provided to further reinforce the proposed design features.

### MM AES-3.1 Light/Glare Reduction and Design

Prior to the issuance of building permits, final improvement, lighting and architectural plans shall clearly demonstrate the light glare reducing features and finishes of the project. Lighting and finishes shall be selected to reduce reflective glare, bird strike, and light spill to neighboring properties and habitat areas.

With inclusion of the architectural building treatments as proposed and described, in addition to MM BIO-1.4, impacts from glare would be **less than significant**.

### 5.6.4 Cumulative Impact Analysis

The geographic context for the analysis of cumulative aesthetic impacts includes the project site, in addition to the buildout assumptions of the General Plan and East Belmont area (see Chapter 4, Cumulative Projects).

**Impact AES-4**: **The project would not significantly contribute to cumulatively considerable visual or aesthetic impacts. This is a less than significant impact of the project.**

The area east of Highway 101 has been identified as a focus area for economic growth in Belmont that is centered on regional commercial uses and employment centers. With much of the city built out, growth and redevelopment are more likely to take place on sites that are currently vacant or underutilized, such as the project site.[1] To that end, changes to community character resulting from growth and new development in this area have been addressed, at least at a programmatic level, within the General Plan EIR.

At this specific location, however, the project site is surrounded by existing development and improved land. The proposed development at 10 Twin Dolphin is geographically close to the project, however, there is little opportunity for this or other projects to develop nearby that could combine with this project to create a significant adverse cumulative effect with respect to scenic vistas, local aesthetics, or light and glare. The effects of this project are isolated to this geographic location. There would be no greater adverse or significant impacts created within the East Belmont area beyond those created by the project individually. Cumulative effects are therefore **less than significant**.

## 5.7 References

1 Shoreway Owner, LLC. 2022. Project application materials and plan sets and resubmittals.

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Shadow Calculator. 2024. Shadow Calculator Sun Shadow on Google Maps. http://shadowcalculator.eu/#/lat/50.08/lng/19.9

# 6 Air Quality

## 6.1 Introduction

This section describes effects on air quality that would be caused by construction and implementation of the proposed project. Information used to prepare this section came from the following primary resources:

- Air Quality and Greenhouse Gas Technical Report and Health Risk Assessment for the 1301 Shoreway Project (See **Appendix B**)
- California Emissions Estimator Model (CalEEMod) projections (see **Appendix B**)
- California Air Resource Board (CARB)
- State Office of Environmental Health Hazard Assessment (OEHHA)
- California Environmental Quality Act (CEQA) Air Quality Guidelines
- Bay Area Air Quality Management District (BAAQMD), CEQA Air Quality Guidelines, 2022
- City of Belmont, 2035 General Plan – Land Use, Circulation, and Conservation Element, 2017

## 6.2 Scoping Issues Addressed

Comments received during the NOP review period and public scoping process were generally concerned with construction (and demolition) particulates and related air quality impacts, energy use, and the potential for odor from laboratory exhaust/HVAC systems. Construction related effects and odor are addressed in this chapter. Energy consumption is addressed in Chapter 9, Energy, and Chapter 11, Greenhouse Gas Emissions.

## 6.3 Environmental Setting

### 6.3.1 Climate and Topography

CARB divides the State into 15 air basins that share similar meteorological and topographical features. The project is located within the San Francisco Bay Area Air Basin (Basin). This Basin comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern portion of Sonoma County, and the southwestern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions. These factors along with applicable regulations are discussed below. The BAAQMD is responsible for local control and monitoring of criteria air pollutants throughout the Basin.

Climate, or the average weather condition, affects air quality in several ways. Wind patterns can remove or add air pollutants emitted by stationary or mobile sources. Inversion, a condition where warm air traps cooler air underneath it, can hold pollutants near the ground by limiting upward mixing (dilution). Topography also affects the local climate, as valleys often trap emissions by limiting lateral dispersal.

The inversions typical of winter, called radiation inversions, are formed as heat quickly radiates from the earth's surface after sunset, causing the air in contact with it to rapidly cool. Radiation inversions are

strongest on clear, low-wind, cold winter nights, allowing the build-up of such pollutants as carbon monoxide and particulate matter. When wind speeds are low, there is little mechanical turbulence to mix the air, resulting in a layer of warm air over a layer of cooler air next to the ground. During radiation inversions downwind transport is slow, the mixing depths are shallow, and turbulence is minimal, all factors which contribute to ozone formation.

The frequency of hot, sunny days during the summer months in the Basin is another important factor that affects air pollution potential. It is at the higher temperatures that ozone is formed. In the presence of ultraviolet sunlight and warm temperatures, reactive organic gases and oxides of nitrogen react to form secondary photochemical pollutants, including ozone.

The climate is dominated by the location and strength of a semi-permanent, subtropical high-pressure cell. In the summer, the Pacific cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below the surface because of the northwesterly flow produces a band of cold water off the coast which results in condensation and the presence of fog and stratus clouds along the coast. In the winter, the high-pressure cell weakens and shifts southward, resulting in increased wind flow offshore, the absence of upwelling, and the occurrence of storms.

The Basin is characterized by moderately wet winters (November through March) and dry summers. The rainfall in the mountains reaches 40 inches while the valley sees less than 16 inches. Generally, coastal temperatures can be 35 degrees Fahrenheit cooler than temperatures 15 to 20 miles inland. At night, this contrast usually decreases to less than 10 degrees Fahrenheit. In the winter, the relationship of minimum and maximum temperatures is reversed.

The project site is located in the City of Belmont in San Mateo County, California. The City has a generally mild climate, with average temperatures around 70's Fahrenheit in the summer and high 50's Fahrenheit in the winter. The annual rainfall is approximately 22 inches in the City, primarily between November and April. The regulatory section below discusses the various buffer zones around sources of air pollution sufficient to avoid adverse health and nuisance impacts on nearby receptors.

### 6.3.2 Air Pollutants of Primary Concern

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state laws. These regulated air pollutants are known as "criteria air pollutants" and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide ($NO_X$), sulfur dioxide ($SO_2$), coarse particulate matter ($PM_{10}$), fine particulate matter ($PM_{2.5}$), and lead are primary air pollutants. Of these, CO, $NO_X$, $SO_2$, $PM_{10}$, and $PM_{2.5}$ are criteria pollutants. ROG and $NO_X$ are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. For example, the criteria pollutant ozone ($O_3$) is formed by a chemical reaction between ROG and $NO_X$ in the presence of sunlight. $O_3$ and nitrogen dioxide ($NO_2$) are the principal secondary pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in Table 6-1: Air Contaminants and Associated Public Health Concerns.

Ozone, or smog, is not emitted directly into the environment, but is formed in the atmosphere by complex chemical reactions between ROG and $NO_X$ in the presence of sunlight. Ozone formation is

greatest on warm, windless, sunny days. The main sources of $NO_X$ and ROG, often referred to as ozone precursors, are combustion processes (including motor vehicle engines) the evaporation of solvents, paints, and fuels, and biogenic sources. Automobiles are the single largest source of ozone precursors in the Basin. Tailpipe emissions of ROG are highest during cold starts, hard acceleration, stop-and-go conditions, and slow speeds. They decline as speeds increase up to about 50 miles per hour (mph), then increase again at high speeds and high engine loads. ROG emissions associated with evaporation of unburned fuel depend on vehicle and ambient temperature cycles. Nitrogen oxide emissions exhibit a different curve; emissions decrease as the vehicle approaches 30 mph and then begin to increase with increasing speeds.

Ozone levels usually build up during the day and peak in the afternoon hours. Short-term exposure can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, it can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema. Chronic exposure to high ozone levels can permanently damage lung tissue. Ozone can also damage plants and trees, and materials such as rubber and fabrics.

**Table 6-1: Air Contaminants and Associated Public Health Concerns**

| Pollutant | Major Man-Made Sources | Human Health Effects |
|---|---|---|
| Particulate Matter ($PM_{10}$ and $PM_{2.5}$) | Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and others. | Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility. |
| Ozone ($O_3$) | Formed by a chemical reaction between reactive organic gases/volatile organic compounds (ROG or VOC)[1] and nitrogen oxides ($NO_X$) in the presence of sunlight. Motor vehicle exhaust industrial emissions, gasoline storage and transport, solvents, paints, and landfills. | Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. |
| Sulfur Dioxide ($SO_2$) | A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships. | Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain. |
| Carbon Monoxide (CO) | An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust. | Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death. |
| Nitrogen Dioxide ($NO_2$) | A reddish-brown gas formed during fuel combustion for motor vehicles and | Respiratory irritant; aggravates lung and heart problems. Precursor to |

| Pollutant | Major Man-Made Sources | Human Health Effects |
|---|---|---|
| | industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel. | ozone. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere. |
| Lead (Pb) | Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Due to the phase out of leaded gasoline, metals processing is the major source of lead emissions to the air today. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers. | Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children, resulting in learning deficits and lowered IQ. |

Source: California Air Pollution Control Officers Association (CAPCOA), *Health Effects*, https://evogov.s3.amazonaws.com/media/17/media/119598.pdf, accessed May, 2024.

[1] Volatile Organic Compounds (VOCs or Reactive Organic Gases [ROG]) are hydrocarbons/organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROGs and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

### Toxic Air Contaminants

Toxic air contaminants (TACs) are airborne substances that can cause short-term (acute) or long-term (chronic or carcinogenic, i.e., cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes more than 200 compounds, including particulate emissions from diesel-fueled engines.

CARB identified diesel particulate matter (DPM) as a toxic air contaminant. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer, and many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

Laboratory Toxic Air Contaminants

According to the Health Risk Assessment conducted for the University of California, Davis 2017 Long Range Development Plan[1], Type I Chemistry and Chemical Engineering and Type II General Biological Sciences laboratories are known to emit a variety of TAC emissions. (Type I/II labs are comparable in use to BSL-1 and BSL-2 facilities). These TAC emissions would occur from the usage of different solvents, preservatives, acids, and other chemicals typically found in a laboratory setting. Table 6-2: Type I/II Chemistry and Chemical Engineering/General Biological Sciences Laboratory Toxic Air Contaminant Pollutants highlights the various TACs that could be emitted from the proposed project's laboratory uses. Table 6-2 includes the CARB and OEHHA risk assessment health values that were used in the UC Davis HRA. While the specific tenant or use of any future lab is not known at this time, similar emissions are possible.

**Table 6-2: Type I/II Chemistry and Chemical Engineering/General Biological Sciences Laboratory Toxic Air Contaminant Pollutants**

| Pollutant | Pollutant Name | Chemical Abstracts Service[a] | Inhalation Cancer Slope Factor[b] | Acute Reference Exposure Level[c] | Inhalation Chronic Reference Exposure Level[d] |
|---|---|---|---|---|---|
| Benzene | Benzene | 71,432 | 0.1 | 27 | 3 |
| Carbon Tetrachloride | CCl4 | 56,235 | 0.15 | 1,900 | 40 |
| Chloroform | Chloroform | 67,663 | 0.019 | 150 | 300 |
| 1,4-Dioxane | 1,4-Dioxane | 123,911 | 0.027 | 3,000 | 3,000 |
| Formaldehyde | Formaldehyde | 50,000 | 0.021 | 55 | 9 |
| n-Hexane | Hexane | 110,543 | - | - | 7,000 |
| Hydrochloric Acid | HCl | 7,647,010 | - | 2,100 | 3 |
| Isopropanol | Isopropyl Alcohol | 67,630 | - | 3,200 | 7,000 |
| Methanol | Methanol | 67,561 | - | 28,000 | 4,000 |
| Methylene Chloride | Methylene Chloride | 75,092 | 0.0035 | 14,000 | 400 |
| Toluene | Toluene | 108,883 | - | 5,000 | 420 |
| Xylenes | Xylenes | 1,330,207 | - | 22,000 | 700 |

[1] University of California Davis/York Engineering. 2017. Long Range Development Plan Health Risk Assessment.

| | | | | | |
|---|---|---|---|---|---|
| Dimethylformamide | DMF | 68,122 | - | - | 80 |
| Trichloroethylene | TCE | 79,016 | 0.007 | - | 600 |
| Hydrazine | Hydrazine | 302,012 | 17 | - | 0.2 |
| Tetrachloreothylene | Perc | 127,184 | 0.021 | 20,000 | 35 |
| Glutaraldehyde | Glutaraldehyde | 111,308 | - | - | 0.08 |
| Triethylamine | Triethylamine | 121,448 | - | 2,800 | 200 |
| Hydrogen Fluoride | HF | 7,664,393 | - | 240 | 14 |
| Methyl Bromide | Methyl Bromide | 74,839 | - | 3,900 | 5 |
| Acrylamide | Acrylamide | 79,061 | 4.5 | - | - |
| Ethylene Dichloride | EDC | 107,062 | 0.072 | - | 400 |

Source: York. 2018. Health Risk Assessment for the University of California, Davis 2017 Long Range Development Plan. CARB. 2020. Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values. October 2. Available: https://ww2.arb.ca.gov/sites/default/files/classic/toxics/healthval/contable.pdf.
a) The Chemical Abstracts Service is a unique number to identify each pollutant.
b) The Inhalation Cancer Slope factor is a characteristic of each pollutant that quantifies the potential for the pollutant to cause cancer.
c) The Acute Reference Exposure Level is a characteristic of each pollutant that quantifies the amount of exposure that is not likely to cause adverse health effects in a human population that is exposed to concentration at or below that level on an intermittent basis.
d) The Inhalation Chronic Reference Exposure Level is a characteristic of each pollutant that quantifies the amount of long-term exposure that is not likely to cause adverse health effects in a human population that is exposed to concentrations at or below that level.

### Asbestos

Asbestos is the name given to several naturally occurring fibrous silicate minerals. Before the adverse health effects of asbestos were identified, asbestos was widely used as insulation and fireproofing in buildings, and it can still be found in some older buildings. It is also found in its natural state in rock or soil. The inhalation of asbestos fibers into the lungs can result in a variety of adverse health effects, including inflammation of the lungs, respiratory ailments (e.g., asbestosis, which is scarring of lung tissue that results in constricted breathing), and cancer (e.g., lung cancer and mesothelioma, which is cancer of the linings of the lungs and abdomen).

### Odors

Offensive odors can be unpleasant and lead to citizen complaints to local governments and air districts. According to the CARB's Air Quality and Land Use Handbook[11], land uses associated with odor complaints typically include sewage treatment plants, landfills, recycling facilities, manufacturing, and agricultural activities. CARB provides recommended screening distances for siting new receptors near existing odor sources.

### 6.3.3 Ambient Air Quality

CARB monitors ambient air quality at approximately 250 air monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Existing levels of ambient air quality, historical trends, and projections near the project site are documented by measurements made by the BAAQMD's air pollution regulatory agency that maintains air quality monitoring stations, which process ambient air quality measurements.

Ozone ($O_3$) and particulate matter ($PM_{10}$ and $PM_{2.5}$) are pollutants of concern in the BAAQMD. There are no monitoring stations in the City of Belmont. The closest air monitoring station is in Redwood City at 897 Barron Avenue, approximately 4.5 miles southeast of the project site. This monitoring station provides air quality data that would be representative of the ambient air quality at the project site. Local air quality data from 2018 to 2020 is provided in Table 6-3: Ambient Air Quality Data, and lists the monitored maximum concentrations and number of exceedances of federal or state air quality standards for each year. As indicated in Table 6-3: Ambient Air Quality Data, the Redwood City monitoring station has experienced infrequent violations of state and federal air quality standards during this time. Table 6-4: State and Federal Status for San Mateo County below shows the attainment and nonattainment status for various pollutants for San Mateo County regarding the National Ambient Air Quality Standard (NAAQS) and California Ambient Air Quality Standards (CAAQS).

In general, the Bay Area experiences low concentrations of most pollutants when compared to federal standards, except for $O_3$ (ozone) and particulate matter (PM), for which standards are exceeded periodically. With respect to federal standards, the Bay Area's attainment status for 8-hour ozone is classified as "marginal nonattainment" and "nonattainment" for $PM_{2.5}$. The region is also considered to be in nonattainment with the CAAQS for $PM_{10}$ and $PM_{2.5}$. Area sources generate the majority of these airborne particulate emissions. The Basin is considered in attainment or unclassified with respect to the CO, $NO_2$ and $SO_2$ NAAQS and CAAQS.

**Table 6-3: Ambient Air Quality Data**

| Pollutant | Redwood City[1] | | |
|---|---|---|---|
| | 2018 | 2019 | 2020 |
| **Ozone ($O_3$)** | | | |
| Maximum 1-hour concentration (ppm) | 0.067 | 0.083 | 0.098 |
| Maximum 8-hour concentration (ppm) | 0.049 | 0.077 | 0.077 |
| *Number of Days Standard Exceeded* | | | |
| CAAQS 1-hour (>0.09 ppm) | 0 | 0 | 1 |
| CAAQS 8-hour (>0.070 ppm) | 0 | 2 | 1 |
| NAAQS 8-hour (>>0.075) | 0 | 1 | 1 |
| **Carbon Monoxide (CO)** | | | |
| Maximum 8-hour concentration (ppm) | 1.7 | 1.1 | 1.5 |
| Maximum 1-hour concentration (ppm) | 2.5 | 2 | 2.1 |
| *Number of Days Standard Exceeded* | | | |
| NAAQS 8-hour (>9 ppm) | 0 | 0 | 0 |
| CAAQS 8 hour (>9.0 ppm) | 0 | 0 | 0 |
| NAAQS 1-hour (>35 ppm) | 0 | 0 | 0 |
| CAAQS 1-hour (>20 ppm) | 0 | 0 | 0 |
| **Nitrogen Dioxide ($NO_2$)** | | | |

| Pollutant | Redwood City[1] | | |
|---|---|---|---|
| | 2018 | 2019 | 2020 |
| State maximum 1-hour concentration (ppb) | 45.9 | 40.5 | 43.8 |
| State second-highest 1-hour concentration (ppb) | 73 | 51 | 44 |
| Annual average coverage concentrations | 10 | 9 | 8 |
| *Number of Days Standard Exceeded* | | | |
| CAAQS 1-hour 180 ppb) | 0 | 0 | 0 |
| **Particulate Matter Less Than 10 Microns ($PM_{10}$)[1]** | | | |
| National 24-hour Maximum Concentration (µg/m$^3$) | 115.4 | 75.4 | 134.9 |
| National second-highest 24-hour concentration (µg/m$^3$) national | 111.6 | 53.6 | 91.0 |
| State maximum 24-hour concentration (µg/m$^3$) | 121.8 | 77.1 | 137.1 |
| State second-highest 24-hour concentration (µg/m$^3$) | 118.5 | 56.0 | 90.8 |
| National annual average concentration (µg/m$^3$) | 20.9 | 18.4 | 24.1 |
| State annual average concentration (µg/m$^3$) | 23.1 | 19.1 | 24.8 |
| *Number of Days Standard Exceeded*[2] | | | |
| NAAQS 24-hour (>150 µg/m$^3$) | 0 | 0 | 0 |
| CAAQS 24-hour (>50 µg/m$^3$) | 4 | 4 | 10 |
| **Particulate Matter Less Than 2.5 Microns ($PM_{2.5}$)** | | | |
| National maximum 24-hour concentration (µg/m$^3$) | 120.9 | 29.5 | 124.1 |
| National second-highest 24-hour Concentration (µg/m$^3$) | 118.1 | 24.7 | 116.0 |
| State maximum 24-hour concentration (µg/m$^3$) | 120.9 | 29.5 | 124.1 |
| State second-highest 24-hour concentration (µg/m$^3$) | 118.1 | 24.7 | 116.0 |
| National annual average concentration (µg/m$^3$) | 10.5 | 7.0 | 9.8 |
| State annual average concentration (µg/m$^3$) | 10.6 | * | 9.8 |
| *Number of Days Standard Exceeded* | | | |
| NAAQS 24-hour (>35 µg/m$^3$) | 13 | 0 | 9 |

Source: California Air Resources Board 2021; U.S. Environmental Protection Agency 2021
1. Data for Particulate Matter ($PM_{10}$) was unavailable from the Redwood City Monitoring Station or anywhere else in San Mateo County, so data is taken from the San Jose – Jackson Street Monitoring Station in Santa Clara County.
2. An exceedance is not necessarily a violation.
ppm = parts per million; NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; µg/m$^3$ micrograms per cubic meter; mg/m$^3$ = milligrams per cubic meter; - = data not available.

### 6.3.4 Sensitive Receptors

Pollutants in the air can cause health problems, especially for children, the elderly, and people with heart or lung problems. Healthy adults may experience symptoms during periods of intense exercise. Pollutants can also cause damage to vegetation, animals, and property.

Sensitive populations are more susceptible to the effects of air pollution than the general population. Sensitive receptors in proximity to localized sources of toxics are of particular concern. Land uses that are considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

The project site is located at 1301 Shoreway Road in Belmont, California in San Mateo County. Land uses in the immediate vicinity of the project site consist mainly of commercial and industrial uses and do not contain any sensitive receptors. However, residential uses are located approximately 300 feet southwest of the project site, across Highway 101. See **Figure 6-1: Sensitive Receptors in the Vicinity of the Project Site**.




Source: ICF, 2024

**Figure 6-1: Sensitive Receptors in the Vicinity of the Project Site**

1301 Shoreway Project
*Draft EIR*

Kimley»Horn

## 6.4 Applicable Regulations, Plans, and Standards

### 6.4.1 Federal and State

#### Federal Clean Air Act

Air quality is federally protected by the Federal Clean Air Act (FCAA) and its amendments. Under the FCAA, the EPA developed the primary and secondary NAAQS for the criteria air pollutants including ozone, $NO_2$, CO, $SO_2$, $PM_{10}$, $PM_{2.5}$, and lead. Depending on whether the standards are met or exceeded, the local air basin is classified as in "attainment" or "nonattainment." Some areas are unclassified, which means no monitoring data are available. Unclassified areas are considered to be in attainment. Proposed projects in or near nonattainment areas could be subject to more stringent air-permitting requirements. The FCAA requires that each state prepare a State Implementation Plan (SIP) to demonstrate how it would attain the NAAQS within the federally imposed deadlines.

The U.S. Environmental Protection Agency (EPA) has designated enforcement of air pollution control regulations to the individual states. Applicable federal standards are summarized in Table 6-3: State and Federal Ambient Air Quality Standards.

#### California Air Resources Board

CARB administers California's air quality policy. CAAQS were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 6-3, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates. In general, the Bay Area experiences low concentrations of most pollutants when compared to federal standards, except for $O_3$ and PM, for which standards are exceeded periodically. With respect to federal standards, the Bay Area's attainment status for 8-hour ozone is classified as "marginal nonattainment" and "nonattainment" for $PM_{2.5}$. The region is also considered to be in nonattainment with the CAAQS for $PM_{10}$ and $PM_{2.5}$. Area sources generate the majority of these airborne particulate emissions. The Basin is considered in attainment or unclassified with respect to the CO, $NO_2$ and $SO_2$ NAAQS and CAAQS.

The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the SIP for meeting federal clean air standards for the State of California. Like the EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events such as wildfires, volcanoes, etc. are not considered violations of a State standard, and are not used as a basis for designating areas as nonattainment. The applicable State standards are summarized in Table 6-4: State and Federal Ambient Air Quality Standards.

**Table 6-4: State and Federal Ambient Air Quality Standards**

| Pollutant | Averaging Time | State Standards[1] | | Federal Standards[2] | |
|---|---|---|---|---|---|
| | | Concentration | Attainment Status | Concentration[3] | Attainment Status |
| Ozone ($O_3$) | 8 Hour | 0.070 ppm (137 µg/m$^3$) | N[9] | 0.070 ppm | N[4] |
| | 1 Hour | 0.09 ppm (180 µg/m$^3$) | N | NA | N/A[5] |
| Carbon Monoxide (CO) | 8 Hour | 9.0 ppm (10 mg/m$^3$) | A | 9 ppm (10 mg/m$^3$) | A[6] |
| | 1 Hour | 20 ppm (23 mg/m$^3$) | A | 35 ppm (40 mg/m$^3$) | A |
| Nitrogen Dioxide ($NO_2$) | 1 Hour | 0.18 ppm (339 µg/m$^3$) | A | 0.10 ppm[11] | U |
| | Annual Arithmetic Mean | 0.030 ppm (57 µg/m$^3$) | - | 0.053 ppm (100 µg/m$^3$) | A |
| Sulfur Dioxide[12] ($SO_2$) | 24 Hour | 0.04 ppm (105 µg/m$^3$) | A | 0.14 ppm (365 µg/m$^3$) | A |
| | 1 Hour | 0.25 ppm (655 µg/m$^3$) | A | 0.075 ppm (196 µg/m$^3$) | A |
| | Annual Arithmetic Mean | NA | - | 0.03 ppm (80 µg/m$^3$) | A |
| Particulate Matter ($PM_{10}$) | 24-Hour | 50 µg/m$^3$ | N | 150 µg/m$^3$ | U |
| | Annual Arithmetic Mean | 20 µg/m$^3$ | N[7] | NA | - |
| Fine Particulate Matter ($PM_{2.5}$) [15] | 24-Hour | NA | - | 35 µg/m$^3$ | U/A |
| | Annual Arithmetic Mean | 12 µg/m$^3$ | N[7] | 12 µg/m$^3$ | N |
| Sulfates ($SO_{4-2}$) | 24 Hour | 25 µg/m$^3$ | A | NA | - |
| Lead (Pb)[13, 14] | 30-Day Average | 1.5 µg/m$^3$ | - | NA | A |
| | Calendar Quarter | NA | - | 1.5 µg/m$^3$ | A |
| | Rolling 3-Month Average | NA | - | 0.15 µg/m$^3$ | - |
| Hydrogen Sulfide ($H_2S$) | 1 Hour | 0.03 ppm (42 µg/m$^3$) | U | NA | - |
| Vinyl Chloride ($C_2H_3Cl$) | 24 Hour | 0.01 ppm (26 µg/m$^3$) | - | NA | - |
| Visibility Reducing Particles[8] | 8 Hour (10:00 to 18:00 PST) | - | U | - | - |

Source: Bay Area Air Quality Management District, *Air Quality Standards and Attainment Status*, 2017. http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status.A = attainment; N = nonattainment; U = unclassified; N/A = not applicable or no applicable standard; ppm = parts per million; µg/m$^3$ = micrograms per cubic meter; mg/m$^3$ = milligrams per cubic meter; – = not indicated or no information available.

1.California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - $PM_{10}$, and visibility reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe carbon monoxide, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour or 24-hour average (i.e., all standards except for lead and the $PM_{10}$ annual standard), then some measurements may be excluded. In particular, measurements are excluded that CARB determines would occur less than once per year on the average. The Lake Tahoe CO standard is 6.0 ppm, a level one-half the national standard and two-thirds the state standard.

2.National standards shown are the "primary standards" designed to protect public health. National standards other than for ozone, particulates and those based on annual averages are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the

standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.070 ppm (70 ppb) or less. The 24-hour $PM_{10}$ standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/$m^3$. The 24-hour $PM_{2.5}$ standard is attained when the 3-year average of 98th percentiles is less than 35 µg/$m^3$.
Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for $PM_{10}$ is met if the 3-year average falls below the standard at every site. The annual $PM_{2.5}$ standard is met if the 3-year average of annual averages spatially-averaged across officially designed clusters of sites falls below the standard.

3. National air quality standards are set by the EPA at levels determined to be protective of public health with an adequate margin of safety.
4. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area would meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or less than 0.070 ppm. EPA would make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas would have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the ozone level in the area.
5. The national 1-hour ozone standard was revoked by U.S. EPA on June 15, 2005.
6. In April 1998, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.
7. In June 2002, CARB established new annual standards for $PM_{2.5}$ and $PM_{10}$.
8. Statewide VRP Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.
9. The 8-hour CA ozone standard was approved by the Air Resources Board on April 28, 2005, and became effective on May 17, 2006.
10. On January 9, 2013, EPA issued a final rule to determine that the Bay Area attains the 24-hour $PM_{2.5}$ national standard. This EPA rule suspends key SIP requirements as long as monitoring data continues to show that the Bay Area attains the standard. Despite this EPA action, the Bay Area would continue to be designated as "nonattainment" for the national 24-hour $PM_{2.5}$ standard until such time as the Air District submits a "redesignation request" and a "maintenance plan" to EPA, and EPA approves the proposed redesignation.
11. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100ppm (effective January 22, 2010). The US Environmental Protection Agency (EPA) expects to make a designation for the Bay Area by the end of 2017.
12. On June 2, 2010, the U.S. EPA established a new 1-hour $SO_2$ standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour $SO_2$ NAAQS however must continue to be used until one year following U.S. EPA initial designations of the new 1-hour $SO_2$ NAAQS.
13. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure below which there are no adverse health effects determined.
14. National lead standard, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.
15. In December 2012, EPA strengthened the annual $PM_{2.5}$ NAAQS from 15.0 to 12.0 micrograms per cubic meter (µg/$m^3$). In December 2014, EPA issued final area designations for the 2012 primary annual $PM_{2.5}$ NAAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

## 6.4.2 Regional

### Bay Area Air Quality Management District

The BAAQMD is the regional agency with jurisdiction over the nine-county region located in the Basin. BAAQMD has local air quality jurisdiction over projects located in the San Francisco Bay Area Air Basin (SFBAAB), including San Mateo County. The air quality districts are also responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws for ensuring that NAAQS and CAAQS are met. The Association of Bay Area Governments (ABAG), Metropolitan Transportation Commission (MTC), county transportation agencies, cities and counties, and various nongovernmental organizations also join in the efforts to improve air quality through a variety of programs. These programs include the adoption of regulations and policies, as well as implementation of extensive education and public outreach programs. Table 6-5: BAAQMD NAAQS and CAAQS Attainment Status shows BAAQMD attainment status.

**Table 6-5: BAAQMD NAAQS and CAAQS Attainment Status**

| Pollutant | Averaging Period | BAAQMD Attainment Status | |
|---|---|---|---|
| | | California Standard | Federal Standard |
| Ozone ($O_3$) | 1 hour | Nonattainment | --- |
| | 8 hour | Nonattainment | Nonattainment |
| Respirable Particulate Matter ($PM_{10}$) | 24 hour | Nonattainment | Unclassified |
| | Annual | Nonattainment | --- |
| Fine Particulate Matter ($PM_{2.5}$) | 24 hour | --- | Nonattainment |
| | Annual | Nonattainment | Unclassified/Attainment |
| Carbon Monoxide (CO) | 1 hour | Attainment | Attainment |
| | 8 hour | Attainment | Attainment |
| Nitrogen Dioxide ($NO_2$) | 1 hour | Attainment | Unclassified |
| | Annual | --- | Attainment |
| Lead (Pb) | 30-day average | --- | Attainment |
| | Calendar Quarter | --- | Attainment |
| Sulfur Dioxide ($SO_2$) | 1 hour | Attainment | Unclassified |
| | 24 hour | Attainment | Unclassified |
| | Annual | --- | Unclassified |
| Hydrogen Sulfide ($H_2S$) | 1 hour | Unclassified | --- |
| Vinyl Chloride | 24 hour | No Information Available | --- |
| Sulfates | 24 hour | Attainment | --- |

[1] Attainment status for BAAQMD obtained from: https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status standards-and-attainment-status. Accessed: September 12, 2023.

### Clean Air Plan

Air quality plans developed to meet federal requirements are referred to as State Implementation Plans. The federal and state Clean Air Acts require plans to be developed for areas designated as nonattainment (with the exception of areas designated as nonattainment for the state $PM_{10}$ standard). The BAAQMD is responsible for developing a Clean Air Plan, which guides the region's air quality planning efforts to attain the CAAQS. The BAAQMD adopted the 2017 Clean Air Plan: Spare the Air, Cool the Climate on April 19, 2019.

BAAQMD periodically develops air quality plans that outline the regional strategy to improve air quality and protect the climate. The most recent plan, 2017 Bay Area Clean Air Plan, includes a wide range of control measures designed to reduce emissions of air pollutants and GHGs, including the following examples that may be relevant to this project: reduce emissions of toxic air contaminants by adopting more stringent limits and methods for evaluating toxic risks; implement pricing measures to reduce travel demand; accelerate the widespread adoption of electric vehicles; promote the use of clean fuels; promote energy efficiency in both new and existing buildings; and promote the switch from natural gas to electricity for space and water heating in Bay Area buildings.

The 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the plan describes how the BAAQMD would continue progress toward attaining all state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 Clean Air Plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious greenhouse gas (GHG) reduction targets for 2030 and 2050 and provides a regional climate protection strategy that would put the Bay Area on a pathway to achieve those GHG reduction targets. The 2017 Clean Air Plan contains district-wide control measures to reduce ozone precursor emissions (i.e., ROG and $NO_X$), particulate matter, TACs, and greenhouse gas emissions. The Bay Area 2017 Clean Air Plan updates the Bay Area 2010 Clean Air Plan in accordance with the requirements of the CCAA to implement "all feasible measures" to reduce ozone; provides a control strategy to reduce ozone, PM, TACs, and greenhouse gases in a single, integrated plan; reviews progress in improving air quality in recent years; and establishes emission control measures to be adopted or implemented in both the short term and through 2050.

The 2017 Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

The following BAAQMD rules would limit emissions of air pollutants from construction and operation of the Project:

- Regulation 2, Rule 2. New Source Review. This regulation contains requirements for Best Available Control Technology and emission offsets.
- Regulation 2, Rule 5. New Source Review of Toxic Air Contaminates. This regulation outlines guidance for evaluating TAC emissions and their potential health risks.
- Regulation 6, Rule 1. PM. This regulation restricts emissions of PM darker than a 1 on the Ringlemann Chart to less than 3 minutes in any 1 hour.
- Regulation 6, Rule 3. Wood-Burning Devices. The purpose of this rule is to limit emissions of particulate matter and visible emissions from wood-burning devices used for primary heat, supplemental heat or ambiance.
- Regulation 7. Odorous Substances. This regulation establishes general odor limitations on odorous substances and specific emission limitations on certain odorous compounds.
- Regulation 8, Rule 3. Architectural Coatings. This rule governs the manufacture, distribution, and sale of architectural coatings and limits the reactive organic gases content in paints and paint solvents. Although this rule does not directly apply to the project, it does dictate the ROG content of paint available for use during the construction.
- Regulation 8, Rule 15. Emulsified and Liquid Asphalts. This rule dictates the reactive organic gases content of asphalt available for use during construction through regulating the sale and use of asphalt and limits the ROG content in asphalt. Although this rule does not directly apply to the project, it does dictate the ROG content of asphalt for use during the construction.

- Regulation 9, Rule 6. $NO_X$ Emission from Natural Gas–Fired Boilers and Water Heaters. This regulation limits emissions of $NO_X$ generated by natural gas–fired boilers.
- Regulation 9, Rule 8. Organic Compounds. This rule limits the emissions of nitrogen oxides and carbon monoxide from stationary internal combustion engines with an output rated by the manufacturer at more than 50 brake horsepower.
- Regulation 11, Rule 2. Hazardous Pollutants – Asbestos Demolition, Renovation, and Manufacturing. This regulation, which incorporates EPA's asbestos National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations, controls emissions of asbestos to the atmosphere during demolition, renovation, and transport activities.

BAAQMD prepared an Ozone Attainment Demonstration Plan to satisfy the federal 1-hour ozone planning requirement because of the Air Basin's nonattainment for federal and State ozone standards. The U.S. EPA revoked the 1-hour ozone standard and adopted an 8-hour ozone standard. The BAAQMD would address the new federal 8-hour ozone planning requirements once they are established.

### 6.4.3 Local

#### City of Belmont Climate Action Plan

The City of Belmont finalized a Climate Action Plan (CAP) in December 2017 that identified specific goals and measures for reducing the City's GHG emissions. A 2005 emissions inventory determined that the City produced 167,648 metric tons (MT) of $CO_2e$. Transportation accounted for approximately 60 percent of the City's total emissions.

Given the high projected business-as-usual emissions forecast for 2020, the City's emissions reduction goal was established as 15 percent below 2005 levels by 2020 through implementation of the CAP. In line with the City of Belmont's General Plan update to 2035, the CAP also sets a second GHG reduction target of 50 percent below 2005 levels by 2035. To achieve this emissions reduction goal, the CAP structured objectives around four general categories: energy use in buildings, transportation and land use, waste, and adaptation.

#### City of Belmont General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. Relevant general plan policies for air quality and greenhouse gas emissions are addressed in this section. Where inconsistencies exist, if any, they are addressed in the respective impact analysis below. Relevant general plan policies that directly address reducing and avoiding greenhouse gas emissions impacts include the following:

**Land Use Element**

- Policy 2.7-2: Promote enhanced accessibility to commercial and employment areas, including walking and bicycling facility improvements.
- Policy 2.13-6: Enhance walkability on a citywide scale by improving or adding sidewalks, landscaping, benches, wayfinding signage, public art, and pedestrian-scaled lighting, where ap-propriate and feasible.

**Circulation Element**

- Policy 3.1-5: Require new development and redevelopment projects to construct or pay their fair share toward improvements for all travel modes to provide and enhance connectivity to existing transportation facilities.
- Policy 3.2-4: Support thoughtful and appropriate land use locations and densities with development or redevelopment in Belmont that promote alternatives to travel via single-occupant vehicles.
- Policy 3.4-3: Seek innovative solutions to addressing traffic congestion and barriers to mobility that are due, in part, to Belmont's unique geography.
- Policy 3.5-8: Support and provide bicycle and pedestrian connections to commercial and employment areas to enhance accessibility.
- Policy 3.5-15: Ensure that new development projects provide bicycle and pedestrian improvements to facilitate the implementation of adopted Safe Routes to School plans.
- Policy 3.6-2: Encourage (or require, for large employment centers with high projected trip generate rates) businesses to implement Transportation Demand Management Programs with an emphasis on connecting and sharing the service with other businesses in the City and region, such as commuter buses, carpools, and other forms of private transit, especially in conjunction with major new industrial or commercial development.

**Conservation Element**

**Goal 5.10:** Reduce emissions of ozone-producing pollutants and particulate matter to improve regional air quality and protect the health of Belmont and Bay Area residents.

- Policy 5.10-2: Require that new development with sensitive uses that is located adjacent to sources of toxic air contaminants (TAC) be designed to minimize any potential health risks.
- Policy 5.10-4: Support land use, transportation management, infrastructure, and environmental planning programs that reduce vehicle emissions and improve air quality.
- Policy 5.10-6: Ensure compliance with the most current Bay Area Clean Air Plan by implementing the Plan's recommended Transportation Control Measures (TCMs).

**Goal 5.11:** Reduce emissions of greenhouse gases to 15 percent below the 2005 baseline levels by 2020 and to 50 percent below the 2005 baseline levels by 2035.

- Policy 5.11-1: Adopt a Climate Action Plan that incorporates a Greenhouse Gas Emissions Reduction Plan, which quantifies current and anticipated future emissions and focuses on feasible actions the City can take to minimize the adverse impacts of General Plan implementation on climate change and air quality.
- Policy 5.11-2: Support the Climate Action Plan's goals and implement the CAP's reduction measures and strategies to reduce green-house gas emissions.
- Policy 5.11-4: Support and participate in regional efforts to reduce greenhouse gas emissions and implement adaptation strategies.

### Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to air quality. Most provisions related to air quality are included in Chapter 7, *Buildings*, and Chapter 25, *Trees*. Provisions include the following:

**Chapter 7, Article IV, Division 10, *Green Building Standards Code* *Section 7-98.4.106.5, All-electric buildings*:** Stipulates that new construction buildings and qualifying alteration projects shall comply with Section 4.106.5.1 or 4.106.5.2 so that they do not use combustion equipment or are ready to accommodate installation of electric heating appliances. Alterations that include replacement of over 50 percent of the existing foundation for purposes other than a repair or reinforcement, or where over 50 percent of the existing framing above the sill plate is removed or replaced for purposes other than repair, shall be all-electric buildings.

**Chapter 25, *Trees*:** Provides guidance on Protected Trees in order to preserve scenic beauty, and welfare of residents and in order to counteract air pollutants and maintain climatic balances. Protected Trees include principal native trees, such as a Coast Live Oak, Valley Oak, Redwood, Madrone, Bay Laurel, or Buckeye having a single main stem or trunk of 10 inches or more diameter at 4.5 feet above grade height (DBH), or up to three of the largest secondary stems totaling 10 inches or more DBH. They also include woody, perennial plants with 14 inches or more in DBH.

## 6.5 Environmental Impacts and Mitigation Measures

### 6.5.1 Significance Criteria

Under CEQA, the BAAQMD is an expert commenting agency on air quality within its jurisdiction or impacting its jurisdiction. Under the Federal Clean Air Act (FCAA), the BAAQMD has adopted Federal attainment plans for $O_3$ and $PM_{2.5}$. The BAAQMD reviews projects to ensure that they would not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any Federal attainment plan.

The BAAQMD Thresholds of Significance Justification (2017) establishes thresholds based on substantial evidence within the 2022 CEQA Air Quality Guidelines. The thresholds have been developed by BAAQMD to attain State and federal ambient air quality standards, which are set at levels protective of human health. Therefore, projects below these thresholds would not violate an air quality standard and would not make a cumulatively considerable contribution to an existing or projected cumulative air quality violation in the Air Basin.

The BAAQMD's CEQA Air Quality Guidelines provides significance thresholds for both construction and operation of projects. Ultimately the lead agency determines the thresholds of significance for impacts. However, if a project proposes development in excess of the established thresholds, as outlined in Table 6-6: Bay Area Air Quality Management District Emissions Thresholds, a significant air quality impact may occur, and additional analysis is warranted to fully assess the significance of impacts.

Based upon the criteria derived from State CEQA Guidelines Appendix G, a project normally would have a significant effect on the environment if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;

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

**Table 6-6: Bay Area Air Quality Management District Emissions Thresholds**

| Criteria Air Pollutants and Precursors (Regional) | Construction-Related | Operational-Related | |
|---|---|---|---|
| | Average Daily Emissions (pounds/day) | Average Daily Emission (pounds/day) | Annual Average Emission (tons/year) |
| Reactive Organic Gases (ROG) | 54 | 54 | 10 |
| Nitrogen Oxides ($NO_X$) | 54 | 54 | 10 |
| Coarse Particulates ($PM_{10}$) | 82 (exhaust) | 82 | 15 |
| Fine Particulates ($PM_{2.5}$) | 54 (exhaust) | 54 | 10 |
| $PM_{10}$ / $PM_{2.5}$ (fugitive dust) | Best Management Practices | None | |
| Local CO | None | 9.0 ppm (8-hour average)<br>20.0 ppm (1-hour average) | |

Source: Bay Area Air Quality Management District, 2022 CEQA Air Quality Guidelines, 2022.

## 6.5.2 Impact Assessment Methodology

This air quality impact analysis considers construction and operational impacts associated with the project. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Air quality impacts were assessed according to methodologies recommended by CARB and the BAAQMD. Assumptions related to construction activity and scheduling (i.e., construction phase start and end dates) were based on project-specific information provided by the project applicant and model default where project-specific information was not available.

### Construction

Construction is expected to consist of five main phases of construction activities related to air quality emissions. These include Phase 1 (demolition and site clearing/shoring/ mass excavation or fill), Phase 2 (building construction), Phase 3 (building exteriors), Phase 4 (building interiors) and Phase 5 (off and on-site improvements).

Each phase has discrete start and end dates, with construction estimated to start in late 2024 or early 2025 and be completed by summer or fall of 2026. Multiple phases would occur simultaneously. The analysis assumes that construction would occur five days a week, Monday through Friday.

Construction equipment, trucks, worker vehicles, and ground-disturbing activities associated with project construction would generate emissions of criteria air pollutants and precursors. Air quality impacts were assessed according to CARB and BAAQMD recommended methodologies. Daily regional construction emissions are estimated by assuming construction occurs at the earliest feasible date (i.e.,

a conservative estimate of construction activities) and applying off-road, fugitive dust, and on-road emissions factors in CalEEMod.

To evaluate construction emissions, it was assumed that mitigation measures from the City's General Plan EIR would be applicable to the project. The measures applicable to the proposed project are as follows:

- Mitigation Measure AQ-1: Require Tier 4 Engines on Construction Equipment
- Mitigation Measure AQ-3: Require Low-VOC Coatings During Construction
- Mitigation Measure AQ-4**:** Require Fugitive Dust Best Practices

For Mitigation Measure AQ-1, mitigated emissions were calculated using the methodology described above and the off-road equipment emissions factors represent Tier 4 engines from CalEEMod.

Mitigation Measure AQ-4 is also consistent with Policy 5.10-3 of the General Plan which requires the City to ensure the construction and grading activities minimize short-term impacts on air quality by employing appropriate mitigation measures and best practices.

Although the General Plan EIR includes an additional construction-related mitigation measure (Mitigation Measure AQ-2: Require Construction Fleet to Use Renewable Diesel), this measure was not incorporated into the modeling analysis because it would not result in any further pollutant reductions when combined with Tier 4 engines in construction equipment. The general plan mitigation measures noted above are included in the modeling assumptions but may also be identified by the City as standard conditions of project approval.

### Operations

Criteria pollutant emissions generated by operation activities were quantified using CalEEMod. Project operational assumptions are summarized below:

- Stationary Sources. As proposed, five emergency diesel generators would be used in the event of power grid failure. Four generators would have a 1,250-kW capacity and one generator would have a 500-Kw capacity. Two generators are adjacent to Building 1, two generators adjacent to Building 2, and one generator adjacent to the parking garage. Each of the generators would regularly undergo maintenance testing at an average rate of 30 minutes per month, for a total of six hours per generator annually.
- Mobile Sources. Vehicle trips would include daily ongoing employee commuting to and from the project site. During normal operations after full buildout, the proposed project is anticipated to result in 5,012 trips per day. For the existing uses, there are 1,614 trips per day; thus, the project would result in a net increase of 3,398 trips per day. This analysis assumes that the average trip distance would be approximately 11 miles.[2] The CalEEMod default fleet mix of vehicle categories was used to calculate mobile source emissions.
- Area sources. Normal facility operation and maintenance include area sources such as landscaping activities that require gasoline-powered mowers and trimmers. Area-source

[2] Sivaraj, Selvanayagam, Engineer, Hexagon Transportation Consultants, Inc. Email to Claudia Garcia of ICF on March 29, 2022 regarding project trips and VMT. See Appendix I for the transportation analysis.

emissions were calculated using CalEEMod, based on the size of the proposed building and the proposed parking garage.

- Energy Sources. CalEEMod does not calculate pollutant emissions associated with electricity consumption. Therefore, energy-source criteria pollutant emissions in CalEEMod include only the emissions from natural gas combustion on-site. Based on information provided by the project application, natural gas would be consumed at the project site and CalEEMod default emission factors were used to calculate emissions.
- Laboratory Uses. The proposed laboratory uses could emit TAC and ROG emissions during project operations. These emissions were quantified using a formula included in Appendix B based off information from the UC Davis HRA. Specifically, emissions rates in pounds per hour per square foot for the TACs listed in Table 6-2 were calculated. These emissions rates were then multiplied by the worst-case laboratory footprint of 50 percent of Building 1 and 50 percent of Building 2, or approximately 264,800 square feet, and the assumption that emissions would occur for approximately 12 hours a day, 5 days a week, 260 days a year. These assumptions represent a conservative scenario, because it is likely that laboratory uses would generate emissions for less than 12 hours. These emissions factors represent conservative estimates of evaporative chemical losses that might occur assuming relatively good to relatively poor laboratory practices.

The 2017 General Plan EIR includes a mitigation measure that is applicable to the proposed Project but this measure - Mitigation Measure AQ-5: Promote Green Consumer Products - was not included in the modeling analysis. As noted on page 4.2-44 of the General Plan EIR, this type of mitigation measure cannot be quantified, because project developers do not have the authority to require green consumer products. Consequently, this measure is not reflected in the operational emissions analysis.

As discussed above, the BAAQMD provides significance thresholds for emissions associated with proposed project construction and operations. The proposed project's construction and operational emissions have been compared to the daily criteria pollutant emissions significance thresholds in order to determine the significance of the project's impact on regional air quality.

### Health-Based Thresholds for Project-Generated Pollutants of Human Health Concern

The California Supreme Court's 2018 decision in *Sierra Club v. County of Fresno* (6 Cal.5th 502) included review of long-term regional air quality analysis for the proposed Community Plan Update and Friant Ranch Specific Plan, or Friant Ranch Project. This project proposed a 942-acre development in unincorporated Fresno County, with the San Joaquin Valley Air Basin, a designated nonattainment area for $O_3$ and $PM_{2.5}$ with respect to the NAAQS and CAAQS. The court found the EIR's air quality analysis to be insufficient because it did not provide enough detail for the public to translate quantitative emission data into tangible health impacts or justify why this was not possible. The decision notes that environmental documents must attempt to connect reported air quality impacts to healthy impacts or justify why an analysis is not feasible.

All criteria air pollutants generated by the proposed project are associated with various health risks, and can be categorized as regional or localized pollutants, which transport over great distances and affect ambient air quality far from their source, or affect ambient air quality near their source, respectively. $O_3$ is classified as a regional pollutant, while CO, $NO_2$, $SO_2$, and lead are classified as localized pollutants. PM can be classified as either depending on its composition. Of the pollutants generated by the proposed

project, $O_3$ precursors (ROG and $NO_X$), CO, and PM (including DPM) are of the greatest concern. The emission analysis therefore includes considerations for the criteria air pollutants generated by the proposed project in connection with their human health impacts.

### 6.5.3 Impacts of the Proposed Project

**Impact AQ-1: The project would not conflict with or obstruct with implementation of the applicable air quality plan. This is a less than significant impact.**

The most recently adopted (2017) Clean Air Plan, adopted on April 19, 2017, outlines how the San Francisco air basin would attain air quality standards, reduce population exposure and protect public health, and reduce GHG emissions. The 2017 Clean Air Plan is the most current applicable air quality plan for the air basin. Consistency with this plan is the basis for determining whether the proposed project would conflict with or obstruct implementation of an air quality plan.

BAAQMD has adopted plan-level impact guidance to assist CEQA lead agencies in determining consistency with their 2017 Clean Air Plan, which is outlined in its CEQA Guidelines.[3] Since the adoption of the CEQA Guidelines, the 2017 Clean Air Plan was adopted by BAAQMD, and the consistency analysis is transferable to this latest air quality plan, as the stated questions ask generally about the air quality plan. For projects that require preparation of an air quality plan consistency determination, BAAQMD recommends that the agency approving the project analyze the project with respect to the questions listed below. If all the questions are concluded in the affirmative, and those conclusions are supported by substantial evidence, BAAQMD considers the project consistent with air quality plans prepared for the Bay Area.

1. *Does the project support the primary goal of the AQP?*

The primary goals of the 2017 Clean Air Plan are: (1) Protect Air Quality and Health at the Regional and Local Scale: Attain all state and national air quality standards and eliminate disparities among Bay Area communities in cancer health risk from TACs; and (2) Protect the Climate: Reduce Bay Area GHG emissions to 40 percent below 1990 by 2030 and 80 percent below 1990 levels by 2050.

The proposed project would support the primary goal of the 2017 Clean Air Plan because it proposes to redevelop an infill site with more energy efficient and sustainable design and construction while attaining state and national air quality standards. The existing uses include commercial/medical office operations. The proposed project would construct two new R&D and office buildings of seven and eight stories, as well as a nine-level parking garage, replacing one four-story building, thereby densifying development in the area. Additionally, the nearest bus stop is 0.6 miles away at Marine Parkway and Twin Dolphin Drive.

The proposed project would include other sustainability features that would support sustainable building design and a reduction in GHG emissions. Specifically, the proposed project would be designed to exceed Title 24 and ASHRAE 90.1 requirements and would minimize energy loads by including

[3] Bay Area Air Quality Management District. 2017b. California Environmental Quality Act Air Quality Guidelines. May. Available: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: May 11, 2024.

optimized insulation, electric lighting and electric loads; tuned fenestration; external shading; and demand-controlled ventilation. The project would also include passive features, such as daylighting and passive solar, as well as active features, such as daylight responsive controls, Variable-Air-Volume (VAV) high performance HVAC systems, VAV fume hoods and automation. The parking garage would also be designed to be ready for photovoltaics. Furthermore, the proposed project would comply with all applicable city and state measures, including Title 24, Part 6, of the California Energy Code baseline standard requirements for energy efficiency.

2. *Does the project include applicable control measures form the air quality plan?*

To meet the primary goals, the 2017 Clean Air Plan recommends specific control measures and actions. These control measures are grouped into various categories and include stationary source measures, mobile-source measures, and transportation control measures (TCMs). The 2017 Clean Air Plan recognizes that community design dictates individual travel mode and that a key long-term control strategy to reduce emissions of criteria pollutants, air toxics, and GHGs from motor vehicles is to channel future Bay Area growth into vibrant urban communities where goods and services are close at hand and people have a range of viable transportation options. To this end, the 2017 Clean Air Plan includes control measures that are aimed at reducing air pollution in the SFBAAB.

The stationary source measures in the 2017 Clean Air Plan are primarily focused on large stationary sources such as metal melting facilities, livestock waste, open burning, cement kilns, and furnaces to name a few. These measures are not applicable to the proposed project as it is not a significant emitter of stationary emissions. The emergency generator the project may included would be required to obtain the applicable BAAQMD permits to operate. The mobile-source measures are not project level and meant to require replacement of existing vehicle fleets, trains, farming and garden equipment to greener and cleaner alternatives.

The TDM information prepared for the project (Hexagon, 2024) includes measures that will be implemented to reduce vehicle trips to help alleviate traffic congestion and air pollution. Consistent with TCM-C1 Voluntary Employer-Based Trip Reduction Program and TCM-C3: Ridesharing Services and Incentives, the project would provide a carpool/vanpool shuttle program, transit or ridesharing passes/subsidies, and pre-tax transportation benefits. Implementation of these measures help reduce the use of single-occupancy vehicles. In addition, consistent with TCM-D1: Bicycle Access and Facilities Improvements and TCM-D2: Pedestrian Access and Facilities Improvements, the project would improve conditions for walking and biking by providing secure bicycle storage, and showers, lockers, and changing rooms for cyclists; and designing streets to encourage bike/pedestrian access. Finally, the proposed project would also provide preferential parking for carpools consistent with TCEM-E2: Parking Policies to Reduce VMT. With implementation of all required TDM measures identified by Hexagon, C/CAG estimated trip reduction would be 35 percent.

3. *Does the project disrupt or hinder implementation of any AQP control measures?*

The proposed project does not hinder the implementation of any control measure in the 2017 Clean Air Plan. Rather, the project includes TDM measures that are consistent with TCM-C1: Voluntary Employer-Based Trip Reduction Program, TCM-C3: Ridesharing Services and Incentives, TCM-D1: Bicycle Access and Facilities Improvements, TCM-D2 Pedestrian Access and Facilities Improvements, and TCM-E2:

Parking Policies to Reduce VMT. Other control measures are not applicable to the project, such as those involving stationary sources, or those that are policies for BAAQMD to adopt. Although these measures are not applicable to the project, the project would not hinder these measures from being implemented.

Based on the discussion above, the proposed project would support the primary goal of the 2017 Clean Air Plan, would incorporate all applicable control measures and would not disrupt or hinder the implementation of any control measures. Thus, the proposed project would not conflict with or obstruct implementation of the 2017 Clean Air Plan. Impacts would be **less than significant**.

**Impact AQ-2: The project could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard. This is a less than significant impact with mitigation incorporated.**

### Construction

Construction results in the temporary generation of emissions through the use of heavy-duty construction equipment, construction workers' vehicle trips, on-road trips, paving, and architectural coatings. In addition, fugitive dust emissions may result from removal of the existing structures and earthmoving activities. Emissions may vary substantially, depending on the level of activity, length of the individual construction activity, types of equipment, number of personnel, and soil moisture content.

Construction is expected to consist of five main phases of activities, including Phase 1 (demolition and site clearing/shoring/mass excavation), Phase 2 (building construction), Phase 3 (building exteriors), Phase 4 (building interiors), and Phase 5 (off and on-site improvements). Construction could start in late 2024 and be completed by summer 2026. Construction is assumed to occur five days a week, Monday through Friday. The project's construction-related emissions were calculated using the BAAQMD-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See **Appendix B** for additional information regarding the construction assumptions used in this analysis. Table 6-7: Project Maximum Daily Construction Criteria Pollutant Emissions displays the maximum daily emissions in pounds per day that are expected to be generated from the construction of the proposed project in comparison to the daily thresholds established by the BAAQMD.

Construction-related emissions for the proposed project have been calculated using the methods described above. To evaluate construction emissions, it was assumed that the Mitigation Measures AQ-1, AQ-3, and AQ-4 from the City's General Plan EIR would be implemented, as required under CEQA for all development occurring under the General Plan. Estimated construction emissions for the project assume implementation and are summarized in Table 6-7: Project Maximum Daily Construction Criteria Pollutant Emissions by year in which construction would occur, and each year is compared individually to the applicable BAAQMD threshold. Emissions were presented by each year of construction to capture the sum of emissions from multiple activity categories that occur within the same year.

**Table 6-7: Project Maximum Daily Construction Criteria Pollutant Emissions**

| Construction Year | Pollutant (pounds/day)[1,2,3] | | | |
|---|---|---|---|---|
| | ROG | $NO_x$ | Exhaust | |
| | | | $PM_{10}$ | $PM_{2.5}$ |
| 2024 | 3 | 21 | <1 | <1 |
| 2025 | 6 | 33 | <1 | <1 |
| 2026 | 4 | 18 | <1 | <1 |
| ***Maximum*** | ***6*** | ***33*** | ***<1*** | ***<1*** |
| *BAAQMD Significance Threshold* [2] | 54 | 54 | 82 | 54 |
| **Exceed BAAQMD Threshold?** | **No** | **No** | **No** | **No** |

1. Emissions were calculated using CalEEMod and outputs are provided in Appendix B.
2. Bay Area Air Quality Management District, 2022 CEQA Air Quality Guidelines, 2022
3. Emissions reported in this table are based on implementation of Mitigation Measures AQ-1, AQ-3, and AQ-4 from the General Plan EIR.
ROG = reactive organic gas; NOx = nitrogen oxides; PM10 = particulate matter 10 microns or less in diameter; PM2.5 = particulate matter 2.5 microns or less in diameter

As shown in Table 6-7, emissions would be below the BAAQMD threshold for all pollutant emissions for all construction years, and, as noted above, best management practices during construction activities would be implemented in accordance with BAAQMD guidelines. With implementation of the mitigation measures already required by the City's General Plan EIR, further measures would not be required.

### Fugitive Dust Emissions

Fugitive dust contributes to $PM_{10}$ and $PM_{2.5}$ emissions and is generated by the various construction activities occurring at the Project site including on-site soil movement, road dust, grading, demolition, and truck loading. $PM_{10}$ and $PM_{2.5}$ emissions from fugitive dust would be controlled by watering the construction site twice daily consistent with BAAQMD's recommendations for all exposed surfaces [e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads] [4]). CalEEMod defaults assume watering the construction site twice a day reduces the fugitive dust emissions by 55 percent.

Entrained road dust is generated by vehicle travel on paved and unpaved roads. Emission factors for entrained road dust are on a "per mile" basis. In CalEEMod, entrained road dust emission factors are based on the equations presented in the Paved Roads and Unpaved Roads chapters of USEPA's AP-42 and are then multiplied by the total VMT for Project-related trips. Emissions from entrained road dust were estimated using CalEEMod and are presented in **Appendix B**. Fugitive dust emissions from bulldozing equipment (i.e., rubber-tired dozers), grading equipment (i.e., graders, rubber-tired dozers, and scrapers), and demolition activity occur during the Project construction. In addition, truck loading activities would generate fugitive dust emissions.

[4] BAAQMD. 2017. CEQA Air Quality Guidelines. May. Available at: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en&rev=cc452f3398704c89ab73785ac4dc844a. Accessed: September 12, 2023.

### Construction Equipment and Worker Vehicle Exhaust

Exhaust emission factors for typical diesel-powered heavy equipment are based on the CalEEMod program defaults. Variables factored into estimating the total construction emissions include: level of activity, length of construction period, number of pieces/types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported onsite or offsite. Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, emissions produced on site as the equipment is used, and emissions from trucks transporting materials and workers to and from the site. Emitted pollutants would include ROG, $NO_X$, $PM_{10}$, and $PM_{2.5}$. The BAAQMD recommends the implementation of all Basic Construction Mitigation Measures, whether or not construction-related emissions exceed applicable significance thresholds. Additionally, the 2017 Clean Air Plan TR22-Construction freight and farming equipment requires that off-road engines used in construction, freight, and agriculture meet CARB Tier 4 Final emissions standards.

### ROG Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are $O_3$ precursors. In accordance with the methodology prescribed by the BAAQMD, the ROG emissions associated with paving have been quantified with CalEEMod.

The highest concentration of ROG emissions is largely generated from Phase 4 (building interiors). This phase includes the interior and exterior painting as well as striping of all paved parking areas and driveways. Paints would be required to comply with BAAQMD Regulation 8, Rule 3: Architectural Coating. Regulation 8, Rule 3 provides specifications on painting practices and regulates the ROG content of paint. Paint that is consistent with mitigation measure MM AQ-3 of the General Plan EIR will be used. This measure requires low- VOC paints to be used, for the reduction of ROG emissions.

### Total Construction Emissions

As shown in Table 6-7**,** all criteria pollutant emissions excluding ROG and $NO_x$ would remain below their respective thresholds without the implementation of BAAQMD's basic construction measures and implementation of the GP MM AQ-1, AQ-3, and AQ-4. Further measures would not be required. Implementation of best management practices during construction activities and implementation of the General Plan EIR mitigation measures would ensure that impacts would be reduced to a less than significant level for all construction activities on the project site. Impacts would be **less than significant**.

## Operation Impacts

Operational emissions for office/R&D developments are typically generated from mobile sources (burning of fossil fuels in cars); energy sources (cooling and heating); and area sources (landscape equipment and groundskeeping products). Operation of the proposed project would generate emissions associated primarily with mobile, energy, and stationary sources. The laboratory operations could emit fugitive ROG emissions. Existing uses at the project site would result in some of the same emissions sources (area, energy, and mobile), but there are no known stationary or laboratory emissions at the existing uses. Area, mobile, and stationary, laboratory sources daily emissions are shown in Table 6-8: Project Maximum Daily Operational Criteria Pollutant Emissions, shows that the project's maximum emissions would not exceed BAAQMD operational thresholds.

**Table 6-8: Project Maximum Daily Operational Criteria Pollutant Emissions**

| Emission Source | Pollutants (pounds/day)[1] | | | |
|---|---|---|---|---|
| | ROG | $NO_x$ | Exhaust | |
| | | | $PM_{10}$ | $PM_{2.5}$ |
| Area | 4 | <1 | <1 | <1 |
| Energy [2] | <1 | 1 | <1 | <1 |
| Mobile | 5 | 7 | 15 | 4 |
| ***Total Existing*** | ***9*** | ***8*** | ***15*** | ***4*** |
| Area | 13 | <1 | <1 | <1 |
| Energy [2] | <1 | 4 | <1 | <1 |
| Mobile | 15 | 16 | 47 | 13 |
| Stationary | 6 | 26 | <1 | <1 |
| Laboratory | 25 | - | - | - |
| ***Total Project*** | **60** | **54** | **48** | **14** |
| ***Net Project Emissions*** | **51** | **38** | **33** | **10** |
| *BAAQMD Significance Threshold* [3] | 54 | 54 | 82 | 54 |
| **Exceed BAAQMD Threshold?** | **No** | **No** | **No** | **No** |

1. Emissions were calculated using CalEEMod and outputs are provided in Appendix B.
2. Criteria pollutant emissions from energy sources are calculated in CalEEMod only for natural gas use.
3. BAAQMD, CEQA Air Quality Guidelines, 2022.

### Area Source Emissions

Area source emissions would occur during normal facility operation and maintenance. Area source emissions are those emissions that are generally too small to be uniquely identified as point sources and are thus generally aggregated as a group. CalEEMod estimates emissions for the following sources, which are included under the category of "area" sources: landscaping equipment (e.g., lawn mowers), consumer products, and architectural coatings. Criteria air pollutant emissions due to natural gas combustion in buildings could also be considered area sources but are reported by CalEEMod in the emissions associated with building energy use (described below). The criteria air pollutant emissions generated by the Project were calculated using CalEEMod defaults and can be viewed in **Appendix B**.

### Energy Source Emissions

Energy source emissions would be generated as a result of electricity and natural gas (non-hearth) usage associated with the project. The primary use of electricity and natural gas by the project would be for space heating and cooling, water heating, ventilation, lighting, appliances, and electronics. CalEEMod does not calculate criteria pollutant emissions associated with electricity consumption. Therefore, energy-source criteria pollutant emissions in CalEEMod include only the emissions from natural gas combustion on-site. Based on information provided by the project application, natural gas would be consumed at the project site and CalEEMod default factors were used to calculate emissions.

### Mobile Sources

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, $NO_X$, $PM_{10}$, and $PM_{2.5}$ are all pollutants of regional concern ($NO_X$ and

ROG react with sunlight to form $O_3$ [photochemical smog], and wind currents readily transport $PM_{10}$ and $PM_{2.5}$). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions have been estimated using CalEEMod. Trip generation rates associated with the project were based on the Transportation Impact Analysis prepared by Hexagon Transportation Consultants, Inc., which assessed that during normal operations after buildout, the project is anticipated to result in 5,012 trips per day. For the existing uses there are 1,614 trips per day; thus, the project would result in a net increase of 3,398 trips per day.

#### Stationary and Laboratory Sources

The proposed project would result in stationary-source emissions from the operation of the emergency diesel generators to be used in the event of power grid failure. The laboratory operations would emit fugitive ROG emissions. Existing uses at the project site would result in some of the same emissions sources (area, energy, and mobile), but there are no known stationary or laboratory emissions at the existing uses.

#### Total Operational Emissions

As indicated in Table 6-8: Project Maximum Daily Operational Criteria Pollutant Emissions, net project operational emissions would not exceed BAAQMD thresholds. As noted above, the BAAQMD has set its CEQA significance threshold based on the trigger levels for the federal NSR Program and BAAQMD's Regulation 2, Rule 2 for new or modified sources. The NSR Program was created to ensure projects are consistent with attainment of health-based federal ambient air quality standards. The federal ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect the public health. Therefore, the project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts would occur. Project operational emissions would be less than significant.

### Cumulative Short-Term Emissions

The SFBAAB is designated nonattainment for $O_3$, $PM_{10}$, and $PM_{2.5}$ for State standards and nonattainment for $O_3$ and $PM_{2.5}$ for Federal standards. As discussed above, the project's construction-related emissions by themselves would not have the potential to exceed the BAAQMD significance thresholds for criteria pollutants.

Since these thresholds indicate whether an individual project's emissions have the potential to affect cumulative regional air quality, it can be expected that the project-related construction emissions would not be cumulatively considerable. The BAAQMD recommends Basic Construction Control Measures for all projects whether or not construction-related emissions exceed the thresholds of significance. Compliance with the BAAQMD construction-related mitigation requirements are considered adequate to reduce cumulative impacts at a Basin-wide level. As a result, construction emissions associated with the project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

### Cumulative Long-Term Impacts

The BAAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in

size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. The BAAQMD developed the operational thresholds of significance based on the level above which a project's individual emissions would result in a cumulatively considerable contribution to the Basin's existing air quality conditions. Therefore, a project that exceeds the BAAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact.

As shown in Table 6-8, the project's operational emissions would not exceed BAAQMD thresholds. As a result, operational emissions associated with the project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts. Cumulative air impacts would be **less than significant**.

### Impact AQ-3: The project could expose sensitive receptors to substantial pollutant concentrations and health risks. This is a less than significant impact.

Sensitive land uses are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. Sensitive receptors in the area include single-family residences approximately 300 feet from the project site, across Highway 101.

#### Construction Toxic Air Contaminants

Construction equipment and associated heavy-duty truck traffic generate diesel exhaust, which is a known toxic air contaminants (TAC). Diesel exhaust from construction equipment operating at the site could pose a health risk to nearby sensitive receptors. The closest sensitive receptor to the project site is the residential uses located 300 feet from the project site. BAAQMD provides guidance for evaluating impacts from TACs in its CEQA Air Quality Guidelines document. As noted therein, an incremental cancer risk of greater than ten cases per million at the Maximally Exposed Individual (MEI) would result in a significant impact. The BAAQMD considers exposure to annual $PM_{2.5}$ concentrations that exceed 0.3 $\mu g/m^3$ from a single source to be significant. The BAAQMD significance threshold for non-cancer hazards is 1.0.

#### Construction-Related Diesel Particulate Matter

Project construction would generate diesel particulate matter (DPM) emissions from the use of off-road diesel equipment required for grading and excavation, paving, and other construction activities. For construction activity, DPM is the primary toxic air contaminant of concern. On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they would not stay on the site for long durations. Diesel exhaust from construction equipment operating at the site poses a health risk to nearby sensitive receptors.

The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards).

Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer. The use of diesel-powered construction equipment would

be episodic and would occur in various phases throughout the project site. Furthermore, even during the most intense year of construction, emissions of DPM would be generated from different locations on the project site rather than in a single location because different types of construction activities (e.g., site preparation and building construction) would not occur at the same place at the same time.

The HRA used EPA's AERMOD model, version 21112, to model annual average DPM and $PM_{2.5}$ concentrations at nearby receptors. Modeling inputs, including emissions rates in grams of pollutant emitted per second and source characteristics (e.g., release height, stack diameter, plume width) were based on guidance provided by OEHHA, BAAQMD, and the SCAQMD. Meteorological data were obtained from CARB for the San Carlos Airport. This meteorological station is the nearest monitoring station (0.9 miles east of the project site). In addition, the proposed project building footprints were modeling using the AERMOD Building Profile Input Program.

The modeling of emissions from construction activities was based on typical construction and number of days (eight hours per day, five days per week). The urban dispersion option was used in the analysis because of the proposed project site's characteristics and because surrounding areas are developed with buildings and paved surfaces that can influence how pollutants are dispersed in the area. Off-site sensitive receptors were placed at individual homes within 1,000 feet of the project site using a 10-meter-by 10-meter receptor grid. Receptors were given a height of 1.5 meters to represent the average human breathing zone.[5]

Results of this assessment are summarized in Table 6-9: Construction Risk. Table 6-9 represents the maximum construction-related health risks for the maximum exposed off-site receptor within 1,000 feet of construction activities, resulting from exposure to DPM and $PM_{2.5}$. The modeling assumes implementation of GP MM AQ-1 and AQ-4.[6] As shown on Table 6-9, construction of the project would not result in an exceedance of any of the BAAQMD's health-related thresholds.

**Table 6-9: Construction Risk**

| Location | Cancer Risk Impact (per one million) | Acute Non-Cancer Hazard Index (unitless) | Chronic Non-Cancer Hazard Index (Unitless) | Annual $PM_{2.5}$ Concentration ($\mu g/m^3$) |
|---|---|---|---|---|
| Maximally exposed individual resident | 5.4 | N/A | 0.003 | 0.1 |
| *BAAQMD Threshold* | 1.0 | 1.0 | 1.0 | 0.3 |
| **Exceed Threshold?** | No | No | No | No |

Source: Refer to Appendix B.
$\mu g/m^3$ = microgram; m = meter; MEIR = Maximally exposed individual resident

This assessment indicates that construction of the project would not result in an exceedance of any of the BAAQMD's health-related thresholds. Therefore, construction risk levels would be **less than significant**.

[5] Bay Area Air Quality Management District. 2020. *Health Risk Assessment Modeling Protocol*. December. Available: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol-pdf.pdf?la=en. Accessed: May 11, 2024.
[6] Mitigation Measure AQ-3 would not result in a reduction in DPM or $PM_{2.5}$ emissions during construction and was thus not included in the modeling

### Carbon Monoxide Hotspots

The SFBAAB is designated as in attainment for carbon monoxide (CO). Emissions and ambient concentrations of CO have decreased dramatically in the SFBAAB with the introduction of the catalytic converter in 1975. No exceedances of the CAAQS or NAAQS for CO have been recorded at nearby monitoring stations since 1991. As a result, the BAAQMD screening criteria notes that CO impacts may be determined to be less than significant if a project would not increase traffic volumes at local intersections to more than 44,000 vehicles per hour, or 24,000 vehicles per hour for locations in heavily urban areas, where "urban canyons" formed by buildings tend to reduce air circulation. Traffic would increase along surrounding roadways during long-term operational activities.

Traffic conditions for the cumulative year were modeled to evaluate CO hot spot concentrations at El Camino and Ralston Avenue intersection, because this intersection is considered a congestion management plan (CMP) intersection from the San Mateo County Congestion Management Program. Receptors were placed at each intersection corner. A standard receptor elevation of 5.9 feet was used consistent with CO Protocol guidance. Worst-case wind angles and meteorological conditions were modeled to estimate conservative CO concentrations for each receptor. CO concentrations from the nearest monitoring station to the project site (Redwood City monitoring station) for the last 3 years in which complete data are available (2018 through 2020) were gathered and converted into a 3-year average to represent background CO levels.

In order to use the BAAQMD's quantitative screening criteria to evaluate CO hot spots, a project must be consistent with an applicable CMP. In the vicinity of the proposed project site, one intersection is considered a CMP intersection from the San Mateo County CMP. According to the project TIA, the CMP intersection of El Camino Real and Ralston Avenue, for both cumulative and cumulative with project conditions, would operate at LOS F. LOS F is not at an acceptable level of service for CMP intersections (i.e., LOS E or better). Although the intersection would operate at LOS F with or without the project, the project would worsen delay at this intersection and thus cause a worsening of an existing impact. Consequently, the project would not be consistent with the applicable CMP, and therefore BAAQMD quantitative screening values could not be used to evaluate the project's potential to create CO hot spots. As discussed below, the project's potential to create CO hot spots was evaluated quantitatively by modeling the dispersion of CO at the El Camino Real and Ralston Avenue intersection.

**Table 6-10: CO Concentrations at El Camino Real and Ralston Avenue (parts per million)**

| Intersection | Receptor | 1-Hour Opening Year with Project (2035) | 8-hour Opening Year with Project (2035) |
|---|---|---|---|
| El Camino Real and Ralston Avenue | 1 | 2.8 | 1.9 |
| | 2 | 2.8 | 1.9 |
| | 3 | 2.8 | 1.9 |
| | 4 | 2.8 | 1.9 |
| *CAAQS Threshold* | | 2.0 | 9.0 |
| **Exceeds CAAQS?** | | **No** | **No** |
| *NAAQS Threshold* | | 35 | 9 |
| **Exceeds NAAQS?** | | **No** | **No** |

Source: Refer to Appendix B
Notes: Receptors are located at each of the four corners of the intersection. All intersection modeled have two intersecting roadways. The average 1-hour background concentrations between 2018 and 2020 was 9.9 ppm. The average 8-hour background concentrations between 2018 and 2020 was 6.3 ppm (U.S. Environmental Protection Agency 2022)

As shown in Table 6-10: CO Concentrations at El Camino Real and Ralston Avenue (parts per million), the CO Concentrations are not expected to contribute to any new localized violations of the 1-hour or 8-hour ambient state or federal air quality standards. Accordingly, sensitive receptors would not be exposed to substantial concentrations of CO.

### Operational Impacts

Table 6-11: Estimated Construction and Operational Health Impacts at the Maximally Exposed Individual Resident presents the incremental increase in health risk for maximally affected residential receptors with respect to operational emissions. This includes the operational emissions from the five emergency generators and the fugitive emissions from the laboratory space. This analysis also includes the potential acute risk from the different TACs that would be emitted from the laboratory uses. Table 6-11 also presents the incremental increase for maximally affected residential receptors for the combined effect of construction and operations, and, as shown in Table 6-11, the health risk from construction and operations would be less than all BAAQMD-recommended health risk thresholds. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations.

**Table 6-11: Estimated Construction and Operational Health Impacts at the Maximally Exposed Individual Resident**

| Location | Cancer Risk Impact (per million) | Acute Non-Cancer Hazard Index (unitless) | Chronic Non-Cancer Hazard Index (unitless) | Annual $PM_{2.5}$ Concentrations ($\mu g/m^3$) |
|---|---|---|---|---|
| **Construction** | | | | |
| Maximally Exposed Individual Resident | 5.4 | N/A | 0.003 | 0.1 |
| **Operations** | | | | |
| Maximally Exposed Individual Resident | 2.0 | 0.008 | 0.065 | 0.02 |
| **Construction + Operations** | | | | |
| Maximally Exposed Individual Resident | 7.4 | 0.008 | 0.068 | 0.14 |
| BAAQMD Threshold | 10 | 1.0 | 1.0 | 0.3 |
| Exceed Threshold? | No | No | No | No |

Source: Refer to Appendix B
Notes: µg = microgram; m = meter; NA = not available.

#### Cumulative On-Site Health Impacts

Pursuant to *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369, Case No. S213478, agencies are not required to analyze the CEQA impact of existing environmental conditions on a project's future users or residents, unless the proposed project risks exacerbate those environmental hazards or conditions that already exist. Nevertheless, the following mobile source health risk analysis has been prepared as an information item for land use decision making but is not a CEQA required analysis condition.

The project would place sensitive receptors within 1,000 feet of the proposed project (mobile TAC sources). Nearby TAC sources as well as the proposed project's construction and operational emissions could contribute to a cumulative health risk for sensitive receptors near the project site. In addition to mobile sources, BAAQMD's inventory of stationary health risks were used to estimate the combined levels of health risk from existing stationary sources in a combination with the proposed project. Geographic information system (GIS)raster files provided by the BAAQMD were used to estimate roadway and railway emissions. [7] As indicated in Table 6-12: Cumulative On-Site Health Risk, health risk values for the proposed project's maximally affected receptors and the health risk contributions from existing sources. The sum of the health risks contributions from the proposed project and the existing background were compared to BAAQMD's cumulative thresholds.

**Table 6-12: Cumulative On-Site Health Risk**

| Location | Cancer Risk Impact (per million) | Chronic Non-Hazard Index (unitless) | Acute Non-cancer Hazard Index (unitless) | Annual $PM_{2.5}$ Concentrations ($\mu g/m^3$) |
|---|---|---|---|---|
| **Cumulative Impacts** | | | | |
| Stationary Source | 3.4 | 0.03 | <0.01 | <0.01 |
| Roadway Source | 71.4 | - | NA | 1.40 |
| Project Construction + Operations | 7.4 | 0.07 | 0.01 | 0.14 |
| **Total Cumulative** | **92.5** | **0.10** | **0.01** | **1.56** |
| *BAAQMD Threshold* | 100 | 10 | 10 | 0.8 |
| **Threshold Exceeded?** | **No** | **No** | **No** | **Yes** |

Source: Refer to Appendix B
Notes: µg = microgram; m = meter; NA = not available.

As shown in Table 6-12, the combined level of health risks from the proposed project and other local sources of TACS would exceed the BAAQMD-recommended cumulative health risk threshold for $PM_{2.5}$. The predominant source of $PM_{2.5}$ concentration is from Highway 101 and, to a lesser extent, other roads in the area. In total, roadways contribute about 90 percent of the $PM_{2.5}$ concentrations at the Maximally Exposed Individual Resident (MEIR), while the project contributes approximately 9 percent. As such, the vast majority of the pollutant concentration at the MEIR is from existing, background sources of

[7] Winkel, Jackie. Principal environmental planner, Bay Area Air Quality Management District. April 12, 2018—email to Darrin Trageser, ICF, Sacramento, CA, regarding GIS files containing data regarding background health risks from railroads, major roads, and highway sources within BAAQMD jurisdiction.

pollution, principally, the highway. This would be considered an existing cumulative impact, because the exposure of $PM_{2.5}$ concentrations on sensitive receptors would occur with or without the project.

The project would contribute to that cumulative impact, but the contribution would be relatively minor (i.e. less than nine percent). The project-only contribution is well below the project-level threshold. Additionally, the construction of the project would incidentally contribute to the $PM_{2.5}$ impact for a temporary period of 2.6 years. After construction is completed, the project would contribute an even smaller amount of $PM_{2.5}$, 0.02 $\mu g/m^3$ indefinitely. The operational contribution of 0.02 $\mu g/m^3$ would be approximately one percent of the contribution from existing sources and reporting the 0.02 $\mu g/m^3$ contribution with the same number of significant digits as the BAAQMD threshold of 0.8 $\mu g/m^3$ would result in a number of 0.0 $\mu g/m^3$. Despite the modeled existing $PM_{2.5}$ concentration exceeding the 0.8 $\mu g/m^3$ threshold, it should be noted that the annual average measured ambient $PM_{2.5}$ concentrations at the Redwood City monitoring station have been below the NAAQS and CAAAQS for the previous three years, as shown in Table 6-3 above. Therefore, it is reasonable to conclude that such a contribution would not result in a sustained worsening of the existing impact because it would not make a substantial contribution to the existing driver of the cumulative impact (Highway 101). The project's contribution to the significant cumulative impact would not be cumulatively considerable. As such, the levels of pollutant concentrations emitted by other nearby TAC sources would result in a cumulative local health risk at nearby sensitive land uses; however, the project would not result in a cumulatively considerable contribution to that impact. Therefore, the impact would be **less than significant**.

### Impact AQ-4: The project could result in other emissions (such as those leading to odors) that have the potential to adversely affect a substantial number of people. This is a less than significant impact.

The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause physical harm, they can still be unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose members of the public to objectionable odors would be deemed to violate the BAAQMD standards. BAAQMD has established odor screening thresholds for land uses that have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants. BAAQMD's thresholds for odors are qualitative based on BAAQMD's Regulation 7, Odorous Substances. This rule places general limitations on odorous substances and specific emission limitations on certain odorous compounds.

The existing land use designation and zoning district for the project site is Regional Commercial (RC) under the Belmont General Plan, and the project is seeking a Planned Unit Development (PD) designation to accommodate project design elements and uses. The project, two life science office/research buildings, are land uses that are not typically associated with odor complaints, based on CARB's Air Quality and Land Use Handbook. According to the CARB's Air Quality and Land Use Handbook, land uses associated with odor complaints typically include sewage treatment plants, landfills, recycling facilities, manufacturing, and agricultural activities. CARB provides recommended screening distances for siting new receptors near existing odor sources. During construction, diesel-

powered equipment, exhaust from haul vehicles, and architectural coatings may generate temporary odors. During project operations, startup and maintenance testing of emergency generators may also result in temporary odors. Both construction equipment and generator-related odors would be temporary and would dissipate rapidly as a function of distance.

The nearest sensitive receptors are 300 feet from the project site. At this distance, odors would most likely not be strong enough to be considered offensive. During operation, any potentially odorous emissions that may be released due to research and development activities (e.g., those conveyed to the roof exhaust ports via fume hoods) would have ample time to disperse given their release height and proximity to receptors (or lack thereof). It is also important to note that air circulation and exhaust systems for BSL facilities are tailored for the specific use of the facility and could include exhaust scrubbers or other specialized features if warranted. Currently there is no end user or tenant for the buildings.

In addition, exhaust emissions from operation of the emergency generators would be temporary (used only for testing, maintenance, and in the event of an emergency) and would not be run as part of normal operation. There are no other anticipated odor emissions associated with project operation. When compared with existing odor sources in the vicinity of the project site, including industrial land uses, odor impacts from project operations would be similar to current conditions. The proposed project would comply, as applicable, with BAAQMD's Regulation 7, which limits emissions of odorous compounds from all non-exempt entities within BAAQMD jurisdiction. Accordingly, construction and operation of the project is not expected to create objectionable odors affecting a substantial amount of people. Given these regulations, and the fact that the project would not create objectional odors, there would be a **less than significant** impact. Mitigation is not required.

### 6.5.4 Cumulative Impact Analysis

The cumulative setting for air quality includes the City and the Air Basin. Air Basin is designated as a nonattainment area for state standards of ozone, $PM_{10}$, and $PM_{2.5}$. The Air Basin is designated as a nonattainment area for federal standards of ozone and $PM_{2.5,}$ attainment and serious maintenance for federal $PM_{10}$ standards, and is designated as unclassified or attainment for all other pollutants. Cumulative growth in population, land use intensification and vehicle use could inhibit efforts to improve regional air quality and attain the ambient air quality standards.

**Impact AQ-5: The project could contribute to cumulatively considerable air quality impacts. This is a less than significant impact.**

The BAAQMD CEQA Air Quality Guidelines do not include separate significance thresholds for cumulative operational emissions. However, with respect to regional air pollution, the development of the project (and other local projects as identified in Chapter 4) would result in population and employment growth that is generally consistent with ABAG projections. Therefore, the project would be consistent with the 2017 Clean Air Plan that uses ABAG population forecasts.

As described in **Impact AQ-1** above, the project would also be consistent with the appropriate 2017 Clean Air Plan control measures, which are provided to reduce air quality emissions for the entire Bay Area region. Additionally, the discussion in **Impact AQ-2, AQ-3** and **AQ-4** addresses cumulative impacts and demonstrates that the project would not exceed the applicable BAAQMD thresholds. The BAAQMD

CEQA Air Quality Guidelines note that the nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size by itself to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. Consistency with the 2017 Clean Air Plan control measures would ensure that the project would not cumulatively contribute to air quality impacts in the Basin. Therefore, impacts would be **less than significant.**

## 6.6 References

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# 7 Biological Resources

## 7.1 Introduction

This section identifies local biological resources within and near the project site and describes potential effects on those resources that could be caused by implementation of the project. The following discussion addresses existing environmental conditions in the affected area, identifies and analyzes potential environmental impacts, and recommends measures to reduce or avoid adverse impacts from project construction and operation, where warranted.

The following background documents were prepared for and/or referenced for this chapter:

- H. T. Harvey & Associates, 1301 Shoreway Road Project Biological Resources Report, 2022 (**Appendix C**)
- City of Belmont, 2035 General Plan – Land Use Element and Conservation Element, 2017
- City of Belmont, Final Environmental Impact Report for the Belmont General Plan Update, 2017
- Trees, Bugs, Dirt Landscape Consulting and Training, Arborist Report, 2022 (**Appendix D**)

## 7.2 Scoping Issues Addressed

During the Notice of Preparation (NOP) public comment and scoping period for the EIR, several comments were received regarding biological resources. State trustee and responsible agencies such as the San Francisco Bay Conservation and Development Commission (BCDC) and California Department of Fish and Wildlife (CDFW) – as well as other organizations and individuals - commented that the EIR should address: San Francisco Bay Plan policy regarding biological resources; impacts related to tidal marsh and tidal flat habitats; wildlife movement; effects on common and special status species; potential impacts of increased lighting and noise on wildlife; potential changes to aquatic water quality; riparian habitat protection; and protection of the Belmont Creek channel and creek banks. These issues are address in this chapter. Issues related to water quality are also addressed in Chapter 13, Hydrology and Water Quality.

## 7.3 Environmental Setting

### 7.3.1 City-Wide Setting

The City of Belmont and its surrounding area include many important natural features and is bordered on multiple sides by areas that provide habitat for sensitive plant and animal species. These open space areas and wildlife refuge areas include Belmont Slough, Seal Slough, Laurelwood Park, and the Crystal Springs Regional Trail area.

The habitat types in Belmont's natural open spaces vary widely, from tree- and shrub-dominated habitats in the western hills to herbaceous-dominated habitats and aquatic habitats in eastern Belmont. The tree-dominated habitats include Valley Oak Woodland, Valley Foothill Riparian, Coastal Oak Woodland, Montane Hardwood, and Blue Oak Woodland. Shrub-dominated habitats are found mostly in the southwestern area of Belmont and include Chamise-Redshank Chaparral and Coastal Scrub. Herbaceous-dominated habitats include Saline Emergent Wetland near the O'Neill Slough and Annual Grass in the far western hills.

### 7.3.2 Project Site Habitat Types

According to historical mapping of the shoreline in this area by the San Francisco Estuarine Institute (SFEI), the general area of the project site consists of land that was historically tidal marsh lands that were filled in the mid-20th century.

The entire 6.9-acre project site is developed and landscaped, being occupied by an existing commercial building, extensive surrounding pavement, and associated landscaping. Just beyond the project site boundary, additional land cover/habitat types mapped within the study area include ruderal grassland in a narrow strip immediately east of the project site and open water/tidal aquatic habitat and tidal salt marsh habitat along Belmont Creek. Along the tidal channel of Belmont Creek, where narrow bands of tidal salt marsh are present, the Bay Conservation and Development Commission's (BCDC) jurisdiction is defined as mean high water (MHW) plus the upper extent of marsh vegetation. A 100-foot area extending landward of the extent of Bay jurisdiction is defined as the BCDC shoreline band. See **Figure 7-1: Biotic Habitats Map.**

#### Developed/Landscaped

**Vegetation.** Developed/landscaped areas comprise the dominant land cover type in the study area, occupying the entire project footprint. This land cover type includes the existing building on the site, the large, paved parking lot surrounding the building, and associated landscaping throughout the site as well as along the perimeter. Landscaping on the site consists of ornamental trees, shrubs, and groundcovers that are typical of commercial developments in the area.

**Wildlife.** The hardscape on the project site provides limited habitat for wildlife species, and wildlife species that are present in these areas are tolerant of human disturbance and adapted to breeding or foraging on developed structures and surfaces. Non-native European starlings (*Sturnus vulgaris*) and house sparrows (*Passer domesticus*) may nest on adjacent developed structures and forage on hardscape on the project site. Native raccoons (*Procyon lotor*) and non-native Virginia opossums (*Didelphis virginianus*), Norway rats (*Rattus norvegicus*), black rats (*Rattus rattus*), and feral cats (*Felis catus*) that inhabit nearby lands will forage in developed areas. During the biologist's June 2022 surveys, native bird species such as the black phoebe (*Sayornis nigricans*), Anna's hummingbird (*Calypte anna*), and house finch (*Haemorhous mexicanus*) were observed foraging in the landscape vegetation on the project site.

#### Ruderal Grassland

**Vegetation.** Just outside the project site boundary, along the eastern edge of the site, vegetation consists of ruderal grassland occupying the space between the edge of the project site's landscaping and the levee slope along the tidal marsh. This vegetation is dominated by non-native annual grasses such as wild oats (*Avena fatua*) and ripgut brome (*Bromus diandrus*), and fobs such as fennel (*Foeniculum vulgare*) and cheeseweed (*Malva neglecta*).

**Wildlife.** Wildlife use of ruderal habitat on the site is limited by high levels of human disturbance in adjacent areas, the limited extent of the ruderal habitat, and the isolation of these habitat remnants from more extensive habitats elsewhere in the region. As a result, truly grassland-associated wildlife species are absent from the small patch of ruderal habitat on the project site. Instead, the wildlife species that occur in this habitat on the site are species that occur in adjacent urban or marsh areas and use this ruderal habitat for foraging.

#### Tidal Salt Marsh and Open Water/Tidal Channel

**Vegetation.** Outside the project site boundary, but within the expanded 100-foot component of the project study area, tidal salt marsh is present along Belmont Creek. Tidal salt marsh occurs with a 100 to 200 foot corridor confined by approximately five-foot-tall levees on either side of the creek corridor. The tidal salt marsh is dominated by a dense monoculture of pickleweed (*Salicornia pacifica*). Other species present with low cover or along the edge of the salt marsh include gumplant (*Grindelia stricta*), alkali heath (*Frankenia salina*), and jaumea (*Jaumea carnosa*). Non-native species present in the salt marsh include Algerian sea lavender (*Limonium ramosissimum*), alkali Russian thistle (*Salsola soda*), and seaside alkaligrass (*Puccinellia maritima*).

**Wildlife.** Northern coastal salt marsh supports some of the most imperiled wildlife species in the San Francisco Bay, as much of this habitat was historically converted to other land uses. However, many of these rare species do not occur in the project study area, or will only occur as occasional dispersants or foragers, due to the limited extent of the marsh habitat in the project study area. The California Ridgway's rail, for example, nests in more extensive marshes downstream of the project site in cordgrass, dense stands of pickleweed, and marsh gumplant (McBroom 2020, CNDDB 2022). Similarly, California black rails are known to occur in northern coastal salt marsh downstream of the project study area, primarily as winter residents (CNDDB 2022). Neither rail species is expected to nest in the project study area, however, due to the narrow extent of the marsh and high levels of human disturbance.

The salt marsh harvest mouse occurs in the upper zone of tidal salt marshes, especially where pickleweed is the dominant plant, and may nest in the tidal marshes and forage in upland habitats adjacent to the project site. Alameda song sparrows (*Melospiza melodia pusillula*) also nest in salt marshes in dense herbaceous vegetation and may nest in the marshes adjacent to the project site. Shorebirds, swallows, herons, egrets, blackbirds, and other avian species roost and forage in small numbers here as well, but most do not breed in these areas. Common waterbirds such as mallards (*Anas playtrhynchos*), American coots (*Fulica americana*), and gadwall (*Anas strepera*) forage within Belmont Creek, while wading birds such as herons and egrets forage along the shoreline. However, diving ducks and other waterbirds typical of the lower reaches of Belmont Slough and the bay itself are absent, or present only in low numbers, in this portion of Belmont Creek due to the narrow nature of the channel and high levels of human disturbance.

### 7.3.3 Wildlife Movement

Environmental corridors are segments of land that provide a link between these different habitats while also providing cover. Wildlife movement in the site vicinity takes many forms and is different for the various suites of species associated with the area. Bird and bat species move readily over the landscape, foraging over and within both natural lands and landscaped areas of Belmont, and the adjacent city of Redwood City which includes Redwood Shores and the adjacent Bair Island. Fish species move along the Belmont Creek corridor, some as residents and some as occasional foragers from the San Francisco Bay. Aside from bats, there are no other mammal species in the site vicinity that are truly migratory. For many species, the landscape is a mosaic of suitable and unsuitable habitat types.

#### Belmont Creek

Belmont Creek is directly adjacent to the project site and flows through residential and commercial areas before reaching the tidal portions of the creek via an engineered channel. This tidal slough eventually makes its way to the San Francisco Bay approximately 1.6 mi downstream of the project site. Belmont Creek functions as a wildlife movement corridor, connecting aquatic habitats associated with

the San Francisco Bay with high-density residential and commercial habitats to the south. This creek is not known to support a steelhead run, or to have supported steelhead historically, though other fish are expected to move up and down Belmont Creek past the site.

The tidal marsh habitat and exposed mudflats along the Belmont Creek corridor are useful for migrating birds, which stop to rest and forage there. In addition, the portion of Belmont Creek and adjacent upland habitats on the project site support a suite of native medium-sized mammals (e.g., raccoons, skunks, and black-tailed jackrabbits) and small mammals (e.g., California ground squirrels and deer mice). However, due to the proximity of Highway 101 and intensive urban development, Belmont Creek does not provide an important corridor for wildlife movement between bayside areas and natural habitats.

#### Pacific Flyway Stopover

The wetlands along the edge of the San Francisco Bay comprise one of the most important coastal wintering and migratory stopover foraging habitats for Pacific Flyway shorebirds and waterfowl, most of which do not breed in the Bay but which use it during migration and in winter for feeding and resting. However, the wetlands in Belmont Creek are not particularly valuable to these migratory birds due to the limited extent of these habitats, adjacent human disturbance, and the narrow nature of Belmont Creek adjacent to the project site.

In summary, the project study area is not a particularly important area for movement by non-flying wildlife, and it does not contain any high-quality corridors allowing dispersal of such animals. However, migratory birds are expected to occur adjacent to, or at least fly through/past, the project site in moderate abundance.

### 7.3.4 Special Status Species and Sensitive Habitats

Areas adjacent to the San Francisco Bay contain habitats such as tidal marsh and tidal mudflats important to survival of several endangered and threatened species, as defined by the California Environmental Quality Act (CEQA). Other threatened or species of concern are also present in the wetlands of the city. Belmont Creek lies adjacent to the proposed project site and supports a range of species. The tidal wetlands along the creek corridor also serve to protect the water quality of the creek and the wildlife within it.

The biological resources report prepared by H. T. Harvey & Associates in June of 2022 identified the potential for special status plant and wildlife species to occur on the project site and within the immediate vicinity. Findings and results are discussed below.

#### Special Status Plant Species

The California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) identify 69 special-status plant species having potential to occur in the City of Belmont, and 110 special-status plant species as potentially occurring in at least one of the nine USGS quadrangles containing or surrounding the project site for CRPR 1 or 2 species, or in Santa Mateo County for CRPR 3 and 4 species. See **Figure 7-2: CNDDB-Mapped Records of Special-Status Plants**. All 110 of those potentially occurring special-status plant species were determined to be absent from the project site for at least one of the following reasons: (1) lack of suitable habitat types; (2) absence of specific microhabitat or edaphic requirements, such as serpentine soils; (3) the elevation range of the species is outside of the range on the project site;

and/or (4) the species is considered extirpated. The project site itself is entirely developed and lacks suitable habitat for special-status plant species.

#### Special Status Wildlife Species

A total of 46 special-status wildlife species are known, or have potential, to occur within the city or surrounding area. See **Figure 7-3: CNDDB-Mapped Records of Special-Status Animals**. No special-status animal species are expected to reside or breed on, or otherwise heavily use, the project site itself due to the lack of suitable habitat on the entirely developed/landscaped site. However, the following special-status animal species may reside or breed in habitats within the study area adjacent to the site: the salt marsh harvest mouse, Alameda song sparrow, white-tailed kite, and salt marsh wandering shrew.

Several other special-status animal species may occur on or immediately adjacent to the project site but only as occasional foragers, migrants, or transients. These species include the monarch butterfly, California Ridgway's rail, California black rail, western pond turtle, American peregrine falcon, tricolored blackbird, pallid bat, and western red bat.

In addition, several special-status animal species may occur as occasional foragers, migrants, or transients in the aquatic habitat in Belmont Creek adjacent to the project site. These are the green sturgeon, longfin smelt, Central California coast steelhead, and Central Valley fall-run Chinook salmon. None of these species are expected to breed on or near the project site, or to regularly use the project site, and the project site itself does not provide important habitat for these species.

Several special-status bird species are protected as California species of special concern only when nesting. Vaux's swift occurs on the project site as an uncommon visitor during migration, but suitable nesting habitat for this species is absent from the site and from adjacent areas. Bryant's savannah sparrow, yellow warbler, and northern harrier may also occur in adjacent habitats as occasional nonbreeding foragers but are not expected to nest on or adjacent to the site. Because these species only occur on the project site as nonbreeders, they are not considered "special-status" when they occur.

Finally, several special-status animal species identified in the database search are considered absent from the project site and study area because the study area lacks suitable habitat and/or is outside the known range of the species. These include the California red-legged frog, San Francisco garter snake, western snowy plover, California least tern, black skimmer, burrowing owl, loggerhead shrike, San Francisco common yellowthroat, California brown pelican, golden eagle, and Pacific harbor seal.

### 7.3.5 On-Site Trees

An arborist report was prepared by Trees, Bugs, Dirt Landscape Consulting and Training in May of 2022. The report found 176 trees located on the proposed project site, with 16 different species represented. Tree species include Sydney wattle (*Acacia longifolia*), blackwood acacia (*Acacia melanoxylon*), hedge maple (*Acer campestre*), marina strawberry tree (*Arbutus X marina*), deodar cedar (*Cedrus deodara*), bushy yate (*Eucalyptus lehmanii*), Raywood ash (*Fraxinus oxycarpa `Raywood')* ginkgo tree (*Ginkgo biloba*), sweetgum (*Liquidambar styraciflua*), corkscrew tulip tree (*Liriodendron tulipifera `Tortuosum'*), Brisbane box (*Lophostemon confertus*), cajeput tree (*Melaleuca quinquenervia*), myoporum (*Myoporum laetum*), black stem pittosporum (*Pittosporum tenuifolium*), purple leaf plum (*Prunus cerasifera*), and swamp myrtle (*Tristaniopsis laurina)*.

In total, tree health and form ranged from very poor to good, and structure ranged from very poor to excellent, with the general tree condition averaging poor. See **Appendix D** for more details on existing tree conditions.




Source: H.T. Harvey & Associates, 2022

**Figure 7-1: Biotic Habitats Map**

1301 Shoreway Project
*Draft EIR*

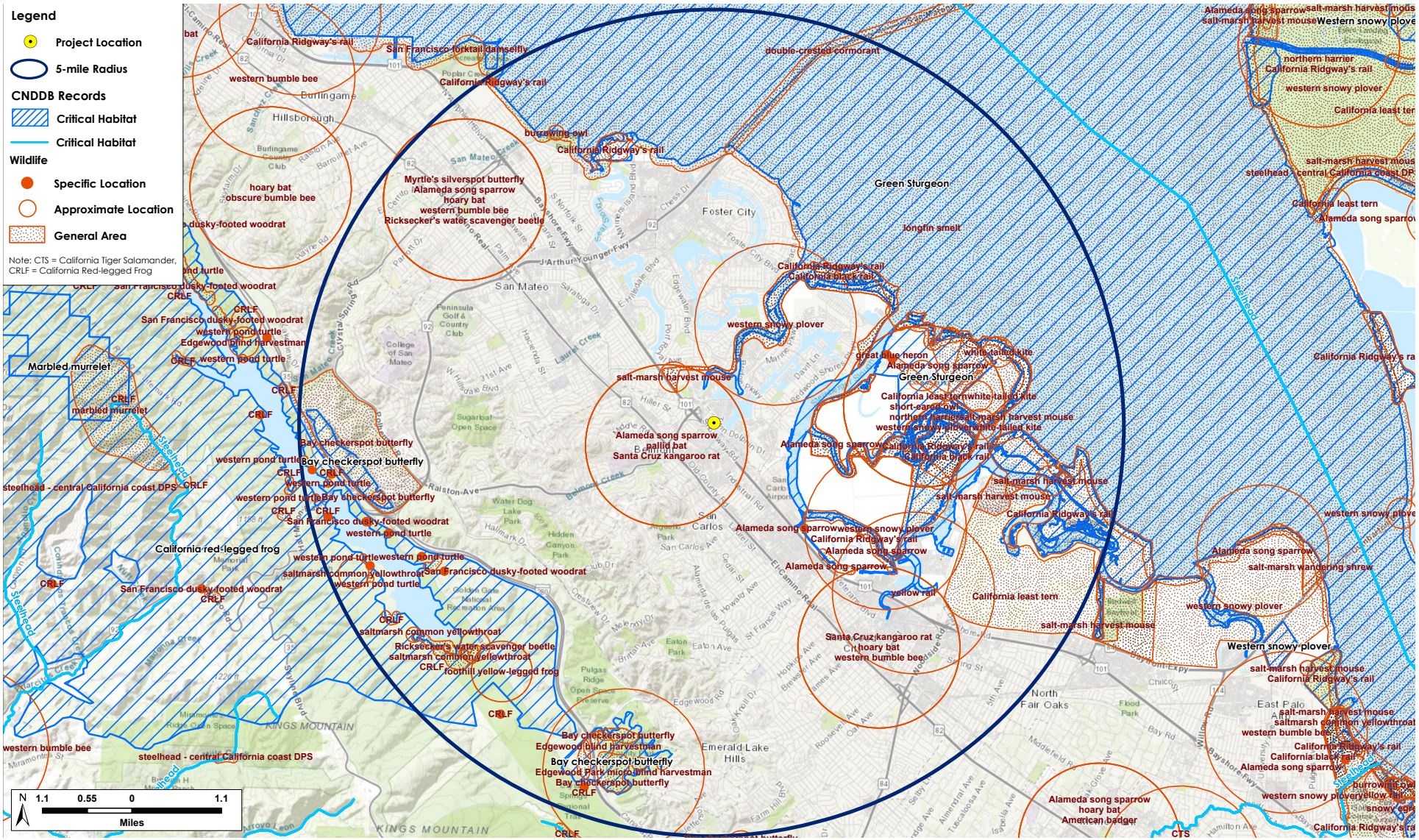
Kimley»Horn




Source: H.T. Harvey & Associates, 2022

**Figure 7-2: CNDDB-Mapped Records of Special-Status Plants**

1301 Shoreway Project
*Draft EIR*




Source: H.T. Harvey & Associates, 2022

**Figure 7-3: CNDDB-Mapped Records of Special-Status Animals**

1301 Shoreway Project
*Draft EIR*

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## 7.4 Applicable Regulations, Plans, and Standards

### 7.4.1 Federal

#### Federal Endangered Species Act (FESA) and Marine Mammal Protection Act

The U. S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NOAA) administer the FESA of 1973 and Title 16 (implementing regulations) of the U.S. Code of Regulations (CFT) 17.1 et seq. USFWS administers the FESA for wildlife and most freshwater aquatic species; NOAA Fisheries administers the FESA for anadromous fish and marine species. FESA designates and provides protection for threatened and endangered plants and animals and their critical habitat. Section 9 of FESA prohibits the "take" of federally listed wildlife species; however, the "incidental take" of federally listed species may be permitted during the course of an otherwise lawful activity through provisions included in Section 7 or Section 10 of the Act. Section 7 of the Act applies to projects where a federal agency is involved by issuing a permit, funding, or conducting the study. Under Section 7, the federal agency involved with the study consults with the USFWS, which authorizes limited incidental take of the affected species in the form of a Biological Opinion letter, with specific terms and conditions to avoid and minimize the effects on the species. Section 10 instruments, such as a Habitat Conservation Plan, may be developed and issued for take of a federally listed species for all non-federal projects (e.g., state and local governments, private owners).

#### Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act governs all fishery management activities that occur in federal waters within the United States' 200-nautical-mile limit. The Act establishes eight Regional Fishery Management Councils responsible for the preparation of fishery management plans (FMPs) to achieve the optimum yield from U.S. fisheries in their regions. These councils, with assistance from the NMFS, establish Essential Fish Habitat (EFH) in FMPs for all managed species. Federal agencies that fund, permit, or implement activities that may adversely affect EFH are required to consult with the NMFS regarding potential adverse effects of their actions on EFH, and respond in writing to recommendations by the NMFS.

#### Federal Migratory Bird Treaty Act

Raptors (e.g., eagles, hawks, and owls) and their nests are protected under both Federal and State regulations. The federal Migratory Bird Treaty Act (MBTA) prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary. This act encompasses whole birds, parts of birds, and bird nests and eggs.

#### Regulated Habitats

Areas meeting the regulatory definition of "Waters of the U.S." (Jurisdictional Waters) are subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE) under provisions of Section 404 of the Clean Water Act (1972) and Section 10 of the Rivers and Harbors Act (1899). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as "Waters of the U.S.," tributaries of waters otherwise defined as "Waters of the U.S.," the territorial seas, and wetlands (termed Special Aquatic Sites) adjacent to "Waters of the U.S." (33 CFR, Part 328, Section 328.3).

Construction activities within jurisdictional waters are regulated by USACE. The placement of fill into such waters must comply with permit requirements of USACE. No USACE permit would be effective in the absence of State water quality certification pursuant to Section 401 of the Clean Water Act. As a part of the permit process USACE works directly with USFWS to assess project impacts on biological resources.

### 7.4.2 State

#### California Endangered Species Act

Provisions of California Endangered Species Act (CESA) protect State-listed Threatened and Endangered species. The California Department of Fish and Wildlife (CDFW) regulates activities that may result in "take" of individuals ("take" means "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill"). Habitat degradation or modification is not expressly included in the definition of "take" under the CDFW Code. Additionally, the CDFW Code contains lists of vertebrate species designated as "fully protected" (§§ 3511 [birds], 4700 [mammals], 5050 [reptiles and amphibians], 5515 [fish]). Such species may not be taken or possessed.

In addition to federal and State-listed species, CDFW also has produced a list of Species of Special Concern to serve as a "watch list." Species on this list are of limited distribution or the extent of their habitats has been reduced substantially, such that threat to their populations may be imminent. Species of Special Concern may receive special attention during environmental review, but they do not have statutory protection.

Birds of prey are protected under the CDFG Code. Section 3503.5 states it is "unlawful to take, possess, or destroy any birds of prey (in the order Falconiformes or Strigiformes) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this Code or any regulation adopted pursuant thereto." Construction-related disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by CDFW. Under Sections 3503 and 3503.5 of the State Fish and Wildlife Code, activities that would result in the taking, possessing, or destroying of any birds-of-prey, taking or possessing of any migratory nongame bird as designated in the MBTA, or the taking, possessing, or needlessly destroying of the nest or eggs of any raptors or non-game birds protected by the MBTA, or the taking of any non-game bird pursuant to CDFG Code Section 3800 are prohibited.

#### CDFW Natural Communities

CDFW recognizes sensitive vegetation communities include: a) areas of special concern to resource agencies, b) areas protected under the CEQA, c) areas designated as sensitive natural communities by California Department of Fish and Wildlife (CDFW), d) areas outlined in Section 1600 of the California Fish and Game Code, e) areas regulated under Section 404 of the federal Clean Water Act (CWA), and f) areas protected under local regulations and policies. The CDFW tracks sensitive vegetation communities that are considered rare (CDFG 2010). Vegetation types are ranked between S1 and S5. For vegetation types with ranks of S1-S3, all associations within the type are considered to be highly imperiled. If a vegetation alliance is ranked as S4 or S5, these alliances are generally considered common enough to not be of concern; however, it does not mean that certain associations contained within them are not rare (CDFW, 2007 and 2010).

### California Fish and Game Code for Fully Protected Species

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code list animals that are fully protected species and may not be taken or possessed at any time. Permits or licenses to take any fully protected species are issued only for very limited types of activities such as research. Section 3503, 3503.5 and 3513 of the Code protect resident, migratory non-game, and birds-of-prey.

### California State Species of Concern

CDFW has designated certain vertebrate species, subspecies, or distinct population of an animal native to California as Species of Special Concern. CDFW's criteria for this category is that a species satisfies one or more of the following criteria: 1) is extirpated from the State or, in the case of birds, is extirpated in its primary season or breeding role; 2) is listed as Federally, but not State, threatened or endangered; meets the State definition of threatened or endangered but has not formally been listed; 3) is experiencing, or formerly experienced, serious (noncyclical) population declines or range restrictions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status; and/or 4) has naturally small populations exhibiting high susceptibility to risk from and factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status (CDFW, 2020).

### Native Plant Protection Act

The Legislature formally recognized the plight of rare and endangered plants in 1977 with the passage of the Native Plant Protection Act (NPPA). The NPPA directs the CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants.

### Porter-Cologne Water Quality Control Act

The SWRCB works in coordination with the nine RWQCBs to preserve, protect, enhance, and restore water quality. Each RWQCB makes decisions related to water quality for its region, and may approve, with or without conditions, or deny projects that could affect waters of the state. Their authority comes from the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne). Porter-Cologne broadly defines waters of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state." Because Porter-Cologne applies to any water, whereas the CWA applies only to certain waters, California's jurisdictional reach overlaps and may exceed the boundaries of waters of the U.S. For example, Water Quality Order No. 2004-0004-DWQ states that "shallow" waters of the state include headwaters, wetlands, and riparian areas. Moreover, the San Francisco Bay Region RWQCB's Assistant Executive Director has stated that, in practice, the RWQCBs claim jurisdiction over riparian areas. Where riparian habitat is not present, such as may be the case at headwaters, jurisdiction is taken to the top of bank.

On April 2, 2019, the SWRCB adopted the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*. In these new guidelines, riparian habitats are not specifically described as waters of the state but instead as important buffer habitats to streams that do conform to the State Wetland Definition. The *Procedures* describe riparian habitat buffers as important resources that may both be included in required mitigation packages for permits for impacts to waters of the state.

#### San Francisco Bay Conservation and Development Commission (BCDC) Bay Plan

The BCDC Bay Plan contains relevant polices regarding the conservation and protection of sensitive species and habitats. Section III of the Bay Plan outlines policies concerning Fish, Other Aquatic Organisms and Wildlife, which include guidelines for conserving the Bay's sensitive habitats to assure the benefits and protection of species. These include protection of native and listed species, dredging and fill limitations, and consultation guidelines. Additionally, the Bay Plan also includes policies pertaining to Tidal Marshes and Tidal Flats, as well as Subtidal Areas. Policies within Section III: Tidal Marshes and Tidal Flats address the conservation and habitat restoration of these areas, while Subtidal Areas also address dredge and fill guidelines as well as monitoring plan instruction. Mitigation guidelines are also included in Section III of the Bay Plan, outlining the framework of various mitigation programs including compensatory mitigation and associated site selection, as well as fee-based mitigation.

### 7.4.3 Local

#### City of Belmont General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. General Plan goals and policies relative to biological and natural resources are identified below. Relevant General Plan Policies that directly address reducing and avoiding biological impacts include the following:

**Conservation Element**

- Policy 5.1-3: Reduce risk of wildland fire, ecological succession, and pathogen threats (such as Sudden Oak Death) through active maintenance of public spaces and education and enforcement of development standards on private property.

**Goal 5.3:** Protect and restore biological and ecological resources in Belmont, including sensitive wildlife species and their habitats.

- Policy 5.3-1: Support the protection, preservation, restoration, and enhancement of habitats of State or federally listed rare, threatened, endangered and/or other sensitive and special status species, and favor enhancement of contiguous areas over small, segmented remainder parcels.
- Policy 5.3-2: Continue to maintain, protect, restore, and enhance Belmont's ecologically important areas and seek to reduce impacts on them, including the creek corridors, the open space, and the wetlands around O'Neill Slough.
- Policy 5.3-3: To the greatest extent feasible, ensure that development does not disturb sensitive habitat and special status species by requiring appropriate and feasible mitigation measures.
- Policy 5.3-4: Maintain functional wildlife corridors and habitat linkage in order to contribute to regional biodiversity and the viability of rare, unique or sensitive biological resources throughout the city and region.
- Policy 5.3-5: In design and construction, require use of best practices that preserve natural resources, such as soil, trees, native plants, and permeable surfaces.
- Policy 5.3-6: Avoid light pollution and unnecessary glare by requiring development projects to use design features and shielding methods that cast outdoor light downward and minimize glare and to install the minimum amount of outdoor lighting necessary for safety and security.

- Policy 5.3-7: Encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native vegetation, and ensure the maximum number and variety of well-adapted plants are maintained.
- Policy 5.3-8: Use native or drought-resistant vegetation in landscaping on city-owned property, and encourage private property owners to use native or drought-resistant vegetation in landscaping on private property.
- Policy 5.3-9: Promote the healthy growth of trees and control the removal of trees within the city.
- Policy 5.4-3: Protect, restore, and enhance a continuous corridor of native riparian vegetation and wildlife habitat along Belmont's waterways, water bodies, and wetlands.
- Policy 5.4-4: Preserve and enhance the natural riparian environment along waterway corridors, including Belmont Creek, by minimizing environmental and visual impacts.
- Policy 5.5-3: Require development projects to incorporate structural and non-structural BMPs to mitigate or reduce the projected increases in pollutant loads, in accordance with the NPDES permit guidelines.

### Belmont City Code

#### Chapter 9 Article IV – Standards and Specifications

Chapter 9, Article IV, Section 9-44, Protected Trees, of the Belmont City Code was developed to preserve protected trees whenever possible. This section states that protected trees shall be protected from damage during grading per the city's standard details and any required arborist recommendations. Additionally, this section also requires that permits for tree removal, as described in Chapter 25, shall also be met.

#### Chapter 25: Trees

Chapter 25 of the Belmont City Code is the city's tree ordinance. The ordinance regulates removal, replacement and maintenance of protected trees in the city. A protected tree is defined as any of the following:

- Principal native tree: Any coast live oak, valley oak (*Quercus lobata*), coast redwood (*Sequoia sempervirens*), madrone (*Arbutus menziesii*), bay laurel (*Laurus nobilis*), and buckeye (*Aesculus glabra*) having a single main stem or trunk of 10 inches or more diameter at breast height (DBH) or up to three of the largest secondary stems totaling 10 inches or more DBH.
- City tree: Any woody, perennial plant, regardless of size, located in a city park, a designated open space, or on any other city property. A single or multi-stemmed shrub or bush is not a city tree.
- Replacement tree: Any tree, regardless of size, which has been planted as required mitigation for the previous removal of another tree at the same site or elsewhere in the city.
- Right-of-way tree: A tree located in a public street right-of-way.

- Large diameter tree: A woody, perennial plant characterized by having a single main stem or trunk of 14 inches or more DBH, or up to three of the largest secondary stems totaling 18 inches or more DBH.

Applicants for projects that involve removal of protected trees are required to obtain a Tree Removal Permit.

#### McAteer-Petris Act

The McAteer-Petris Act, enacted on September 17, 1965, serves as a legal provision under California State law to preserve San Francisco Bay from indiscriminate filling. The Act initially established the BCDC as a temporary State agency charged with preparing a plan for the long-term use of the San Francisco Bay. In August 1969, the McAteer-Petris Act was amended to make BCDC a permanent regulatory agency to incorporate the policies of the Bay Plan. BCDC jurisdiction includes a 100-foot wide band along the shoreline of the San Francisco Bay. The shoreline is defined as all areas that are subject to tidal action from the south end of the San Francisco Bay to the Golden Gate (Point Bonita–Point Lobos), and to the Sacramento River line (a line between Stake Point and Simmons Point, extended northeasterly to the mouth of Marshall Cut). The BCDC will claim all sloughs (specifically marshlands lying between mean high tide and up to 5 feet above mean sea level where marsh vegetation is present); tidelands (lands between mean high tide and mean low tide); and submerged lands (land lying below mean low tide) in this region. The McAteer-Petris Act also requires that "maximum feasible public access, consistent with a project be included as part of each project to be approved by the BCDC."

## 7.5 Environmental Impacts and Mitigation Measures

### 7.5.1 Significance Criteria

The following significance criteria for biological resources were derived from the Environmental Checklist in CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address lead agency requirements and the full range of impacts related to the proposed project.

An impact of the proposed project would be considered significant and would require mitigation if it would meet one of the following criteria.

- Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulation, or by the CDFW or USFWS.
- 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.
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to marshes, vernal pools, etc.) through direct removal, filling, hydrological interruption, or other means.
- 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.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

- Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Communities Conservation Plan (NCCP), or other approved local, regional, or State HCP.

## 7.5.2 Summary of No and/or Beneficial Impacts

#### Habitat Conservation Plan/Natural Communities Conservation Plan

The San Bruno Mountain Habitat Conservation Plan is the only Habitat Conservation Plan that has been approved in San Mateo County, but this plan does not cover the project site or the surrounding vicinity. No Natural Community Conservation Plans have been approved or are in preparation in San Mateo County. Therefore, the proposed project would not conflict with any adopted Habitat Conservation Plans or Natural Community Conservation Plans, or with any other approved local, regional, or State habitat conservation plans.

## 7.5.3 Impacts of the Proposed Project

**Impact BIO-1: The project could have a direct or indirect adverse effect on special status species. The impact is less than significant with mitigation incorporated.**

### Construction and Operation

As described above in the Environmental Setting, the project site itself was found to lack suitable habitat for special status plants and wildlife to occur. However, several special status animal and avian species could utilize the adjacent habitats along Belmont Creek. The project's potential effects upon these species and their habitats are identified in the information below.

#### Breeding Birds (Alameda Song Sparrow and White-Tailed Kite)

Although no special-status birds breed on the project site itself, two special-status bird species may breed in low numbers in habitats adjacent to the site – the Alameda song sparrow and white-tailed kite. Given these species' territorial nature and the quality of habitat adjacent to the site, no more than 2-3 pairs of song sparrows and one pair of white-tailed kites is expected to breed in this area. Because no suitable habitat for these species is present within the project site itself, the project will not result in direct, physical impacts to individuals or nests of these species, or in the loss of these species' habitat. However, activities that occur during the nesting season (generally February 1 through August 31) and that may cause a substantial increase in noise or human activity near active nests may result in the abandonment of active nests (i.e., nests with eggs or young). Heavy ground disturbance, noise, and vibrations caused by project construction could potentially disturb nesting and foraging individuals and cause them to move away from work areas.

To avoid this potential indirect impact to these species (as well as non-special status bird species), the following pre-construction mitigation measure is required. With implementation of Mitigation Measure MM BIO-1.1, impacts to breeding special-status (and common) birds would be reduced to a **less than significant** level.

#### MM BIO-1.1 Avoidance and Preconstruction Surveys

**Seasonal Avoidance**. Tree removal, demolition, and the start of construction activities shall be scheduled to avoid the nesting season. If such activities take place outside the nesting season, all impacts on nesting birds protected under the MBTA and California Fish and Game Code will be avoided. The nesting season for most birds in San Mateo County extends from February 1 through August 31.

**Preconstruction/Pre-disturbance Surveys**. If it is not possible to schedule construction activities between September 1 and January 31, then preconstruction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no nests of migratory birds will be disturbed during project implementation. These surveys shall be conducted no more than 7 days prior to the initiation of tree removal, demolition, ground disturbance, or construction activities for each construction phase. During this survey, the biologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, buildings, and the ground) in and immediately adjacent to the impact areas for migratory bird nests.

**Buffers**. If an active nest is found within areas that would be disturbed by project activities, the ornithologist will determine the extent of a construction-free buffer zone to be established around the nest (typically 300 ft for raptors and 100 ft for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation.

**Inhibition of Nesting**. If construction activities will not be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) that are scheduled to be removed by the project may be removed prior to the start of the nesting season (e.g., prior to February 1). This will preclude the initiation of nests in this vegetation and prevent the potential delay of the project due to the presence of active nests in these substrates.

#### Non-Breeding Special-Status Birds

Several special-status bird species may occur within or near the project site as nonbreeding migrants, transients, or foragers, but they are not known or expected to breed on or near the project area due to the absence of suitable breeding habitat. These species are the California Ridgway's rail and California black rail, which may occasionally forage in the tidal marsh along Belmont Creek adjacent to the project site; American peregrine falcon, which may occasionally forage over or adjacent to the site (most likely along Belmont Creek); and tricolored blackbird, which may forage adjacent to the site near Belmont Creek.

Project activities would not result in the loss or disturbance of any suitable habitat for these species, as the project site does not currently provide suitable foraging habitat. Although individuals foraging in adjacent habitats may be temporarily disturbed by construction activities, such disturbance would not result in injury, mortality, or loss of important foraging opportunities for these species. As a result, the project will have very little impact on these species' regionally available foraging habitat and no impact on regional populations of these species. For all these reasons, impacts of the project on nonbreeding special-status birds would be **less than significant.**

#### Special Status Mammals (Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew)

Small numbers of salt marsh harvest mice and salt marsh wandering shrews may occur in habitats along Belmont Creek, and individual salt marsh harvest mice and salt marsh wandering shrews may forage and/or take refuge within the ruderal grassland habitat located adjacent to the project boundary. Although these species are not expected to be located within the construction area itself, they could potentially occur in habitat along Belmont Creek and the ruderal habitat immediately adjacent to the construction limits.

Project construction may result in the injury or mortality of these species as a result of crushing by equipment, vehicle traffic, and worker foot traffic if those activities are not clearly confined to the project site. Should these species be disturbed by construction noise or vibration, and move away from the source, they would likely move away from the project site and toward higher-quality marsh habitat farther out in Belmont Creek. Thus, project noise levels are not expected to cause significant impacts to salt marsh harvest mice or salt marsh wandering shrews.

Building 2 and the parking structure would be located closer to the tidal marsh along Belmont Creek than the existing building, and the roofs of these structures could potentially be used as perches by predatory birds that may prey on salt marsh harvest mice and salt marsh wandering shrews. However, ample perches in the form of trees, fence lines, light poles, and other structures are already present along the creek under existing conditions, and the construction of these buildings is not expected to result in a substantial increase in predation pressure on these special-status mammals.

To avoid potential impacts to salt marsh harvest mice and salt marsh wandering shrews, the following preventative mitigation measure is required prior to construction. With implementation of Mitigation Measure MM BIO-1.2, potential impacts to special-status mammals would be reduced to a **less than significant** level.

**MM BIO-1.2 Project Construction Precautionary Measures**

**Worker Environmental Awareness Program**. Before any construction activities begin, a qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training will include descriptions of the salt marsh harvest mouse and salt marsh wandering shrew, their habitats, the laws protecting them, the general measures that are being implemented to conserve these species as they relate to the project, and the boundaries within which the project may be accomplished.

**Exclusion Barrier**. Prior to the start of construction activities along the eastern edge of the project site, a barrier will be installed at the outer limits of the work area on the east side of the project site to exclude salt marsh harvest mice and salt marsh wandering shrews from the project site. This barrier will consist of a 3-ft tall, tight cloth, smooth plastic, or sheet-metal (or similar material) fence toed into the soil at least 3 inches deep and supported with stakes placed on the inside of the barrier. Following the installation of the barrier, designated construction personnel will check its integrity each morning that construction activities occur and will initiate repairs immediately as needed.

**Environmentally Sensitive Area Fencing**. Prior to the start of construction activities along the eastern edge of the project site, the project limits on the east side of the site will be clearly demarcated with highly visible Environmentally Sensitive Area fencing to avoid inadvertent disturbance of any habitat outside of the designated construction area during construction activities. This fencing may be combined with the exclusion barrier but must not be outside that barrier.

**Immediate Work Stoppage**. If a salt marsh harvest mouse, salt marsh wandering shrew, or an animal that could be one of these species is observed on the project site during project activities, all work that could result in the injury or death of the animal will stop immediately and a qualified biologist will be immediately notified. The animal will be allowed to leave the area on its own and shall not be handled except by a qualified biologist authorized to do so.

### Fish and Fish Habitat

No suitable habitat for fish, including special-status fish, designated critical habitat for federally listed fish, essential fish habitat (ESH), and fishery management plan (FMP)-managed species will be impacted directly by the project. During very high flows, fish could potentially occur as close as the near edge of the tidal marsh along Belmont Creek, approximately 40 feet or more from the project site, but no closer. However, construction of the project may result in indirect adverse effects on fish and their habitats due to short-term increases in suspended sediment and turbidity near the project site as a result of run-off and potential leaking or spills of chemical contaminants or hazardous materials (gasoline, oil, grease, concrete) onto the ground from use of heavy equipment adjacent to slough. Indirect effects could include increasing susceptibility to predation and reducing availability of food. Leaking or spills of chemical contaminants or hazardous materials could be toxic to special-status fish, FMP-managed species, and their prey. Due to the regional rarity of special-status fish and the ecological importance of EFH and FMP-managed fish species, such impacts would potentially be significant.

The project is required to comply with the requirements of the NPDES Statewide Storm Water Permit and Statewide General Construction Permit. Collectively, these requirements are likely to reduce the project's impacts on water quality in Belmont Creek substantially and improve water quality compared to existing conditions. In addition, implementation of Mitigation Measure MM BIO-1.3 would serve to reduce water quality impacts on fish and their habitat due to project construction and operation to **less than significant** levels. This measure reinforces existing permit requirements and regulations.

**MM BIO-1.3 Water Quality**

During construction, the contractor shall employ the following measures to treat and minimize runoff from the project site.

- All relevant erosion control, sediment control, source control, treatment control, material management, and stormwater management measures consistent with the latest edition of the California Stormwater Quality Association "Stormwater Best Management Practices Handbook," available at www.capmphandbooks.com, will be implemented.
- Spill prevention kits shall always be in close proximity when using hazardous materials (e.g., crew trucks and other logical locations).
- If any fueling of equipment needs to occur in areas directly draining to the wetlands along Belmont Creek, containment shall be provided in such a manner that any accidental spill of fuel shall not be able to enter the water or contaminate sediments that may come in contact with water.
- A hazardous materials management/fuel spill containment plan will be developed and implemented by the construction contractor and given to all contractors working on the project, with at least one copy of the plan located on the site at all times. The purpose of the plan is to provide construction managers, environmental compliance monitors, and regulatory agencies with a detailed description of hazardous materials management, spill prevention, and spill response/cleanup measures associated with the construction of the project elements. The primary objective of the plan is to prevent a spill of hazardous materials. Elements of the plan will include, but are not limited to the following:
    - A discussion of hazardous materials management, including delineation of hazardous material and hazardous waste storage area, access and egress routes,

waterways, emergency assembly areas, and temporary hazardous waste storage areas;

- Materials Safety Data Sheets for all chemicals used and stored on site;
- An inventory list of emergency equipment;
- Spill control and countermeasures including employee spill prevention/response training;
- Notification and documentation procedures; and
- A monthly reporting plan.

- Vehicles will be checked daily for oil or fuel leaks and will be washed only at an approved area. No washing of vehicles will occur within areas directly draining to the wetlands along Belmont Creek.
- Within 100 ft of tidal wetlands along Belmont Creek, the work site, areas adjacent to the site, and access areas will be maintained in an orderly condition, free and clear from debris and discarded materials. Personnel will not sweep, grade, or flush surplus materials, rubbish, debris, or dust onto adjacent areas or wetlands or waterways. Upon completion of work, all building materials, debris, unused materials, concrete forms, and other construction-related materials will be removed from the project site.
- Stockpiled materials in areas draining to the tidal wetlands along Belmont Creek will be covered by plastic sheeting, tarps, or similar material that can be secured during wind and rain. A sediment fence or berm will be installed around stockpiled dredged material to prevent runoff from transporting sediment into sensitive habitats (such as wetlands and open waters).
- Water conservation methods will ensure that water used in the project site does not create surface flows capable of carrying pollutants to the nearby slough channel. All personnel, including sub-contractors, will be instructed on the practical methods of preventing leaks or over-use of watering, and will be required to adhere to the practices in the detail sheets provided.
- Silt fencing will be erected along the limits of disturbance between the project site and wetlands along Belmont Creek during construction activities that could potentially result in siltation of wetlands and open waters of Belmont Creek.

Implementation of MM BIO-1.3 will effectively mitigate potential water quality impacts by implementing proactive and preventative measures during construction.

#### Biological Effects from Increased Lighting

The installation of lighting on buildings and around roads, paths, and parking lots may result in potential impacts on animal species. The project will result in the construction of buildings and other features that will necessitate lighting within and around the project footprint. Lighting from the project would be the result of light fixtures illuminating buildings, building architectural lighting, and parking structure and pedestrian lighting. Depending on the location, direction, and intensity of exterior lighting, this lighting can potentially spill into adjacent natural habitat areas such as Belmont Creek.

Many animals, both special-status and common species, are sensitive to light cues, which influence their physiology and shape their behaviors, particularly during the breeding season. Artificial lighting may

indirectly impact mammals and birds by increasing the nocturnal activity of predators such as owls, hawks, and mammalian predators. The presence of artificial light may also influence habitat used by rodents and breeding birds by causing avoidance of well-lit areas, resulting in a net loss of habitat availability and quality.

Up-lighting refers to light that projects upwards above the fixture. There are two primary ways in which the luminance of up-lights might impact the movements of birds. First, local birds using habitats on a site may become disoriented during flights among foraging areas and fly toward the lights, colliding with the lights or with nearby structures. Second, nocturnally migrating birds may alter their flight direction or behavior upon seeing lights; the birds may be drawn toward the lights or may become disoriented, potentially striking objects such as buildings, adjacent power lines, or even the lights themselves.

If lighting of Belmont Creek were to increase, wildlife species using the undeveloped habitats on and adjacent to the project site (including special-status species such as salt marsh harvest mice and salt marsh wandering shrews) may be subject to increased predation, decreased habitat availability (for species that show aversions to increased lighting), and alterations of physiological processes if development under the proposed project produces appreciably greater illuminance than the existing conditions. In addition, lighting from the project also has some potential to attract and/or disorient birds, especially during inclement weather when nocturnally migrating birds descend to lower altitudes. This impact on local wildlife populations is **potentially significant** under CEQA due to the rarity of some of the species inhabiting these areas.

As described in Chapter 5: Aesthetics, the City of Belmont 2035 General Plan includes Policy 5.3-6 to avoid and minimize light pollution. Compliance with General Plan Policy 5.3-6 will help minimize impacts of outdoor lighting on ecologically sensitive habitats and sensitive species associated with Belmont Creek. In addition, the building design incorporates several features to reduce glare and reflective surfaces, which will also serve to reduce bird strike. See Mitigation Measure BIO-4.1 later in this chapter regarding building treatments, reduction of glare and prevention of reflection-related bird strike.

In combination with the General Plan, implementation of Mitigation Measure MM BIO-1.4 below would serve to reduce impacts of project lighting on animals and nearby habitats to **less than significant** levels.

#### MM BIO-1.4 Project Lighting

The following measures shall be identified on the project's final improvement plans and incorporated into the project design to reduce the effects of glare or increased luminance experienced by migratory birds and wildlife using Belmont Creek:

- Exterior lighting shall be minimized (e.g., by turning lights off) in accordance with recommendations from the International Dark-Sky Association (2011) from midnight until dawn, at a minimum, except as needed for safety and city code compliance.
- Spillage of lighting from building interiors shall be minimized using occupancy sensors, dimmers, or other mechanisms from midnight until dawn, at a minimum, during bird migration seasons (February–May and August–November). This measure may be voluntarily implemented year-round.

### Special Status Plants

The biological report found a low potential for special status plant species to occur in the project area. There are 69 special-status plant species having potential to occur in the City of Belmont. Because the

project site is entirely developed and does not contain conditions that would support any special status plant species, it can be concluded that it is unlikely for any impacts to special status plants to occur as a result of the proposed project.

#### Common Species and Habitats

The project will impact virtually all 6.9 acres of developed/landscaped land uses on the project site in some way, either through conversion to other developed areas or conversion of currently developed areas to new landscaping. The conversion of parking lot and hardscape to landscaped habitat will increase the overall quality of habitat on the project site. Individuals of the common plant and animal species that currently inhabit the project site will be temporarily impacted through the removal of trees and buildings, construction of new structures and amenities, and landscaping. However, those common plant and animal species that occur on the site are regionally abundant and are present in widely available habitats in the region. As a result, the project would impact only a very small proportion of their regional populations. Furthermore, once the project is completed, the site will support higher-quality habitat and many of those species that occupy the site now will occupy the site after construction. For these reasons, potential impacts to common species and habitats are **less than significant**.

**Impact BIO-2: The project could have an adverse effect on sensitive natural communities, including riparian habitat. The impact is less than significant with mitigation incorporated**.

#### Construction

The project will not have direct impacts on tidal salt marsh (considered a sensitive natural community as "northern coastal salt marsh"), or open water/tidal aquatic habitat. However, construction could result in impacts on water quality, which would degrade these sensitive habitats. In the absence of measures to avoid and minimize such impacts, these impacts could be significant given the ecological value of tidal wetland and aquatic habitats.

Construction projects in California causing land disturbances that are equal to 1 acre or greater must comply with State requirements to control the discharge of stormwater pollutants under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit; Water Board Order No. 2009-0009-DWQ). Prior to the start of construction/demolition, a Notice of Intent must be filed with the State Water Board describing the project. A Storm Water Pollution Prevention Plan (SWPPP) must be developed and maintained during the project and it must include the use of BMPs to protect water quality until the site is stabilized. Standard permit conditions under the Construction General Permit require that the applicant utilize various measures including:

- On-site sediment control best management practices,
- Damp street sweeping,
- Temporary cover of disturbed land surfaces to control erosion during construction, and
- Utilization of stabilized construction entrances or wash racks, among other elements.

In San Mateo County, projects must also comply with the California Regional Water Quality Control Board, San Francisco Bay Region, Municipal Regional Stormwater NPDES Permit (MRP) (Water Board Order No. R2-2015-0049). This MRP requires that all projects implement BMPs and incorporate Low Impact Development practices into the design to prevent stormwater runoff pollution, promote infiltration, and hold/slow down the volume of water coming from a site after construction has been

completed. To meet these permit and policy requirements, projects must incorporate the use of green roofs, impervious surfaces, tree planters, grassy swales, bioretention and/or detention basins, among other factors. These same features will be used to treat any stormwater that flows to the off-site brackish marsh during large storm events. Compliance with these stormwater requirements and implementation of MM BIO-1.3 above would reduce water-quality impacts to less-than-significant levels. With implementation of these measures, potential impacts would be reduced to a **less than significant** level.

#### Operation

Shading from Building 2 and the parking garage could affect vegetation in wetlands along Belmont Creek. Building 2 would be seven stories (128 feet tall including rooftop equipment) and the parking garage would be nine levels. Given their proximity to the edge of the tidal wetlands (approximately 110 ft), these buildings would cast some shade over wetlands along the creek, with the amount of shade variable throughout the year (see Chapter 5: Aesthetics for more information on shade and shadow). Being situated on the southwest side of the creek, these buildings will cast a shadow on tidal wetlands mainly during portions of the late afternoon. However, the setbacks between the buildings and the creek's tidal wetlands, and the northern, eastern, and southern exposure of these wetlands to the sun (without shading from buildings) most of the time, are expected to minimize any adverse effects of shading from buildings on wetlands along Belmont Creek, and no substantial loss or degradation of tidal wetlands will result from increased shading. Impacts to nearby wetlands resulting from the project's daily operations would therefore be **less than significant**.

**Impact BIO-3: The project could have an adverse effect on protected wetlands. The impact is less than significant with mitigation incorporated.**

#### Construction and Operation

The project will not have direct impacts on tidal salt marsh or open water/tidal aquatic habitat. However, construction could result in impacts on water quality, which could degrade these sensitive habitats, as described above. In the absence of recommended measures to avoid and minimize such impacts, these impacts could be significant given the ecological value of tidal wetland and aquatic habitats. Compliance with stormwater requirements and implementation of mitigation Measure MM BIO-1.3 presented previously would reduce impacts on water quality within wetlands to less than significant levels. Wetlands could also be impacted by shading from new buildings, but for reasons described in above, such impacts would not result in substantial loss or degradation of tidal wetlands. With implementation of MM BIO-1.3 and existing water quality regulations, potential impacts from the project would be reduced to a **less than significant** level.

**Impact BIO-4: The project could interfere with the movement of native resident or migratory wildlife and/or associated nursery sites. This is a less than significant impact with mitigation incorporated.**

#### Construction

##### Terrestrial Wildlife

The marsh and upland habitats along Belmont Creek serve as a movement pathway for terrestrial species, providing vegetative cover and foraging opportunities. The project site does not extend beyond

the current developed footprint; thus, development of the site would not impede animal movement along this wildlife movement pathway. In addition, the project site already consists of heavily disturbed habitats. The redevelopment of the project site will have very little impact on wildlife movement, especially given that the adjacent marsh will remain intact and navigable. Therefore, construction of the project would not rise to the level of a substantial adverse effect on habitat connectivity, and therefore would result in **less than significant** impacts on the movements of terrestrial wildlife.

### Operation

#### Bird Strike (Bird Collisions with Buildings)

The project site is located at the base of the Redwood Shores peninsula, adjacent to Belmont Creek and within approximately one mile of the extensive tidal marshes surrounding the peninsula. Bird species that are attracted to marsh and aquatic habitats in the project vicinity are expected to move past the project site when flying along Belmont Creek, or when flying between these habitats, but not onto or through the project site regularly. Existing conditions on the project site and in surrounding vicinity consist primarily of developed areas with limited vegetation, consisting of non-native landscape trees and shrubs. As a result, the number of birds that inhabit and regularly use vegetation on the project site is relatively low. Due to the continued lack of large areas of native vegetation and lack of structural complexity, the addition of landscaped areas to the project site will not create high-quality bird habitat within this area.

In general, bird species that are attracted to marsh and aquatic habitats in the project vicinity are expected to move past the project site when flying along Belmont Creek, or when flying between these habitats. The numbers of these birds moving past the site will vary by time of year and by species. Shorebirds and waterbirds are unlikely to disperse from the adjacent reach of Belmont Creek onto the project site, as these species are strongly associated with tidal habitats and open water. Therefore, no shorebirds or waterbirds are expected to move onto or through the project site regularly or in numbers.

Due to the high habitat value of the undeveloped tidal marshes surrounding the Redwood Shores peninsula as well as the relatively large number of migrant birds, fairly large numbers of birds are expected to fly past the project site. Resident and migratory songbirds may disperse outward from the slough looking for foraging, resting, nesting, or roosting sites. During such dispersal, these birds could move toward and onto the project site and into the site's landscape vegetation. These birds will be drawn into landscaped habitats adjacent to the building facades. As a result, there is some potential for bird collisions with the glass facades of the proposed buildings.

Glass windows and building façades can result in injury or mortality of birds due to birds' collisions with these surfaces. Because birds do not perceive glass as an obstruction the way humans do, they may collide with glass when the sky or vegetation is reflected in glass (e.g., they see the glass as sky or vegetated areas); when transparent windows allow birds to perceive an unobstructed flight route through the glass (such as at corners); and when the combination of transparent glass and interior vegetation (such as in planted atria) results in attempts by birds to fly through glass to reach that vegetation. The extent of glazing on a building and the presence of vegetation opposite the glazing are known to be two of the strongest predictors of avian collision rates. Further, the greatest risk of avian collisions with buildings occurs in the area within 60 feet of the ground because this is the area in which most bird activity occurs.

The three buildings proposed to be constructed on the project site create a central courtyard amenity space. The central portion of the site will be an open, landscaped area vegetated with a mix of native and nonnative trees, and predominantly native shrubs and native herbaceous plants. Resident and migratory landbirds are expected to be present along Belmont Creek, and some could disperse onto the project site from these areas. These birds will be drawn westward into landscaped habitats adjacent to the building facades into the interior landscaped areas adjacent to buildings one and two, as well as into the narrower, north-south landscaped passageway between these two buildings. Additionally, birds are likely to move westward from Belmont Creek along the northern boundary of the project site, as large trees, including native coast live oaks, are proposed along this boundary. As a result, there is some potential for bird collisions with the glass facades of the proposed buildings. Buildings 1 and 2 may feature fins and recessed glazing, increasing the visibility of the building and reducing the risk of collision due to transparency. Nevertheless, the risk of collisions where existing and proposed vegetation will be reflected in this glass, along the east and north facades of Building 1, and along all facades of Building 2, are expected to present large expanses of reflective glass where birds can potentially collide with the glass as they attempt to reach these reflections.

Given that a moderate number of resident and migratory landbirds are expected to occur on the site after project completion, there is potential for avian collisions to occur frequently enough to result in a potentially significant impact under CEQA. Implementation of mitigation measure MM BIO-4.1 for bird-safe building design, as well as compliance with General Plan Policy 5.3-6 and implementation of Mitigation Measure MM BIO-1.4 would serve to reduce these potential impacts to a **less than significant** level. This measure strengthens the bird-safe building treatments already proposed for the project design.

**MM BIO-4.1 Bird Safe Building Design**

Glazing on identified bird hazards (the east and north facades of Building 1 and all facades of Building 2) will be treated with a bird-safe glazing treatment such that no more than 10% of the total façade area from 0–60 feet above grade consists of untreated glazing. Bird-friendly glazing includes, but is not limited to, opaque glass, covering the outside surface of clear glass with patterns, paned glass with fenestration, frit or etching patterns, and external screens over nonreflective glass. Highly reflective glass is not permitted. Bird-safe glazing shall have the following parameters:

- Vertical elements of the window patterns should be at least 0.25 inches wide at a maximum spacing of four inches and/or have horizontal elements at least 0.125 inches wide at a maximum spacing of two inches; OR
- Bird-safe glazing shall have a Threat Factor less than or equal to 30.

To reduce reflections of clouds and vegetation in glass and help ensure that bird-safe treatments on the lower surfaces of glass are visible below any reflections, all glazing on the buildings will have a visible reflectance of 15% or lower. These features shall be included in final improvement plans.

**Impact BIO-5: The removal of approximately 156 trees for construction for the project could conflict with local policies and ordinances regarding tree preservation. This is a less than significant impact with tree replacement consistent with the City's Tree Ordinance.**

### Construction and Operation

Direct impacts to trees occur through removal. Indirect impacts to trees include disturbance to trees from grading and construction activities that may affect trees or their roots directly from mechanical damage or indirectly due to alterations in soil structure, drainage, microbiology, etc., and tree removal for clearance of land for construction and grading.

As mentioned above, the project would remove approximately 156 trees, 51 of which are considered to have "protected status" in the City of Belmont. Consistent with the City of Belmont Tree Ordinance, permits from the city's planning and building department and payment of fees are required for the removal of any trees which meet the definition of "protected" tree. The removal of trees protected by the City of Belmont's tree ordinance, in the absence of compliance with the city's Municipal Code, would be considered potentially significant.

The City of Belmont General Plan includes policies that protect natural resources such as trees. Compliance with these policies will minimize project impacts on ordinance-sized trees. In addition, consistent with the provisions of the City of Belmont tree protection ordinance, the project will comply with standard City of Belmont tree removal permit conditions and replace trees that are removed in accordance with these policies. Compliance with the applicable General Plan policies and the city Tree Ordinance would reduce any potential impacts to a **less-than-significant** level.

## 7.5.4 Cumulative Impact Analysis

**Impact BIO-6:** **The project could contribute to cumulatively considerable effects on biological resources. This is a less than significant impact.**

The cumulative impact on biological resources resulting from the project, in combination with projected background growth and other projects proposed or approved in the project vicinity, is dependent on the magnitude of adverse effects of these projects on local biological resources. For this project, the geographic extent of the project's cumulative contribution to biological effects is limited to the project site and the reach of Belmont Creek habitat immediately north and south of the project site. Because the project will fully avoid or mitigate biological effects through preventative measures in the immediate vicinity of the site, the project's contribution to any larger effect (such as riparian habitat health, ability of existing habitat to support special status species, and water quality), would be minimal or nonexistent.

All new development projects, including those in neighboring cities, must also comply with conditions of their city approvals as well as the conditions and regulations of any applicable regulatory agency permits, to avoid, minimize, and mitigate impacts on these resources.

The project would implement the identified mitigation measures as necessary to avoid and reduce impacts on biological resources, as described above. As these measures would effectively limit the project's effects at the project site, the projects net contribution to cumulative impacts on biological resources locally would also be **less than significant**.

# 7.6 References

City of Belmont. 2017. *2035 General Plan and EIR*.

H. T. Harvey & Associates. 2022. *1301 Shoreway Road Project Biological Resources Report.*

Trees, Bugs, Dirt Landscape Consulting and Training. 2022. *Arborist Report*.

# 8 Cultural Resources

## 8.1 Introduction

This section describes the project's potential effects on cultural resources that could be caused by project implementation. Cultural resources include archaeological and historic resources. The information in this chapter identifies existing cultural resources and environmental conditions in the area, identifies and analyzes environmental impacts based on accepted thresholds of significance, and identifies measures to reduce or avoid adverse impacts anticipated from project construction, operation, and site disturbance.

This section is based upon, and summarizes, the following cultural and historic resource reports:

- ICF, Archaeological Resources Technical Report, City of Belmont, San Mateo County, California. June 2022 (confidential report on file with the City of Belmont)
- City of Belmont, 2035 General Plan – Land Use Element and Conservation Element, 2017
- City of Belmont, Final Environmental Impact Report for the Belmont General Plan Update, 2017

These reports and their findings are summarized in this section, and care has been taken to protect confidential or culturally sensitive material known to be present in the general vicinity of the project site.

## 8.2 Scoping Issues Addressed

During the NOP public comment and scoping period for the proposed project, the city received a general letter from the Native American Heritage Commission regarding the lead agency's role and responsibilities in compliance with AB 52 and SB 18 (regarding tribal consultation), requirements under the California Environmental Quality Act (CEQA), and recommended mitigation strategies. The Bay Conservation and Development Commission (BCDC) also noted Bay Plan policies and guiding principles related to recognition of California's Native American communities and first inhabitants, and the importance of tribal consultation and outreach. The city's consultation process and cultural/tribal cultural resources are evaluated in this chapter, Chapter 18 (Tribal Cultural Resources) and the supporting technical reports.

## 8.3 Cultural Resources Assessment Methodology

### 8.3.1 Archival and Literature Search

To establish existing conditions, existing records and current Native American tribal contacts, an archival research effort was conducted from the following resources. The research was undertaken to determine if any known archaeological, historic resources, and/or tribal cultural resources were reported in or around the project area.

#### Northwest Information Center Records Search

On March 15, 2022, a records search was conducted by the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) at Sonoma State University (NWIC File No. 21-1497) for the project area. The purpose of this review was to access existing cultural resource survey

reports, archaeological site records, and historic maps to evaluate whether any previously documented prehistoric or historic archaeological sites, architectural resources, cultural landscapes, or other documented resources exist within or near the project site. Other sources of information referenced include the State Office of Historic Preservation (OHP) Archaeological Determinations of Eligibility, California Inventory of Historical Resources, historical maps, and local inventories.

#### NAHC Sacred Lands File Review

On April 5, 2022, ICF submitted a request to the Native American Heritage Commission (NAHC), asking the commission to review its sacred lands file (SLF) to identify Native American cultural resources on or adjacent to the project site. The NAHC maintains the SLF database and is the official state repository of Native American sacred site location records in California.

ICF received a response on April 24, 2022, from Cody Campagne Cultural Resources Analyst at the NAHC stating that "A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative." A list of seven tribes and their contact information was also provided with the NAHC's response.

ICF also conducted an archival map and aerial photograph review, geoarchaeological sensitivity evaluation, and field survey.

### 8.3.2 Site Reconnaissance

On March 31, 2022, ICF archaeologists conducted an intensive pedestrian survey of the entire project area. The survey included careful inspection of all exposed soils for prehistoric and historical period cultural materials, as well as for topographic indicators and soil characteristics that might be evidence of subsurface cultural materials. ICF documented the survey results using field notes, digital photography, and field maps.
The archaeologist found no evidence for previously unknown potentially significant cultural resources during the survey. Similarly, no evidence was found to suggest the presence of potentially significant historical period archaeological resources.

## 8.4 Environmental Setting

The project area is in the eastern portion of the San Francisco Peninsula approximately one mile from the San Francisco Bay and 11 miles east of the Pacific Ocean. The immediate area is low (5 to 10 feet above mean sea level), flat land typical to the San Francisco Bay shore. The northern portion of the Santa Cruz Mountains are about 6 miles to the west. Numerous creeks and small drainages traverse the area trending north and east from the Santa Cruz Mountains to the Bay. The closest of these freshwater features is Belmont Creek that flows east adjacent to and northeast of the project area. Soils consist of Urban land-Orthents, reclaimed complex, 0 to 2 percent slope, and Novato clay, 0 to 1 percent slope. The gentle easterly sloping alluvial plane within the San Mateo Quadrangle is covered by Holocene or latest Pleistocene to Holocene alluvial fan and associated deposits. An office building, constructed in 1983; a surface parking lot; and a basketball court currently occupy the site. The climate is characterized as Mediterranean, with warm dry summers and cooler moist winters.

### 8.4.1 Historic Setting and Resources

#### Regional History

The arrival of the Spanish on the San Francisco Peninsula in the late 18th century catalyzed a series of changes in San Mateo County history. This included Spanish mission construction as well as land grants for ranchos, with titles from the Spanish crown. The result was continuous settlement and growth during the 1848 California gold rush era and expansion of the regional rail system.

Pockets of Spanish settlement along the 600-mile-long trail from San Diego to San Francisco changed the makeup of the population during the period of mission construction. In the late 18th century, the route between missions evolved from a modest dirt path to "El Camino Real," a designated road under the jurisdiction of the Spanish viceroys. El Camino Real ran through present-day San Mateo County and connected Mission Santa Clara in present-day Santa Clara County to Mission Dolores in San Francisco. In 1793, an outpost was created by mission fathers in San Francisco at San Mateo Creek to expand the church within the peninsula region. The outpost was the first building constructed by non-natives in present-day San Mateo County. This further enabled the movement and settlement of people within the region. Over the next century, commercial and industrial development adjacent to El Camino Real increased.

#### San Mateo County

At the turn of the 19th century, large portions of land from Spanish colonization were sold off through land grants. These established ranchos for grazing cattle. Present-day Belmont and much of San Mateo County were part of a Spanish land grant known as Rancho de las Pulgas. The Spanish custom was to award land only to prominent members of the military or government. This reward for public service continued until 1821 when Mexico won its independence from Spain. Mexico began to secularize landownership in the early 1820s by further dividing the land grants.

The 1830s and 1840s saw an explosion in land speculation in the Bay Area as Mexican authorities awarded an unprecedented amount of land to prominent Mexican families in reward for service rendered to the government. The region continued to be divided through the 1848 discovery of gold and the subsequent formation of the State of California, which attracted hundreds of thousands of migrants from other states. The region's growth was so significant that, in 1856, San Mateo County formally separated from San Francisco County. For a brief time, Belmont served as the county seat. Following a highly contested vote, legal action was taken and Redwood City assumed the responsibility.

San Mateo County's proximity to mining areas and growing commercial and industrial markets benefitted the county as railroads were introduced in the 1860s. The opening of railroad service in the county brought about the construction of train stations and complementary commercial development. The first train with direct service to the Belmont area began operating in September 1863. This allowed nearby populations to access vacant land for residential and commercial development. Wealthy San Franciscans procured undeveloped land in San Mateo County and built country estates or large primary residences close to industrial hubs. Many other residential and commercial developments followed in the subsequent decades, given the accessibility of San Mateo County afforded by the railroad.

### City of Belmont

The 20th century saw the population along the peninsula, as well as throughout the Bay Area, continue to grow as personal vehicles grew in popularity. The incorporation of Belmont as a city in San Mateo County in 1926 was complemented by business growth along established commercial roads like El Camino Real and the parallel Old County Road. After World War II, California's population boom and suburbanization increased the demand for metal, concrete, lumber, and other building materials. Concurrently, the development of California's massive freeway system led to an improved infrastructure system that connected the state's most populated cities and towns. San Mateo County, in particular, embraced industrial efforts and general land development following the war. However, by the 1960s, heavy industry was winding down. The emergence of light industry (e.g., distribution centers, office parks, chemical suppliers) marked a transition period for San Mateo County.

In Belmont and the surrounding vicinity, postwar industrial and commercial development took place on the eastern edge of the city—specifically, on light industrial lots, along commercial corridors like Old County Road and the eastern portion of Ralston Avenue, and adjacent to freeways such as U.S. 101. Most postwar industrial properties developed in the 1950s through mid-1960s were associated with light industrial uses, including automotive repair. The buildings were typically utilitarian, with minimal architectural details. They were constructed with metal and wood frames, metal siding, concrete masonry, and reinforced concrete. Between 1946 and 1956, Ralston Avenue was extended beyond U.S. 101 to the east; this spurred development in the vicinity. Land uses in the immediate area were predominantly for public/community facilities as well as office commercial and regional commercial uses. These included community-, visitor-, and retail-serving auto-oriented businesses, such as motels, service stations, and car dealerships. As supplementary roads were created, lodging facilities, corporate campuses, and office complexes with associated surface-level parking lots expanded in the 1970s, 1980s, and 1990s to areas that were off the popular thoroughfares.

## 8.4.2 Precontact Archaeology and Ethnography

### Precontact Archaeology

The precontact cultural chronology for the Bay Area has been developed over a century of organized archaeological survey work, from N. C. Nelson in 1906 to the present. Since the 1950s, archaeological work in Marin, San Francisco, and Contra Costa Counties has led to further refinement of the cultural sequence of the Early Holocene (Lower Archaic), Early Period (Middle Archaic), Lower Middle Period (Initial Upper Archaic), Upper Middle Period (Late Upper Archaic), Initial Late Period (Lower Emergent), and Terminal Late Period (Protohistoric Ambiguities). More detailed information on these early periods is contained within the Cultural Resources Technical Report on file with the City of Belmont.

### Ethnography

The project site is situated within the ancestral territory of the Costanoan, also commonly referred to as the Ohlone. Ohlone territory consisted of the area from the southern edge of the Carquinez Strait to a portion of the Big Sur and Salinas Rivers south of Monterey Bay. It also extended approximately 50 miles inland from the coast.

Ohlone is a sub-family of the Utian language group, which includes the Miwokan languages spoken by tribes in the North Bay, at Clear Lake Basin, and in the Consumnes, Mokelumne, and lower Sacramento River drainages of the Central Valley and western Sierra foothills. Linguists have identified six Ohlone

languages with three dialects (Chochenyo, Ramaytush, and Tamyen) that were spoken within the San Francisco Bay Area. San Mateo county lies near approximate ethnolinguistic boundary between the Tamyen and Ramaytush dialects.

The Ohlone lived in village communities. These autonomous political units occupied a distinct territory. Village communities generally consisted of one main village that was occupied year-round and a series of smaller hamlets and resource gathering and processing locations that were occupied intermittently or seasonally. The tribal population within each territory ranged from 50 to 500 and was largely determined by the carrying capacity of the community's territory. At the time of Euro-American contact, the Lamchin tribe very likely occupied an area that included present-day Belmont.

Ohlone and neighboring groups distributed resources via trade networks to augment local economies. Ohlone traded abalone, mussels, salt, Olivella shells, and bows with the Sierra Miwok and Yokuts to the east. Pinon nuts obtained from the Yokuts are the only ethnographically documented import of the Ohlone, although undoubtedly other significant economic items, including the obsidian used for tools, were imported as well.

By the late 18th century, Spanish exploration and settlement in the Bay Area transformed Ohlone culture. Spanish settlers moved into Northern California and established the mission system. This exposed the Ohlone to diseases to which they had no immunity. The declining birth rates led to a population decline. Following the secularization of the missions in 1834, many Ohlone worked as manual laborers or house servants on ranchos.

### 8.4.3 Previously Identified Cultural Resources

There are no previously recorded cultural resources within the project area. There are nine previously recorded cultural resource studies beyond the project area but within the 0.25-mile buffer. These consisted of record searches, literature reviews, and architectural and archaeological field surveys and test excavations. Of the nine studies, no previously recorded archaeological resources have been identified.

## 8.5 Applicable Regulations, Plans, and Standards

### 8.5.1 Federal

#### National Register of Historic Places Eligibility

The National Historic Preservation Act of 1966 (as amended through 2000) authorizes the National Register of Historic Places (NRHP), a program for the preservation of historic properties ("cultural resources") throughout the Nation. The eligibility of a resource for NRHP listing is determined by evaluating the resource using criteria defined in 36 CFR 60.4 as follows:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, association, and:

- That are associated with events that have made a significant contribution to the broad patterns of our history;
- That are associated with the lives of persons significant in our past;

- That embody the distinctive characteristics of a type, period, or method of construction;
- 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; or,
- That have yielded, or may be likely to yield, information important to prehistory or history.

Unless a site is of exceptional importance, it is not eligible for listing in the NRHP until 50 years after it was constructed.

All properties change over time. Therefore, it is not necessary for a property to retain all its historic physical features or characteristics in order to be eligible for listing on the NRHP. The property must, however, retain enough integrity to enable it to convey its historic identity; in other words, to be recognizable to a historical contemporary. The National Register recognizes seven aspects or qualities that, in various combinations, define integrity:

- Location – the place where the historic property was constructed or the place where the historic event occurred.
- Design – the combination of elements that create the form, plan, space, structure, and style of a property.
- Setting – the physical environment of a historic property.
- Materials – the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
- Workmanship – the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- Feeling – a property's expression of the aesthetic or historic sense of a particular period of time.
- Association – the direct link between an important historic event or person and a historic property (National Park Service, 1990).

To retain historic integrity a property will always possess several, and usually most, of these aspects. In order to properly assess integrity, however, significance (why, where, and when a property is important) must first be fully established. Therefore, the issues of significance and integrity must always be considered together when evaluating a historic property.

### 8.5.2 State

#### CEQA, Archaeological Resources

CEQA and the CEQA Guidelines contain specific standards for determining the significance of impacts to archaeological sites (PRC §21083.2; 14 CCR §15064.5(c)). If the lead agency determines that the project may have a significant effect on unique archaeological resources, the EIR must address those archaeological resources (PRC §21083.2(a)). A "unique archaeological resource" is defined as an "archaeological artifact, object, or site" that, without merely adding to the current body of knowledge:

- Contains information needed to answer important scientific research questions and in which there is a demonstrable public interest;

- Has a special or particular quality such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person. (PRC §21083.2(g)).

Under CEQA, significant impacts on non-unique archaeological resources need not be addressed in an EIR. (PRC §21083.2(a), (h)).

The limitations in PRC §21083.2 relating to unique archaeological resources do not apply to archaeological sites that qualify as "historical resources." (PRC §21083.2(l)). If a lead agency finds that an archaeological site is a historical resource, impact assessment is governed by PRC §21084.1, which provides standards for identification of historical resources (14 CCR §15064.5(c)(2). See §§13.58, 20.94-20.98). The CEQA Guidelines also provide that public agencies should seek to avoid effects that could damage a "historical resource of an archaeological nature" when it is feasible to do so (14 CCR §15126.4(b)(3)).

### Native American Historic Resource Protection Act; Archaeological, Paleontological, and Historical Sites; Native American Historical, Cultural, and Sacred Sites (Pub. Res. Code § 5097-5097.994)

Public Resources Code Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of Native American human remains on non-federal public lands. California Public Resources Code Section 5097.9 states that no public agency or private party on public property shall "interfere with the free expression or exercise of Native American Religion." The Code further states that:

> "No such agency or party [shall] cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine…except on a clear and convincing showing that the public interest and necessity so require."

### Human Remains

Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the NAHC within 24 hours of this identification. The NAHC will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

### CEQA, Historic Resources

CEQA and the CEQA Guidelines contain specific standards for determining the significance of impacts on "historical resources" (PRC §21084.1, 14 CCR §15064.5). A resource listed in the California Register of Historical Resources, or determined by the State Historical Resources Commission to be eligible for listing in the Register, must be treated as an "historical resource" for purposes of CEQA. PRC §21084.1; 14 CCR §15064.5(a)(1). A resource designated as historically significant in a local register of historical resources, or identified as significant in an approved historical resources survey, is presumed to be

significant. The presumption of significance may be overcome if the agency concludes, based on a preponderance of the evidence, that the site is not historically or culturally significant (PRC §21084.1; 14 CCR §15064.5(a)(2)).

A lead agency may also find that a site that does not meet any of these criteria should be treated as a historical resource under CEQA (PRC §21084.1; 14 CCR §15064.5(a)(4)). A lead agency may find that "any object, building, structure, site, area, place, record, or manuscript" is historically significant or significant in the "cultural annals of California" provided that its determination is "supported by substantial evidence in light of the whole record" (14 CCR §15064.5(a)(3)). The guidelines also note that a resource ordinarily should be considered historically significant if it meets the criteria for listing on the California Register of Historical Resources (14 CCR §15064.5(a)(3)).

### California Register of Historical Resources

In order to be determined eligible for listing in the California Register of Historical Resources (CRHR), a property must be significant at the local, State, or national level under one or more of the following four criteria as defined in Public Resources Code 5024.1 and CEQA Guideline 15064.5(a).

- It is associated with events or patterns of events that have made a significant contribution to the broad patterns of the history and cultural heritage of California and the United States.
- It is associated with the lives of persons important to the nation or to California's past.
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- It has yielded, or may be likely to yield, information important to the prehistory or history of the state and the nation.

In addition to meeting one or more of the above criteria, a significant property must also retain integrity. Properties eligible for listing in the CRHR must retain enough of their historic character to convey the reason(s) for their significance. Integrity is judged in relation to location, design, setting, materials, workmanship, feeling, and association.

CEQA defines a substantial adverse change in the significance of a historical resource as a significant effect on the environment (PRC §21084.1; 14 CCR §15064.5(b)). A substantial adverse change means demolition, destruction, relocation, or alteration of the resource or its immediate surroundings resulting in the significance of the resource being materially impaired (14 CCR §15064.5(b)(1)). The significance of a resource is materially impaired when the physical characteristics that convey its historical significance and that justify its designation as a historical resource are demolished or materially altered in an adverse manner (14 CCR §15064.5(b)(2)). Construction of a project in the vicinity of historical structures that does not damage or materially alter any of them is not a substantial adverse change in the significance of a historical resource. *Eureka Citizens for Responsible Gov't v City of Eureka* (2007) 147 CA4th 357, 375.

### California Historical Building Code, California Code of Regulations, Title 24, Part 8

The California Historical Building Code, defined in Sections 18950 to 18961 of Division 13, Part 2.7 of the Health and Safety Code, provides regulations and standards for the rehabilitation, preservation, restoration (including related reconstruction) or relocation of historical buildings or structures deemed by any level of government as having importance to the history, architecture, or culture of an area.

### San Francisco Bay Conservation and Development Commission (BCDC) Bay Plan

The BCDC Bay Plan contains relevant guidelines and polices regarding environmental justice and social equity, specifically concerning indigenous communities. One of BCDC's overarching guiding principles is to "recognize and acknowledge the California Native American communities who first inhabited the Bay Area and their cultural connection to the natural resources of the region." Additionally, policies within the Bay Plan itself include direction such as Public Access Policy No. 5 in Section IV, which states that public access should be welcoming and inclusive, and "embrace local multicultural and indigenous history and presence."

## 8.5.3 Local

### City of Belmont General Plan

General plan policies relative to cultural, historical, archaeological, and tribal cultural resources are identified below. Relevant General Plan Policies that directly address reducing and avoiding cultural, historical, archeological impacts include the following:

**Land Use Element**

**Goal 2.23:** Conserve designated historic and cultural sites and structures that help define Belmont's identity and character.

- Policy 2.23-1: Update the City's inventory of historic resources to ensure that historic resources are preserved and protected in Belmont.
- Policy 2.23-4: Encourage adaptive reuse of historic structures – preserving their original design and character – as an option for preserving sites that are threatened with demolition or degradation.

**Conservation Element**

**Goal 5.12:** Preserve and protect areas and sites of prehistoric, cultural, and archaeological significance.

- Policy 5.12-1: Ensure that development avoids potential impacts to sites suspected of being archeologically, paleontologically, or culturally significant, tribal or otherwise, or of concern by requiring appropriate and feasible mitigation.
- Policy 5.12-2: If cultural, archaeological, paleontological, or cultural resources, tribal or otherwise, are discovered during construction, grading activity in the immediate area shall cease and materials and their surroundings shall not be altered or collected until evaluation by a qualified professional is completed.
    - A qualified archaeologist or paleontologist must make an immediate evaluation and avoidance measures or appropriate mitigation should be completed, according to CEQA Guidelines.
    - Use the State Office of Historic Preservation's recommendations for the preparation of Archaeological Resource Management Reports as guidelines.

## 8.6 Environmental Impacts and Mitigation Measures

### 8.6.1 Significance Criteria

The following significance criteria for cultural and tribal cultural resources were derived from the Environmental Checklist in CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address lead agency requirements and the full range of potential impacts related to this project.

An impact of the project would be considered significant and would require mitigation if it would meet one of the following criteria.

- Cause a substantial adverse change in the significance of a historic resource pursuant to CEQA Guidelines 15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource (CEQA Guideline 15064.5).
- Disturb any human remains, including those interred outside of formal cemeteries.

To the extent any cultural resource is identified as relevant to the analysis, its significance as a cultural resource deposit and subsequently the significance of any impact is determined, in part, by whether or not that deposit can increase our knowledge of the past. Key determining factors, among others, are site content and degree of preservation. A finding of archaeological significance follows the criteria established in the CEQA *Guidelines*.

Section 15064.5 of the CEQA *Guidelines* define four ways that a property can qualify as a significant historical resource for purposes of CEQA compliance:

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

- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

- The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

Historical resources are "significantly" affected if there is demolition, destruction, relocation, or alteration of the resource or its surroundings. Preservation in place is typically viewed as the preferred form of mitigation for a "historical resource of an archaeological nature" as it retains the relationship between artifact and context, and may avoid conflicts with groups associated with the site [PRC 15126.4 (b)(3)(A)]. In general, historical resources of an archaeological nature and "unique archaeological resources" typically can be mitigated to below a level of significance by:

- Relocating construction areas such that the site is avoided;
- Incorporation of sites within parks, greenspace, or other open space;
- "Capping" or covering the site with a layer of chemically stable soil before building; or
- Deeding the site into a permanent conservation easement. [PRC 15126.4 (b)(3)(B)]

If an archaeological resource does not meet either the historical resource or the more specific "unique archaeological resource" definition, impacts to such a resource would not be considered significant for purposes of CEQA and therefore would not require mitigation under CEQA [13 PRC 15064.5 (e)]. Where the significance of a site is unknown, it may be presumed to be significant for the purpose of the EIR investigation with appropriate mitigation identified.

### 8.6.2 Impact Assessment Methodology

For cultural resources, impact assessment is based on a comparison of known resource locations with the placement of ground disturbing project activities that have the potential to remove, relocate, damage, or destroy the physical evidence of past cultural activities. If such ground disturbance overlaps recorded site locations, then a direct impact may occur. Historical buildings and structures may be directly impacted if the nearby setting and context is modified substantially, even if the building or structure itself is not physically affected. Indirect impacts may occur if activities occur near, but not directly on, known cultural resources.

### 8.6.3 Summary of No and/or Beneficial Impacts

Not applicable. The potential for adverse effects upon historic or archaeological resources based on the thresholds of significance warrants evaluation.

### 8.6.4 Impacts of the Project

**Impact CR-1: The project would not result in a substantial adverse change to a historical resource as defined by the significance criteria established by CEQA. This is a less than significant impact.**

For the purposes of this analysis, it is important to note that while the existing project area consists of a developed lot, there are no identifiable historic resources present on the project site. The existing office building on site was constructed in 1983 and is not eligible for historical listing designation in the California Register, the National Register, or the city's Historical Resource Inventory. Further, no other nearby structures would be affected directly or indirectly by the development of the proposed project regardless of potential historic status. For this reason, potential impacts to historic resources would be **less than significant**.

**Impact CR-2: The project has the potential to cause a substantial adverse change to unknown archaeological and cultural resources. This is a less than significant impact with mitigation incorporated.**

#### Construction and Operation

The project site has been extensively developed. As indicated previously, the archaeologist found no evidence for previously unknown potentially significant cultural resources during the literature search and site survey. All exposed soils were inspected for precontact archaeological materials (e.g., stone tools, lithic debitage, ground stone), historic-period artifacts (e.g., metal, glass, ceramics), and discoloration that might indicate the presence of archaeological deposits. No other evidence for use of the property during prehistoric times (such as charred faunal remains, marine shell, fire affected rock, or charcoal) was observed. Similarly, no evidence was found to suggest the presence of potentially significant historical period archaeological resources.

Historic-period maps and aerial photographs indicate that the project site was an undeveloped salt marsh until mid-20th century; therefore, it is unlikely that any historic-period archaeological deposits are located within the project site. A review of geologic maps revealed that the project site contains surface-exposed geologic units from the Pleistocene-to-Holocene transition and from the 20th century. The former has low to moderate sensitivity for buried archaeological resources, while the latter has a high degree of sensitivity for buried archaeological resources.

Despite the negative results of the records search and field survey, archaeological cultural resources could be encountered during project construction activities, and geologic mapping indicates the potential for sub surface resources. Should such deposits be encountered during ground disturbance, a substantial adverse change in the significance of a cultural resource could occur from its demolition, destruction, relocation, or alteration, and the significance of the resource would be materially impaired (CEQA Guidelines Section 15064.5[b][1]). To mitigate this potential impact, mitigation is presented below with respect to encountering unanticipated finds during project construction. These recommendations are consistent with Policies 5.12-1 and 5.12-2 of the City of Belmont 2035 General Plan.

### MM CR-2.1 Cultural Resource Awareness Training

Prior to any project-related ground disturbance, all construction workers shall receive training overseen by a qualified professional archaeologist who is experienced in teaching non-specialists to ensure that contractors can recognize archaeological resources in the event that any are discovered during construction. The construction staff directly overseeing excavation, or operating ground-disturbing vehicles, will be required to participate in this preconstruction training.

### MM CR-2.2 Inadvertent Discovery of Archaeological Resources

If unknown precontact or historic-period archaeological materials are encountered during project activities, all work in the immediate vicinity of the find shall halt until a qualified archaeologist can evaluate the find and make recommendations. Cultural resources materials may include precontact resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants. If the qualified archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations shall be required to mitigate adverse impacts from project implementation. These additional studies may include, but are not limited to, recordation, archaeological excavation, or significance evaluation.

The applicant shall inform its contractor(s) of the sensitivity of the project site for archaeological deposits and include the following directive in the appropriate contract documents:

"The subsurface of the construction site may contain archaeological deposits. If archaeological deposits are encountered during project subsurface construction, all ground-disturbing activities within 25 feet shall be redirected and a qualified archaeologist shall assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. Project personnel shall not collect or move any archaeological materials. Archaeological deposits can include, but are not limited to, shellfish remains; bones, including human remains; flakes of, and tools made from, obsidian, chert, and basalt; mortars and pestles; historical trash deposits containing glass, ceramics, and metal artifacts; and structural remains, including foundations and wells."

The City shall verify that the language has been included in the grading plans prior to issuance of a grading permit or permit for other project actions that include ground-disturbing activities on the project site.

Because the project location is situated within a moderate to high sensitivity area for unrecorded historic-period archaeological resources, there is a potential these archaeological resources to be encountered during project construction. Implementation of the mitigation measures listed above would effectively reduce project-specific impacts to a less than significant level by training personnel directly involved in project related ground disturbance and construction activities, and by halting work in the

event that cultural resources are identified. Implementation of the mitigation measures and compliance with existing codes and regulations for the treatment of these resources pursuant to established standards would reduce potential impacts to a **less than significant** level.

### Impact CR-3: The project has the potential to cause a disturbance to human remains, including those interred outside of dedicated cemeteries. This is a less than significant impact with mitigation incorporated.

#### Construction and Operation

As indicated previously, the archaeologist found no evidence for previously unknown potentially significant cultural resources during the literature search and site survey. As a result, no evidence suggests that any prehistoric or historic-era marked or un-marked human interments are present within or in the immediate vicinity of the project site. However, the location of grave sites and Native American remains can occur outside of identified cemeteries or burial sites. Therefore, there is a possibility that unmarked, previously unknown Native American or other graves could be present within the project site and could be uncovered by project-related construction activities.

California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Sections 7050.5 and PRC Section 5097. These statutes require that, if human remains are discovered during any construction activities, potentially damaging ground-disturbing activities around the remains shall be halted immediately, and the San Mateo County coroner and Native American Heritage Commission (NAHC) shall be notified immediately, in accordance with to PRC Section 5097.98 and Section 7050.5 of California's Health and Safety Code. If the remains are determined by NAHC to be Native American, the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains.

Following the coroner's findings, the archaeologist, the NAHC-designated Most Likely Descendant (MLD), and the landowner shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94.

Compliance with California Health and Safety Code Sections 7050.5 and PRC Section 5097 would provide an opportunity to avoid or minimize the disturbance of human remains, and to appropriately treat any remains that are discovered. Nonetheless, future ground disturbing activities during grading and construction activities could encounter buried human remains that were not identified during the cultural resource report conducted for the proposed project. This could result in damage to unknown, buried human remains and mitigation would be required. With implementation of Mitigation Measure MM CR-3.1, impacts would be less than significant.

#### MM CR-3.1 Inadvertent Discovery of Human Remains

In the event that human remains are identified during project construction, the remains will be treated in accordance with California Health and Safety Code Section 7050.5 and PRC Section 5097.98, as appropriate. In the event of the discovery or recognition of any human remains in any location other than a dedicated cemetery, Section 7050.5 of the

California Health and Safety Code states that there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains were discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the NAHC within 24 hours of identification. The NAHC will identify a Native American MLD to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. PRC Section 5097.98 states that the NAHC, upon notification of the discovery of Native American human remains, pursuant to California Health and Safety Code Section 7050.5, shall immediately notify those persons (i.e., the MLD) it believes to be descended from the deceased. With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for the treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

#### Conclusion

The location of grave sites and Native American remains can occur outside of identified cemeteries or burial sites. There is a potential previously unknown Native American or other graves could be present within the project site and encountered during project construction. Implementation of the mitigation measure listed above would effectively reduce project-specific impacts to a less than significant level by halting work and notifying the appropriate designated contacts per California Health and Safety Code and Public Resource Code in the event that human remains are identified. Implementation of the mitigation measure and compliance with existing codes and regulations for the treatment of remains pursuant to established standards would reduce potential impacts to a **less than significant** level.

### 8.6.5 Cumulative Impact Analysis

The geographic extent of cumulative impacts to cultural resources is highly dependent on the resources under discussion. For example, a cumulative effect within a historic landscape or district may extend across the district, while the cumulative effects associated with individual archaeological or paleontological resources may be limited in scope to the immediate project site, depending on the nature of the resources.

**Impact CR-4: The project may incrementally contribute to the cumulative change or disturbance to historic or prehistoric resources known to exist in the vicinity of the project. This would result in a less than significant cumulative effect on cultural resources.**

For cultural resources, the scope for assessing cumulative impacts encompasses other past, current, or probable future projects under review by the City of Belmont and neighboring communities. The geographic context for cumulative effects, as established in Chapter 4, consists of projected regional growth as well as projects proposing intensification of development near the project site. The proposed

project would have a significant effect on the environment if it would contribute to an identifiable or forecasted significant cumulative impact on historic or cultural resources.

Because the project site is not part of a larger historic district or identified cultural resource landscape, the potential effects of the project upon yet undiscovered cultural resources are site specific. Other development that could occur pursuant to individual applications would be equally site specific, and there is no evidence in the record of some common, larger resource in this area that the project site could contribute to.

When the city considers future development proposals, these proposals would undergo environmental review pursuant to CEQA and, when necessary, mitigation measures would be adopted as appropriate. In most cases, this environmental review and compliance with project conditions of approval and relevant policies of the General Plan would ensure that significant impacts on cultural resources would be avoided or otherwise mitigated to less-than-significant levels. Therefore, the potential for significant cumulative effects associated with the project is considered **less than significant**.

## 8.7 References

City of Belmont. 2017. *2035 General Plan and EIR*.

ICF. 2022. *Archaeological Resources Technical Report, City of Belmont, San Mateo County, Californi*a.

# 9 Energy

## 9.1 Introduction

This section describes the project's energy demands, changes in energy consumption, and effects of available energy conservation measures that could be applied to the project. Information used to prepare this section came from the following resources:

- California Emissions Estimator Model (CalEEMod) projections (see **Appendix B**)
- California Energy Commission (CEC)
- California Environmental Quality Act (CEQA) Air Quality Guidelines
- California Public Utilities Commission (CPUC)
- U.S. Energy Information Administration (EIA)
- City of Belmont, 2035 General Plan – Circulation Element and Conservation Element, 2017

## 9.2 Scoping Issues Addressed

During the NOP public comment and scoping period for the proposed project, several comments were received regarding the potential for higher energy use of life science laboratories. Projected energy use is addressed in this chapter.

## 9.3 Environmental Setting

This section identifies and evaluates potential energy impacts of the project, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy to ensure that energy implications are considered in project-related decision-making processes. The Environmental Setting describes the existing setting of the project site as it relates to energy conservation; Regulatory Setting identifies associated regulatory conditions and requirements; and Environmental Impacts and Mitigation presents the criteria used to evaluate potential impacts related to use of fuel and energy upon implementation of the project and where applicable, identifies additional site-specific mitigation measures. This analysis considers the electricity, natural gas, and transportation fuel (petroleum) demands of the project, as well as potential service delivery impacts. This section is closely related to Chapter 11 (Greenhouse Gas Emissions). Where appropriate, and to minimize redundancy, cross references to the applicable analysis contained within the Greenhouse Gas Emissions chapter is provided.

### 9.3.1 California's Energy Use and Supply

Californians consumed 203,257 gigawatt hours (GWh)[1] of electricity in 2022, which is the most recent year for which data is available.[2] Of this total, San Mateo County consumed 4,177 GWh.[3] In 2022, the California electricity mix included natural gas (36.38 percent), coal (2.15 percent), large hydroelectric plants (9.24 percent), nuclear (9.18 percent), oil (0.2 percent), petroleum coke/waste heat (0.11 percent) and unspecified sources of power (7.11). The remaining 35.63 percent was supplied from renewable resources, such as wind, solar, geothermal, biomass, and small hydroelectric facilities.[4]

Energy use is typically quantified using the British Thermal Unit (BTU), a unit of heat defined as the amount of heat energy required to raise one pound-mass of water by one degree Fahrenheit. Total energy use in California was 7,359 trillion BTU in 2021 (the most recent year for which this specific data is available), with a total consumption per capita being 175 million BTU. The State is the second largest consumer of energy in the U.S. but ranks 50$^{th}$ for energy consumption on a per capita basis. Of California's total energy use, the breakdown by sector is approximately 39.8 percent transportation, 23.2 percent industrial, 18.9 percent commercial, and 18.1 percent residential. Electricity and natural gas in California are generally used by stationary sources such as residences, commercial sites, and industrial facilities, whereas petroleum use is generally accounted for by transportation-related energy use.[5]

### 9.3.2 Current Energy Providers

#### Pacific Gas and Electric Company

Electricity in San Mateo County is primarily provided by the Pacific Gas and Electric Company (PG&E). The PG&E 2022 power mix was as follows:38 percent renewable, 49 percent nuclear, 8percent large hydro, and 5 percent natural gas.[6]

The electricity consumption attributable to San Mateo County from 2011 to 2022 is shown in Table 9-1: Electricity Consumption in San Mateo 2011-2022. As indicated in Table 9-1: Electricity Consumption in San Mateo 2011-2022, energy consumption in San Mateo County has decreased between 2011 and 2022.

[1] A watt hour is a unit of energy equivalent to one watt of power expended for one hour. For example, a typical light bulb is 60 watts, meaning that if it is left on for one hour, 60-watt hours have been used. One kilowatt equals 1,000 watts. The consumption of electrical energy by homes and businesses is usually measured in kilowatt hours (kWh). Some large businesses and institutions also use megawatt hours (MWh), where one MWh equals 1,000 kWh. One gigawatt equals 1,000 megawatts, or 1,000,000 kilowatts. The energy output of large power plants over long periods of time, or the energy consumption of jurisdictions, can be expressed in gigawatt hours (GWh).
[2] California Energy Commission (CEC). California Energy Consumption Database. Available at: http://www.ecdms.energy.ca.gov. Accessed May 14, 2024.
[3] California Energy Commission (CEC). Total System Electric Generation. Available at: http://www.ecdms.energy.ca.gov/elecbycounty.aspx. Accessed May 15, 2024.
[4] California Energy Commission. 2022 Total System Electric Generation.
[5] US Energy Information Agency (USEIA) (2021). *California State Energy Profile*. Available at https://www.eia.gov/state/print.php?sid=CA. Accessed May 13, 2024.
[6] PG&E. 2022. Clean Energy Solutions. https://www.pge.com/en/about/corporate-responsibility-and-sustainability/taking-responsibility/clean-energy-solutions.html#cleanenergyelectricpowermix. Accessed May 29, 2024.

**Table 9-1: Electricity Consumption in San Mateo 2011-2022**

| Year | Electricity Consumption (in millions of kilowatt hours) |
|---|---|
| 2012 | 4,497 |
| 2013 | 4,515 |
| 2014 | 4,439 |
| 2015 | 4,420 |
| 2016 | 4,329 |
| 2017 | 4,343 |
| 2018 | 4,242 |
| 2019 | 4,326 |
| 2020 | 4,152 |
| 2021 | 4,093 |
| 2022 | 4,177 |

Source: CEC, Energy Consumption Database, 2024.

PG&E operates one of the largest natural gas distribution networks in the country, including approximately 42,141 miles of natural gas transmission distribution and 6,438 miles of pipelines (PG&E, 2024). In all, PG&E delivers gas to approximately 5.5 million electric customer accounts and approximately 4.5 million electric customer accounts in Northern and Central California, including in San Mateo County.

The natural gas consumption in San Mateo County from 2011 to 2022 is shown in Table 9-2: Natural Gas Consumption in San Mateo County 2011-2022. Similar to energy consumption, natural gas consumption in San Mateo County has decreased slightly from 2011 to 2022, with no substantial increase.

**Table 9-2: Natural Gas Consumption in San Mateo County 2011-2022**

| Year | Natural Gas Consumption (in millions of therms) |
|---|---|
| 2011 | 227 |
| 2012 | 224 |
| 2013 | 228 |
| 2014 | 193 |
| 2015 | 194 |
| 2016 | 200 |
| 2017 | 211 |
| 2018 | 210 |
| 2019 | 214 |
| 2020 | 200 |
| 2021 | 205 |
| 2022 | 204 |

Source: CEC, Energy Consumption Database, 2024.

The California Public Utilities Commission (CPUC) regulates California natural gas rates and natural gas services, including in-state transportation over transmission and distribution pipeline systems, storage, procurement, metering, and billing. Most of the natural gas used in California comes from out-of-state natural gas basins.

California's regulated utilities do not own any natural gas production facilities. All natural gas sold by these utilities must be purchased from suppliers or marketers. The price of natural gas sold by suppliers and marketers was deregulated by the Federal Energy Regulatory Commission in the mid-1980s and is determined by market forces. However, the CPUC decides whether California's utilities have taken reasonable steps to minimize the cost of natural gas purchased on behalf of its core customers.

As indicated in the preceding discussion, natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available through existing delivery systems, thereby increasing the availability and reliability of resources.

#### Transportation Fuels

California's transportation sector uses roughly half of the energy consumed in the state. In 2023, Californians consumed approximately 15.3 billion gallons of gasoline and 3.7 billion gallons of diesel fuel.[7] Automotive fuel consumption was estimated using California Air Resources Board (CARB) Emissions Factor (EMFAC) 2021 computer program for typical daily fuel use in San Mateo County.

## 9.4 Regulatory Setting

This section presents legislation and regulations specifically related to energy conservation. See also Chapter 6 (Air Quality), Chapter 11 (Greenhouse Gas Emissions), and Chapter 17 (Transportation and Circulation), for other policies related to energy use. See Chapter 19 (Utilities and Service Systems) for policies related to water consumption. Federal, state, and local agencies regulate energy use and consumption through various means and programs. On the federal level, the U.S. Department of Transportation, the U.S. Department of Energy, and the U.S. Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. On the state level, the CPUC and CEC are two agencies with authority over different aspects of energy. Relevant federal, state, and local energy-related regulations are summarized below.

### 9.4.1 Federal

#### Energy Policy Act of 2005

The Energy Policy Act of 2005 sets equipment energy efficiency standards and seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under the Act, consumers and businesses can attain Federal tax credits for purchasing fuel-efficient appliances and products, including hybrid vehicles; constructing energy-efficient buildings; and improving the energy efficiency of commercial buildings. Additionally, tax credits

[7] California Air Resources Board (CARB), 2024, *EMFAC Emissions Inventory*. https://arb.ca.gov/emfac/emissions-inventory.

are available for the installation of qualified fuel cells, stationary micro-turbine power plants, and solar power equipment.

#### Energy and Independence Security Act of 2007

The Energy Independence and Security Act (EISA; Public Law 110-140) was signed into law by President George W. Bush on December 19, 2007. The Act's goal is to achieve energy security in the United States by increasing renewable fuel production, improving energy efficiency and performance, protecting consumers, improving vehicle fuel economy, and promoting research on greenhouse gas (GHG) capture and storage. Under the EISA, the Renewable Fuel Standard (RFS) program (RFS2) was expanded in several keyways:

- Expanded the RFS program to include diesel, in addition to gasoline;
- Increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022;
- Established new categories of renewable fuel and set separate volume requirements for each; and
- Required the U.S. Environmental Protection Agency (EPA) to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

RFS2 lays the foundation for achieving significant reductions of GHG emissions from the use of renewable fuels, for reducing imported petroleum, and encouraging the development and expansion of our nation's renewable fuels sector.

The EISA also includes a variety of new standards for lighting and for residential and commercial appliance equipment. The equipment includes residential refrigerators, freezers, refrigerator-freezers, metal halide lamps, and commercial walk-in coolers and freezers.

### 9.4.2 State

The discussion below focuses primarily on those policies, regulations, and laws that directly pertain to energy-related resources. Refer to Chapter 11, Greenhouse Gas Emissions, of this EIR, which addresses various policies, regulations, and laws targeted to the reduction of greenhouse gas (GHG) emissions that are expected to achieve co-benefits in the form of reduced demand for energy-related resources and enhanced efficiencies in the consumption of energy-related resources.

#### Assembly Bill 32 and Senate Bill 32

California's major initiative for reducing GHG emissions is outlined in Assembly Bill (AB) 32, the "California Global Warming Solutions Act of 2006." AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Reductions in overall energy consumption have been implemented to reduce emissions. See *Section 4.7, Greenhouse Gas Emissions,* of this Draft EIR for a further discussion of AB 32.

In September 2016, the Governor signed into legislation SB 32, which builds on AB 32 and requires the state to cut GHG emissions to 40 percent below 1990 levels by 2030. With SB 32, the Legislature also passed AB 197, which provides additional direction for updating the Scoping Plan to meet the 2030 GHG reduction target codified in SB 32. The California Air Resources Board (CARB) has published a draft update to the Scoping Plan and has received public comments on this draft but has not released the final version.

Additional energy efficiency measures beyond the current regulations are needed to meet these goals as well as the AB 32 GHG reduction goal of reducing Statewide GHG emissions to 1990 levels by 2020 and the SB 32 goal of 40 percent below 1990 levels by 2030 (see *Section 4.7, Greenhouse Gas Emissions*, for a discussion of AB 32 and SB 32). Part of the effort in meeting California's long-term reduction goals include reducing petroleum use in cars and trucks by 50 percent, increasing from one-third to more than one-half of California's electricity derived from renewable sources, doubling the efficiency savings achieved at existing buildings and making heating fuels cleaner; reducing the release of methane, black carbon, and other short-lived climate pollutants, and managing farm and rangelands, forests, and wetlands so they can store carbon.

#### California Building Energy Efficiency Standards: Title 24, Part 6 (California Energy Code)

Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations [CCR], Title 24, Part 6), commonly referred to as "Title 24", California's energy efficiency standards for residential and non-residential buildings, was established by the California Energy Commission (CEC) in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption, and provide energy efficiency standards for residential and non-residential buildings. The 2022 Building Energy Efficiency Standards, which took effect on January 1, 2023, promote photovoltaic (PV) systems in newly constructed buildings, electric ready requirements in new homes, and new electric heat pump requirements for buildings. The California Building Energy Efficiency Standards (CBEES) updates focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings and include requirements that will enable both demand reductions during critical peak periods and future solar electric and thermal system installations.

The Title 24, Part 6 was created as part of the California Building Standards Code by the California Building Standards Commission in 1978 to establish statewide building energy efficiency standards to reduce California's energy use. These standards include provisions applicable to all buildings, residential and non-residential, which describe requirements for documentation and certificates that the building meets the standards. These provisions include mandatory requirements for efficiency and design of the following types of systems, equipment, and appliances:

- Air Conditioning Systems
- Heat Pumps
- Water Chillers
- Gas- and Oil-Fired Boilers
- Cooling Equipment
- Water Heaters and Equipment
- Pool and Spa Heaters and Equipment

- Gas-Fired Equipment Including Furnaces and Stoves/Ovens
- Windows and Exterior Doors
- Joints and Other Building Structure Openings (Envelope)
- Insulation and Cool Roofs
- Lighting Control Devices
- Solar PV Systems

The standards include additional mandatory requirements for space conditioning (cooling and heating), water heating, indoor and outdoor lighting systems, as well as equipment in non-residential, high-rise residential, and hotel or motel buildings. Mandatory requirements for low-rise residential buildings cover indoor and outdoor lighting, fireplaces, space cooling and heating equipment (including ducts and fans), and insulation of the structure, foundation, and water piping. The standards require solar PV systems for new homes. In addition to the mandatory requirements, the standards call for further energy efficiency that can be provided through a choice between performance and prescriptive compliance approaches. Separate sections apply to low-rise residential and to non-residential, high-rise residential, and hotel or motel buildings. In buildings designed for mixed use (e.g., commercial and residential), each section must meet the standards applicable to that type of occupancy.

The performance approach set forth under these standards provides for the calculation of an energy budget for each building and allows flexibility in building systems and features to meet the budget. The energy budget addresses space-conditioning (cooling and heating), lighting, and water heating. Compliance with the budget is determined using a CEC-approved computer software energy model. The alternative prescriptive standards require demonstrating compliance with specific minimum efficiency for components of the building such as building envelope insulation R-values, fenestration (areas, U-factor and solar heat gain coefficients of windows and doors) and heating and cooling, and water heating and lighting system design requirements. These requirements vary depending on the building's location in the State's 16 climate zones.

The CBEES are updated on an approximately three-year cycle as technology and methods have evolved. As a result of new law under AB 970, passed in the fall of 2000 in response to the State's electricity crisis, an emergency update of the standards went into effect in June 2001. The CEC then initiated an immediate follow-on proceeding to consider and adopt updated standards that could not be completed during the emergency proceeding. The CBEES updates focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings, and include requirements that will enable both demand reductions during critical peak periods and future solar electric and thermal system installations.

#### California Green Building Standards

The California Green Building Standards Code (CCR, Title 24, Part 11), commonly referred to as the CALGreen Code, is a Statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. The CALGreen Code requires new residential and commercial buildings to comply with mandatory measures under five topical areas: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. The CALGreen Code also provides voluntary tiers and measures that local governments may adopt which

encourage or require additional measures in the five green building topics. The most recent CALGreen Code was adopted in 2022 and went into effect January 1, 2023.

#### 2008 California Energy Action Plan Update

The 2008 Energy Action Plan (EAP) Update provides a status update to the 2005 EAP II, which is the State of California's principal energy planning and policy document. The 2008 EAP continues the goals of the original EAP and describes a coordinated implementation plan for State energy policies, and identifies specific action areas to ensure that California's energy is adequate, affordable, technologically advanced, and environmentally sound. First-priority actions to address California's increasing energy demands are energy efficiency, demand response (i.e., reduction of customer energy usage during peak periods in order to address system reliability and support the best use of energy infrastructure), and the use of renewable sources of power. If these actions are unable to satisfy the increasing energy and capacity needs, the plan supports clean and efficient fossil-fired generation.

#### 2006 Appliance Efficiency Regulations

The CEC adopted Appliance Efficiency Regulations (Title 20, CCR §§1601 through 1608) on October 11, 2006. The regulations were approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. While these regulations are now often viewed as "business-as-usual," they exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

#### Executive Order B-30-15, Senate Bill 350, and Senate Bill 100

In April 2015, the Governor issued Executive Order B-30-15, which established a GHG reduction target of 40 percent below 1990 levels by 2030. SB 350 (Chapter 547, Statutes of 2015) advanced these goals through two measures. First, the law increases the renewable power goal from 33 percent renewables by 2020 to 50 percent by 2030. Second, the law requires the CEC to establish annual targets to double energy efficiency in buildings by 2030. The law also requires the California Public Utilities Commission (CPUC) to direct electric utilities to establish annual efficiency targets and implement demand-reduction measures to achieve this goal. In 2018, SB 100 revised the goal of the program to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045.

### 9.4.3 Regional

#### Peninsula Clean Energy Integrated Resource Plan

The Peninsula Clean Energy (PCE) Strategic Integrated Resource Plan (IRP) provides guidance for serving the electric needs of the residents and businesses in San Mateo County while meeting PCE's policy objectives and regulatory requirements over a 10-year planning period from 2018-2027. This Strategic IRP addresses how PCE will meet the following targets by managing a portfolio of energy and capacity resources to:

- Meet California's Renewable Portfolio Standards (RPS) requirements of 50 percent of retail electricity sales to come from renewable energy sources by 2030.

- Provide the necessary capacity reserves to meet California's Resource Adequacy (RA) regulatory requirements for load-serving entities.
- Maintain a minimum renewable energy content of 50 percent for its ECOplus product, and 100 percent for its ECO100 product, while working towards a goal of increasing PCE's renewable content to 100 percent renewable energy for all PCE customers by 2025.
- Meet its GHG-free target of 85 percent for 2018 and increase its GHG-free energy by 5 percent per year to 100 percent GHG-free in 2021. (This target was met in 2021 based on PCE's most recent two-year report to California Public Utilities Commission [CPUC]).[8]

### 9.4.4 Local

#### City of Belmont Climate Action Plan

The City of Belmont finalized a Climate Action Plan (CAP) in December 2017 to present goals and measures for reducing the city's GHG emissions. A 2005 emissions inventory determined that the city produced 167,648 metric tons (MT) of $CO_2e$. Transportation accounted for approximately 60 percent of the city's total emissions.

Given the high projected business-as-usual emissions forecast for 2020, the city's emissions reduction goal was established as 15 percent below 2005 levels by 2020 through implementation of the CAP. In line with the City of Belmont's General Plan update to 2035, the CAP also sets a second GHG reduction target of 50 percent below 2005 levels by 2035. To achieve this emissions reduction goal, the CAP structured objectives around four general categories: energy use in buildings, transportation and land use, waste, and adaptation.

#### City of Belmont General Plan

Project relevant general plan policies for energy conservation are addressed in this section. Where inconsistencies exist, if any, they are addressed in the respective impact analysis below. Relevant General Plan Policies that directly address reducing and avoiding energy impacts include the following:

**Circulation Element**

- Policy 3.2-1: Promote energy efficiency and accommodate new and improved technology, such as alternative fuel vehicles, in meeting transportation needs.

#### Belmont City Code

##### Chapter 7 Article XV – Green Building Requirements

Belmont City Code Chapter 7, Article XV is in place to encourage green building practices in the design, construction, and maintenance of buildings. The green building requirements seek to minimize the use of energy, water, and other natural resources and promote a healthy, productive indoor environment, by implementing compliance thresholds for projects subject to city review.

[8] Peninsula Clean Energy, November 1, 2022, *Standard Load Serving Entity (LSE) Plan*, accessed March 12, 2024, https://www.peninsulacleanenergy.com/wp-content/uploads/2022/10/Attachment-A-pcea_public_v1.pdf.

## 9.5 Environmental Impacts and Mitigation Measures

### 9.5.1 Significance Criteria

The following significance criteria for Energy were derived from the Environmental Checklist in State CEQA Guidelines Appendix G. An impact of the project would be considered significant and would require mitigation if it would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The analysis below generally follows Appendix F of the State CEQA Guidelines, which states that the goal of conserving energy includes decreasing overall per capita energy consumption; decreasing reliance on fossil fuels such as coal, natural gas/propane, and oil; and increasing reliance on renewable energy.

### 9.5.2 Study Methodology

In CEQA Guidelines Appendix G, in order to ensure energy implications are considered in project decisions, CEQA identifies that EIRs include a discussion of the potential impacts of proposed projects, with particular emphasis on avoiding or reducing wasteful, unnecessary, or inefficient use of energy resources as applicable. Environmental effects may include the project's energy requirements and its energy use efficiencies by amount and fuel type during demolition, construction, and operation; the effects of the project on local and regional energy supplies; the effects of the project on peak and base period demands for electricity and other forms of energy; the degree to which the project complies with existing energy standards; the effects of the project on energy resources; and the project's projected transportation energy use requirements and its overall use of efficient transportation alternatives, if applicable. The energy and fuel usage information provided in this section is based on the following:

- **Building Energy:** Electricity and natural gas usage associated with building energy that would be generated by land uses accommodated under the project are based on CalEEMod default electricity and natural gas rates. New buildings are modeled to comply with the 2022 Building Energy Efficiency Standards.

- **On-Road Vehicle Fuel Usage:** Fuel usage associated with operation-related vehicle trips in addition to construction-related vehicle trips (i.e., worker and vendor trips) are based on fuel usage data obtained from EMFAC 2021, Version 1.0.2, and on vehicle trip generation and Vehicle Miles Traveled (VMT) data provided the applicant or the CEQA transportation study.

- **Off-Road Equipment Fuel Usage:** Fuel usage for construction-related off-road equipment are based on fuel usage data obtained from OFFROAD2021, Version 1.0.4, and on the equipment mix and operations anticipated for the project.

### 9.5.3 Summary of No and/or Beneficial Impacts

Not applicable.

### 9.5.4 Impacts of the Proposed Project

This section analyzes energy use on three sources of energy that are relevant to the project, including electricity, natural gas, and transportation fuel for vehicle trips associated with new development, as well as the fuel necessary for project construction. The analysis of project electricity and natural gas use is based on CalEEMod, which quantifies energy use for occupancy. The results of CalEEMod are included in the Air Quality and Greenhouse Gas Technical Report and Health Risk Assessment located in **Appendix B**. Modeling related to project energy use was based primarily on the default settings in CalEEMod. The amount of operational fuel use was estimated using CalEEMod outputs for the project and the EMFAC 2021 computer program for typical daily fuel use in San Mateo County. Construction fuel was calculated based on CalEEMod emissions outputs.

**Impact ER-1: The project could result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. This is a less than significant impact.**

#### Construction

The proposed development includes 542,035 square feet of employment uses (e.g. office and laboratory space); including two office and laboratory buildings, a 442,690 square foot parking garage, and landscape improvements including a central courtyard. The energy consumption associated with the project includes electricity usage associated with water usage for dust control, diesel fuel consumption from on-road hauling trips and off-road construction diesel equipment, and gasoline consumption from on-road worker commute and vendor trips. Temporary electric power for as-necessary lighting and electronic equipment (such as computers inside temporary construction trailers, and heating, ventilation, and air conditioning) would be powered by a generator. The amount of electricity used during construction would be minimal; typical demand would stem from the use of electrically powered hand tools and several construction trailers by managerial staff during the hours of construction activities. The majority of the energy used during construction would be from petroleum. The electricity used for construction activities would be temporary and minimal. The methodology for each category is discussed below. This analysis relies on the construction equipment list and operational characteristics, as stated in **Appendix B**. Quantifications of construction energy consumption are provided for the project, followed by an analysis of impacts based on those quantifications.

Electricity Usage

*Water Consumption for Construction Dust Control*

Electricity usage associated with water consumption for construction dust control is calculated based on total water consumption and the energy intensity for supply, distribution, and treatment of water.

The total number of gallons of water usage is calculated based on acreage disturbed during grading and site preparation, as well as the daily water consumption rate per acre disturbed.

- The total acres disturbed are calculated using the methodology described in Chapter 4.2 of Appendix A of the CalEEMod User's Guide (Grading Equipment Phases).

- The water application rate of 3,020 gallons per acre per day is from Air & Waste Management Association's Air Pollution Engineering Manual.

The energy intensity value is based on the CalEEMod default energy intensity per gallon of water for San Mateo County. As summarized in Table 9-3: Project Energy Consumption During Construction, the total electricity consumption associated with water consumption for construction dust control would be approximately 2.055 GWh (2,055 MWh) over the duration of construction of the project.

### Petroleum Fuel Usage

#### *On-Road Diesel Construction Trips*

The diesel usage associated with on-road construction mobile trips is calculated based on vehicle miles traveled (VMT) from vehicle trips (i.e., worker, vendor, and hauling), the CalEEMod default diesel fleet percentage, and vehicle fuel efficiency in miles per gallon. Fuel consumption is based on VMT for the entire construction period. Construction fuel consumption was calculated based on CalEEMod emissions outputs. The CalEEMod emissions are specific to construction year and include fleet adjustments based on current regulations and equipment turnover.

As summarized in Table 9-3: Project Energy Consumption During Construction, the total diesel consumption associated with on-road construction trips would be approximately 326,890 gallons over all construction phases for the project. For analysis purposes it is assumed construction of the project would occur from January 2024 and end in June 2026. Shifts in this analysis timeline would not alter the conclusions of the analysis. Construction equipment in future years would also be required to comply with more stringent fuel efficiency standards. Project construction fuel demand would have a lower effect on regional energy supplies.

#### *Off-Road Diesel Construction Equipment*

The construction diesel usage associated with the off-road construction equipment is calculated based on CalEEMod emissions outputs. In addition, BAAQMD Basic Construction Mitigation Measures would require limiting idling time to five minutes and would result in less fuel wasted. As summarized in Table 9-3: Project Energy Consumption During Construction, the total diesel consumption associated with off-road construction equipment is approximately 415,568 gallons for duration of buildout the project. It should be noted that the diesel consumption in Table 9-3: Project Energy Consumption During Construction conservatively does not include additional reductions from the idling limitations required by Basic Construction Mitigation Measures.

### Gasoline Usage

#### *On-Road Gasoline Construction Trips*

The gasoline usage associated with on-road construction mobile trips is calculated based on VMT from vehicle trips (i.e., worker, vendor, and hauling), the CalEEMod default gasoline fleet percentage, and vehicle fuel efficiency in miles per gallon using the same methodology as the construction on-road trip diesel usage calculation discussed above. As summarized in Table 9-3: Project Energy Consumption During Construction, the total gasoline consumption associated with on-road construction trips would be approximately 20,312 gallons over the duration of construction for the project.

**Table 9-3: Project Energy Consumption During Construction**

| Project Source | Total Construction Energy | San Mateo County Annual Energy | Percentage Increase Countywide |
|---|---|---|---|
| **Electricity Use** | | **GWh** | |
| Water Use | 2.06 | 4,177 | 0.049% |
| **Diesel Use** | | **Gallons** | |
| On-Road Construction Trips[1] | 326,890 | 24,133,919 | 1.354% |
| Off-Road Construction Equipment[2] | 88,678 | | 0.367% |
| Construction Diesel Total | 415,568 | | 1.722% |
| **Gasoline Use** | | **Gallons** | |
| On-Road Construction Trips | 20,312 | 228,100,163 | 0.009% |

Source: Appendix E, Energy Calculations
1. On-road mobile source fuel use based on vehicle miles traveled (VMT) from CalEEMod and fleet-average fuel consumption in gallons per mile from EMFAC2021 in San Mateo County.
2. Off-road mobile source fuel usage based on a fuel usage rate of 0.05 gallons of diesel per horsepower (hp)-hour from USEPA.
Abbreviations: CalEEMod: California Emission Estimation Model; EMFAC: Emission Factor Model 2021

### Construction Energy Use Analysis

In total, construction of the project would consume approximately 2.06 GWh of electricity, 415,568 gallons of diesel, and 20,312 gallons of gasoline.

There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State. In addition, some incidental energy conservation would occur during construction through compliance with State requirements that equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest EPA and CARB engine emissions standards. These engines use highly efficient combustion engines to minimize unnecessary fuel consumption.

The project would entail construction activities that would use energy, primarily in the form of gasoline fuel, diesel fuel (e.g., mobile construction equipment), and electricity (e.g., power tools). Contractors would be required to minimize air quality emissions of construction activities using applicable regulatory guidance such from BAAQMD CEQA Guidelines as required by their Basic Construction Mitigation Measures. This requirement indirectly relates to construction energy conservation because when air pollutant emissions are reduced from the monitoring and the efficient use of equipment and materials, energy use is reduced. There are no aspects of the project that would foreseeably result in the inefficient, wasteful, or unnecessary use of energy during construction activities.

Due to increasing transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction. There is growing recognition among developers and retailers that sustainable construction is not prohibitively expensive, and that there is a significant cost-savings potential in green building practices and materials. Substantial reductions in energy inputs for construction materials can be achieved by selecting building materials composed of recycled materials that require substantially less energy to produce than non-recycled materials. The project-related incremental increase in the use of energy bound in construction materials such as asphalt, steel, concrete, pipes, and manufactured or processed

materials (e.g., lumber and gas) would not substantially increase demand for energy compared to overall local and regional demand for construction materials. It is reasonable to assume that production of building materials such as concrete, steel, etc., would employ all available and reasonable energy conservation practices in the interest of minimizing the cost of doing business.

As described above, the project's fuel from the entire construction period would increase fuel use in the County by approximately 1.722 percent for diesel and 0.009 percent for gasoline. The CEQA Guidelines Appendix G and Appendix F criteria requires the project's effects on local and regional energy supplies and on the requirements for additional capacity to be addressed. A 1.731 percent increase in construction fuel demand is not anticipated to trigger the need for additional capacity. As noted above, fuel consumption is based on a conservative construction phasing and conservative estimates for annual construction fuel consumption. Longer phases would result in lower construction intensity and a lower annual fuel consumption, resulting in lower annual demand on energy supplies. Additionally, use of construction fuel would cease once the project is fully developed. As such, project construction would have a nominal effect on the local and regional energy supplies.

As stated above, there are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or state. In addition, BAAQMD CEQA Guidelines Basic Constructions Mitigation Measures would be implemented which requires the project to limit idling to two minutes (beyond the state standard of five minutes), which would reduce fuel consumption. Therefore, it is expected that construction fuel consumption associated with the project would not be inefficient, wasteful, or unnecessary. The project would not substantially affect existing energy or fuel supplies, or resources and new capacity would not be required. Impacts would be **less than significant** in this regard.

### Operations

The energy consumption associated with operation of the project would include building electricity, water, and natural gas usage, as well as fuel usage from on-road vehicles. The methodology for each category is discussed below, with energy use shown below in Table 9-4: Project Energy Use During Operations.

**Table 9-4: Project Energy Use During Operations**

| Project Source | Total Energy | San Mateo County Annual Energy | Percentage Increase Countywide |
|---|---|---|---|
| **Electricity Use** | | **GWh** | |
| Total Electricity[1] | 38.64 | 4,177 | 0.925% |
| **Natural Gas** | | **Therms** | |
| Area Use[1] | 136,468 | 204,218,073 | 0.067% |
| **Diesel Use** | | **Gallons** | |
| Mobile[2] | 49,435 | 24,228,799 | 0.0204% |
| **Gasoline Use** | | | |
| Mobile[2] | 695,593 | 220,111,112 | 0.316% |

Source: Energy Calculations in Appendix E

1. The electricity and natural gas usage are based on project-specific estimates and CalEEMod defaults. Electricity for the laboratory/R&D space is multiplied by a factor of 10 while natural gas is multiplied by a factor of 6.9.

2. Calculated based on the mobile source fuel use based on vehicle miles traveled (VMT) and fleet-average fuel consumption (in gallons per mile) from EMFAC2021.

Abbreviations: CalEEMod: California Emission Estimation Model; EMFAC2021: California Air Resources Board Emission Factor Model; kWh: kilowatt-hour

### Electricity Usage

The electricity use during project operations is based on CalEEMod defaults for the general office and parking portions of the site. For the laboratory uses, the CalEEMod default generated output for general office use was multiplied by a factor of 10 to conservatively include electricity usage associated with the research and development portion of the site.[9] The analysis does not assume the project would include specialty laboratories, such as clean rooms and labs with large process loads. As summarized in Table 9-4, the general office building and R&D space alongside the enclosed parking with elevator would use approximately 38.641 GWh of electricity per year.

The electricity associated with operational water use is estimated based on the annual water use and the energy intensity factor is the CalEEMod default energy intensity per gallon of water for San Mateo County. Project area water use is based on the CalEEMod default rates. The project would use approximately 268 million gallons annually of water annually which would require approximately 2.228 GWh per year for conveyance and treatment.

### Natural Gas Usage

The methodology used to calculate the natural gas use associated with the project is based on CalEEMod default rates. A factor of 6.9 was conservatively utilized to account for the possibility of additional natural gas usage for the laboratories. As summarized in Table 9-4, the project would use approximately 13,646,800 thousand British Thermal Units (kBTU) of natural gas per year.

### Petroleum Fuel Usage

The gasoline and diesel fuel associated with on-road vehicular trips is calculated based on total VMT calculated for the analyses within Chapter 6 Air Quality, and Chapter 11 Greenhouse Gas Emissions, and average fuel efficiency from the EMFAC model. The EMFAC fuel efficiency data incorporates the Pavley Clean Car Standards and the Advanced Clean Cars Program.[10] As summarized in Table 9-4, the total gasoline and diesel fuel associated with on-road trips would be approximately 695,593 gallons per year and 49,435 gallons per year, respectively.

[9] National Renewable Energy Lab (NREL) and U.S. Environmental Protection Agency, 2008, *Laboratories for the 21st Century: An Introduction to Low-Energy Design.* https://www.nrel.gov/docs/fy08osti/29413.pdf.

[10] The CARB EMFAC 2017 Technical Documentation from March 2018 notes that emissions are estimated with all current controls active, except Low Carbon Fuel Standards (LCFS). The reason for excluding LCFS is that most of the emissions benefits due to the LCFS come from the production cycle (upstream emissions) of the fuel rather than the combustion cycle (tailpipe). As a result, LCFS is assumed to not have a significant impact on $CO_2$ emissions from EMFAC's tailpipe emission estimates.

### Operational Energy Use Analysis

Operation of the project would annually use approximately 38.641 GWh of electricity, 136,468 therms of natural gas, 695,593 gallons of gasoline, and 49,435 gallons of diesel. Californians consumed 203,257 gigawatt hours (GWh) of electricity in 2022, of which San Mateo consumed 4,177 GWh. [11]
The project's operational electricity use would represent 0.0004 percent of electricity used in the state, and 0.218 percent of the energy use in San Mateo County. [12] Regarding natural gas, San Mateo County used 204 million therms of natural gas in 2022. Therefore, the project's operational natural gas use would represent 0.067 percent of the natural gas use in the County. San Mateo County annual gasoline fuel use in 2026 is anticipated to be 220,111,112 gallons and diesel fuel is anticipated to be 24,228,799 gallons. Project operational use of gasoline and diesel in 2026 would represent 0.305 percent of gasoline use and 0.205 percent of diesel use in the County.[13]

None of the project energy uses exceed one percent of their corresponding County use. Project operations would not substantially affect existing energy or fuel supplies or resources. The project would comply with applicable energy standards and new capacity would not be required. In addition, the previous applications included land uses that potentially have higher energy consumption than the current project. Impacts would be **less than significant** in this regard.

### Impact ER-2: The project would not obstruct a State or Local plan for renewable energy or energy efficiency. This is a less than significant impact.

Project design and operation would comply with State Building Energy Efficiency Standards, appliance efficiency regulations, and green building standards. As discussed above in Impact ER-1, project development would not cause inefficient, wasteful or unnecessary energy use, and impacts would be less than significant.

#### *City of Belmont Climate Action Plan*

The City of Belmont finalized a Climate Action Plan (CAP) in December 2017 to present goals and measures for reducing the city's GHG emissions. The city committed to an emissions reduction target of 15 percent below the baseline 2005 levels by 2020. This goal is consistent with the California AB 32 Scoping plan and the Bay Area Air Quality Management District guidelines for a qualified GHG emissions reduction strategy and to be achieved by city-supported measures identified in the CAP. In line with the City of Belmont's General Plan update to 2035, the CAP also sets a second GHG reduction target of 50 percent below 2005 levels by 2035. To achieve this emissions reduction goal, the CAP structured objectives around four general categories: energy use in buildings, transportation and land use, waste, and adaptation. The project is consistent with the CARB scoping plan, which implements the state requirements for AB 32 and SB 32. Furthermore, the project would be consistent with the CAP which

[11] A watt hour is a unit of energy equivalent to one watt of power expended for one hour. For example, a typical light bulb is 60 watts, meaning that if it is left on for one hour, 60-watt hours have been used. One kilowatt equals 1,000 watts. The consumption of electrical energy by homes and businesses is usually measured in kilowatt hours (kWh). Some large businesses and institutions also use megawatt hours (MWh), where one MWh equals 1,000 kWh. One gigawatt equals 1,000 megawatts, or 1,000,000 kilowatts. The energy output of large power plants over long periods of time, or the energy consumption of jurisdictions, can be expressed in gigawatt hours (GWh).
[12] California Energy Commission (CEC). 2022 Total System Electric Generation. Available at: http://www.ecdms.energy.ca.gov/elecbycounty.aspx. Accessed May 15, 2024.
[13] California Air Resources Board (CARB), 2024 EMFAC Emissions https://arb.ca.gov/emfac/emissions-inventory

requires that all municipal, residential, and commercial buildings increase their energy efficiency, and increase renewable energy, efficient water use, and green building strategies. The project would build a sustainable and energy efficient project which would include a rooftop photovoltaic panel array which would align with the city's Climate Action Plan. The project would develop the project site with commercial uses consistent with the General Plan. The project would not conflict with the General Plan. Impacts are considered less than significant.

*Regional Plans*

Bay Area MTC's RTP/SCS Plan Bay Area 2040 integrates transportation, land use and housing to meet GHG reduction targets set by CARB. The most recent plan was adopted in July 2017. Plan Bay Area 2040 establishes GHG emissions goals for automobiles and light-duty trucks for 2020 and 2035 as well as an overall GHG target for the project region consistent with both the target date of AB 32 and the post-2020 GHG reduction goals of EOs 5-03-05, B-30-15, and SB 32.

As noted above, the project would not conflict the General Plan and is within an area planned for regional commercial. Although the project would result in an increase in employees on the project site, the increase would not exceed the growth assumptions in the General Plan. Plan Bay Area sets forth regional transportation policy and provides capital program planning for all regional, State, and Federally funded projects. In addition, Plan Bay Area provides strategic investment recommendations to improve regional transportation system performance over the next 25 years. Plan Bay Area includes employment and household projections for the region. The MTC forecasted that, between 2010 and 2040, the San Francisco Bay Area would see increases in the number of jobs, population, and households.

The project would be consistent with the overall goals of Plan Bay Area 2040 to provide economic vitality, healthy and safe communities, and climate protection, with an overall goal to reduce VMT. The proposed project would result in the demolition of the existing medical office building and surface parking lot and would develop a new office and laboratory complex. This new construction would not substantially conflict with Plan Bay Area's goals. Therefore, the project would not conflict with the land use concept plan in Plan Bay Area 2040 and impacts would be less than significant. Potential impacts are considered **less than significant**, and no mitigation is required.

### 9.5.5 Cumulative Impact Analysis

**Impact ER-3: The project would not contribute to cumulatively considerable impacts to energy consumption. This is a less than significant impact.**

Construction and operation associated with implementation of the project would result in the consumption of fuel and energy, but it would not do so in a wasteful manner, as discussed above. The consumption of fuel and energy would not be substantial in comparison to statewide electricity, natural gas/propane, gasoline, and diesel demand; refer to Table 9-3 and Table 9-4. New capacity or supplies of energy resources would not be required. Additionally, the project would be subject to compliance with all federal, State, and local requirements for energy efficiency.

The anticipated project impacts, in conjunction with cumulative development in the site vicinity, would increase urbanization and result in increased energy consumption. Potential land use impacts are site-

specific and require evaluation on a case-by-case basis. Each cumulative project would require separate discretionary approval and CEQA assessment, which would address potential energy consumption impacts and identify necessary mitigation measures, where appropriate.

As noted above, the project would not result in significant energy consumption impacts. The project would not be considered inefficient, wasteful, or unnecessary with regard to energy. Thus, the project and identified cumulative projects are not anticipated to result in a significant cumulative impact. Therefore, potential cumulative energy impacts are considered **less than significant**.

## 9.6 References

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Pacific Gas and Electric (PG&E). 2022. Exploring Clean Energy Solutions. https://www.pgecorp.com/content/dam/pgecorp/language-masters/en/sustainability/corporate-responsibility-sustainability/reports/2022/assets/PGE_CSR_2022_Executive_Summary.pdf. Accessed May 20, 2024.

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# 10 Geology and Soils

## 10.1 Introduction

This chapter describes the project's potential effects related to geologic or soil stability hazards, erosion, seismic risk, and/or effects upon local paleontological resources that could be caused by implementation of the project. Information used to prepare this section came from the following primary resources:

- Cornerstone Earth Group, Geotechnical Investigation, 2022 (**Appendix F**)
- ICF, Archaeological Resources Technical Report, City of Belmont, San Mateo County, California. June 2022
- City of Belmont, 2035 General Plan – Conservation Element and Safety Element, 2017

## 10.2 Scoping Issues Addressed

During the Notice of Preparation (NOP) public comment and scoping period for the proposed project, several comments were received regarding the geology and soils analysis. The Bay Conservation and Development Commission (BCDC) noted geologic risks associated with the fill material and underlying Bay mud geology, as well as risk of soil erosion in the shoreline band and related water quality. The Sierra Club (Loma Prieta Chapter) also noted the stability of fill material and potential for liquefaction, as well as the ability of emergency responders to access the site in a major earthquake. Issues related to geologic and seismic risks are addressed in this chapter. Emergency response is also addressed in Chapter 12 (Hazards and Hazardous Materials), and issues regarding erosion and water quality are addressed in Chapter 13 (Hydrology and Water Quality).

## 10.3 Environmental Setting

### 10.3.1 Regional Setting

The City of Belmont is located on the San Francisco Peninsula and is situated in the central portion of the northern Coast Ranges province of California. The Coastal Ranges extend from the Transverse Ranges in southern California to the Oregon border and is comprised of northwest-trending ridges and valleys that have been formed by faulting and folding of Earth's crust. Although no active faults exist in the city, several major faults have been mapped in the region.

The geologic foundation of the northeastern and eastern boundaries of the city is underlain by Holocene-aged alluvium (Q) and older alluvium (Qoa). Further west within the city, the basin deposits transition into Franciscan complex (KJf), typically composed of sandstone with smaller amounts of shale, chert, limestone, and conglomerate (California Department of Conservation, 2015).

### 10.3.2 Project Setting

A geotechnical investigation was prepared by Cornerstone Earth Group to evaluate the subsurface conditions and develop conclusions and preliminary recommendations on the feasibility of development at the project site from a geotechnical and geological standpoint. On February 22, 23, and 24, 2022, a total of seven test borings were performed at the project site with truck-mounted, hollow-stem auger

drilling equipment to collect soil samples. The seven test borings were drilled to depths ranging between 5.5 to 80 feet below the ground surface. Laboratory tests were performed on selected samples from the borings to develop a subsurface profile of the soil and bedrock conditions at the project site discussed below. The test boring logs are available in **Appendix F**.

### Topography and Slope Stability

Slope instability, or landslides, include many phenomena that involve the downslope displacement and movement of material, either triggered by static (i.e., gravity) or dynamic (i.e., earthquake or over-saturation) forces. Landslide susceptible areas are characterized by steep slopes, downslope creep of surface materials, and unstable soil conditions. According to Figure 6-1 of the city's General Plan Safety Element, the project site is not within an area of high landslide potential or an area with steep slopes greater than 30 percent. The project site elevation is approximately 5 feet above mean sea level and the topography in the vicinity of the project site slopes downward gently to the northeast toward the San Francisco Bay. Along the northern portion of the project site, the bank of Belmont Creek appears stable with no visible signs of instability.

### Geology

The project site is underlain by Holocene or Pleistocene-to-Holocene-aged surficial sediments. The surficial sediments are comprised of alluvial gravel, sand, silt, and clay, which represent undifferentiated stream alluvium in drainages and younger alluvial fan deposits at base of slopes and on fan areas. These sediments are commonly referred to as Bay Mud and Older Bay Clays. The underlying geology for the project site mainly consists of San Francisco Bay Mud deposits.

### Faults and Seismicity

The project site is located in a seismically active region that has historically experienced periodic, large magnitude earthquakes. While no known active faults have been mapped in the city, major active faults in proximity to the project site include the San Andreas, Monte Vista-Shannon, San Gregorio, and Hayward (Cornerstone Earth Group, 2022). The closest known active fault, the San Andreas fault, is approximately, 4.1 miles southwest of the project site. Active and potentially active faults in proximity to the project site are presented in **Table 10-1: Regional Faults**.

**Table 10-1: Regional Faults**

| Fault Name | Direction from Project Site | Approximate Distance from Project Site (miles) |
|---|---|---|
| San Andreas | Southwest | 4.1 |
| Monte Vista-Shannon | South | 6.2 |
| San Gregorio | Southwest | 10.6 |
| Hayward | Northeast | 14.3 |

Source: Cornerstone Earth Group, 2022

The estimated probability of one or more magnitude 6.7 earthquakes expected to occur somewhere in the San Francisco Bay Area has been increased to 72 percent for the period of 2014 to 2043.

### Surface Fault Rupture

Fault rupture is the surface displacement that occurs when movement on a fault deep within the earth breaks through to the surface. The Alquist-Priolo Earthquake Fault Zoning Act delineates fault rupture zones approximately 1,000 feet wide, or 500 feet on either side of an active fault trace. Fault rupture

and displacement almost always follows preexisting faults, which are zones of weakness; however, not all earthquakes result in surface rupture (i.e., earthquakes that occur on blind thrusts do not result in surface fault rupture. Rupture may occur suddenly during an earthquake or slowly in the form of fault creep).

In addition to damage caused by ground shaking from an earthquake, fault rupture is damaging to buildings and other structures due to the differential displacement and deformation of the ground surface that occurs from the fault offset. This can lead to damage or collapse of structures across this zone. The project site is not located within an Alquist-Priolo Earthquake Fault Zone, and fault surface rupture hazard is not a significant geologic hazard at the site.

### Groundshaking

The intensity of the seismic shaking, or strong ground motion, during an earthquake is dependent on the distance between the project site and the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding the project site. Moderate to severe earthquakes would cause strong ground shaking, which is the case for most sites within the Bay Area. In the event of a moderate to severe earthquake, the project site would likely experience ground shaking.

### Liquefaction

Liquefaction is the rapid transformation of loose, non-cohesive soils that are saturated and are bedded with poor drainage, such as sand and silt sediments, into a fluid state as a result of severe vibratory motion. The liquefaction process typically occurs at depths less than 50 feet below the ground surface, although liquefaction can occur at deeper intervals, given the right conditions.

During strong seismic shaking, cyclically induced stresses have the potential to cause increases in pore pressures within the soil matrix that can result in the triggering of liquefaction, softening of soil due to shear stress loss, potentially significant ground deformation due to settlement within sandy liquefiable layers as pore pressures dissipate, and/or flow failures in areas with sloping ground or open faces.

In the city, liquefaction from seismic events may result in low to moderate risk to the northeast corner of the city and along Belmont Creek. Figure 6-1 of the city's General Plan Safety Element shows that the project site is within an area of Very High Liquefaction Potential. Using the interactive California Department of Conservation Liquefaction Zones map available through the California State Geoportal, the project site is mapped within a State-designated Liquefaction Hazard Zone.

### Lateral Spreading

Lateral spreading is the horizontal movement or spreading of soil toward an open face, such as a stream bank or the open side of fill embankments, typically as a result of liquefaction. Lateral spreading can occur on relatively flat sites and can cause surficial ground tension cracking and settlement. As part of the Geotechnical Investigation, Cornerstone Earth Group conducted a liquefaction analysis of the soils encountered in the subsurface investigation. Based on their analysis, there is a potential for lateral displacements toward the channel at the northeastern portion of the project site.

### Soils

A number of soil properties have important implications for development and resource management. Based on the test boring results, the subsurface profile of the site generally consists of medium stiff to hard clay with varying amounts of sand, silt and gravel. These soils were determined to have low to moderate expansion potential and plasticity.

### Paleontological Setting

Paleontological resources – fossils - are nonrenewable scientific and educational resources. Projects subject to the California Environmental Quality Act (CEQA) must determine whether a project would "directly or indirectly destroy a unique paleontological resource."

The city's General Plan Conservation Element indicates that there are no designated paleontological sites within the city. However, potential unrecorded archaeological and paleontological sites may exist in Belmont, particularly along Belmont and Laurel creeks, near wetland areas, and in the foothill to valley ecological transition areas. A Northwest Information Center (NWIC) records search conducted for the project found that there were no previously recorded paleontological resources on the project site or within 0.25 mile of the project site.

The project site contains surface-exposed underlying geologic units from the Pleistocene-to-Holocene transition and from the 20th century. The Holocene period was during an era where human civilization generally first began and would have low to moderate sensitivity for buried fossils. Fossils are usually found in substantially older geologic layers and formations.

## 10.4 Applicable Regulations, Plans, and Standards

### 10.4.1 Federal

#### International Building Code

Published by the International Code Council, the scope of this code covers major aspects of construction and design of structures and buildings, except for 3-story one- and two-family dwellings and town homes. In 2000, the 1997 Uniform Building Code was replaced by the International Building Code and contains provisions for structural engineering design. Published by the International Conference of Building Officials, the 2021 International Building Code (IBC) addresses the design and installation of structures and building systems through requirements that emphasize performance. The IBC includes codes governing structural as well as fire- and life-safety provisions covering seismic, wind, accessibility, egress, occupancy, and roofs.

### 10.4.2 State

#### Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act, Public Resources Code (PRC), section 2621-2630 (formerly the Special Studies Zoning Act), regulates development and construction of buildings intended for human occupancy to avoid the hazard of surface fault rupture. This Act categorizes faults as active, potentially active, and inactive. Historic and Holocene age faults are considered active, Late Quaternary and Quaternary age faults are considered potentially active, and pre-Quaternary age faults are considered inactive. These classifications are qualified by the conditions that a fault must be shown to

be “sufficiently active” and “well defined” by detailed site-specific geologic explorations to determine whether building setbacks should be established.

#### Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act, PRC, Sections 2690–2699, of 1990 directs the California Department of Conservation, Division of Mines and Geology [now called California Geological Survey (CGS)] to delineate Seismic Hazard Zones. The purpose of the act is to reduce the threat to public health and safety and to minimize the loss of life and property by identifying and mitigating seismic hazards.

Cities, counties, and State agencies are directed to use seismic hazard zone maps developed by CGS in their land-use planning and permitting processes. The act requires that site-specific geotechnical investigations be performed prior to permitting most urban development projects within seismic hazard zones.

#### California Building Standards Code

The California Building Code (CBC) is another name for the body of regulations known as the California Code of Regulations (CCR), Title 24, Part 2, which is a portion of the California Building Standards Code and establishes minimum requirements for a buildings structural strength and stability to safeguard the public health, safety and general welfare. Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24, or they are not enforceable.

Published by the International Conference of Building Officials, the Uniform Building Code (UBC) is a widely adopted model building code in the United States. The CBC incorporates by reference the 2006 International Building Code, with necessary California amendments.

### 10.4.3 Local

#### City of Belmont General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. General plan policies relative to geology, soils, related hazards, and paleontological resources are identified below. Relevant General Plan Policies that directly address reducing and avoiding geologic and soil related risks and impact, and paleontological resources include the following:

**Conservation Element**

- Policy 5.2-1: Encourage the retention of areas that are hazardous to public safety and welfare as undeveloped open space, including steep hillsides unsuitable for development as identified in area plans and other detailed geotechnical studies; hydrological areas of concern; areas of geological instability; and appropriate setback areas on either side of known active fault traces.

**Goal 5.12:** Preserve and protect areas and sites of prehistoric, cultural, and archaeological significance.

- Policy 5.12-1: Ensure that development avoids potential impacts to sites suspected of being archeologically, paleontologically, or culturally significant, tribal or otherwise, or of concern by requiring appropriate and feasible mitigation.
- Policy 5.12-2: If cultural, archaeological, paleontological, or cultural resources, tribal or otherwise, are discovered during construction, grading activity in the immediate area shall cease

and materials and their surroundings shall not be altered or collected until evaluation by a qualified professional is completed.

- A qualified archaeologist or paleontologist must make an immediate evaluation and avoidance measures or appropriate mitigation should be completed, according to CEQA Guidelines.
- Use the State Office of Historic Preservation's recommendations for the preparation of Archaeological Resource Management Reports as guidelines.

**Safety Element**

**Goal 6.1:** Minimize risks of property damage and personal injury posed by geologic and seismic hazards.

- Policy 6.1-1: Continue to maintain and enforce appropriate standards to ensure new development is designed to meet current safety codes and requirements associated with seismic activity. Require public and private development to be located, designed, and constructed to minimize the risk of loss of life and injury in the event of a major earthquake or other natural disaster.
- Policy 6.1-2: Continue to regulate development, including remodeling or structural rehabilitation, to ensure adequate mitigation of safety hazards on sites having a history or threat of seismic dangers, erosion, landslides, or shrink swell.
- Policy 6.1-3: Prohibit development in areas at risk of landslides or high or very high liquefaction as shown in Figure 6-1, or on slopes steeper than 30 percent, unless detailed site investigations by licensed engineers ensure that risks do not exist, or can be reduced to acceptable levels and the structure will be protected for its expected life.
- Policy 6.1-4: Continue to require geotechnical site analysis for proposed development on sites as specified in the Municipal Code, prior to allowing site development.
- Policy 6.1-5: Geotechnical studies shall identify any geologic hazards affecting the proposed project site, any necessary mitigation measures, and a statement of the site's suitability for the proposed development and whether or not it will be safe from geologic hazard for its expected life. The study shall identify net developable areas, if any, based on landslide or ground shaking potential or erosion risk. Impacts from the development, such as those resulting from increased water runoff, shall also be determined. Such studies must be signed by a licensed Certified Engineering Geologist or Geotechnical Engineer and are subject to review and approval by city staff and/or contracted employees.
- Policy 6.1-6: Require any geotechnical studies to include the study of expansive and creeping soils, as well as analysis of erosion, seismic, and other geotechnical hazards, and make recommendations, as warranted.
- Policy 6.1-7: Prohibit mitigation measures for potential geotechnical hazards if those measures could adversely affect surrounding property, including the use of public rights-of-way, or adversely affect public health, safety, and welfare.
- Policy 6.1-8: Ensure consideration of seismic and geologic hazards at the earliest possible point in the development process, preferably before comprehensive engineering work has commenced.

- Policy 6.1-9: Require real estate transactions, development approval processes, and property titles to declare known or suspected seismic or geologic hazards on a property, including areas suspected of high or very high risk of liquefaction, shrink swell, or landslide.
- Policy 6.1-10: Identify and catalogue structures that may be subject to serious structural damage in the event of a major earthquake, such as unreinforced masonry and soft story buildings, and provide information to property owners on ways to pay for rehabilitation of existing buildings.
- Policy 6.1-11: Support erosion prevention of hillside areas at risk of landslide, as identified in Figure 6-1, by revegetation or other acceptable methods.

### Belmont City Code

#### Chapter 7 Article IV – Construction Regulations

Chapter 7 Article IV Division 1 of the City Code adopts the 2022 California Building Code - with slight revisions to address local conditions - as the Building Code for Belmont. The purpose of this code is to establish minimum design and construction standards to prevent loss of life or property.

#### Chapter 9 – Grading

This chapter of the Belmont City Code applies regulatory provisions for all aspects of grading operations, and establishes procedures for the issuance, administration, and enforcement of a permit. These regulations are intended to minimize the adverse effects of grading, cut, and fill operations, land clearing, water runoff, and soil erosion, thereby reducing the hazards of earth slides, mud flows, rock falls, undue settlement, erosion, siltation, and flooding, or other special conditions.

## Environmental Impacts and Mitigation Measures

### 10.4.4 Significance Criteria

The following significance criteria for geology and soils were derived from the Environmental Checklist in CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address lead agency requirements and the full range of impacts related to the proposed project.

An impact of the proposed project would be considered significant and would require mitigation if it would meet one of the following criteria.

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
    ii) Strong seismic ground shaking.
    iii) Seismic-related ground failure, including liquefaction.
    iv) Landslides.
- Result in substantial soil erosion or the loss of topsoil.

- 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.
- 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.
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

### 10.4.5 Summary of No and/or Beneficial Impacts

#### On-Site Wastewater Disposal System

The project would dispose of wastewater via a sanitary sewer system. There would be no on-site wastewater or septic system with the project. Therefore, there would be no impact.

### 10.4.6 Impacts of the Proposed Project

**Impact GEO-1: The project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map. This is a less than significant impact.**

#### Construction and Operation

As mentioned above, the project site is not located within an Alquist-Priolo Earthquake Fault Zone. Based on Cornerstone Earth Group's evaluation, the potential for fault rupture at the project site is low. The closest known fault to the project site is the San Andreas Fault, located approximately 4.1 miles southwest of the project site. The next closest fault to the project site is the Monte Vista-Shannon Fault, which is located approximately 6.2 miles south of the project site. Given the project's location, this impact would be **less than significant**.

**Impact GEO-2: The proposed project could be subject to strong seismic ground shaking during a seismic event. This is a less than significant impact with application of existing building codes and standards.**

#### Construction and Operation

Given the City of Belmont is within a seismically active region where a number of seismic hazards may occur, seismic shaking has the potential to occur during the design life of the project. As discussed above, the project site would likely experience moderate to strong ground shaking from a major earthquake originating from the San Andreas, Hayward, Monte Vista-Shannon, or San Gregorio faults due to the distance to the project site. However, the project would be required to be designed and constructed to withstand the expected magnitude of seismic event to minimize seismic impacts. Moreover, the geotechnical analysis found that the potential for significant seismic settlements affecting the proposed project is low.

The project would be subject to the latest CBC requirements, which at a minimum require development projects to perform geotechnical investigations in accordance with State law, engineer improvements to address potential seismic and ground failure issues, and to use earthquake-resistant construction techniques to address potential earthquake loads when constructing buildings and improvements. Compliance with these standard conditions, including verification of all structural design elements and engineering reviews, would ensure that the new structures would be constructed to withstand reasonably expected seismic activity and associated potential hazards. The required compliance with applicable CBC standards and General Plan policies would reduce impacts to a **less than significant** level. While no further project specific mitigation is required, mitigation measure GEO-6.1 at the end of this chapter reinforces the implementation of all existing regulations and all recommendations from the geotechnical evaluation.

**Impact GEO-3: The project could be subject to seismic related ground failure, including liquefaction, during a seismic event. This is a less than significant impact with application of existing building codes, standards, and geotechnical recommendations.**

### Construction and Operation

Ground effects related to liquefaction include vertical settlement, ground subsidence or voids below structures, soil bearing failure, and sand boils. The Geotechnical Investigation and the city's General Plan document that the project site is mapped in a zone of very high liquefaction susceptibility. As mentioned above, laboratory tests were performed on selected samples from the seven test borings to classify soil properties and further identify liquefaction potential. The soils encountered in the subsurface investigation revealed several sand layers below the design groundwater depth. A liquefaction analysis was conducted for these soils and found that some layers could potentially experience liquefaction triggering post-liquefaction settlement at the ground surface, ranging up to about two-thirds of an inch. The analysis from the Geotechnical Investigation for the project recommends that the proposed building structures and parking garage be supported on pile foundations to reduce the potential ground deformation effects from liquefaction. The project would be subject to CBC requirements and General Plan policies to address impacts of seismic related ground failure, such as liquefaction. Compliance with General Plan polices, applicable CBC standards, and site-specific geotechnical recommendations for the ground improvements and foundation system during project design and construction would reduce the potential impacts from liquefaction to a **less than significant** level. While no further project specific mitigation is required, mitigation measure GEO-6.1 at the end of this chapter reinforces the implementation of all existing regulations and all recommendations from the geotechnical evaluation.

**Impact GEO-4: The project's susceptibility to landslide conditions is low. Risk of landslide is a less than significant impact with application of existing building codes, standards, and geotechnical recommendations.**

### Construction and Operation

As discussed above, the project site is not within an area of high landslide potential or an area with steep slopes greater than 30 percent that would potentially result in landslides. The topography in the vicinity of the project site slopes downward gently to the northeast toward the San Francisco Bay. The

property is surrounded by urbanized development on relatively flat land and would not be susceptible to landslides that could affect the project. Along the northern portion of the project site, the Geotechnical Investigation determined that the bank of Belmont Creek appears stable with no visible signs of instability. However, the project site is underlain by Bay Mud and could become unstable if additional loads, such as heavy equipment loads or material stockpiling, were to be placed in proximity to the creek bank. The Geotechnical Investigation recommends that any additional loads during project construction and operation be kept at least 30 feet away from the creek bank and any heavy equipment, such as a crane, have the adequate support to prevent slope failures. Additionally, any excavations performed during site demolition should have a 3:1 slope.

The project would be subject to applicable CBC standards, city General Plan policies, and Chapter 9 of the city's Municipal Code, which would ensure that the structures and associated improvements are designed and constructed to withstand potential hazards, such as landslides. Compliance with applicable CBC standards, construction best practices and standards, geotechnical recommendations, mitigation measure GEO-6.1, General Plan policies, and Chapter 9 of the city's Municipal Code would reduce impacts related to landslides to a **less than significant** level. While no further project specific mitigation is required, mitigation measure GEO-6.1 at the end of this chapter reinforces the implementation of all existing regulations and all recommendations from the geotechnical evaluation.

### Impact GEO-5: The project could result in minor soil erosion or the loss of topsoil. This is a less than significant impact with application of existing codes, construction standards, and best practices.

#### Construction and Operation

The soils at the subsurface profile of the site generally consist of medium stiff to hard clay with varying amounts of sand, silt and gravel. The project site currently contains a multi-tenant commercial office building and associated surface parking. The proposed project would include the demolition of the current office building and surface parking. Construction activities such as demolition, excavation, site grading and foundations associated with the construction of new buildings, infrastructure, and roads could loosen and expose soil, making the project site susceptible to erosion by rainfall and wind during construction.

As discussed further in Chapter 13, Hydrology and Water Quality, the project – during all phases of construction and operation – must comply with stringent erosion control and water quality measures and construction best practices to meet city and State water quality requirements related to discharges of pollutants from runoff. The project would also be required to comply with dust control measures as discussed further in Chapter 6, Air Quality to minimize dust emissions during construction activities. Further, the project would be subject to Chapter 9 of the city's Municipal Code. The project site is currently surrounded by hardscape surfaces and similar urban uses, limiting the potential for downstream/off-site erosion impacts on neighboring property. Compliance with all existing permit requirements and regulations will effectively mitigate potential erosion impacts during construction and operation activities to a **less than significant** level. While no further project specific mitigation is required, mitigation measure GEO-6.1 at the end of this chapter reinforces the implementation of all existing regulations and all recommendations from the geotechnical evaluation.

**Impact GEO-6: The project is located on a geologic unit or soil that could be either unstable, or that could become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction, collapse or expansive soils. This impact is considered less than significant with mitigation and compliance with applicable City Ordinances, CBC standards, geotechnical recommendations, and City General Plan policies.**

As described in the Geotechnical Investigation, Cornerstone Earth Group conducted a total of seven test borings at the project site with truck-mounted, hollow-stem auger drilling equipment to collect soil samples. Laboratory tests were performed on selected samples from the borings to develop a subsurface profile of the soil and bedrock conditions at the project site. While Cornerstone determined the project site to be geotechnically and geologically feasible for future development, the project site would still be subject to risks associated with local soils as described below.

### Liquefaction and Subsidence

Please see Impact GEO-3 above.

### Landslides

Please see Impact GEO-4 above.

### Collapse

Moderate to strong seismic shaking has the potential to occur during the design life of the project. To mitigate the shaking effects, all structures would be required to comply with the CBC requirements as a minimum per Chapter 7 Article IV of the city's Municipal Code. Compliance with CBC standards, site specific geotechnical recommendations and applicable General Plan policies during project design and construction would reduce potential impacts to a **less than significant** level.

### Expansive Soils

Based on visual observations and test boring results of the near-surface soils performed by Cornerstone Earth Group, the surface profile of the site generally consists of soils that are of low to moderate plasticity and low to moderate expansion potential. Expansive soils may impact the performance of foundations and site flatwork because expansive soils can undergo significant volume change based on changes in moisture content, resulting in settlement effects. While soils at this property have a low to moderate expansion potential, the analysis in the Geotechnical Investigation recommends designing building slabs as structural slabs or having building slabs underlain by a layer of non-expansive fill to resist potential uplift pressure from expansive soils. Additionally, the findings of the Geotechnical Investigation recommend replacing any undocumented fill with engineered fill where feasible. Recommendations from the Geotechnical Investigation also include the implementation of positive drainage away from buildings and limited landscaping watering to limit moisture changes in the surficial soils. The project would be required to comply with the applicable CBC standards, site specific geotechnical recommendations and General Plan policies during project design and construction to reduce potential impacts related to expansive soils to a **less than significant** level.

### Lateral Spreading

With respect to lateral spreading, Cornerstone earth Group conducted a liquefaction analysis of the soils encountered in the subsurface investigation, as noted above. There is a potential for lateral displacements toward the channel at the northeastern portion of the project site by the proposed Building 2. The potential for ground deformation and surficial cracking at other testing locations, such as near the proposed parking structure, was determined to be low by the geotechnical analysis. To address the potential for lateral displacement along the northeastern edge of the site, Cornerstone Earth Group recommends that the project either over-excavate the upper five feet below existing grades to no deeper than a depth of 2.5 feet above the underlying Bay Mud and replace the soil with engineered fill, install a row of stitch piers, or utilize ground improvements. In areas where these would not be feasible, neglecting passive resistance against pile caps, grade beams, and pile along the northeast sides of the buildings is recommended.

#### MM GEO-6.1 Final Geotechnical Evaluation

A final construction level geotechnical evaluation shall be required for the project. The project shall be required to adhere to and incorporate all standards and recommended engineering measures to mitigate for settlement concerns related to lateral spreading from compression of underlying near-surface soils layers and Bay Mud layers. The final geotechnical evaluation will be provided to the City for review and approval prior to the issuance of building permits.

### Conclusion

With implementation of Mitigation Measure (MM) GEO-6.1 and adherence to local building standards, city engineering standards and applicable General Plan policies, potential impacts related to lateral spreading would be reduced to a **less than significant** level because these soils would be removed, augmented or otherwise engineered as necessary. MM GEO-6.1 reflects a typical requirement for a design-level evaluation that is appropriately completed in conjunction with final plans.

As noted above, the project site's geologic and soil constraints would be fully addressed through construction-level geotechnical recommendations and compliance with all applicable codes and regulations.

## Impact GEO-7: The project could directly or indirectly destroy a unique paleontological resource or site or unique geologic features during construction. This impact is considered less than significant with mitigation incorporated.

### Construction and Operation

There are no major or unique paleontological resources known to exist in the city, and the likelihood of encountering unique paleontological resources is low. However, development of the project could result in the discovery and disturbance of previously unknown or undiscovered paleontological resources. Should evidence of paleontological resources be encountered during grading and construction, adherence to General Plan policies, State, and federal historic preservation laws, regulations, and codes related to archaeological and paleontological resources would ensure the adequate protection of historic and pre-historic resources. Mitigation measure MM GEO-7.1 recognizes the need for paleontological monitoring to occur simultaneously with archaeological monitoring.

**MM GEO-7.1 Inadvertent Discovery of Paleontological Resources**

In the event that fossils or fossil-bearing deposits are discovered during construction activities, work shall be temporarily halted with a 25-foot radius of the discovered materials and workers should avoid altering the materials and their context until a qualified paleontologist has evaluated the situation and provided appropriate recommendations. Construction and potential impacts to the area(s) within a radius determined by the paleontologist shall not recommence until the assessment is complete.

If it is determined that the proposed development could damage unique paleontological resources, mitigation shall be implemented in accordance with Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines. Possible mitigation under Public Resources Code Section 21083.2 requires that reasonable efforts be made for resources to be preserved in place or left undisturbed. If preservation in place is not feasible, the applicant shall mitigate significant effects. Excavation as mitigation shall be limited to those parts of resources that would be damaged or destroyed by a project. Possible mitigation under CEQA emphasizes preservation-in-place measures, including planning construction avoid paleontological sites, incorporating sites into parks and other open spaces, covering sites with stable soil, and deeding the site into a permanent conservation easement. Under CEQA Guidelines, when preservation in place is not feasible, data recovery through excavation shall be conducted with a data recovery plan in place.

Implementation of MM GEO-7.1 and compliance with General Plan policies will effectively mitigate potential impacts to paleontological resources by ceasing construction if they are encountered to assess and mitigate consistent with the Public Resources Code. Potential impacts to paleontological resources would therefore be reduced to a **less than significant** level.

### 10.4.7 Cumulative Impact Analysis

Because geologic impacts are site-specific and highly dependent upon the structural characteristics of individual projects, cumulative geologic hazards and soils impacts are generally confined to the project site and immediate vicinity.

**Impact GEO-8: The project will not contribute incrementally or combine with the effects of other projects to create significant geologic impacts. This is a less than significant impact.**

Most geologic-related impacts from development are site-specific and, if properly designed, would not result in worsening of the environmental or public health and safety. Cumulative development would be subject to site-specific geologic and/or soils constraints over time. Implementation of the recommendations set forth in the Geotechnical Investigation would minimize exposure to hazards or constraints. Cumulative development could also potentially involve the exposure of an increased number of people and/or structures to risk of earthquakes and their associated geologic hazards. However, all new construction would be required to comply with the most current CBC, which

establishes building standards to minimize risk based on the geologic and seismic conditions of the region in which a project is located. With administration of these requirements, the implementation of city Ordinances, General Plan Policies and adherences to CBC requirements, the project would not have a cumulatively considerable contribution to cumulative geologic, soils, seismic hazards and paleontological resource impacts.

## 10.5 References

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# 11 Greenhouse Gas Emissions

## 11.1 Introduction

This section describes the effects of climate change and greenhouse gas emissions that would be caused by the implementation of the proposed project. Information used to prepare this section came from the following resources:

- Air Quality and Greenhouse Gas Technical Report and Health Risk Assessment for the 1301 Shoreway Project (See **Appendix B**)
- California Emissions Estimator Model (CalEEMod) projections (see **Appendix B**)
- City of Belmont, 2035 General Plan –Circulation Element and Conservation Element, 2017

The study area for climate change and the analysis of greenhouse gas (GHG) emissions is broad because climate change is influenced by worldwide emissions and their global effects. However, the study area is also limited by the CEQA Guidelines [Section 15064(d)], which directs lead agencies to consider an "indirect physical change" only if that change is a reasonably foreseeable impact that may be caused by the proposed project. This analysis limits discussion to those physical changes to the environment that are not speculative and are reasonably foreseeable.

## 11.2 Scoping Issues Addressed

During the NOP public comment and scoping period for the proposed project, specific comments were received regarding site intensification, added jobs and vehicle trips, and the resulting increase in greenhouse gas (GHG) emissions or impacts compared to existing conditions. These issues and GHG quantification are included in this chapter. GHG emissions have also been estimated and modeled in Chapter 9, Energy, and the future effects of sea level rise – an indirect consequence of GHG emissions - are addressed in Chapter 14, Hydrology and Water Quality.

## 11.3 Environmental Setting

### 11.3.1 Climate Change and Greenhouse Gases

Certain gases in the earth's atmosphere classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

The primary GHGs contributing to the greenhouse effect are carbon dioxide ($CO_2$), methane ($CH_4$), and nitrous oxide ($N_2O$). Fluorinated gases also make up a small fraction of the GHGs that contribute to

climate change. Examples of fluorinated gases include chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride ($SF_6$), and nitrogen trifluoride ($NF_3$); however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of GHGs exceeding natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the Earth's climate, known as global climate change or global warming. Many gases demonstrate these properties and as discussed in Table 11-1: Description of Greenhouse Gases. GHGs are global pollutants unlike toxic air contaminants (TAC's), which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have a relatively short atmospheric lifetime (approximately one day), GHGs have a long atmospheric lifetime (one to several thousand years). GHGs persist in the atmosphere for long enough periods to be dispersed around the globe.

**Table 11-1: Description of Greenhouse Gases**

| Greenhouse Gas | Description |
|---|---|
| Carbon Dioxide ($CO_2$) | $CO_2$ is a colorless, odorless gas that is emitted naturally and through human activities. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The largest source of $CO_2$ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. The atmospheric lifetime of $CO_2$ is variable because it is readily exchanged in the atmosphere. $CO_2$ is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs. |
| Water | Water is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. Climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change. |
| Nitrous Oxide ($N_2O$) | $N_2O$ is largely attributable to agricultural practices and soil management. Primary human-related sources of $N_2O$ include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. $N_2O$ is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of $N_2O$ is approximately 120 years. The Global Warming Potential of $N_2O$ is 298. |
| Methane ($CH_4$) | $CH_4$, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Methane is the major component of natural gas, approximately 87 percent by volume. Human-related sources include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. Natural sources of $CH_4$ include wetlands, gas hydrates, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. The atmospheric lifetime of $CH_4$ is approximately 12 years and the Global Warming Potential is 25. |
| Hydrofluoro-carbons (HFCs) | HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued |

| Greenhouse Gas | Description |
|---|---|
| | phase out of CFCs and HCFCs gains momentum. The 100-year Global Warming Potential of HFCs range from 124 for HFC-152 to 14,800 for HFC-23. |
| Perfluoro-carbons (PFCs) | PFCs have stable molecular structures and only break down by ultraviolet rays approximately 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Global Warming Potentials range from 6,500 to 9,200. |
| Chlorofluoro-carbons (CFCs) | CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987. Global Warming Potentials for CFCs range from 3,800 to 14,400. |
| Sulfur Hexafluoride ($SF_6$) | $SF_6$ is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas. The Global Warming Potential of $SF_6$ is 23,900. |
| Hydrochloro-fluorocarbons (HCFCs) | HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, HCFCs are subject to a consumption cap and gradual phase out. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year Global Warming Potentials of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b. |
| Nitrogen Trifluoride ($NF_3$) | $NF_3$ was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. This gas is used in electronics manufacture for semiconductors and liquid crystal displays. It has a high global warming potential of 17,200. |

Source: Compiled from U.S. EPA, *Overview of Greenhouse Gases*, July 25, 2023 (https://www.epa.gov/ghgemissions/overview-greenhouse-gases); U.S. EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016*, 2018; Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis*, 2007; National Research Council, Advancing the Science of Climate Change, 2010; U.S. EPA, *Methane and Nitrous Oxide Emission from Natural Sources*, April 2010.

## 11.4 Applicable Regulations, Plans, and Standards

### 11.4.1 Federal

To date, national standards have not been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

#### Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.

- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

### U.S. Environmental Protection Agency Endangerment Finding

The U.S. Environmental Protection Agency's (EPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in Massachusetts v. EPA (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Federal Clean Air Act (FCAA) and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the EPA finalized an endangerment finding in December 2009. Based on scientific evidence, it found that six GHGs ($CO_2$, $CH_4$, $N_2O$, HFCs, PFCs, and $SF_6$) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing FCAA and the EPA's assessment of the scientific evidence that form the basis for the EPA's regulatory actions.

### Federal Vehicle Standards

In response to the U.S. Supreme Court ruling discussed above, Executive Order 13432 was issued in 2007 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, an Executive Memorandum was issued directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of $CO_2$ in the model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for $CO_2$ emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baseline.[1]

[1] U.S. EPA and NHTSA, *Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium and Heavy-Duty Engines and Vehicles – Phase 2,* 2016. Available at: https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf. Accessed: January 2023.

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower $CO_2$ emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.

On September 27, 2019, the U.S. EPA and the NHTSA published the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program." (84 Fed. Reg. 51,310 (Sept. 27, 2019.)[2] The SAFE Rule (Part One) revoked California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On March 31, 2020, the U.S. EPA and NHTSA finalized rulemaking for SAFE Part Two sets $CO_2$ emissions standards and corporate average fuel economy (CAFE) standards for passenger vehicles and light duty trucks, covering model years 2021-2026. The current U.S. EPA administration repealed SAFE Rule Part One, effective January 28, ,2022 and is reconsidering Part Two.

In December 2021, the U.S. EPA finalized federal GHG emissions standards for passenger cars and light trucks for Model Years 2023 through 2026. These standards are the strongest vehicle emissions standards ever established for the light-duty vehicle sector and are based on sound science and grounded in a rigorous assessment of current and future technologies. The updated standards will result in avoiding more than three billion tons of GHG emissions through 2050.[3]

#### Presidential Executive Order 13783

Presidential Executive Order 13783, Promoting Energy Independence and Economic Growth issued on March 28, 2017, orders all federal agencies to apply cost-benefit analyses to regulations of GHG emissions and evaluations of the social cost of $CO_2$, $N_2O$, and $CH_4$.

### 11.4.2 State

#### California Air Resources Board

The California Air Resources Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness about climate change and its potential for severe long-term adverse environmental, social, and economic effects. California is a significant emitter of $CO_2e$ in the world and produced 369 million gross metric tons (MMT) of $CO_2e$ in 2020.[4] In the State, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction.

[2] U.S. EPA and NHTSA, Federal Register, Vol. 84, No. 188, *The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program*, September 27, 2019. Available at: https://www.govinfo.gov/content/pkg/FR-2019-09-27/pdf/2019-20672.pdf. Accessed: May 2024.
[3] U.S. EPA, *Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026,* 2021. Available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions. Accessed: May 2024.
[4] California Air Resources Board, *Current California GHG Emissions Inventory Data, 2000-2020 GHG inventory (2022 Edition)*, https://ww2.arb.ca.gov/ghg-inventory-data, accessed May 2024.

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark AB 32 California Global Warming Solutions Act of 2006, was specifically enacted to address GHG emissions. Other legislation, such as Title 24 building efficiency standards and Title 20 appliance energy standards, were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major legislation related to GHG emissions reduction.

### Assembly Bill 32 (California Global Warming Solutions Act of 2006)

AB 32 instructs the CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. AB 32 also directed CARB to set a GHG emissions limit based on 1990 levels, to be achieved by 2020. It set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

### CARB Scoping Plan

Adopted December 15, 2022, CARB's 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. To achieve the targets of AB 1279, the 2022 Scoping Plan relies on existing and emerging fossil fuel alternatives and clean technologies, as well as carbon capture and storage. Specifically, the 2022 Scoping Plan focuses on zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen. The 2022 Scoping Plan sets one of the most aggressive approaches to reach carbon neutrality in the world. Unlike the 2017 Scoping Plan, CARB no longer includes a numeric per capita threshold and instead advocates for compliance with a local GHG reduction strategy (i.e., Climate Action Plan) consistent with CEQA Guidelines section 15183.5.

The key elements of the 2022 CARB Scoping Plan focus on transportation. Specifically, the 2022 Scoping Plan aims to rapidly move towards zero-emission transportation (i.e., electrifying cars, buses, trains, and trucks), which constitutes California's single largest source of GHGs. The regulations that impact the transportation sector are adopted and enforced by CARB on vehicle manufacturers and are outside the jurisdiction and control of local governments. The 2022 Scoping Plan accelerates development of new regulations as well as amendments to strengthen regulations and programs already in place.

Included in the 2022 Scoping Plan is a set of Local Actions (2022 Scoping Plan Appendix D) aimed at providing local jurisdictions with tools to reduce GHGs and assist the state in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine consistency with the 2022 Scoping Plan. Notably, this section is focused on Residential and Mixed-Use Projects. CARB specifically states that Appendix D does not address other land uses (e.g., industrial). However, CARB plans to explore new approaches for other land use types in the future.

As such, it would be inappropriate to apply the requirements contained in Appendix D of the 2022 Scoping Plan to any land use types other than residential or mixed-use residential development.

### Senate Bill 32 (California Global Warming Solutions Act of 2006: Emissions Limit)

Signed into law in September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

With SB 32, the Legislature passed companion legislation, AB 197, which provides additional direction for developing the Scoping Plan. On December 14, 2017, CARB adopted a second update to the Scoping Plan (CARB, 2017b). The 2017 Scoping Plan details how the State will reduce GHG emissions to meet the 2030 target set by Executive Order B-30-15 and codified by SB 32. Other objectives listed in the 2017 Scoping Plan are to provide direct GHG emissions reductions; support climate investment in disadvantaged communities and support the Clean Power Plan and other Federal actions.

### SB 375 (The Sustainable Communities and Climate Protection Act of 2008)

Signed into law on September 30, 2008, SB 375 provides a process to coordinate land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction goals established by AB 32. SB 375 requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, aligns planning for transportation and housing, and creates specified incentives for the implementation of the strategies. The applicable sustainable community strategy in the Bay Area is Plan Bay Area 2040.

### AB 1493 (Pavley Regulations and Fuel Efficiency Standards)

AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the by the U.S. District Court for the District of Columbia in 2011. The regulations establish one set of emission standards for model years 2009–2016 and a second set of emissions standards for model years 2017 to 2025. By 2025, when all rules will be fully implemented, new automobiles will emit 34 percent fewer $CO_2e$ emissions and 75 percent fewer smog-forming emissions.

### SB 1368 (Emission Performance Standards)

SB 1368 is the companion bill of AB 32, which directs the California Public Utilities Commission (CPUC) to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 limits carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. The new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. The CPUC adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, for 1,100 pounds of $CO_2$ per megawatt-hour.

### SB 1078, SB107, and SBX1-2 (Renewable Electricity Standards)

SB 1078 required California to generate 20 percent of its electricity from renewable energy by 2017. This goal was accelerated with SB 107, which changed the due date to 2010 instead of 2017. On November 17, 2008, Executive Order S-14-08 established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Executive Order S-21-09 also directed CARB to adopt a regulation by July 31, 2010, requiring the State's load serving entities to meet a 33 percent renewable energy target by 2020. CARB approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23. SB X1-2 codified the 33 percent by 2020 goal.

### SB 350 (Clean Energy and Pollution Reduction Act of 2015)

Signed into law on October 7, 2015, SB 350 implements the goals of Executive Order B-30-15. The objectives of SB 350 are to increase the procurement of electricity from renewable sources from 33 percent to 50 percent (with interim targets of 40 percent by 2024, and 45 percent by 2027) and to double the energy efficiency savings in electricity and natural gas end uses of retail customers through energy efficiency and conservation. SB 350 also reorganizes the Independent System Operator to develop more regional electricity transmission markets and improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

### AB 398 (Market-Based Compliance Mechanisms)

Signed on July 25, 2017, AB 398 extended the duration of the Cap-and-Trade program from 2020 to 2030. AB 398 required CARB to update the Scoping Plan and for all GHG rules and regulations adopted by the State. It also designated CARB as the statewide regulatory body responsible for ensuring that California meets its statewide carbon pollution reduction targets, while retaining local air districts' responsibility and authority to curb toxic air contaminants and criteria pollutants from local sources that severely impact public health. AB 398 also decreased free carbon allowances over 40 percent by 2030 and prioritized Cap-and-Trade spending to various programs including reducing diesel emissions in impacted communities.

### SB 150 (Regional Transportation Plans)

Signed on October 10, 2017, SB 150 aligns local and regional GHG reduction targets with State targets (i.e., 40 percent below their 1990 levels by 2030). SB 150 creates a process to include communities in discussions on how to monitor their regions' progress on meeting these goals. The bill also requires the CARB to regularly report on that progress, as well as on the successes and the challenges regions experience associated with achieving their targets. SB 150 provides for accounting of climate change efforts and GHG reductions and identify effective reduction strategies.

#### SB 100 (California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases)

Signed into Law in September 2018, SB 100 increased California's renewable electricity portfolio from 50 to 60 percent by 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045.

### AB 1279 (The California Climate Crisis Act)

AB 1279 establishes the policy of the State to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The bill requires CARB to ensure that Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable $CO_2$ removal solutions and carbon capture, utilization, and storage technologies.

### SB 1020 (100 Percent Clean Electric Grid)

Signed on September 16, 2022, SB 1020 provides additional goals for the path to the 2045 goal of 100 percent clean electricity retail sales. It creates a target of 90 percent clean electricity retail sales by 2035 and 95 percent clean electricity retail sales by 2040.

### SB 905 (Carbon Sequestration Program)

Signed on September 16, 2022, SB 905 establishes regulatory framework and policies that involve carbon removal, carbon capture, utilization, and sequestration. It also prohibits the injecting of concentrated carbon dioxide fluid into a Class II injection well for the purpose of enhanced oil recovery.

### AB 1757 (Nature-Based Solutions)

Signed on September 16, 2022, AB 1757 requires State agencies to develop a range of targets for natural carbon sequestration and nature-based climate solutions that reduce GHG emissions to meet the 2030, 2038, and 2045 goals which would be integrated into a scoping plan addressing natural and working lands.

### Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs using executive orders. Although not regulatory, they set the State's tone and guide the actions of State agencies.

#### Executive Order S-3-05

Executive Order S-3-05 was issued on June 1, 2005, which established the following GHG emissions reduction targets:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

#### Executive Order S-01-07

Issued on January 18, 2007, Executive Order S-01-07 mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. The executive order established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for

Environmental Protection to coordinate the actions of the California Energy Commission, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. CARB adopted the LCFS on April 23, 2009.

### Executive Order S-13-08

Issued on November 14, 2008, Executive Order S-13-08 facilitated the California Natural Resources Agency development of the 2009 California Climate Adaptation Strategy. Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

### Executive Order S-14-08

Issued on November 17, 2008, Executive Order S-14-08 expands the State's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. CARB adopted the Renewable Electricity Standard on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

### Executive Order S-21-09

Issued on July 17, 2009, Executive Order S-21-09 directs CARB to adopt regulations to increase California's RPS to 33 percent by 2020. This builds upon SB 1078 (2002), which established the California RPS program, requiring 20 percent renewable energy by 2017, and SB 107 (2006), which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

### Executive Order B-30-15

Issued on April 29, 2015, Executive Order B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of $CO_2e$ ($MMTCO_2e$). The 2030 target acts as an interim goal on the way to achieving reductions of 80 percent below 1990 levels by 2050, a goal set by Executive Order S-3-05. The executive order also requires the State's climate adaptation plan to be updated every three years and for the State to continue its climate change research program, among other provisions. With the enactment of SB 32 in 2016, the Legislature codified the goal of reducing GHG emissions by 2030 to 40 percent below 1990 levels.

### Executive Order B-55-18

Issued on September 10, 2018, Executive Order B-55-18 establishes a goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing GHG emissions. The executive order requires CARB to work with relevant State agencies to develop a framework for implementing this goal. It also requires CARB to update the Scoping Plan to identify and recommend measures to achieve carbon neutrality. The executive order also requires State agencies to develop sequestration targets in the Natural and Working Lands Climate Change Implementation Plan.

### Executive Order N-79-20

Issued on September 23, 2020, Executive Order N-79-20 established a goal to end the sales of new internal combustion engine vehicles in the state as soon as possible, and no later than 2035, and continue to phaseout fossil-fueled cars and trucks. By setting a course to end sales of internal combustion passenger vehicles by 2035, the Governor's Executive Order establishes a target for the transportation sector that helps put the state on a path to carbon neutrality by 2045. It is important to note that the Executive Order focuses on new vehicle sales for automakers, and therefore does not require Californians to give up the existing cars and trucks they already own.

## California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat, even with rapid population growth.

### Title 20 Appliance Efficiency Regulations

The appliance efficiency regulations (California Code of Regulations [CCR] Title 20, Sections 1601-1608) include standards for new appliances. Twenty-three categories of appliances are included in the scope of these regulations. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

### Title 24 Building Energy Efficiency Standards

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR Title 24, Part 6) was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The California Energy Commission (CEC) adopted the 2022 Energy Code on August 11, 2021, which was subsequently approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The 2022 Title 24 standards will result in less energy use, thereby reducing air pollutant emissions associated with energy consumption across California. For example, the 2022 Title 24 standards will require efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, and strengthens ventilation standards.

### Title 24 California Green Building Standards Code

The California Green Building Standards Code (CCR Title 24, Part 11 code) commonly referred to as CALGreen, is a statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and nonresidential buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The latest CALGreen Code took effect on January 1, 2023

(2022 CALGreen). The 2022 CALGreen standards has improved upon the 2019 standards for new construction of, and additions and alterations to, residential and nonresidential buildings.

### 11.4.3 Regional

#### Metropolitan Transportation Commission

The Metropolitan Transportation Commission (MTC) is the metropolitan planning organization that comprises the 9 counties of the Bay Area and the San Francisco Bay Area Air Basin (SFBAAB) which includes the City of Belmont. SFBAAB's first per-capita GHG emissions reduction target was 7 percent by 2020 and 15 percent by 2035 from 2005 levels. MCT adopted an SCS as part of its RTP for the SFBAAB in 2021 called Plan Bay Area 2050. Plan Bay Area 2050 includes transportation and environmental strategies that support active and shared modes of travel combined with a transit-supportive land use pattern that places housing near transportation centers. Implementation of these strategies is forecasted to lower the share of Bay Area residents who drive to work alone from 50 percent in 2015 to 33 percent in 2050. Leading to a 20 percent decrease in GHG emissions compared to 2005, meeting the state mandate of a 19 percent decrease in GHG emissions by 2050.[5]

#### Bay Area Air Quality Management District Thresholds

The BAAQMD is the primary agency responsible for addressing air quality concerns in the San Francisco Bay Area, including the City of Belmont. BAAQMD also recommends methods for analyzing project-related GHGs in CEQA analyses as well as multiple GHG reduction measures for land use development projects. BAAQMD released its *Justification Report CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans* (BAAQMD Justification Report) in April 2022. BAAQMD *Justification Report* presents updates to the CEQA GHG thresholds from the 2017 CEQA Guidelines, which were not consistent with the statewide GHG target established by SB 32. The GHG thresholds of significance were updated to consider newer state reduction targets (e.g., SB 32) and plans for eventual carbon neutrality by 2045 (e.g., Executive Order B-55-18 and SB 1279), as well as evolving case law. The BAAQMD Justification Report (and thus the GHG thresholds) was adopted by the Board of Directors on April 20, 2022. In summary, the updated thresholds emphasize:

- Avoiding wasting electricity and developing fossil fuel infrastructure (i.e., natural gas plumbing or appliances) in new buildings that will be in place for decades and thus conflict with carbon neutrality by 2045.
- Compliance with California Green Building Standards Code (CALGreen) Tier 2 EV requirements and per capita VMT reductions consistent with SB 743.
- Consistency with a qualified GHG reduction strategy (also known as a Climate Action Plan).

#### Clean Air Plan

Air quality plans developed to meet federal requirements are referred to as State Implementation Plans. The federal and State Clean Air Acts require plans to be developed for areas designated as nonattainment (with the exception of areas designated as nonattainment for the State $PM_{10}$ standard).

[5] Metropolitan Transportation Commission and Association of Bay Area Governments. 2021. Plan Bay Area 2050. Adopted October 2021. Available: https://www.planbayarea.org/finalplan2050. Accessed May, 2024.

The 2017 Clean Air Plan: Spare the Air, Cool the Climate was adopted on April 19, 2019, by the BAAQMD.

The 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the plan describes how the BAAQMD will continue progress toward attaining all State and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 Clean Air Plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious greenhouse gas (GHG) reduction targets for 2030 and 2050 and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets.

The 2017 Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

### 11.4.4 Local

#### City of Belmont Climate Action Plan

The City of Belmont finalized a Climate Action Plan (CAP) in December 2017 to identify goals and measures for reducing the city's GHG emissions. A 2005 emissions inventory determined that the city produced 167,648 metric tons (MT) of $CO_2e$. Transportation accounted for approximately 60 percent to the city's total emissions.

Given the high projected business-as-usual emissions forecast for 2020, the city's emissions reduction goal was established as 15 percent below 2005 levels by 2020 through implementation of the CAP. In line with the City of Belmont's General Plan update to 2035, the CAP also sets a second GHG reduction target of 50 percent below 2005 levels by 2035. To achieve this emissions reduction goal, the CAP structured objectives around four general categories: energy use in buildings, transportation and land use, waste, and adaptation.

#### City of Belmont General Plan

Project relevant general plan policies for greenhouse gas emissions are addressed in this section. Where inconsistencies exist, if any, they are addressed in the respective impact analysis below. Relevant General Plan Policies that directly address reducing and avoiding greenhouse gas emissions impacts include the following:

**Conservation Element**

- Policy 5.10-6: Ensure compliance with the most current Bay Area Clean Air Plan by implementing the Plan's recommended Transportation Control Measures (TCMs).

**Goal 5.11:** Reduce emissions of greenhouse gases to 15 percent below the 2005 baseline levels by 2020 and to 50 percent below the 2005 baseline levels by 2035.

- Policy 5.11-1: Adopt a Climate Action Plan that incorporates a Greenhouse Gas Emissions Reduction Plan, which quantifies current and anticipated future emissions and focuses on

feasible actions the City can take to minimize the adverse impacts of General Plan implementation on climate change and air quality.

- Policy 5.11-2: Support the Climate Action Plan's goals and implement the CAP's reduction measures and strategies to reduce green-house gas emissions.
- Policy 5.11-4: Support and participate in regional efforts to reduce greenhouse gas emissions and implement adaptation strategies.

#### Belmont City Code

Chapter 7 Article IV, Division 10 of the Belmont City Code adopts the 2022 California Green Building Standards Code as amended. The Code stipulates that all newly constructed buildings must be all-electric buildings. It also applies reach code standards that prohibit the use of natural gas and require electric vehicle parking and charging capabilities for new development within the city.

## 11.5 Environmental Impacts and Mitigation Measures

### 11.5.1 Significance Criteria

According to the adopted Appendix G of the *State CEQA Guidelines*, impacts related to GHG emissions from a proposed project would be significant if the project would:

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

#### Compliance With a Qualified GHG Reduction Strategy

BAAQMD's approach to developing a threshold of significance for GHG emissions for local development projects that are not stationary sources is to identify features that, if included, would show that the project would not interfere with the state's goal to have net zero emissions by 2045. Under the BAAQMD thresholds a project that meets either criteria A or B below is a project that would result in a less than cumulatively considerable contribution to significant cumulative climate change impacts:

A. Projects must include, at a minimum, the following project design elements:
    1. Buildings
        a. The project would not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
        b. The project would not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
    2. Transportation
        a. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted SB 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:

i. Residential projects: 15 percent below the existing VMT per capita

ii. Office projects: 15 percent below the existing VMT per employee

iii. Retail projects: no net increase in existing VMT

b. Achieve compliance with electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

B. Be consistent with a local GHGRS that meets the criteria under the CEQA Guidelines section 15183.5(b)

A qualified GHGRS adopted by a local jurisdiction shall include the following elements as described in the State CEQA Guidelines Section 15183.5(b)(1):

i. Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;

ii. Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable;

iii. Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area;

iv. Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;

v. Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels; and

vi. Be adopted in a public process following environmental review.

It is important to note that the BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions. BAAQMD recommends that the Lead Agency shall make a determination on the significance of construction generated GHG emission impacts relative to meeting AB 32 GHG reduction goals, as required by the Public Resources Code, Section 21082.2. The Lead Agency is encouraged to incorporate best management practices to reduce GHG emissions during construction, as feasible and applicable.

The City of Belmont CAP was prepared consistent with CEQA Guidelines Sections 15183.5 and includes a 2020 GHG reduction target (15 percent below 2005 levels), which is based on AB 32 goals. Projects that are consistent with the CAP may tier from the environmental analysis prepared for the CAP and determine GHG impacts in 2020 to be less than cumulatively considerable. The CAP includes a post-2020 target (50 percent below 2005 levels by 2035). As stated in the Program Environmental Impact Report (State Clearinghouse No. 2016082075) for the Belmont General Plan Update, Phase I/II Interim Zoning, Belmont Village Specific Plan, and CAP (General Plan EIR), this target is consistent with reductions required by SB 32 (2030) and the trajectory of statewide climate change legislation, as defined by EO S-3-05.[6] Because the CAP is consistent with SB 32 and is a qualified GHG reduction strategy, the proposed project can use the CAP to evaluate the impact significance of full-build emissions. This approach is applicable to the proposed project and used to evaluate non-stationary-source GHG emissions.

[6] Butterworth, Benjamin. Sustainable Buildings & Communities Consultant. DNV GL. San Francisco, CA. December 16, 2016—email message to ICF

### Compliance with Regulatory Programs

In addition to the evaluation of consistency with the city's CAP, this analysis also discusses the proposed project's compliance with regulatory programs designed to reduce GHG emissions from activities (e.g., building efficiency, transportation, water usage) to further substantiate the significance determinations concluded for the proposed project. To the extent that the proposed project's design features comply with or exceed the regulations adopted by CARB or other state agencies, the city could rely on this compliance to show that the proposed project is reducing emissions consistent with statewide legislation.

## 11.5.2 Study Methodology

Operational GHG emissions were generally quantified using the same methods described in Chapter 6, Air Quality. Further assumptions were necessary to evaluate the additional emissions associated with indirect electricity consumption, water consumption, and solid waste generation. Assumptions related to project operations were based on project-specific information provided by the project applicant and model defaults where project-specific information was not available. Additional operational assumptions unique to the analysis of GHG emissions are provided below.

## 11.5.3 Summary of No and/or Beneficial Impacts

Not applicable. The project has the potential for impacts based on the above criteria.

## 11.5.4 Impacts of the Proposed Project

**Impact GHG-1: The project would generate greenhouse gas emissions, either directly or indirectly, that could have a significant impact on the environment. This is a less than significant impact.**

### Short-Term Construction Greenhouse Gas Emissions

Construction of the project would result in direct emissions of $CO_2$, $N_2O$, and $CH_4$ from the operation of construction equipment and the transport of materials and construction workers to and from the project site. BAAQMD does not have a threshold for construction GHG emissions, which are one-time, short-term emissions and therefore would not significantly contribute to long-term cumulative GHG emissions impacts of the proposed project. However, the BAAQMD advises that construction GHG should be disclosed and a determination on the significance of construction GHG emissions in relation to meeting AB 32 GHG reduction goals should be made. Total GHG emissions generated during all phases of construction were combined and are presented in Table 11-2: Construction Greenhouse Gas Emissions. The CalEEMod outputs are contained within the **Appendix B.**

**Table 11-2: Construction Greenhouse Gas Emissions**

| Construction Year | (Metric tons per year) | | | |
|---|---|---|---|---|
| | $CO_2$ | $CH_4$ | $N_2O$ | $CO_{2e}$ |
| 2024 | 1,558 | <1 | <1 | 1,579 |
| 2025 | 1,904 | <1 | <1 | 1,926 |
| 2026 | 885 | <1 | <1 | 895 |
| **Total** | **4,347** | **<1** | **<1** | **4,402** |

$CO_2$ = carbon dioxide; $CH_4$ = methane; $N_2O$ = nitrous oxide; $CO_2e$ = carbon dioxide equivalent, including the relative warming capacity (i.e., global warming potential) of each GHG

As shown in Table 11-2, it is estimated that the construction of the project would generate approximately 4,402 $MTCO_2e$ during the construction period. These emissions are primarily a result of the use of diesel-powered equipment. Once project construction ceases emissions from construction activities will also cease, therefore these emissions are considered short-term and would not result in a permanent increase in emissions that would interfere with the implementation of the State's GHG reduction goals (established by AB 32, SB 32, AB 1279, etc.). The construction years shown provide a conservative analysis, as construction equipment fleets, vehicle emissions, and control measures for equipment will continue to improve emissions as technology advances. Furthermore, BAAQMD recommends the implementation of all Basic Construction Control Measures, whether or not construction-related emissions exceed applicable significance. The proposed project would implement BAAQMD Best Management Practices (BMPs) during construction as identified below and stated in the BAAQMD CEQA Guidelines, and as may be required by city conditions of approval. While the project's contribution to short term construction-related GHG emissions is considered less than significant as noted above, implementation of these BMPs would further reduce short term construction emissions and impacts consistent with BAAQMD guidance.

### BAAQMD Best Management Practices

During demolition and construction, the project sponsor shall implement the following BMPs. These requirements shall be documented on final construction drawings and must be verifiable as a condition of project approval.

- Use alternative-fuel (e.g., biodiesel, electric) construction vehicles/equipment (at least 15 percent of the project's construction fleet).
- Use local (within 200 miles) building materials (at least 10 percent).
- Recycle at least 50 percent of construction waste or demolition materials.

## Long-Term Operational Greenhouse Gas Emissions

Operational or long-term emissions would occur over the project's lifespan. Mobile, area, energy, water, and waste emissions were estimated using CalEEMod with energy adjustments made for the laboratory spaces and operations. Operational GHG emissions would also result from indirect sources, such as off-site generation of electrical power, the energy required to convey water to, and wastewater from the project site, and the emissions associated with solid waste generated from the project site. Table 11-3: Operational Greenhouse Gas Emissions, shows the existing land use emissions, the proposed project emissions, and the difference between the two, which is the net impact of the proposed project. The operational modeling outputs and detailed assumptions are included in **Appendix B.**

**Table 11-3: Operational Greenhouse Gas Emissions**

| Source (Existing Land Use) | Metric tons per year | | | |
|---|---|---|---|---|
| | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
| Area Sources | <1 | <1 | - | <1 |
| Energy Use | 203 | <1 | <1 | 205 |
| Mobile Sources | 1,578 | <1 | <1 | 1,599 |
| Solid Waste Generation | - | <1 | - | 6 |
| Water Use | - | <1 | <1 | 1 |

| | | | | |
|---|---|---|---|---|
| Total Existing On-Site Operational Emissions (per year) | 1,781 | <1 | <1 | 1,810 |
| **Source (Proposed Project)** | **Metric tons per year** | | | |
| | **$CO_2$** | **$CH_4$** | **$N_2O$** | **$CO_2e$** |
| Area Sources | <1 | <1 | - | <1 |
| Energy Use | 728 | <1 | <1 | 733 |
| Mobile Sources | 4,649 | <1 | <1 | 4,707 |
| Stationary Sources | 17 | <1 | - | 17 |
| Solid Waste Generation | - | 6 | - | 152 |
| Water Use | - | 9 | <1 | 152 |
| Total Project On-Site Operational Emissions (per year) | 5,394 | 15 | <1 | 5,889 |
| **Net Project Emissions** | 3,613 | 15 | <1 | 4,079 |

$CH_4$ = methane; $CO_2$ = carbon dioxide; $CO_2e$ = carbon dioxide equivalent; $N_2O$ = nitrous oxide

Existing uses are estimated to result in approximately 1,810 metric tons of $CO_2e$ per year, while the proposed project would result in approximately 5,889 metric tons of $CO_2e$ per year. Net emissions associated with the project are estimated by subtracting emissions associated with existing land uses from the proposed project land uses. The net project emissions are 4,079 metric tons of $CO_2e$ per year.

The project would comply with the Title 24 Part 6 Building Energy Efficiency Standards in effect when building permits are submitted, which may be the current 2022 Title 24 Part 6 or a later version, as Title 24 is updated every three years. Among other updates to the 2019 version, such as strengthened ventilation standards for gas cooking appliances, the 2022 Energy Code includes updated standards including new electric heat pump requirements for residential uses, schools, offices, banks, libraries, retail, and grocery stores; and the expansion of solar photovoltaic and battery storage standards to additional land uses beyond low-rise residential, including high-rise multifamily residences, hotels and motels, tenant spaces, offices, (including medical offices and clinics), retail and grocery stores, restaurants, schools, and civic uses (including theaters auditoriums, and convention centers). Projects with permit applications that are applied for on or after January 1, 2023, must comply with the 2022 Energy Code.[7]

The project would also comply with the appliance energy efficiency standards in Title 20 of the CCR. The Title 20 standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances. The California Energy Commission proposed to adopt changes based upon agency discretion.[8] The project would be constructed according to the standards for high-efficiency water fixtures for indoor plumbing and water efficient irrigation systems required in the applicable version of Title 24, Part 11 (CALGreen), assumed to be 2022 Title 24, Part 11 for this analysis.

At the State and global level, improvements in technology, policy, and social behavior would influence and reduce project operational emissions. The State is currently on a pathway to achieving the Renewable Portfolio Standards goal of 52 percent by December 31, 2027, 60 percent renewables by 2030 per SB 100, and achieve carbon neutrality by 2045 per AB 1279. Energy and mobile sources are

[7] California Energy Commission. 2022. *2022 Building Energy Efficiency Standards*, https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency (accessed September 2023).
[8] California Energy Commission. 2021. *2021Public Hearing – California Energy Commission* , https://www.energy.ca.gov/event/meeting/2021-08/public-hearing-california-energy-commission-proposes-adopt-changes-california (accessed October 2023).

targeted by statewide measures such as low carbon fuels, cleaner vehicles, strategies to promote sustainable communities and improved transportation choices that result in reducing VMT. With continued implementation of various statewide measures, the project's operational energy and mobile source emissions would continue to decline in the future.

Further, a recent CARB assessment makes clear that the state is "not on track to meet greenhouse gas reductions expected under SB 375." SB 743 is intended to close the VMT and emissions reduction gap. There is therefore a nexus between SB 743 and state goals to reduce mobile-source GHG emissions. In response to SB 743, OPR released its technical advisory on evaluating transportation impacts under CEQA in December 2018. The advisory indicates that "achieving 15 percent lower per capita (residential) or per employee (office) VMT than existing development is both generally achievable and is supported by evidence that connects this level of reduction to the state's emissions goals." This reduction goal is consistent with recent CARB (2019) analysis, which demonstrates that a 14.3 percent reduction in VMT per capita by 2050 (compared to a 2015–2018 average) would be needed statewide to meet the GHG planning goals. The proposed project would meet the city's VMT reduction target of 15 percent, which is designed to meet statewide VMT reduction goals.

As shown in Table 11-3, the vast majority of GHG emissions are mobile source emissions, accounting for a net increase of 3,108 metric tons of $CO_2e$ or nearly 80 percent of operational emissions. For this reason, the city's CAP and strategies for reducing GHG emissions focus on reducing VMT and promoting alternative forms of transportation. These strategies and project-specific measures are also reflected in the project's Transportation Demand Management (TDM) program.

As discussed below, GHG Emissions associated with the project would be less than significant with incorporation of all TDM measures and demonstrated consistency with the city's CAP. GHG emissions from one project on its own cannot cumulatively impact climactic conditions, therefore emissions from a project must comply and adhere to the goal of emissions standards set by the air quality district or the city's climate action plan. With implementation of the TDM program, CAP and BAAQMD's BMP's the project would not have a cumulative impact on the environment. Impacts would be **less than significant**, and no further mitigation is required.

### Impact GHG-2: The project will not conflict with a plan, policy or regulation adopted for the purpose of reducing greenhouse gas emissions. This is a less than significant impact.

As discussed above in Section 11.4.4, the city finalized a Climate Action Plan (CAP) in December 2017 to present goals and measures for reducing the city's GHG emissions. The project would be consistent with and rely on these goals and measures, as discussed further below.

#### City of Belmont Climate Action Plan

The City of Belmont's CAP is a guide that outlines a path for the city to use to achieve its community GHG reduction goal of 15 percent below 2005 levels by 2020 and a 50 percent reduction below 2005 levels by 2035. The CAP spotlights 23 recommended GHG emissions reductions, and of these 23 only 10 apply to the project. The other 13 measures do not apply to the project as they are directed toward public project development.

**Table 11-4: Consistency with the City of Belmont's CAP**

| Measure Category | Description | Consistent | Implementation |
|---|---|---|---|
| Transportation and Land Use | TL1 – Establish a Smart Growth Policy that prioritizes infill, higher density, transportation-oriented, and mixed-use development. | Yes | Although this measure is an action item for the city, the seven- and eight-story office buildings will replace one existing four-story building which is consistent with the city's goals for higher density development. |
| Transportation and Land Use | TL2 – Remake urban landscape to ensure, complete Streets, with bike lanes, bike parking, traffic calming, beautification, etc. Continue to support paper trails and safe routes to school to encourage walking. | Yes | The proposed project will improve conditions for walking and biking, by providing 191 bicycle racks for parking. A pedestrian promenade will be constructed from the parking garage to Buildings 1 and 2 providing access to on-site landscape amenities. |
| Transportation and Land Use | TL3 – Incentivize City Car Sharing Companies to open pods in town. Explore the Bike Share program. | Yes | Although this measure is an action for the city, the proposed project will provide a carpool/vanpool shuttle program and matching services, curbside carpool/vanpool/rideshare loading zones and preferential parking, and guaranteed emergency rides, which supports this measure's goal to reduce single-occupancy vehicle driving. |
| Transportation and Land Use | TM2 – Establish alternative work schedules to reduce employee commute. | Unknown | Although this measure applies to municipal development, the proposed project's final TDM program will likely include a wide range of employer-based measures designed to achieve the goal of reducing employee commutes. |
| Energy (Community) | EC1 – Adopt CALGreen for non-residential buildings triennially. Work to mandate achievement of CALGreen Tier 1 energy performance. | Yes | The proposed project will implement the most recent CALGreen codes as adopted by the city and the project would also implement CALGreen Tier 1 energy performance, which would help the city achieve this measure's goal. |
| Energy (Community) | EC6 – Continue to be part of the Peninsula Clean Energy (PCE) Community Choice Aggregation (CCA) Program and continue to opt for the ECO100 option (100% renewable energy) for all city facilities. | Yes | The proposed project will be served by PCE, which would help the city reach this measure's goal of providing carbon free and renewable electricity. |
| Solid Waste (Community) | WC1 – Increase participation in recycling programs and ensure weekly collection of recyclables and organic waste. | Yes | Although this measure is an action item for the city, the proposed project will have recycling containers, which supports the city's goal to increase |

| | | | |
|---|---|---|---|
| | | | participation in recycling and organic waste programs. |
| Solid Waste (Community) | WC2 – Mandate businesses recycle and provide staff or contractor to verify compliance. | Yes | Although this measure is an action item for the city, the proposed project will have recycling containers, which supports the city's goal of increasing recycling for businesses. |
| Solid Waste (Community) | WC4 – Increase diversion/recycling of yard waste by landscapers and landscape maintenance businesses and food scraps by residents and businesses. Explore a ban on these organics from landfill. | Yes | Although this measure is an action item for the city, the proposed project would be required to comply with SB 1383 which requires a 50 percent reduction in organic waste. The project would provide organics/composting waste services, which supports the city's goal to divert organics from the landfill. |
| Energy (Water) | EW2 – Adopt Bay Area Water Supply and Conservation Agency (BAWSCA) Ordinances or triennial CALGreen codes that apply to water. | Yes | The proposed project will implement the current Mid-Peninsula Water District adopted BAWSCA outdoor water ordinance, which supports these measures' goal of reducing energy through water conservation. |

Source: City of Belmont. 2017. *Draft Environmental Impact Report for the Belmont General Plan Update, Phase I/Interim Zoning, Belmont Village Specific Plan, and Climate Action Plan.* Available: https://www.belmont.gov/home/showpublisheddocument/16597/636680209325230000. Accessed: May 2024

## Mobile Source Emissions

As noted previously, the project is expected to result in a net increase of 3,108 metric tons of $CO_2e$ annually compared to existing conditions. The Belmont CAP has six Transportation and Land Use measures. Although many of the measures require action on the city' part to create policies and incentive programs, the proposed project supports all four of the measures that are considered applicable. The proposed project as submitted, with the identified TDM measures in the transportation analysis, would meet the city's VMT reduction target of 15 percent, which is designed to meet statewide VMT reduction goals. Therefore, it would not conflict with the state's long-term emissions reduction trajectory for mobile sources.

## Area Emissions

The proposed project's emissions associated with area sources would amount to approximately less than 1 metric ton of $CO_2e$ per year. This small quantity is consistent with existing conditions and therefore less than significant. The Belmont CAP does not include measures specific to area source emissions. Additionally, there are no relevant measures in the scoping plan for landscaping equipment. Although an inevitable transition away from fossil-fuel equipment will be needed to achieve carbon neutrality by 2045, the scoping plan did not assume all-electric landscaping equipment in its 2030 reduction analysis. The proposed project's use of a mix of trees, shrubs, and meadows would reduce landscaping emissions compared with projects that plant only grass. This is consistent with the scoping plan's overall goal of reducing emissions from fossil-fuel powered landscaping equipment.

### Energy Emissions

Building energy emissions of the project would amount to a net increase of approximately 528 metric tons of $CO_2e$ annually. The Belmont CAP has 13 energy measures, and many of the measures require actions on the city's part to create policies and incentive programs. Further, five of the energy related. Measures apply to improving city municipal buildings and are thus not applicable. The proposed project supports both measures that are considered applicable, as stated in Table 11-4 above.

### Solid Waste Emissions

Existing emissions from solid waste amounts to approximately 152 metric tons of $CO_2e$ per year, a net increase of 146 metric tons of $CO_2e$ relative to existing conditions. The Belmont CAP has three waste measures, and many of the measures require action on the city's part to create policies and incentive programs. The three measures in the CAP addressing solid waste call for recycling programs and diversion/recycling of yard/landscaping waste. The project's stated support for these measures would be consistent with the CAP.

### Water Emissions

Emissions associated with water use would amount to approximately 280 metric tons of $CO_2e$ per year, a net increase of 279 metric tons of $CO_2e$ relative to existing conditions. The Belmont CAP has two measures related to the water sector. Although both measures require action on the city's part to create policies and incentive programs, the proposed project supports the one measure that is considered applicable, as stated in Table 11-4.

Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the GHGRS. As described above, the project would not conflict with the CAP. Therefore, the project would be consistent with a qualified local GHG reduction plan under CEQA Guidelines Section 15183.5 and impacts would be considered **less than significant** in this regard.

#### Plan Bay Area/ California Senate Bill 375

The project would be consistent with the overall goals of Plan Bay Area 2050 to provide climate protection with an overall goal to reduce VMT. As noted above, the project has developed a TDM program to reduce GHG emissions. It is estimated that the project would generate up to 3,398 net daily trips. To reduce VMT and associated emissions, the project would help to improve conditions for walking and biking, by providing bicycle parking and a pedestrian promenade. The proposed project would be infill, involving the redevelopment of the site. Overall, the project will incorporate 13 TDM features, which are anticipated to reduce per capita VMT by approximately 7.4 percent, resulting in a total per capita VMT that would be 15 percent below the county average of 17.21 VMT per employee.

This reduction percentage is consistent with the city's VMT reduction target of 15 percent, which is designed to meet statewide VMT reduction goals. These policies would support alternative transportation within the community, which could help reduce VMT and per capita GHG emissions from passenger vehicles, consistent with Plan Bay Area 2050.

### Assembly Bill 32 and Senate Bill 32

The California State Legislature adopted AB 32 in 2006. AB 32 focuses on reducing GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the ARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan provides a range of GHG reduction actions that include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as the cap-and-trade program, and an AB 32 implementation fee to fund the program.

The latest CARB Climate Change Scoping Plan (2017) outlines the State's strategy to reduce the State's GHG emissions to return to 40 percent below 1990 levels by 2030 pursuant to SB 32. The CARB Scoping Plan is applicable to State agencies and is not directly applicable to cities/counties and individual projects. Nonetheless, the Scoping Plan has been the primary tool that is used to develop performance-based and efficiency-based CEQA criteria and GHG reduction targets for climate action planning efforts.

The 2017 Scoping Plan Update identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the First Update to the Climate Change Scoping Plan (2013). Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions would be adopted as required to achieve statewide GHG emissions targets. The project is consistent with most of the strategies, while others are not applicable to the project.

GHG emissions from construction will be reduced with the BAAQMD BMPs implemented at the project site. Once construction ceases the emissions from the activity will stop. This makes the construction emissions short-term resulting in a less than significant impact. As stated previously, GHG emissions from stationary sources would be less than significant, as such emissions would be well below the BAAQMD threshold. The less-than-significant impact is also supported by implementation of the project's TDM program. The project would achieve a per capita VMT reduction of 15 percent, which is consistent with OPR's technical advisory stating, "achieving 15 percent lower per capita (residential) or per employee (office) VMT than existing development is both generally achievable and is supported by evidence that connects this level of reduction to the state's emissions goals." The proposed project would also implement sustainability measures, including waste diversion measures, and water reduction features that are consistent with the 2017 Climate Change Scoping Plan reducing GHG emissions. These reductions would assist the state with meeting its GHG reduction goals and would thus not conflict with any adopted statewide plans.

Impacts associated with consistency with existing plans and programs to reduce GHG emissions would be **less than significant**. No mitigation is required.

## 11.5.5 Cumulative Impact Analysis

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately one day), GHGs have much longer atmospheric lifetimes of one year to several thousand years that allow them to be dispersed around the globe.

**Impact GHG-3: The project will not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. This is a less than significant impact.**

It is generally the case that an individual project of the project's size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of project related GHG emissions would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the project as well as other cumulative related projects, would be subject to all applicable regulatory requirements, which would further reduce GHG emissions. As shown in Table 11-2 and 11-3, the project's GHG emissions would be less than significant with the implementation of the TDM program and measures identified in the CAP. The project would not conflict with any GHG reduction plan.

The project demonstrates consistency with the General Plan goals, policies, measures, and emission reduction targets, and would not conflict with any applicable plan, policy, or regulation of an agency adopted to reduce GHG emissions, including Title 24, AB 32, and SB 32. Therefore, project impacts and the project's cumulative contribution to these emissions would be **less than significant**.

## 11.6 References

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# 12 Hazards and Hazardous Materials

## 12.1 Introduction

This chapter describes potential effects from identified hazards and hazardous materials that could result from implementation of the proposed project. Information used to prepare this section was sourced primarily from the following documents:

- Cornerstone Earth Group, Phase I Environmental Site Assessment for 1301 Shoreway Road – Belmont, CA, October 2021. (**Appendix G**)
- City of Belmont 2035 General Plan – Safety Element, 2017.
- City of Belmont Draft Environmental Impact Report for the General Plan Update, Phase I Zoning, Belmont Village Specific Plan and Climate Action Plan, 2017.

## 12.2 Scoping Issues Addressed

During the Notice of Preparation (NOP) public comment and scoping period for the proposed project, several comments related to hazards or hazardous materials were received. The San Francisco Bay Conservation and Development Commission (BCDC) requested that the EIR address "groundwater rise" relative to inundation and the potential exposure of subsurface contaminants. The California Department of Toxic Substances Control (DTSC) recommended lead and asbestos surveys for demolished material and that any import of fill material be tested. Caltrans Aeronautics requested that building heights be analyzed relative to FAA and local restrictions, and the Sierra Club (Loma Prieta Chapter) requested that the EIR address issues of public health, hazards and biosafety levels associated with life science laboratory use, including laboratory operations, ventilation and waste disposal. Other comments from the public noted the use of natural gas and other flammable gases as an issue to be addressed in the EIR. These issues are addressed in this chapter. Seismic and geologic risks are addressed in Chapter 10, Geology and Soils, and the risk of contamination due to inundation by flood waters is addressed in Chapter 13, Hydrology and Water Quality. The ability for emergency service providers to respond to incidents at the site is also addressed in this chapter, as well as in Chapter 16, Public Services and Recreation.

## 12.3 Environmental Setting

### 12.3.1 Regional Setting

Belmont is located in San Mateo County on the San Francisco Peninsula, halfway between San Francisco and San Jose. Covering 4.7 square miles, Belmont is located along bay marshlands and sloughs in the eastern area and hilly terrain in the western portions of the city. Belmont is at or near sea level along the marshlands and rises over 800 feet in elevation in the western areas.

Areas with known or suspected release of hazardous materials to soil and groundwater, and where current cleanup activities monitored by the State Water Quality Control Board or the California Department of Toxic Substances are active, are primarily located in eastern Belmont, concentrated in the Belmont Village Priority Development Area (PDA) and the Harbor Industrial Area (HIA). Most of the sites in Belmont are Leaking Underground Storage Tanks (LUSTs) sites, and many of these sites are

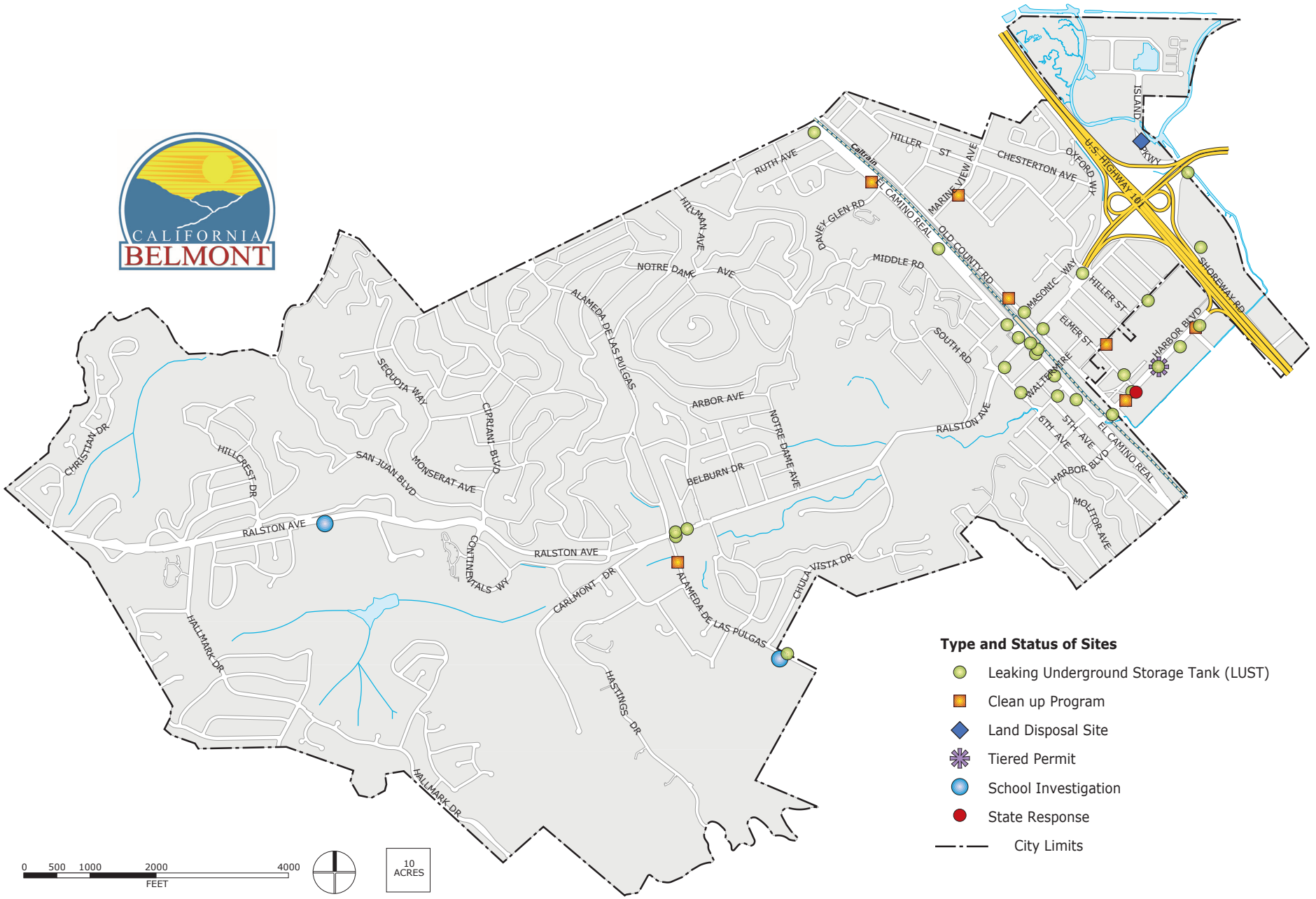
automobile-related, such as gas stations or auto repair shops. Two school sites – associated with Ralston Middle School and Carlmont High School – are listed as under investigation. Belmont also currently has sites undergoing remediation for contamination with hazardous materials. Some contaminated sites are on vacant parcels or properties with the potential to redevelop. Contamination does not render these sites unusable, but may require time and funding for cleanup, and in some cases, may limit allowable land uses. **Figure 12-1: Hazardous Materials Locations Reported by the City of Belmont** illustrates the locations of recorded hazardous materials sites in the City of Belmont.

## 12.3.2 Project Site

### Historic Land Use

Based on the Phase I ESA (Cornerstone Earth Group, 2021), the site historically consisted of tidal marshland at the perimeter of San Francisco Bay. Historic aerial photographs and topographic maps reviewed by Cornerstone dating back to as early as 1896 indicate no structures or developed land uses on the site until construction of the existing building in 1982. Highway 101 was constructed southwest of the site by 1939. Aerial photos from the 1940s through 1960s indicate that marshlands on the site were in the process of being filled, with fill being placed across most of the site during a period spanning several decades. This fill, on the project site and surrounding properties, facilitated commercial developments adjacent to the property. Aerial photos from the 1950s through 1970s show the site as vacant, undeveloped land until construction of the existing building.

The existing four-story multitenant office building was completed in the early 1980s. Past tenants reportedly have used the building primarily as office space. Medical facilities and offices, a café, a fitness center, and classroom uses have also been reported as prior internal uses of the structure.




Source: City of Belmont, 2017

**Figure 12-1: Hazardous Materials Locations Reported by the City of Belmont**

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### Existing Site Conditions and Land Uses

The site visit by Cornerstone in 2021 documented that the four-story commercial building was occupied by multiple tenants that appeared to use the building as general office space, along with outpatient medical services, a café and a fitness center. These recent uses are consistent with the reported historical uses of the building. A basketball court enclosed by fencing was observed on the eastern portion of the site. Kimley-Horn's field visit in March 2024 confirmed these conditions, except that the building now appeared nearly empty based on the absence of vehicles in the parking areas.

Potable water is supplied to the site by Mid-Peninsula Water District infrastructure. The building presumably is connected to the publicly owned sanitary sewer system; no on-site septic systems were obvious. On-site storm water catch basins appeared to discharge via below ground piping to the City's storm water drainage system and/or to a below grade stormwater collection sump located on the northern corner of the site. Facility maintenance staff indicated that the stormwater sump discharges to Belmont Creek. Electrical transformers and electrical switchgear owned by PG&E were observed on concrete pads on the northwestern portion of the property. No evidence of transformer oil leaks was observed. A groundwater monitoring well (MW-101) was observed within the asphalt paved parking area on the southern portion of the site.

Surrounding and adjacent uses include commercial offices buildings to the northeast (across Belmont Creek), hotel and the city's corporation yard to the northwest (across Sem Lane), a PG&E electrical substation to the southeast, and public roadways (Shoreway Road and Highway 101) to the southwest.

## 12.3.3 Phase I Environmental Site Assessment Findings

As noted above, a Phase I environmental site assessment (ESA) was prepared for the project site by Cornerstone Earth Group in October 2021 (see **Appendix G**). The 2021 Phase I ESA included a site reconnaissance to note readily observable indications of significant hazardous materials release to structures, soil or groundwater; a regulatory records review and database report to evaluate potential impacts from the site or from reported contamination sources nearby; and interviews with persons knowledgeable about the site. The Phase I ESA was prepared in accordance with ASTM standard for ESA preparation, which strives to identify, to the extent feasible, Recognized Environmental Conditions (RECs) at the property.

### Previous Site Investigations

The subject property has been evaluated within several prior Phase I ESAs provided to Cornerstone by the project applicant. These reports include:

- Phase I Environmental Site Assessment, Office Building, 1301 Shoreway Road, Belmont, CA (Professional Service Industries [PSI] August 2016)
- Phase I Environmental Site Assessment, 1301 Shoreway Road, Belmont, CA (EMG, May 2016)
- Phase I Environmental Site Assessment, Belmont Shores, 1301 Shoreway Road, Belmont, CA (Transaction Management Corporation, Inc., October 2012)
- Phase I Environmental Site Assessment, Belmont Shores Office Building, 1301 Shoreway Road, Belmont, CA (Aaron & Wright Technical Services, March 2005)
- Phase I Environmental Site Assessment, Belmont Shores Office Building, 1301 Shoreway Road, Belmont, CA (Eckland Consultants, Inc., November 1999)

#### Environmental Record Resources

##### Standard Environmental Record Sources

Cornerstone conducted a review of federal, state, and local regulatory agency databases provided by Environmental Data Resources (EDR) to evaluate the likelihood of contamination incidents at and near the site. A detailed list of the database sources reviewed, a description of the sources, and a radius map showing the location of reported facilities relative to the project site is included in **Appendix G** and summarized below:

##### On Site Database Listings

Several medical services companies including Sequoia Medical Group, Nursing & Rehab at Home, and Agility Health were identified at the project address on a county database of facilities that generate medical waste. Additional companies tied to the site address were identified on the HAZNET data base which contains information extracted from the Department of Toxic Substances Control (DTSC).

Medical wastes were categorized as laboratory waste chemicals; aged or surplus organics; and unspecified organic liquid mixtures. Some facilities at the address were categorized as "non-generators" that are no longer registered and do not presently generate hazardous waste. No violations were reported for these users at the building tied to this address.

##### Nearby Spill Incidents

Two open cases were listed in the general vicinity of the site including the Brusco property at 248 Harbor Boulevard and the Purex property at 511 O'Neill Road. These facilities are located approximately 750 and 1,750 feet southwest of the site, respectively, and generally up-gradient with respect to the reported groundwater flow direction. Based on the information presented in the agency database report, no other off-site spill incidents were reported that appear likely to significantly impact soil, soil vapor or groundwater beneath the site.

The primary concerns at the Brusco property consist of volatile organic compounds (VOCs), mainly trichloroethene (TCE). Remediation and monitoring efforts associated with the Brusco property are ongoing and are being conducted under San Mateo County Department of Environmental Health (DEH) oversight.

The Purex property was formerly occupied by BBI and used from 1961 to 1974 as a solvent distribution and recycling facility. The primary constituents of concern at this location consist of TCE, cis-2, 2-dichloroethene and vinyl chloride, which have been detected in groundwater, surface water, and soil vapor. Remediation and monitoring efforts associated with the Purex property are also ongoing and are being conducted under State Water Board oversight. No VOCs have been detected in groundwater at the on-site monitoring well since 2013.

### 12.3.4 Other Environmental Findings and Site Conditions

#### Chemical Storage and Use

No hazardous materials were observed during preparation of the Phase I ESA. Additionally, the site does not appear to have historically been occupied by businesses that are typically associated with the use or storage of significant quantities of hazardous materials. Medical wastes were noted to be generated by some occupants and disposed off-site; however, the potential for these materials to significantly impact the site appears low.

### Undocumented Fill

Fill was historically imported to the site to raise low lying land elevations. The source and quality of the fill are unknown. Considering that much of general site vicinity was similarly filled, the potential for the on-site fill to significantly impact the planned use of the site appears low. If a higher degree of confidence in fill quality is desired, soil sampling and analytical testing could be conducted; if this soil is excavated for off-site disposal during redevelopment activities, soil sampling/profiling will be required by the accepting facility.

### Asbestos Containing Building Materials (ACBMS) and Lead Based Paint

Due to the age of the existing structure, building materials may contain asbestos. Because demolition of the building is planned, an asbestos survey is required by local authorities and/or National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines. NESHAP guidelines require the removal of potentially friable ACBMs prior to building demolition or renovation that may disturb the ACBM.

In 1978, the Consumer Product Safety Commission banned lead-containing paints and coatings sold for consumer use. Some lead-containing products, such as industrial coatings, however, are still allowed. Based on the age of the existing structure, lead-containing paint is not likely to be present.

### Wildland Fire Hazards

Portions of Belmont have a substantial risk of wildland fires, as the city contains large areas of high and very high threat within the city's larger planning area. These areas of higher risk are in the western areas of the city. According to the City of Belmont General Plan, the project area and surrounding areas along the Bayshore are not in a high or very high fire hazard area.

### Hazardous Materials Transport on Roadways

The project site is located on Shoreway Road fronting Highway 101. Shoreway Road, Highway 101, Ralston Avenue and Marine Parkway are all designated truck routes. Truck routes are more likely to be used for the transport of hazardous wastes and materials associated with local businesses and industry (see **Figure 12-2: Truck Routes**). Truck accidents could result in upset or spills of such materials. The transport of hazardous materials is subject to federal, State, and local regulations to minimize impacts and risks associated with the transportation of hazardous materials.

### Airport Proximity

The nearest public airport, public use airport, and/or private airstrip is San Carlos Airport. The project site is located approximately 4,600 feet (0.9 miles) northwest of the north end of the airport runway. The Comprehensive Land Use Compatibility Plan for the Environs of San Carlos Airport (2015 ALUCP and 2022 amendments) is the primary document used by the Airport Land Use Commission to help promote compatibility between an airport and its environs, and serves as a guide in safeguarding the general welfare of the public as a land use and planning document. The project is located within Airport Influence Area (AIA) B as defined by the ALUCP. The ALUCP is discussed in further detail below.

San Carlos Airport is one of three airports in San Mateo County. San Francisco International Airport is located approximately 8 miles to the northwest, and the Half Moon Bay airport is approximately 12.5 miles to the west.

## 12.4 Applicable Regulations, Plans, and Standards

The management of hazardous materials and hazardous wastes is regulated at federal, state, and local levels, including, among others, through programs administered by the U.S. Environmental Protection Agency (U.S. EPA); agencies within the California Environmental Protection Agency (CalEPA), such as the DTSC; federal and state occupational safety agencies; and the San Mateo County Environmental Health Division. Regulations pertaining to flood hazards are discussed in Chapter 13: Hydrology and Water Quality, and regulations for geologic and soil-related hazards are discussed in Chapter 10: Geology and Soils.

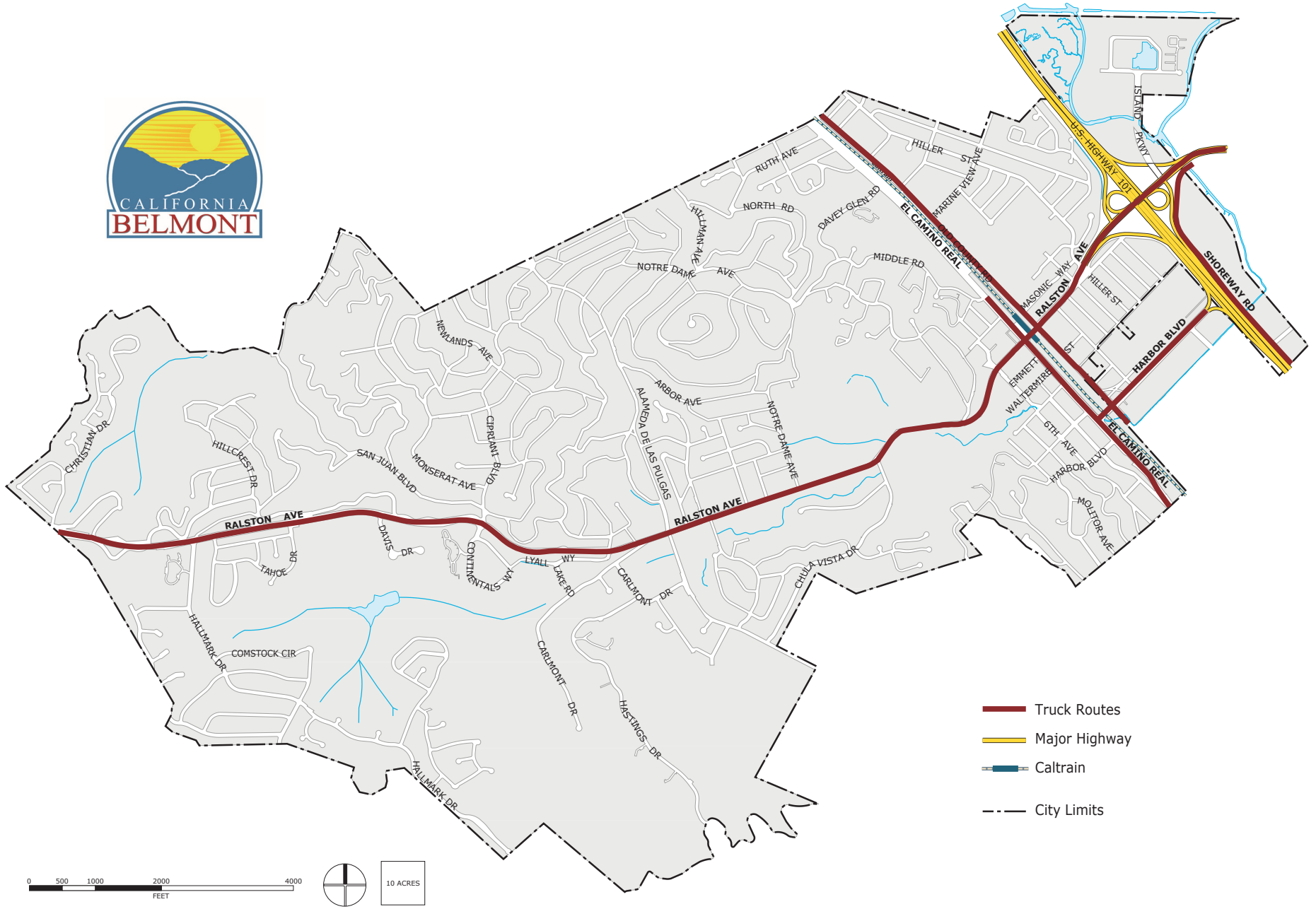
### 12.4.1 Federal

#### Toxic Substances Control Act/Resource Conservation and Recovery Act/Hazardous and Solid Waste Act

The federal Toxic Substances Control Act of 1976 and Resource Conservation and Recovery Act (RCRA) established a program administered by the U.S. EPA for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the "cradle to grave" system of regulating hazardous wastes.

#### Comprehensive Environmental Response, Compensation, and Liability Act/Superfund Amendments and Reauthorization Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law (U.S. Code Title 42, Chapter 103) provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites; provides for liability of persons responsible for releases of hazardous waste at these sites; and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also enables the revision of the National Contingency Plan (NCP). The NCP (Title 40, Code of Federal Regulation [CFR], Part 300) provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The NCP also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.




Source: City of Belmont, 2017

**Figure 12-2: Truck Routes**

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### Occupational Safety and Health Administration (OSHA)

OSHA's mission is to ensure the safety and health of America's workers by setting and enforcing standards; providing training, outreach, and education; establishing partnerships; and encouraging continual improvement in workplace safety and health. OSHA staff establishes and enforces protective standards and reaches out to employers and employees through technical assistance and consultation programs. OSHA standards are listed in Title 29 CFR Part 1910.

OSHA's Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) applies to five distinct groups of employers and their employees. This includes any employees who are exposed or potentially exposed to hazardous substances — including hazardous waste — and who are engaged in one of the following operations:

- Clean-up operations — required by a governmental body, whether federal, State, local, or other involving hazardous substances — that are conducted at uncontrolled hazardous waste sites;
- Corrective actions involving clean-up operations at sites covered by RCRA as amended (42 U.S.C. 6901 et seq.);
- Voluntary clean-up operations at sites recognized by federal, state, local, or other governmental body as uncontrolled hazardous waste sites;
- Operations involving hazardous wastes that are conducted at treatment, storage, and disposal facilities regulated by Title 40 Code of Federal Regulations Parts 264 and 265 pursuant to RCRA, or by agencies under agreement with U.S. EPA to implement RCRA regulations; and
- Emergency response operations for releases of, or substantial threats of releases of, hazardous substances regardless of the location of the hazard.

## 12.4.2 State

### California Environmental Protection Agency

CalEPA has jurisdiction over hazardous materials and wastes at the State level. DTSC is the department of CalEPA responsible for implementing and enforcing California's own hazardous waste laws, which are known collectively as the Hazardous Waste Control Law. DTSC regulates hazardous waste in California primarily under the authority of the federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Although similar to RCRA, the California Hazardous Waste Control Law and its associated regulations define hazardous waste more broadly and regulate a larger number of chemicals. Hazardous wastes regulated by California but not by the USEPA are called "non-RCRA hazardous wastes. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. Government Code Section 65962.5 (commonly referred to as the Cortese List) includes DTSC-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by the State Water Resources Control Board (SWRCB) as having underground storage tank leaks and have had a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites that have had a known migration of hazardous waste/material.

### Hazardous Materials Release Response Plans and Inventory Act of 1985

The California Health and Safety Code, Division 20, Chapter 6.95, known as the Hazardous Materials Release Response Plans and Inventory Act or the Business Plan Act, requires businesses using hazardous materials to prepare a plan that describes their facilities, inventories, emergency response plans, and training programs. Businesses must submit this information to the County Environmental Health Division. The Environmental Health Division verifies the information and provides it to agencies responsible for protection of public health and safety and the environment. Business Plans are required to include emergency response plans and procedures in the event of a reportable release or threatened release of a hazardous material, including, but not limited to, all of the following:

- Immediate notification to the administering agency and to the appropriate local emergency rescue personnel.
- Procedures for the mitigation of a release or threatened release to minimize any potential harm or damage to persons, property, or the environment.
- Evacuation plans and procedures, including immediate notice, for the business site.

Business Plans are also required to include training for all new employees, and annual training, including refresher courses, for all employees in safety procedures in the event of a release or threatened release of a hazardous material.

### Hazardous Waste Control Act

The Hazardous Waste Control Act created the State hazardous waste management program, which is similar to but more stringent than the federal RCRA program. The act is implemented by regulations contained in Title 26 of the CCR, which describes the following required aspects for the proper management of hazardous waste: identification and classification; generation and transportation; design and permitting of recycling, treatment, storage, and disposal facilities; treatment standards; operation of facilities and staff training; and closure of facilities and liability requirements. These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the Hazardous Waste Control Act and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with the DTSC.

### Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) required the administrative consolidation of six hazardous materials and waste programs (Program Elements) under one agency, a Certified Unified Program Agency (CUPA). The Program Elements consolidated under the Unified Program are Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs (a.k.a. Tiered Permitting); Aboveground Petroleum Storage Tank SPCC; Hazardous Materials Release Response Plans and Inventory Program (a.k.a. Hazardous Materials Disclosure or “Community-Right-To-Know”); California Accidental Release Prevention Program (Cal ARP); Underground Storage Tank (UST) Program; and Uniform Fire Code Plans and Inventory Requirements.

The Unified Program is intended to provide relief to businesses complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs. The Unified Program is implemented at the local government level by CUPAs. Most CUPAs have been established as

a function of a local environmental health or fire department. Some CUPAs have contractual agreements with another local agency, a participating agency, which implements one or more Program Elements in coordination with the CUPA.

### Department of Toxic Substance Control (DTSC)

DTSC is a department of Cal EPA and is the primary agency in California that regulates hazardous waste, cleans up existing contamination, and looks for ways to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of the federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. Government Code §65962.5 (commonly referred to as the Cortese List) includes DTSC-listed hazardous waste facilities and sites, Department of Health Services (DHS) lists of contaminated drinking water wells, sites listed by the SWRCB as having UST leaks and have had a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites that have had a known migration of hazardous waste/material.

### California Office of Emergency Services (OES)

To protect the public health and safety and the environment, the California OES is responsible for establishing and managing statewide standards for business and area plans relating to the handling and release or threatened release of hazardous materials. Basic information on hazardous materials handled, used, stored, or disposed of (including location, type, quantity, and the health risks) needs to be available to firefighters, public safety officers, and regulatory agencies. The information must be included in these institutions' business plans to prevent or mitigate the damage to the health and safety of persons and the environment from the release or threatened release of these materials into the workplace and environment.

These regulations are covered under Chapter 6.95 of the California Health and Safety Code Article 1–Hazardous Materials Release Response and Inventory Program (Sections 25500 to 25520) and Article 2–Hazardous Materials Management (Sections 25531 to 25543.3). CCR Title 19, Public Safety, Division 2, Office of Emergency Services, Chapter 4–Hazardous Material Release Reporting, Inventory, and Response Plans, Article 4 (Minimum Standards for Business Plans) establishes minimum statewide standards for Hazardous Materials Business Plans (HMBP). These plans shall include the following: (1) a hazardous material inventory in accordance with Sections 2729.2 to 2729.7; (2) emergency response plans and procedures in accordance with Section 2731; and (3) training program information in accordance with Section 2732. Business plans contain basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the State. Each business shall prepare a HMBP if that business uses, handles, or stores a hazardous material or an extremely hazardous material in quantities greater than or equal to the following: 500 pounds of a solid substance, 55 gallons of a liquid, 200 cubic feet of compressed gas, a hazardous compressed gas in any amount, or hazardous waste in any quantity.

### California Occupational Safety and Health Administration

Cal/OSHA is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is

required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Sections 337-340). The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings.

#### Asbestos-Containing Materials Regulations

State-level agencies, in conjunction with the EPA and OSHA, regulate removal, abatement, and transport procedures for asbestos-containing materials (ACM). Release of asbestos from industrial, demolition, or construction activities are prohibited by these regulations and medical evaluation and monitoring is required for employees performing activities that could expose them to asbestos. Additionally, the regulations include warnings that must be heeded and practices that must be followed to reduce the risk for asbestos emissions and exposure. Finally, state, and local agencies must be notified prior to the onset of demolition or construction activities with the potential to release asbestos.

#### Lead-Based Paint Regulations

Cal OSHA's Lead in Construction Standard is contained in 8 CCR Section 1532.1. The regulations address all of the following areas: permissible exposure limits (PELs); exposure assessment; compliance methods; respiratory protection; protective clothing and equipment; housekeeping; medical surveillance; medical removal protection (MRP); employee information, training, and certification; signage; record keeping; monitoring; and agency notification.

### 12.4.3 Local

#### San Mateo County Hazard Mitigation Plan

The city currently participates in the San Mateo County Hazard Mitigation Plan (HMP). The HMP is intended to enhance public awareness, create a decision tool for management, promote compliance with State and federal program requirements, enhance local policies for hazard mitigation capacity, support viability after a hazard event, and provide inter-jurisdictional coordination. The HMP is designed to conform to the requirements of the Disaster Mitigation Act of 2000, which requires all cities, counties, and special districts to adopt a HMP to receive disaster mitigation funding from the Federal Emergency Management Agency (FEMA).

#### City of Belmont Emergency Preparedness Manual

The City of Belmont published its Emergency Preparedness Manual in 2010. The Manual identifies resources for emergency response and establishes coordinated action plans for emergency situations and disasters such as emergency evacuation planning and home hazard identification.

#### Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport (ALUCP)

The San Carlos Airport ALUCP was adopted in October 2015 by the City/County Association of Governments of San Mateo County (C/CAG), with amendments in 2022 specific to noise compatibility criteria. The ALUCP is the primary document used by an airport land use commission to help promote compatibility between an airport and its environs. The document is intended to act as a guide for the airport land use commission and local jurisdictions in safeguarding the general welfare of the public as the airport and the area surrounding the airport grows or changes land uses and/or policy. The ALUCP

also serves as a tool for the Airport Land Use Commission in fulfilling its duty to review airport and land use development proposals within the airport influence area (AIA) or referral area associated with an airport.

The ALUCP provides the standards, criteria, and policies on which the compatibility of proposed local land use policy actions are determined. The ALUCP also establishes the planning boundaries around San Carlos Airport that define noise, safety, height/airspace protection, and overflight areas for policy implementation, and areas within which notification of the proximity of the Airport is required as part of real estate transactions.

### City of Belmont General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. General plan policies relative to hazards and hazardous materials are identified below. Relevant General Plan Policies that directly address reducing hazards and hazardous material impacts include the following:

**Safety Element**

**Goal 6.3:** Protect soils, surface water, and groundwater from contamination from hazardous materials.

- Policy 6.3-1: Facilitate cleanup programs at contaminated sites, particularly on properties with the potential to develop or be reused for public purposes.
- Policy 6.3-2: Require applicants for development projects in a potentially contaminated location to perform inspection and cleanup if the site is found to be contaminated with hazardous substances.
- Policy 6.3-3: Require project applicants of potentially contaminated sites to have the site inspected by a registered Environmental Assessor. Reports detailing the results must be submitted for City review, and level of remediation and cleanup must be in compliance with federal and State standards.

**Goal 6.4:** Continue to promote the reduction, recycling, and safe disposal of household and business hazardous wastes through public education and awareness.

- Policy 6.4-1: Continue to support the hazardous waste collection, management, and inspection efforts of San Mateo County, the State, and the Water Resources Control Board.

**Goal 6.7:** Foster an efficient and coordinated response to emergencies and natural disasters.

- Policy 6.7-1: Adopt, maintain, and periodically update a Local Hazard Mitigation Plan, coordinating with regional planning efforts as possible.
- Policy 6.7-3: Update City codes and ordinances dealing with public safety and emergency preparedness and relief to comply with State law and reflect the latest information on hazards and mitigation strategies.
- Policy 6.7-8: Do not locate structures necessary for the protection of the public's health and safety, public assembly, or emergency services in hazardous areas, unless no reasonable alternative exists.

**Goal 6.9:** Support continuing public awareness of hazards, including avoidance, disaster preparedness, and emergency response procedures.

**Goal 6.10:** Make infrastructure investments, enforce regulations, and disseminate information that will improve disaster response and recovery, with the goal of minimizing damage to people and property.

- Policy 6.10-1: Ensure that new roadways are developed in accordance with standards in the Municipal Code (Sec. 7-11) requiring all-weather access prior to issuance of building permit. In all new development, require adequate access to be provided for emergency vehicles, including adequate widths, turning radii, hard standing areas, and vertical clearance; also require home addresses and street signage to be visible.

## 12.5 Environmental Impacts and Mitigation Measures

### 12.5.1 Significance Criteria

The following significance criteria for hazards and hazardous materials were derived from the Environmental Checklist in CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address lead agency requirements and the full range of potential impacts related to this project.

An impact of the project would be considered significant and would require mitigation if it would meet one of the following criteria:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- 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.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.
- 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, result in a safety hazard or excessive noise for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

### 12.5.2 Summary of No and/or Beneficial Impacts

#### Wildland Fires

As noted in the 2035 Belmont General Plan and noted in the Environmental Setting, the risk of wildfire in the City of Belmont is concentrated in the western area with hilly terrain and along the wildland/urban interface. The proposed project is within a developed area and not within a Very High or High Fire Hazard Severity Zone as mapped by CALFIRE. Because the project is not within an area

identified as having a high potential for wildland fire, the project would have no impact related to exposing people or structures to a significant risk of loss, injury, or death from wildland fire, as per CEQA Guidelines.

### 12.5.3 Impacts of the Proposed Project

**Impact HAZ-1: The project has the potential to create a hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. This impact is less than significant with mitigation incorporated.**

#### Construction

Based on this threshold, the primary issues during construction are related to the potential exposure of workers to hazardous soils and/or groundwater and the transport of contaminated soils or demolition materials from the site to a disposal location if warranted by identified contamination levels.

##### Chemical Storage and Use

No hazardous materials were observed at the site based upon the findings of the Phase I ESA. Additionally, the site does not appear to have historically been occupied by businesses that are typically associated with the use or storage of significant quantities of hazardous materials. Medical wastes were noted to be generated by some occupants and disposed off-site; however, the potential for these materials to significantly impact the site appears low and therefore **less than significant**.

##### Demolition Materials

The project will require complete demolition of the existing office building and site clearing of existing pavement from parking areas to establish the new project footprint, foundations and parking areas. Based on the Phase I ESA, the age the building suggests that the existing structure could contain asbestos containing building materials (ACBMs) and, though more unlikely, other hazardous substances such as lead based paints. As the building will require complete demolition and disposal, an asbestos survey is required by local authorities and/or National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines. NESHAP guidelines require the removal of potentially friable ACBMs prior to building demolition or renovation that may disturb the ACBM.

##### Imported Soil and Undocumented Fill

Fill material was historically imported to the site to raise low lying land elevations, and the source and quality of the fill are unknown. Considering the ongoing water quality sampling and the fact that much of general site vicinity was similarly filled, the potential for the on-site fill to significantly impact the planned use of the site appears low. If soil is excavated for off-site disposal during grading and development activities, soil sampling/profiling will be required by the accepting facility. Similarly, as the project will require the import of soil, any such fill should be tested and documented based on the DTSC's October 2001 Clean Fill Advisory.

Based on CEQA thresholds and the documented site conditions, soil import and/or export are not expected to create a hazard to the public or the environment when following existing regulations and construction best practices. However, mitigation is provided to ensure compliance with these standards and practices to ensure that imported soil and undocumented fill do not pose a hazard to the public or environment.

## Soil, Soil Vapor and Groundwater Exposure

As noted previously, the Brusco property at 248 and 248A Harbor Boulevard have been the location of numerous commercial and industrial tenants, and prior industrial activities at the property resulted in chemical contamination of the soil, soil vapor and groundwater that has migrated toward the project site. Since the 2000s, investigation and cleanup activities have been conducted under the supervision of the San Mateo County Department of Environmental Health (DEH). As of 2017 one groundwater sample on the project site detected TCE but at levels below the commercial Environmental Screening Levels. Remediation and monitoring efforts associated with the Brusco property are ongoing and are being conducted under DEH oversight. No acute risk to workers during construction is expected based on this available information.

With respect to the Purex property discussed in the Environmental Setting, remediation and monitoring efforts associated with this nearby property are ongoing and are being conducted under State Water Board oversight. The project site is located at the perimeter of areas of VOC impacted groundwater originating upgradient from the Purex property. However, no VOCs from this source have been detected in groundwater from the on-site monitoring well since 2013. More recent sampling reports from 2019 and 2020 and the semiannual status report for the property from the Water Board in 2021 indicate that the primary constituents of concern in groundwater (VOCs) were consistent with historical data or showed a decreasing trend compared to historical data. Given this trend and the fact that no detection has been measured on the project site since 2013, no acute risk to workers during construction is predicted. The project will not require deep excavation into the groundwater table.

The transport of demolished materials would be removed from the project site and transported via city designated truck routes used for the transport of hazardous materials to Ox Mountain Landfill for disposal. For these reasons, there would be minimal hazard to the public, as these construction activities would not be ongoing or routine. In addition, the proposed project would be required to comply with all applicable federal, State, and regional regulations which are intended to avoid impacts to the public and environment. Compliance with all applicable regulations during construction, as required by the DTSC, San Francisco Bay RWQCB and California OES, together with implementation of preventative measures MM HAZ-1.1 and HAZ-1.2, would effectively reduce the potential for significant hazards to the public or environment from construction-related transport, use, or disposal of hazardous materials brought to or off-hauled from the site to less than significant levels.

### MM HAZ-1.1 Pre-Demolition Surveys and Management Plan

Prior to demolition and removal of material from the site, the project applicant shall conduct surveys and testing for asbestos containing building materials (ACBMs), lead based paints and products, mercury and polychlorinated biphenyl caulking products. If such materials are not identified, no further action is required. If these materials are identified, the applicant shall prepare and implement an Operation and Management (O&M) Plan for removal and disposal. The O&M Plan shall be prepared consistent with National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines for the removal of potentially friable ACBMs and other materials if present. The plan shall be reviewed and approved by the City of Belmont prior to implementation. Removal and disposal work will be completed pursuant to all federal, State and local regulations by certified professionals.

#### MM HAZ-1.2 Imported Fill

Prior to depositing fill on the project site, all imported soil and fill material shall be tested to ensure any contaminants of concern are within DTSC and U.S. Environmental Protection Agency Regional Screen Levels for the intended land use. To minimize the possibility of introducing contaminated soil and fill material the applicant shall document the origins of the soil or fill material and, if applicable, conduct sampling to ensure that the imported soil and fill material meets screening levels outlined in the Preliminary Endangerment Assessment (PEA) Guidance Manual.

### Operation

#### Storage and Use of Hazardous Materials

The project proposes a R&D/laboratory/commercial office campus consisting of two buildings and a parking structure. These types of uses and facilities may generate, store, use, or dispose of small amounts of hazardous materials such as heavy metals, common/household chemicals, various inert and flammable gasses, oils, solvents, paints, pesticides, and fertilizers necessary for ongoing maintenance of buildings and grounds. Life science laboratory use (up to and including BSL 3 facilities) could also introduce the transport, use and disposal of biomedical materials such as tissues, fluids and cultures, microbes, chemical compounds, and radiological and medical equipment. Depending on the use and focus of the lab, several of these materials could be considered hazardous.

All materials and substances transported, stored and used at the site would be subject to a wide range of federal, state and local health and safety requirements, particularly for a BSL 3 facility. It should be noted that the National Institutes of Health (NIH) Biosafety Level 3 Laboratory Certification Requirements require that a facility/structure be designed and built as a BSL 3 building from the onset. Existing buildings cannot be retrofitted into a BSL 3 facility. For BSL 1 and 2 facilities, compliance with existing local, state and federal regulations provides sufficient oversight to prevent risks associated with the storage and use of hazardous materials. The following mitigation measure is provided to further reinforce existing regulations laboratory standards.

#### MM HAZ-1.3 Management of Potentially Hazardous Materials

If BSL 3 certification is pursued, the life science laboratory/office buildings shall be designed and constructed as BSL 3 facilities. For any BSL level, the project sponsor shall independently pursue and obtain all necessary federal, state and local approvals, permits, certifications and/or licenses for the design, operation, transport, use and disposal of materials used. Proof of compliance and all related management plans shall be provided to the City of Belmont prior to building occupancy.

#### Soil Vapor Intrusion and Building Occupants

The site is located at the perimeter of areas of VOC impacted groundwater originating from the up-gradient Brusco and Purex properties, as discussed previously. As part of the remediation and reporting effort for the Purex property, an Institutional Controls Plan (ICP) was prepared in 2005. The ICP identifies various control measures the city or county may require, depending on site conditions and

consultation with the Water Board before the issuance of building permits. The ICP addresses not only the Purex property, but other affected properties including the project site. ICP states that these properties are reportedly flagged in the City of Belmont and/or San Mateo County Building Department databases, and certain building permits will be held until a need for risk management has been determined and addressed in consultation with the Water Board.

While the city may refer to the ICP prior to issuing a building permit for the project, the relative risk of vapor intrusion at the site appears low. The Phase I ESA suggests that due to the successful remediation and monitoring efforts at both the Purex and Brusco properties, the groundwater data collected to date indicates that vapor intrusion measures will likely not be required for the project. However, it is the project's responsibility to conduct appropriate due diligence and consult with the Water Board in a timely manner to confirm if any ICP control measures are warranted at the site. Based on these documented environmental controls and existing regulatory controls, the risk of vapor intrusion during building operation is considered **less than significant**.

**Impact HAZ-2: The project could 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. This is a less than significant impact with mitigation incorporated.**

### Construction

Construction of the project would require site preparation and construction of new structures as stated previously. As discussed previously, while VOCs were historically identified in groundwater samples as associated with other properties upgradient, the concentrations detected were below those of the RWQCB commercial screening levels or otherwise nondetectable. For these reasons, the potential for accidental release of vapors from graded soils during construction would not pose a significant risk of accidental release of hazardous materials into the environment. The project would be required to comply with all applicable regulations during construction, as required by the DTSC and California OES. Compliance with applicable DTSC and California OES regulations, in addition to mitigation measure MM HAZ-1.2 to ensure clean fill material, would effectively reduce construction worker and future site user exposure to hazardous materials contamination. Impacts would be **less than significant** in this regard.

### Operation

As discussed above, the type of uses proposed by the project as a life science/commercial office complex would result in the localized transport, use and disposal of both BSL 3 laboratory materials/contaminants and more common hazardous materials in daily operations. While heavily regulated, the potential for risk of upset, accident or disaster at or near the facilities must be planned for. A significant earthquake, structure fire, prolonged power outage, act of sabotage, equipment failure or human error are all potential – although unlikely – scenarios that could compromise the integrity of the laboratory facilities and possibly result in an unintended release of biological material.

As noted previously, several federal, state and local certifications, design standards and permit requirements are in place to prevent or reduce the risk of such a scenario. A BSL lab would be expected to be designed with multiple internal containments, backup system and incident response plans.

Regardless of these measures, local first responders must also be equipped and prepared in the unlikely event of a biosafety emergency.[1] The following mitigation measure addresses this issue and serves to reinforce existing requirements and procedures. This measure is appliable only to a BSL 3 facility, as BSL 1 and 2 facilities would not involve the same level of biohazards.

#### MM HAZ-2.1 Emergency Response Plan and First Responder Training

Prior to building occupancy for BSL 3 use, the project sponsor or lab operator shall prepare and submit an emergency response plan to the City of Belmont and San Mateo Consolidated Fire Department (SMC Fire) tailored to the specific lab operations, hazardous materials and class of pathogens expected to be present. Based on those specific pathogens or other hazardous substances, the project sponsor or lab operator shall also conduct specialized training and education session(s) with SMC Fire hazmat personnel and the Redwood City Fire Department regarding lab operations. This training shall be specific to the biohazards present at the facility, strategy for response and potential need for specialized equipment and/or vaccination protocols, if warranted. Training shall be periodic and updated as needed based on the biohazards present.

Impact HAZ-2 would be effectively mitigated by implementation of MM HAZ-1.3 (requiring the preventative management and regulatory oversight associated with the use of hazardous materials) and MM HAZ-2.1 (minimizing effects in the event of accident or upset conditions associated with a BSL 3 facility). These measures together address prevention and response, reducing the potential impact to a **less than significant** level.

### Impact HAZ-3: The project would not handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. This is a less than significant impact.

#### Construction and Operation

The closest schools to the project site are Edison Montessori School, approximately 1,700 feet (0.35 miles) to the east in Redwood City, and Nesbit Elementary approximately 2,100 feet (0.4 miles) to the west and across Highway 101 from the project. No new schools are known to be proposed in the area. Given the land use pattern near the site and lack of nearby available land, construction of new schools within one-quarter mile of the site is highly unlikely. Any handing or transport of hazardous materials (such as off haul of demolished material) would occur on designated truck routes more than one-quarter mile from these schools. Based on CEQA thresholds, impacts would be **less than significant**.

[1] Personal communication with Deputy Chief Robert Marshall, San Mateo Consolidated Fire Department, August 6, 2024.

**Impact HAZ-4: The project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. This impact is less than significant.**

### Construction and Operation

The project site is not listed on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As noted previously, the site is, however, noted as an affected property within the Institutional Controls Plan (ICP) prepared for the nearby Purex property which is an active site undergoing continued monitoring and remediation for VOCs. Aside from this fact, there is no site specific or acute hazardous materials issue at the project location.

To avoid hazardous impacts to the public and environment, the project would still be required to comply with all applicable federal, State, and regional regulations to ensure that necessary precautions are taken prior to any demolition and construction. Based on the significance threshold for this impact (whether the project is identified on a list of hazardous materials sites), the impact is **less than significant**.

**Impact HAZ-5: The project is located within two miles of a public airport or public use airport, and located within the Airport Influence Area B. The project as proposed would result in a less than significant airport-related safety hazard for people residing or working in the project area.**

### Construction and Operation

#### Airport Influence Area (AIA)

The project site is located approximately 0.9-miles northwest of the San Carlos Airport and is located inside of the Airport Influence Area (AIA). For this airport the AIA includes two parts, Area A and Area B. Area A is the larger of the two and encompasses much of San Mateo County. Area B is defined by an approximately 9,000-foot radius around the airport. Projects within Area B are subject to C/CAG Board review for land use policy actions and development projects, while Area A is a real estate disclosure area. The property at 1301 Shoreway Road is within AIA Area B.

The AIA boundaries define areas where noise, safety, airspace/height, and overflight policies and criteria are applied to land use policies or specific projects to promote compatibility. The ALUCP for San Carlos Airport, the planning and policy document for the airport, addresses four primary land use compatibility concerns:

- Aircraft Noise
- Safety of Persons on the Ground
- Airspace Protection/Building Heights
- Aircraft Overflights

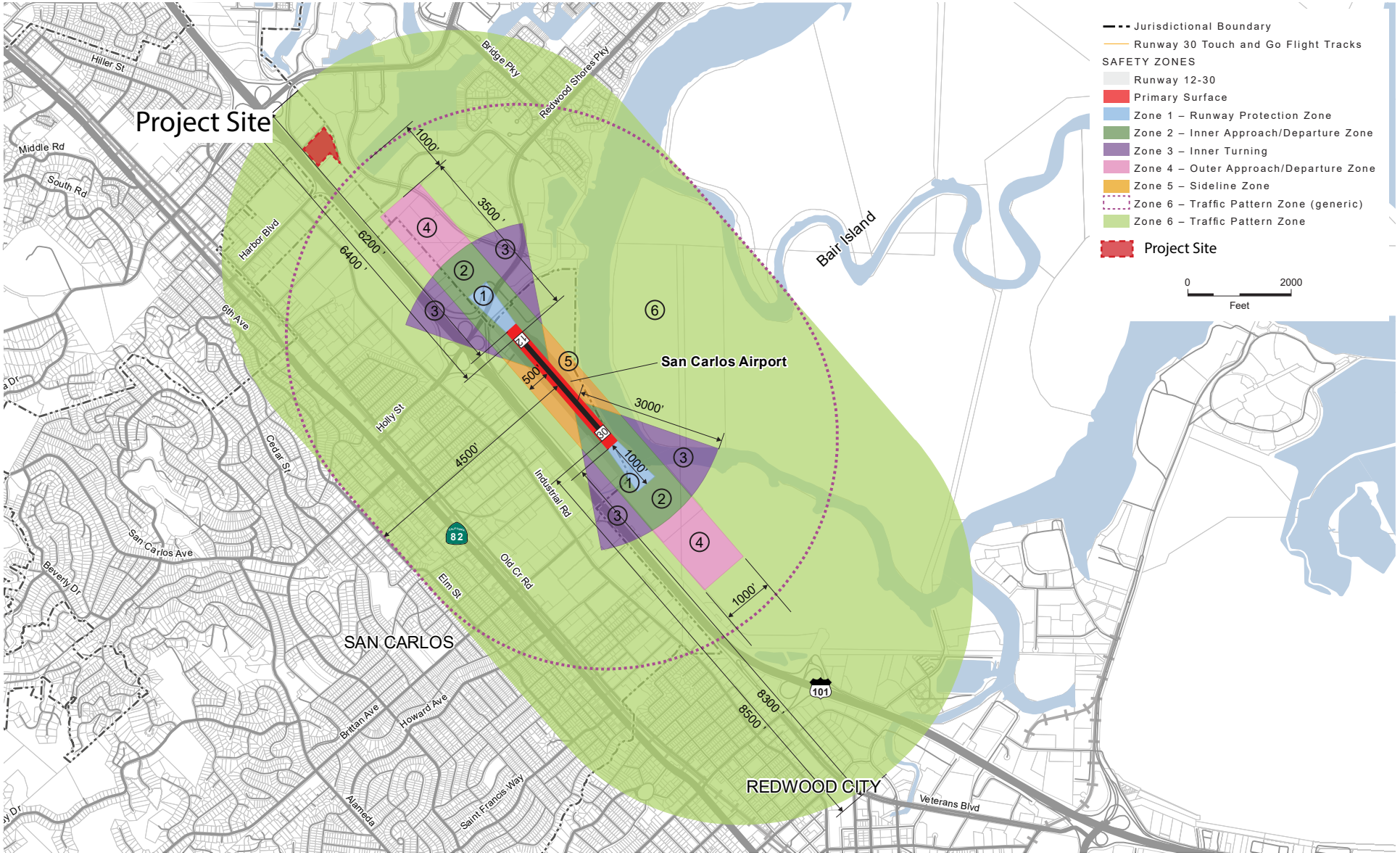
This section of the EIR addresses aeronautical safety and building heights. Noise, including noise from aircraft overflight patterns, is addressed within Chapter 15 of the EIR (Noise and Vibration). The airport land use commission ultimately makes the determination of a project's land use compatibility, in

conjunction with any applicable Federal Aviation Administration (FAA) noticing, review and determinations.

### Airport Safety Zones

The 2015 ALUCP defines six safety zones around the airport. The project is located within Safety Zone 6, the Traffic Pattern Zone, which is the least restricted of these zones. **Figure 12-3: San Carlos Airport Safety Zones** illustrates these areas relative to the project site.

Based on ALUCP safety compatibility policies, there is generally no limit placed on new nonresidential uses within Safety Zone 6 (such as office buildings). Medical and biological research facilities with a biosafety level (BSL) of BSL 3 or 4 are not permitted in Safety Zone 1 through 5 but are allowed in Safety Zone 6. Based on this criterion, office and laboratory use is considered a compatible use within Zone 6. However, exceptions to these criteria can be considered on a case-by-case basis by the C/CAG Board during consistency reviews for sensitive uses or uses that involve large gathering areas for people.




Source: San Carlos Airport ALUCP, 2015

**Figure 12-3: San Carlos Airport Safety Zones**

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## Airspace Compatibility

Similar to safety policies, airspace protection criteria are intended to reduce the risk of harm to people and property from an aircraft accident. This is accomplished by the establishment of compatibility policies that seek to prevent the creation of land use features that can be hazards to the airspace used by aircraft in flight and have the potential to cause an aircraft accident to occur. Such hazards may be physical, visual, or electronic.

Subpart C, Obstruction Standards, of Federal Aviation Regulations (FAR) Part 77, *Safe, Efficient Use and Preservation of the Navigable Airspace,* establishes the standards for determining obstructions to air navigation. This subpart defines a set of imaginary surfaces with relation to an airport's runway(s). Any object that penetrates one of the imaginary surfaces is deemed an obstruction to air navigation. However, not all obstructions are necessarily hazards. The determination of whether an object would be a hazard to air navigation is made as part of an aeronautical study conducted by the FAA.

The project as proposed, at 144 feet for the tallest structure, is substantially taller than currently allowed by the City of Belmont Municipal Code. Based on the airspace compatibility policies of the ALUCP (Exhibits 4-4 and 4-4a) and FAA Part 77 Airspace Protection Surfaces, the project site is located within airspace surfaces near the allowable heights.

The project as proposed would result in buildings up to 8 stories in height. According to ALUCP Airspace Protection Policy 6 (governing other flight hazards), land uses that may cause visual, electronic, navigational, or wildlife hazards, particularly bird strike hazards, to aircraft in flight or taking off or landing at San Carlos Airport are incompatible in Area B of the Airport Influence Area. Specific characteristics that may be incompatible include sources of dust or smoke (that may be experienced during construction) and glare, such as highly reflective buildings or building features, or bright or distracting lights that could interfere with pilots on approach.

Considering the proposed building heights and airport proximity, the applicant filed a request to the FAA for an aeronautical study under the applicable provisions of Part 77. A Determination of No Hazard to Air Navigation was issued on June 1, 2023, confirming that the structures as proposed (based on site elevation and building heights) do not exceed obstruction standards and would not be a hazard to air navigation. Building height must not exceed 151 feet above ground level or 162 feet above mean sea level.

Based on this determination the project would result in a **less than significant** impact regarding airspace compatibility. Related issued noted above regarding glare, lighting and dust are addressed in Chapters 5 (Aesthetics) and 6 (Air Quality). Compliance with FAA regulations, building design features, related mitigation measures within this EIR and/or conditions of project approval are sufficient to address these issues.

**Impact HAZ-6: The project would not significantly impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. This impact is less than significant.**

### Construction and Operation

The City of Belmont is a partner in the San Mateo County Multijurisdictional Local Hazard Mitigation Plan (LHMP, 2021). The LHMP assesses hazard vulnerabilities and identifies mitigation actions that jurisdictions will pursue in order to reduce the level of injury, property damage, and community disruption that might otherwise result from such events. The LHMP addresses natural and human-caused hazards, including flooding, drought, wildfire, landslides, severe weather, terrorism, cyber threats, pandemic, and the impact of climate change on hazards, as well as other hazards. County-wide, the majority historic hazard events that have triggered federal disaster declarations have been associated with severe winter storms.[2]

More specific to the project site, Belmont General Plan and EIR identify policies to ensure adequate emergency access evacuation routes during project review. While hazard events or disasters can occur from many sources, the type and location of the project would be less susceptible to events and natural disasters that would trigger emergency response or evacuation, such as wildfire or flooding. More likely scenarios for an emergency at the site could include large earthquakes, structure fire, a hazardous materials release along the Highway 101 frontage, terrorism or cyber threats. The project has multiple points of access and evacuation along Shoreway Road Sem Lane with close proximity to the freeway. Emergency evacuation plans would also be integrated as part of building design and operations.

Compared to existing conditions, the project upon completion would not significantly impair or interfere with city or county emergency response plans or interfere with evacuation plans. In addition, Mitigation Measure MM HAZ-2.1 above addresses emergency response plans specific to this project site. The project would not require short- or long-term road closures and all driveways and access points would be designed to local standards for emergency vehicle access.

Please see also Chapter 17, Transportation, as well as the cumulative impact discussion below.

## 12.5.4 Cumulative Impact Analysis

**Impact HAZ-7: The project, in conjunction with projected background growth and other similar development projects as identified by the City, would not contribute to cumulatively considerable impacts from hazards and hazardous materials. This is a less than significant impact.**

Most hazards and hazardous material impacts from development projects are site-specific and if properly designed would not result in additive worsening of the environment or public health and safety. In theory, a cluster of heavy industrial projects that use or manufacture large quantities of hazardous or volatile products could cumulatively heighten risks. However, no such circumstances are associated with this project or project area.

[2] San Mateo County Multijurisdictional HMP, Table 5-1.

The EIR evaluates recognized environmental concerns (RECs) in connection with the project site and surrounding area. Regarding the RECs, the database search documents the findings of various governmental database searches regarding properties with known or suspected releases of hazardous materials or petroleum hydrocarbons within a search radius of up to one mile from the site and serves as the basis for defining the cumulative impacts study area.

The project, when combined and considered with background growth and the list of other existing, planned and reasonably foreseeable development projects listed in Chapter 4, has little potential to increase risk to residents, employees, workers or the general public from the transport or exposure to hazardous conditions or materials.

Based on the traffic study, project location and function of the future roadway network, there is no evidence that suggests the addition of employees from the project and other nearby projects would significantly impair or impede local emergency response or evacuation plans. For these reasons, cumulative impacts associated with hazards or hazardous materials are considered less than significant based on CEQA thresholds.

## 12.6 References

CAL FIRE (California Department of Forestry and Fire Protection). 2024. LRA and SRA FHSZ Viewer. https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones/fire-hazard-severity-zones-maps. Accessed June 2024.

City of Belmont. 2017. *City of Belmont Draft Environmental Impact Report for the General Plan, Phase I Zoning, Belmont Village Specific Plan and Climate Action Plan*.

City of Belmont. 2017. *2035 General Plan and EIR*.

Cornerstone Earth Group. 2021. *Phase I Environmental Site Assessment for 1301 Shoreway Road, Belmont, CA.*

C/CAG. 2015 and 2022. *Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport*.

Letter of Determination of No Hazard to Air Navigation from the FAA to Four Corners Properties. June 1, 2023.

San Mateo County. 2021. *Multijurisdictional Hazard Mitigation Plan and Emergency Operation Plan*.

# 13 Hydrology and Water Quality

## 13.1 Introduction

This section describes the project's potential to adversely affect local hydrologic conditions (drainage patterns and runoff volumes), surface and groundwater quality, or cause the release of pollutants due to inundation from flooding as a result from the implementation of the 1301 Shoreway Project (project). Information used to prepare this section came from the following primary resources:

- Aerial/satellite imagery
- City of Belmont 2035 General Plan – Conservation Element
- City of Belmont 2035 General Plan – Safety Element
- City of Belmont, 2035 General Plan Environmental Impact Report
- Applicant's Preliminary Engineering Plans (including the 1301 Shoreway Road Preliminary Storm Drain Analysis, BKF Engineers)

## 13.2 Scoping Issues Addressed

During the Notice of Preparation (NOP) public comment and scoping period for the proposed project several comments were received regarding hydrology and water quality. Specifically, the San Francisco Bay Conservation and Development Commission (BCDC) cited Bay Plan policies regarding risk of sea level rise, water quality standards, and discharge requirements. Caltrans requested that surface hydrology and floodplain issues be addressed relative to State facilities and noted that an encroachment permit is required for any drainage improvements proposed within the State right of way.

## 13.3 Environmental Setting

### 13.3.1 Regional Drainage

The City of Belmont (city) is located partially in the Belmont Creek watershed and drains to the San Francisco Bay watershed (HUC10 1805000410) from the San Mateo Creek-Frontal San Francisco Bay Estuaries watershed (HUC10 1805000409) (SWRCB, 2012). Surface water resources within the city include coastal waters, streams, and ponds. All surface water flows generally drain from the southwest to the northeast ultimately discharging into the San Francisco Bay.

### 13.3.2 Flooding

#### FEMA Floodplains

According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) Number 06081C0169G (revised April 5, 2019), the project is located within an area of moderate flood hazard, usually the area between the limits of the 100- year and 500-year floods. **Figure 13-1: Flood Zones** (Figure 6-2 of the city's General Plan) indicates that the project site is located within the 100- and 500-year flood zones (FEMA Zone A and B).[1]

[1] City of Belmont. 2017. *City of Belmont General Plan; Figure 6-2: Flood Zones*. Available at https://www.belmont.gov/home/showpublisheddocument/16487/636651107453770000 (accessed May 2024).

Additionally, the project site is bounded by the Belmont Creek to the north, which experiences tidal changes.

#### Dam Inundation

The project site is downstream of the Notre Dame Dam, which is a high hazard potential dam. However, the project site is not located within a dam inundation zone as mapped on the Department of Water Resources Division of Safety of Dams Dam Breach Inundation Map Web Publisher.[2] The Notre Dame Dam creates Water Dog Lake, which is located approximately 2.53 miles southwest of the project site.

#### Sea Level Rise

In California, sea levels have risen almost eight inches along the California coast over the last century. The Mean Higher High Water (MHHW) sea level elevation represents the elevation past which sea level rise is considered inundation by the National Oceanic and Atmospheric Administration (NOAA). The most well-known extreme high tide condition in San Francisco Bay is often referred to as a "King Tide," a colloquial term that refers to the especially high tide conditions that happen only a few times a year. King Tides can be 12 (or more) inches higher than MHHW. Therefore, the inundation of low-lying areas around the Bay observed during a King Tide event is often used as a real-world illustration of the areas around the Bay that would be subjected to regular, daily inundation by midcentury with sea level rise. **Figure 13-1** illustrates that the project site is not at risk if sea levels rose by two feet above the MHHW.[3]

### 13.3.3 Tsunami and Seiches

A tsunami is a large ocean wave generated by an earthquake or landslide in or near the ocean. Tsunamis are a series of very long-period waves (lasting five minutes to several hours) that are low in height when traversing water of oceanic depth. The city's location within the interior San Francisco Bay limits its potential for tsunami damage, but sea surges may impact areas of the city directly adjacent to the Bay. According to the California Department of Conservation California Tsunami Maps, the project site is not located within a tsunami hazard area.[4]

Seiches are earthquake-generated waves within an enclosed body of water like a lake or a reservoir. The city is not located near major enclosed bodies of water. The project site is not within a seiche inundation zone.

### 13.3.4 Groundwater

Water in the city is provided by the Mid-Peninsula Water District, which does not draw on groundwater from wells to service the population. Due to the city's and project site's proximity to the San Francisco Bay, much of the groundwater within the city and surrounding area tends to be brackish. Brackish groundwater is water that has a higher salinity than freshwater but is typically less than that of seawater. Treatment of brackish water requires high energy consumption machinery and processes and tend to be prohibitive for municipal water supplies to source drinking water from these sources. The project site is located within the San Mateo Plain Groundwater Subbasin which is not a highly used basin.

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[2] California Department of Water Resources. 2020. *Dam Breach Inundation Map Web Publisher*. Available at https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2 (accessed May 2024).

[3] City of Belmont. 2017. *City of Belmont General Plan; Figure 6-2: Flood Zones*. Available at https://www.belmont.gov/home/showpublisheddocument/16487/636651107453770000 (accessed May 2024).

[4] California Department of Conservation. 2021. *Tsunami Hazard Area Map*. Available at https://maps.conservation.ca.gov/cgs/informationwarehouse/ts_evacuation/ (accessed May 2024).

Groundwater was encountered during exploratory borings at depths ranging from approximately 4 to 14 feet below existing ground surface. Additionally, groundwater is generally considered to be at or near to the top of the "Bay Mud," which was encountered at a depth as high as 3 feet below existing grade. Refer to **Appendix F,** Preliminary Geotechnical Investigation.

### 13.3.5 Stormwater

Precipitation that falls in Belmont generates storm water runoff. The city's storm drainage infrastructure consists of 28 miles of storm drainpipes and two storm pump stations. Four main drainage areas – Belmont Creek, Laurel Creek, O'Neill Slough, and Island Park Belmont Creek – together collect about 80 percent of the storm water runoff generated in the city, while the rest flows to the City of San Mateo and the City of San Carlos. Stormwater from the project site is collected from on-site stormwater infrastructure and conveyed to the Belmont Creek where it is then discharged. Water from Belmont Creek flows to the Belmont Slough and then to its ultimate discharge point, the San Francisco Bay.

### 13.3.6 Water Quality

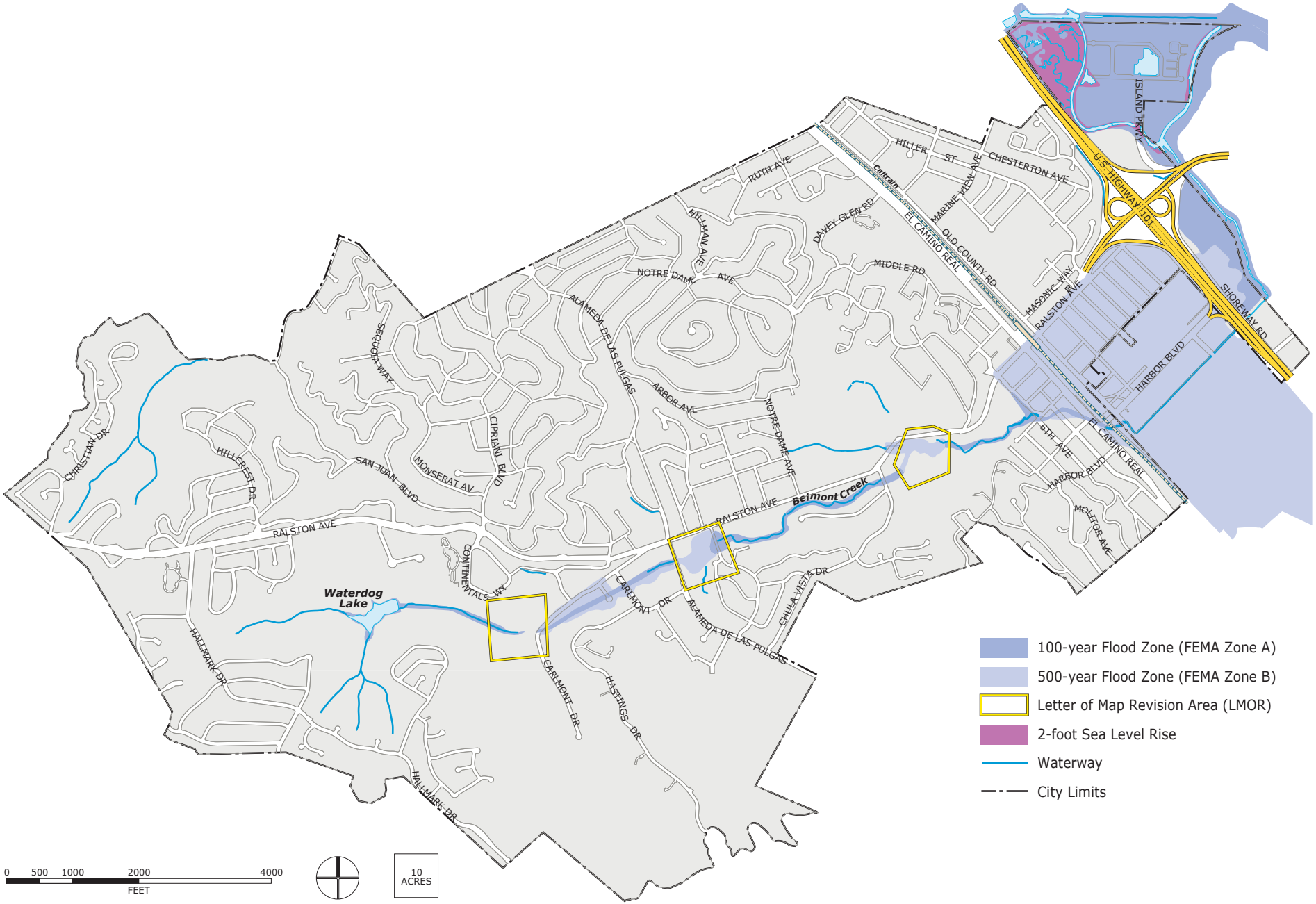
#### Surface Water Quality

Section 303(d) of the federal Clean Water Act (CWA) requires states to identify the waters of the state that do not meet the designated beneficial uses and to develop total maximum daily loads (TMDLs) for such waters, with oversight by the U.S. Environmental Protection Agency (U.S. EPA). These waterbodies are commonly referred to as impaired. A TMDL is a quantifiable assessment of potential water quality issues, contributing sources, and load reductions or control actions needed to restore or protect bodies of water. No parts of the Belmont Creek are included on the 303(d) list; however, the lower San Francisco Bay is 303(d)-listed for chlordane, dichlorodiphenyltrichloroethane (DDT), dieldrin, dioxin compounds (including 2,3,7,8-TCDD), furan compounds, invasive species, mercury, polychlorinated biphenyls (PCBs), PCBs (dioxin-like), and trash.[5]

#### Groundwater Quality

As previously mentioned, the groundwater within the city and the project site generally consists of brackish groundwater resultant from the San Francisco Bay. Further, groundwater quality would be affected by untreated stormwater runoff throughout the city. Typical pollutants may include fertilizers from landscaping, metals, rubbers, oils, solvents, and paints from industrial activities and from roadway runoff, among others. As the city does not have a combined storm-sewer system, none of the stormwater that is generated within the city is treated prior to discharge or infiltration.

[5] SWRCB. 2022. *2020-2022 California Integrated Report Map*. Available at https://gispublic.waterboards.ca.gov/portal/apps/webappviewer/index.html?id=6cca2a3a18154655992012663 73cbb7b (accessed May 2024).




Source: City of Belmont, 2017

**Figure 13-1: Flood Zones**

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Not to scale

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## 13.4 Applicable Regulations, Plans, and Standards

### 13.4.1 Federal

#### Clean Water Act

The Clean Water Act (CWA) (33 U.S.C. Section 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States (U.S.) and has given the U.S. Environmental Protection Agency (U.S. EPA) the authority to implement pollution control programs. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). In California, NPDES permitting authority is delegated to, and administered by, the nine Regional Water Quality Control Boards (RWQCBs). The proposed project is within the jurisdiction of the San Francisco Bay RWQCB.

**Section 402** of the Clean Water Act authorizes the California SWRCB to issue NPDES General Construction Storm Water Permit (Water Quality Order 99-08-DWQ), referred to as the "General Construction Permit." Construction activities can comply with and be covered under the General Construction Permit provided that they:

- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting storm water and with the intent of keeping all products of erosion from moving off site into receiving waters.
- Eliminate or reduce non-storm water discharges to storm sewer systems and other waters of the nation.
- Perform inspections of all BMPs.

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 303(d) list for sediment. Increased compliance tasks under the adopted 2009 Construction General Permit include project risk evaluation, effluent monitoring, receiving water monitoring, electronic data submission of the SWPPP and all other permit registration documents, and a Rain Event Action Plan (REAP), which must be designed to protect all exposed portions of a project site within 48 hours prior to any likely precipitation event.

**Section 401** of the CWA requires that any activity—including river or stream crossing during road, pipeline, or transmission line construction—that may result in discharges into a State waterbody be certified by the RWQCB. This certification ensures that the proposed activity does not violate State and/or federal water quality standards. The limits of non-tidal waters extend to the Ordinary High Water Mark (OHWM), which is defined as the line on the shore established by the fluctuation of water and indicated by physical characteristics, such as natural line impressed on the bank, changes in the character of the soil, and presence of debris. The U.S. Army Corps of Engineers (USACE) may issue either individual, site-specific permits or general, nationwide permits for discharge into US waters.

**Section 404** of the CWA requires a permit for construction activities involving placement of any kind of fill material into waters of the U.S. or wetlands. A Water Quality Certification pursuant to Section 401 of the CWA is required for Section 404 permit actions. If applicable, construction would also require a request for Water Quality Certification (or waiver thereof) from the RWQCB.

When an application for a Section 404 permit is made, the applicant must show it has:

- Taken steps to avoid impacts to wetlands or waters of the U.S. where practicable;
- Minimized unavoidable impacts on waters of the U.S. and wetlands; and
- Provided mitigation for unavoidable impacts.

**Section 303(d)** of the CWA (CWA, 33 USC 1250, et seq., at 1313(d)) requires states to identify "impaired" water bodies as those which do not meet water quality standards. States are required to compile this information in a list and submit the list to U.S. EPA for review and approval. An affected waterbody, and associated pollutant or stressor, is then prioritized in a list of impaired water bodies known as the 303(d) List. The CWA further requires the development of a Total Maximum Daily Load (TMDL) for each listing.

#### National Flood Insurance Program (NFIP)

The NFIP, implemented by the Congress of the United States in 1968, enables participating communities to purchase flood insurance. Flood insurance rates are set according to flood-prone status of property as indicated by FIRMs developed by FEMA. FIRMs identify the estimated limits of the 100-year floodplain for mapped watercourses, among other flood hazards. As a condition of participation in the NFIP, communities must adopt regulations for floodplain development intended to reduce flood damage for new development through such measures as flood proofing, elevation on fill, or floodplain avoidance.

#### National Pollutant Discharge Elimination System

Under the NPDES program (under § 402 of the CWA), all facilities that discharge pollutants from any point source into Waters of the United States must have a NPDES permit. The term "pollutant" broadly applies to any type of industrial, commercial, residential, municipal, and agricultural waste discharged into water. Point sources can be publicly owned treatment works (POTWs), industrial facilities, and urban runoff. The NPDES program addresses certain agricultural activities, but the majority are considered nonpoint sources and are exempt from NPDES regulation. Direct sources discharge directly to receiving waters, and indirect sources discharge to POTWs, which in turn discharge to receiving waters. Under the national program, NPDES permits are issued only for direct point-source discharges. NPDES issues two basic permit types: individual and general.

All construction sites one acre or more in size, must file for and obtain an NPDES permit. Another measure, the Phase I Final Rule, requires an operator (such as a city) of a regulated municipal separate storm sewer system (MS4) to develop, implement, and enforce a program to reduce pollutants in post-construction runoff.

### 13.4.2 State

#### Senate Bill (SB) 610

SB 610 was passed on January 1, 2002, amending California state law to require detailed analysis of water supply availability for large development projects. An SB 610 Water Supply Assessment (WSA) must be prepared if the following three conditions are met: 1) the proposed project is subject to CEQA

under Water Code Section 10910; 2) the proposed project meets criteria to be defined as a "Project" under Water Code Section 10912; and 3) the applicable water agency's current Urban Water Management Plan (UWMP) does not account for the water supply demand associated with the proposed project. A proposed project would meet the definition of "Project" per Water Code Section 10912 if it is:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet (sf) of floor space;
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 sf of floor space;
- A proposed hotel or motel, or both, having more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 sf of floor area;
- A mixed-use project that includes one or more of the projects specified in this subdivision; or
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project (DWR, 2003b).

With over 500,000 square feet of employment use floor space, a WSA is required for the project under SB 610 criteria.

### California Water Code §13050-§13260

**California Water Code §13050**. California Water Code §13050(e) defines "waters of the state" as "any surface water or groundwater, including saline waters, within the boundaries of the state." **California Water Code §13260** requires that any person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the State, other than into a community sewer system, must submit a report of waste discharge to the applicable RWQCB.

### Porter-Cologne Water Quality Control Act

SWRCB regulates water quality through the Porter-Cologne Water Quality Act of 1969, which contains a complete framework for the regulation of waste discharges to both surface waters and groundwater of the state. On the regional level, the proposed project falls under the jurisdiction of the San Francisco Bay RWQCB, which is responsible for the implementation of state and federal water quality protection statutes, regulations and guidelines.

The San Francisco Bay RWQCB has authority to implement water quality protection standards through the issuance of permits for discharges to waters in its jurisdiction. The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the RWQCB's master water quality control planning document. It designates beneficial uses and water quality objectives for "waters of the State," including surface waters and groundwater. The Plan also includes implementation programs to achieve water quality objectives. The Basin Plan is implemented by the RWQCB by issuing and enforcing waste discharge requirements, including permits for nonpoint sources discharged by stormwater drainage system.

#### Construction General Permit

Pursuant to the CWA, in 2009, the SWRCB issued a statewide general NPDES Permit for stormwater discharges from construction sites (NPDES No. CAS000002). Under this permit, discharges of stormwater from construction sites with a disturbed area of one or more acres must obtain individual NPDES permits or be covered by the General Permit—i.e., by filing a Notice of Intent with the SWRCB and developing and implementing a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must list best management practices (BMPs) implemented on the construction site to protect/retain stormwater runoff, and must contain a visual monitoring program, a sampling, analysis, and monitoring requirement for "non-visible" pollutants, and a monitoring plan if the site discharges directly to a water body listed on the state's 303(d) list of impaired waters.

#### MS4 Permit

The State RWQCB issued an MS4 Permit for various entities in the San Francisco Bay Region (Order No. R2-2022-0018) in 2022. The principal permittee of the MS4 Permit covering the project site is the San Mateo Countywide Water Pollution Program. Priority projects—generally, redevelopment projects that add or replace 5,000 or more square feet of impervious surfaces, and new development projects that create 10,000 or more square feet of impervious surfaces—must implement low impact development BMPs to the maximum extent practicable.

The MS4 Permit requires individual priority projects to prepare and implement a WQMP that may include source control BMPs, mitigation measures, and treatment control BMPs.

### 13.4.3 Local

#### San Francisco Bay Regional Water Quality Control Board

##### Basin Plan

The San Francisco Bay Basin (Basin Plan) is the RWQCB's master water quality control planning document for the San Francisco Bay Basin. The Basin Plan designates beneficial uses and water quality objectives for "waters of the State," including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. The Basin Plan established water quality objectives for total dissolved solids (TDS), mineral constituents, and turbidity on a watershed-by watershed basis within the region, while objectives for total and fecal coliform bacteria, nutrients (total nitrogen and total phosphorus), pH, dissolved oxygen, and un-ionized ammonia are set on a region-wide basis.

##### NPDES Municipal Regional Permit Post-Construction Stormwater Quality Requirements

The city is a permittee under the NPDES Municipal Regional Permit and has the authority to administer Provisions C.3 and C.6 regarding construction and post-construction stormwater controls. The C.3 provisions require the installation of post-construction Best Management Practices (BMPs) for new development as part of the federal NDPES program, and set standards for their implementation. Provision C.6 regulates stormwater management at construction sites. The intent of these regulations is to rigorously control the quality and quantity of stormwater runoff from any new development that creates or replaces impervious area over 5,000 sf so that receiving waters downstream are not adversely impacted.

To comply with these requirements, projects meeting these criteria are required to install water quality stormwater runoff BMPs that filter or treat rainfall runoff generated from storm events up to approximately the 85th percentile rainfall event (or approximately the 1-inch storm event) before discharging into storm drains or natural drainage systems. Projects are required to capture 100 percent of rainfall runoff from new impervious surfaces and to treat it in post-construction stormwater systems. Projects are required to implement Low Impact Development (LID) techniques such as harvesting and re-use, infiltration, evapotranspiration, and bioretention.

### San Mateo Countywide Pollution Prevention Program

The San Mateo Countywide Pollution Prevention Program (SMCWPPP) emphasizes the integration of stormwater management features into streets and parking lots as part of a new urban landscape and provides resources and technical guidance on how to design, permit, and maintain post-construction stormwater controls to meet the current stormwater management requirements mandated in Provision C.3 of the Regional Municipal Stormwater Permit. An emphasis is placed on the integration of stormwater features such as bioretention facilities into areas such as streetscapes or parking facilities using low impact development (LID) techniques.

#### Municipal Operations

In May 2022, the San Francisco RWQCB adopted Order R2-2022-0018 which identified numerous Bay Area jurisdictions, including Belmont, that are subject to water quality protective requirements governing routine maintenance activities. These requirements cover repair, maintenance, pavement washing, and graffiti removal activities for facilities such as streets, roads, sidewalks, and plazas. In addition to washing activities, stormwater pump stations are subject to regulations that include collecting bi-annual dissolved oxygen (DO) data and trash load data. Based on DO levels, corrective actions such as aeration may be required to maintain minimum DO in stormwater. Order R2-2022-0018, which supersedes Order R2-2015-0XXX, also contains requirements for maintenance projects adjacent to creeks or wetlands, and requires SWPPPs for corporation yard projects not already covered under the SWRCB's Industrial Stormwater NPDES General Permit.

#### Water Treatment Plants Discharge Permits

Sewage collected in the city is treated at the Silicon Valley Clean Water Wastewater Treatment Plant (SVCW). Waste discharge from SVCW is required to meet stringent standards to protect the health of the San Francisco Bay, where the water is discharged.

### San Mateo County Hazard Mitigation Plan

The city currently participates in the San Mateo County Multi-Jurisdictional Hazard Mitigation Plan (HMP). The HMP is intended to enhance public awareness, create a decision tool for management, promote compliance with State and federal program requirements, enhance local policies for hazard mitigation capacity, support viability after a hazard event, and provide inter-jurisdictional coordination. Belmont's Local Hazard Mitigation Plan is incorporated as an annex to the HMP and fulfills the requirements of the 2000 Disaster Mitigation Act. Belmont's LHMP includes actions the city is taking to mitigate impacts from flood events, dam failure, and sea level rise.

### City of Belmont General Plan

Project-relevant general plan policies for hydrology and water quality are addressed in this section. Where inconsistencies exist, if any, they are addressed in the respective impact analysis below. Relevant General Plan policies that directly address reducing hydrological and water quality impacts include the following:

**Conservation Element**

**Goal 5.4:** Preserve and restore Belmont's waterways and adjacent corridors as valuable community resources that serve as plant and wildlife habitats, groundwater recharge facilities, flood control and irrigation components, and connections between open space areas.

- Policy 5.4-4: Preserve and enhance the natural riparian environment along waterway corridors, including Belmont Creek, by minimizing environmental and visual impacts.
- Policy 5.5-2: Encourage residents and businesses to use best management practices (BMPs) to reduce water pollutant loads that result from daily activities, such as using land-scaping chemicals and fertilizers and repairing and washing cars outdoors.
- Policy 5.5-3: Require development projects to incorporate structural and non-structural best management practices (BMPs) to mitigate or reduce the projected increases in pollutant loads, in accordance with the NPDES permit guidelines.
- Policy 5.5-4: Ensure that the design and construction of new infrastructure elements does not contribute to stream bank or hill-side erosion or creek or wetland siltation, and incorporates site design and source control BMPs, construction phase BMPs, and treatment control BMPs to minimize impacts to water quality.
- Policy 5.5-5: Implement water pollution prevention methods to the maximum extent practicable, supplemented by pollutant source controls and treatment.

**Goal 5.9:** Maintain and improve the reliability of the City's storm drainage system, and promote best management practices to protect this system from flooding, enhance water quality, and prevent infrastructure deterioration.

- Policy 5.9-2: Encourage development projects of all sizes to incorporate site design measures that facilitate groundwater recharge and natural hydrological processes, allowing stormwater to infiltrate the ground on-site and/or be collected for reuse in landscaping and designated to on-site stormwater detention facilities. Such measures may include:
    - Canopy trees or shrubs to absorb rainwater;
    - Grading that lengthens flow paths over permeable surfaces and increases runoff travel time to reduce the peak hour flow rate;
    - Partially removing curbs and gutters from parking areas where appropriate to allow stormwater sheet flow into vegetated areas;
    - Installation of green roofs on buildings;
    - Use of permeable paving in parking lots and other areas characterized by significant impervious surfaces;
    - On-site stormwater detention, use of bioswales and bioretention basins to facilitate infiltration; and

- Integrated or subsurface water retention facilities to capture rainwater for use in landscape irrigation and other non-potable uses.

**Safety Element**

**Goal 6.2:** Protect the community from risks to life and property posed by flooding.

- Policy 6.2-1: Continue to pursue and implement flood control programs that reduce flood hazards, such as the City's Grading Ordinance and Flood Plain Management Ordinance.
- Policy 6.2-3: Require all proposed drain-age facilities to comply with the city's storm drainage facility requirements to ensure they are properly sized to handle 100-year flood conditions.
- Policy 6.2-6: Require installation of protective structures or other design measures to protect proposed building and development sites from the effects of flooding in 100-year Flood Zones.
- Policy 6.2-8: Comply with Federal Emergency Management Agency (FEMA) requirements to identify flood hazard areas and control development within these areas in order for residents to qualify for federal flood insurance.
- Policy 6.2-10: Continue to comply with the Municipal Regional Stormwater Permit requirements for municipal authorities to address water quality and flow-related impacts of stormwater runoff; continue to enforce NPDES permits in Belmont; and continue to participate in the San Mateo Countywide Water Pollution Prevention Program.
- Policy 6.2-11: Comply with Section 402(p) of the federal Clean Water Act, as amended by the Water Quality Act of 1987, which requires NPDES permits for stormwater dis-charges from municipal storm sewer systems, stormwater discharges associated with industrial activity (including construction activities), and designated stormwater discharges.

### Belmont City Code

#### Chapter 7 Article IX – Floodplain Management Regulations

Belmont City Code Chapter 7, Article IX is designed to minimize public and private losses due to flood conditions within flood prone, mudslide, or flood related erosion areas, defined as all areas of special flood hazards within the city of Belmont. The city's Grading Ordinance and Floodplain Management Ordinance are contained within the Building Ordinance. These ordinances ensure that potential buyers and occupiers of areas of special flood hazard are informed of the property's location in the hazardous area and that they must assume responsibility for their occupation thereof. The ordinances also do the following:

- Prevent excavation or site grading activities during the winter rain period
- Require a development permit to be obtained before any construction or other development begins within any area of special flood hazard
- Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities
- Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction
- Control the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters

- Control filling, grading, dredging, and other development which may increase flood damage
- Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas

## 13.5 Environmental Impacts and Mitigation Measures

### 13.5.1 Significance Criteria

The following significance criteria for hydrology and water quality were derived from the Environmental Checklist in CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address lead agency requirements and the full range of potential impacts related to this project.

An impact of the project would be considered significant and would require mitigation if it would meet one of the following criteria.

- Violate any water quality standards or waste discharge requirements or otherwise degrade surface water or groundwater quality.
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge, such that the project may impede sustainable groundwater management of the basin.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    - Result in substantial erosion or siltation on- or offsite.
    - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.
    - 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.
    - Impede or redirect flood flows.
- In flood hazard, coastal hazard, tsunami, or seiche zones, risk coastal flooding and/or release of pollutants due to project inundation.
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

### 13.5.2 Methodology

The project is evaluated against the aforementioned significance criteria/thresholds, as the basis for determining the project's level of significance concerning hydrology and water quality. This analysis also considers the existing regulatory framework (i.e., laws, ordinances, regulations, and standards) that avoid or reduce the potentially significant environmental impact. Where applicable, feasible mitigation measures are recommended to avoid or reduce the project's potentially significant environmental impacts.

### Approach to Analysis

This analysis of impacts on hydrology and water quality examines the project's temporary (i.e., construction) and permanent (i.e., operational) effects based on application of the significance criteria/thresholds outlined above. Each criterion is discussed in the context of the project site and the surrounding characteristics/geography. The impact conclusions consider the potential for changes in environmental conditions, as well as compliance with the regulatory framework enacted to protect the environment.

The baseline conditions and impact analyses are based on available information in public databases including local planning documents, infrastructure master plans and public-facing websites of local agencies and service providers. Additional information has been obtained from the project's application submittal package and preliminary engineering documents. Kimley-Horn personnel have provided peer reviews of pertinent information as part of the EIR's evaluation. The determination that a project component would or would not result in "substantial" adverse effects related to hydrology and water quality includes consideration of the available policies and regulations established by local and regional agencies and any deviation from these policies in the project's components.

## 13.5.3 Summary of No and/or Beneficial Impacts

Not applicable.

## 13.5.4 Impacts of the Proposed Project

**Impact HYD-1: The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. This is a less than significant impact.**

### Construction

The project site has been previously developed and graded with the construction of an office building, parking lots, auxiliary structures, and other appurtenant infrastructure to support the current development. Existing conditions allow for storm water flows to be captured by on-site storm drain throughout the parking lot areas surrounding the existing building. Storm flows are conveyed via underground storm drain and pump station, with a discharge outlet on the northern portion of the project site into the Belmont Creek. Storm flows intercepted and collected from all impervious surfaces, including the building and parking areas, are collected, and connected to the underground storm drain network on-site. Existing vegetation includes typical landscaping grasses and ground covers, trees, and shrubs.

Project construction-related activities, such as demolition, grading, depositing fill material, maintenance and operation of construction equipment, and handling/storage/disposal of materials could contribute to pollutant loading in storm water runoff from the project site. In addition, any exposed and stockpiled soils could be subject to wind and conveyance into nearby storm drains or the Belmont Creek, and on-site water activities for dust suppression could contribute to pollutant loading in runoff from the site.

Construction controls to minimize potential water quality impacts would be implemented through compliance with NPDES permit requirements. In accordance with the requirements of the NPDES permitting program, the project applicant would prepare and implement a site-specific SWPPP that

meets the requirements of the NPDES General Construction Permit and specifies BMPs (e.g., erosion control, sediment control, non-stormwater management, and materials management) to be used during construction, as the project disturbs more than one acre of soil. With implementation of these BMPs, subject to review and approval by the SMCWPPP, the project would reduce or eliminate the discharge of pollutants in stormwater runoff from the construction site to the maximum extent practicable. As such, the water quality of nearby surface waters and groundwater would be maintained via compliance with NPDES permit requirements. In addition, the preparation and implementation of a WQMP is required for the project. The WQMP is subject to review and approval by the city and would manage stormwater runoff post construction activities and implement site design and source control BMPs to help ensure stormwater runoff and impervious areas are minimized. With implementation of the WQMP, compliance with the NPDES permit requirements, and implementation of BMPs, project construction would not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality. Mandatory compliance with the SWPPP would ensure that the construction of the project site would not violate any water quality standards or waste discharge requirements. Therefore, water quality impacts associated with construction activities would be **less than significant** and no mitigation measures would be required.

### Operations

According to the Storm Drain Analysis prepared by BKF Engineers, the proposed project would result in approximately 193,224 sf of impervious area (62.5 percent of the site), a reduction from the 251,142 sf of impervious area that is existing on-site. The project proposes 17 defined drainage areas with a range of stormwater treatment controls including bioretention basins, flow-through planters, pervious pavements, and self-retaining areas. Areas of permeable pavements are also proposed for the project. Following on site treatment, water would be directed into the existing storm drain on the northern end of the site prior to discharge into the Belmont Creek. However, the overall drainage pattern of the project site post-development would be very similar to pre-development drainage. See **Figure 3-1: Preliminary Stormwater Management Plan**. Under post-construction conditions, the total area of impervious surfaces from buildout of the project would be reduced from the existing, developed conditions, allowing for more infiltration and treatment of storm flows prior to runoff.

Under existing conditions, runoff polluted with contaminants such as pesticides, herbicides, animal waste, litter, heavy metals, hydrocarbons and other urban constituents are able to flow from the site with minimal treatment and ultimately flow into Belmont Creek and the San Francisco Bay. The project would construct new on-site treatment devices that would reduce the concentration of pollutants that would be able to be discharged. While the project would generate similar pollutants compared to those that exist on the project site under existing conditions, the project would now be required to meet provisions outlined in the SMCWPPP Municipal Regional Permit and as outlined in the preliminary water quality management plan prepared for the project.

As discussed above, the project applicant would be required to prepare a SWPPP and incorporate BMPs for construction and post-construction conditions. Following compliance with NPDES requirements, BMPs and City/County requirements, operation of the project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. In fact, the project would provide improved conditions compared to the existing development conditions. Impacts would be **less than significant**, and no mitigation is necessary.

**Impact HYD-2: The project will not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. This is a less than significant impact.**

### Construction and Operation

As discussed above, the project will develop an existing developed site and would result in an overall reduction of impervious surfaces and increase in pervious surfaces. The project would install bioretention basins to treat stormwater flows prior to discharge. Bioretention basins are basins that temporarily detain stormwater flows to improve surface water quality, control the rate of discharge and allow for some percolation back into the groundwater basin. With the incorporation of these drainage facilities into the design, some stormwater will be able to percolate but the majority of stormwater will be treated, detained and ultimately discharged into Belmont Creek.

Additionally, the proposed project does not overlie existing water storage reservoirs or potable groundwater sources in the city. The groundwater located beneath the project site is not used for drinking water. The project would result in the general reduction of impervious surfaces by 1.33 acres and would generally increase the amount of groundwater infiltration. For these reasons, the project will not substantially decrease groundwater supplies or recharge capabilities. Please see also Chapter 19, Utilities and Services Systems, for more information regarding water supply, existing allocations, and projected demand. Impacts would be **less than significant,** and no mitigation is necessary.

**Impact HYD-3: The project would not 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 a 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 offsite;**
**iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or**
**iv) impede or redirect flood flows.**

**This is a Less than Significant impact.**

### Construction and Operation

Please see Impact HYD-1 above regarding existing controls and regulations already in place to manage water quality from site construction activity and maintain water quality pursuant to NPDES requirements, BMPs and City/County requirements. Also, as identified in the analysis of Impact HYD-2, changes to the site would increase the total amount of pervious areas and would generally maintain the existing on-site drainage flows. Additionally, the project does not propose alterations to the Belmont Creek.

The project site is currently developed with an office building and parking lots. In its current conditions, it would not allow for significant erosion or siltation as a result of its on-site drainage. The project proposes the redevelopment of the project site with multiple buildings and a parking garage. During construction and operations, the overall drainage of the site would remain largely intact. Flows would be directed to the northern portion of the project site, after treatment, and discharge from the site through an existing storm drain and pump station into the Belmont Creek. Further, the project would be required to maintain or reduce flow rates across the project site, which would ensure a similar or lessened impact on erosion and siltation to the receiving channel.

Under existing conditions, flows from the project site are discharged at a rate of 10.84 cubic feet per second (cfs). After construction and during operations, flows form the project site would be discharged at a rate of 9.33 cfs. This reduction in the flow rate of storm water would reduce the impacts to erosion and siltation as a result of the project. Additionally, as more storage would be provided on site, the peak discharge rate would be lessened thereby reducing the impact of surcharging of downstream storm drainage infrastructure, lowering the risk of flooding that could result from runoff from the project site. Further, this would increase the total amount of remaining capacity of downstream storm water infrastructure.

During construction, the project would be required to implement the SWPPP which prescribed best management practices (BMPs) to mitigate and treat construction pollutant generation. As previously discussed, the project would generate similar pollutants that are currently generated on the project site; however, the project would implement new and improved treatment devices which would reduce the overall pollutant loading in runoff.

As described in Chapter 3, Project Description, the project would raise the elevation of the project site by 2 feet to address the city's requirement to establish development sites 2 feet above the Federal Emergency Management Agency (FEMA) base flood elevation. The base flood elevation is currently set at Elevation (EL) 10 at this location. Preliminary plans estimate that 8,000 cubic yards of soil fill (import) would be required to raise the base elevation to (EL) 12.

Raising the base flood elevation would provide protection from flood flows on the site, and this change would not result in a significant impact regarding erosion, siltation, runoff volume or increased flood risk. As the site currently does not accept off-site stormwater flows, this condition would not change (i.e., impede or redirect flows) with the increase in base elevation. The project site is one of the most downstream parcels in the city's drainage areas that drain into Belmont Creek (adjacent to the point of discharge), and therefore existing future flows from a flooding event would not be expected to alter or raise flood elevations on adjacent properties.

Nonetheless, to alter the existing floodplain, the project will be required to obtain a Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) from FEMA. The CLOMR/LOMR process requires the submittal of detailed hydrologic information to document and map predicted changes in flood flows resulting from altering flood plain boundaries.

Following compliance with NPDES requirements, BMPs and city requirements, construction of the project would not result in substantial erosion or siltation on- or offsite, increase the rate or amount of surface runoff resulting in flooding on- or offsite, or contribute runoff water which would exceed the

capacity of existing or planned stormwater drainage systems. Impacts would be **less than significant**, and no mitigation is necessary.

### Impact HYD-4: The project would not result in flood hazard, tsunami, or seiche zones, that would risk the release of pollutants due to project inundation. This is a less than significant impact.

#### Construction and Operation

As previously discussed, the project site is located in an area of moderate flood hazard (between the 100- and 500-year flood zone), primarily due to the project's proximity to the Belmont Creek and the San Francisco Bay. Project construction, however, would raise the base flood elevation by 2 feet, removing the site from the 100-year flood plain. In addition, the project does not propose the development and operations of a land use that is known to create or generate pollutants that are of significant impact. The concentration of pollutants that could be generated on the project site would be of minimal concentrations such that a less than significant impact would occur should a flooding event be large enough to exceed the base elevation and bypass the proposed on-site BMPs and treatment devices for either construction or operations. As previously stated, the project site is not located in an area that is known to be at risk of tsunami. As such, there would be no impact with respect to tsunami. Additionally, as previously discussed, the project site is not located near major enclosed bodies of water such that seiche inundation could be a risk, no impact would occur with respect to seiches. Overall, impacts due to contamination from inundation would be **less than significant**, and no mitigation is necessary.

### Impact HYD-5: The project would not conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan. This is a less than significant impact.

#### Construction and Operation

As discussed above, the project site does not overlie a groundwater basin and would not impede the sustainable management or use of groundwater. Thus, the project would not substantially decrease or interfere with groundwater recharge. The project would not conflict with a groundwater management plan.

The project is within the jurisdiction of the California RWQCB, San Francisco Bay Region and would be required to demonstrate compliance with the San Francisco Bay Basin Plan. The Basin Plan includes water quality objectives and criteria to protect the San Francisco Bay. The RWQCB requires projects comply with waste discharge requirements, including obtaining permits for nonpoint waste discharge sources such as the urban runoff discharged by a city's stormwater drainage system. The project would comply with NPDES permit requirements by installing post-construction BMPs to physically treat and infiltrate runoff. Following compliance with the Basin Plan and the BMPs, the project would not conflict with a water quality control plan or sustainable groundwater management plan. Impacts would be **less than significant**, and no mitigation is necessary.

### 13.5.5 Cumulative Impact Analysis

Cumulative impacts to hydrology and water quality could occur as new development, redevelopment, and existing uses are ongoing and changing the dynamics within the watershed. This includes the project site and other past, present, and future projects. Because parts of the watershed are already developed, growth is anticipated to consist of a mix of redevelopment and property intensification. Depending on the size of projects, new development would be required to prepare and implement SWPPP with BMPs to control erosion and stormwater runoff in accordance with all required water quality permits and the Water Quality Control Plan. This would include conformance with the San Francisco Bay RWQCB's Water Quality Control Plan and the MS4 Permit. Water Quality Control Plans would be completed for cumulative projects, which would be reviewed and approved by the RWQCB. As needed, projects would implement BMPs, including LID BMPs to minimize runoff, erosion, and stormwater pollution.

As part of these requirements, projects would be required to implement and maintain source controls and treatment measures to minimize polluted discharge and prevent increases in runoff flows that could substantially impair water quality. Ongoing conformance with these measures would minimize runoff from those sites and reduce contamination in runoff, effectively improving water quality over time as increasingly stringent controls are implemented. For these reasons, related projects are not expected to cause substantial increases in stormwater pollution. With compliance with State and regional mandates, cumulative impacts would be less than significant, and project impacts would be **less than significant** (not cumulatively considerable).

With respect to flooding, future projects within the San Francisco Bay Basin may be proposed within 100- or 500-year flood zones. Such projects would be mandated to comply with National Flood Insurance Program requirements. In addition, other jurisdictions within this watershed regulate development within flood zones, as does the City of Belmont. Such regulation would limit cumulative flood hazard impacts. Cumulative impacts to hydrology, drainage, and flooding would not be cumulatively considerable.

## 13.6 References

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# 14 Land Use, Population, and Housing

## 14.1 Introduction

This section identifies potential effects related to land use, planning policy, population growth and housing that could result in direct or indirect environmental impacts with implementation of the project. Information used to prepare this section was derived primarily from the following resources:

- City of Belmont, 2035 General Plan, 2017
- City of Belmont, Final Environmental Impact Report for the Belmont General Plan Update, 2017
- City of Belmont, City Code, as amended
- 1 Shoreway Owner, LLC, Application Package for 1301 Shoreway Road, 2024

This chapter combines land use, population and housing, because these issues are so closely related in the context of this particular project within the community and Belmont.

## 14.2 Scoping Issues Addressed

During the Notice of Preparation (NOP) and public comment scoping period for the EIR, public comments noted the intensification of the project site and increase in job-generating uses, and potential pressure on local housing stock. Indirect impacts related to job growth are addressed in this Chapter, as well as in Chapter 21 (under Growth Inducing Impacts).

## 14.3 Environmental Setting

### 14.3.1 Existing Land Use and Zoning at the Project Site

The existing project site consists of an existing multi-tenant medical office building with associated surface parking and landscaping. The site is designated as Regional Commercial (COM-R) in the Belmont General Plan. The corresponding zoning category for the project site is Regional Commercial (RC), which, similar to the General Plan land use designation, allows for a broad range of community-serving retail and services, visitor- and retail-serving auto-oriented commercial services, (such as lodging and service stations), car dealerships, and commercial office uses. Some light industrial and research and development (R&D) uses may also be permitted. The maximum floor area ratio (FAR) for the COM-R designation/RC zoning is 1.8, with a maximum building height of 55 feet.

### 14.3.2 Adjacent Land Uses

The land use pattern of this area of the city – in the vicinity of Shoreway Road and Twin Dolphin Drive – is predominantly office, commercial, hotel, and industrial uses. Adjacent land uses include hotels and a City of Belmont corporation yard to the north, a PG&E electrical substation to the south, office uses within Redwood City to the east beyond Belmont Creek, and Shoreway Drive to the west with US 101 beyond. The project vicinity is largely developed with established urban uses, including hotels, commercial and office/technology. However, the east side of the project site is adjacent to Belmont Creek, and across the creek is the Redwood Shores neighborhood of Redwood City and a stretch of the San Francisco Bay Trail which follows along the northbound section of Twin Dolphin Drive. San Carlos

Airport and Hiller Aviation Museum, a general aviation airfield, is located approximately 4,600 feet to the south.

### 14.3.3 Existing Population and Jobs

The city's General Plan EIR had identified an approximate population of 26,200 residents in 2013. In 2021, the city had an estimated population of 27,180 residents.[1] According to the Association of Bay Area Governments, the city is projected to have a population of 30,500 residents and an estimated 13,400 jobs by 2035.

### 14.3.4 Existing Housing Mix

According to the California Department of Finance (DOF), there were approximately 11,037 housing units in Belmont in 2013. Of the 11,037 housing units, approximately 64 percent were single family homes, and 36 percent were multi-family units. Approximately 4.7 percent of the housing units in the city were vacant, while San Mateo County had a vacancy rate of 5.2 percent. According to the U.S. Census Bureau's American Community Survey, the average household size in the city was 2.48 persons, which is slightly lower than the average of San Mateo County with a household size of 2.86 persons.

More recent DOF data from 2023 reported a total of 11,232 housing units, representing a modest increase. The average household size in 2023 remained the same as 2013, at 2.48.

Within the immediate Belmont area, there is no housing that has been developed on the south side of Marine Parkway. The project area is not zoned for housing and is not expected to experience substantial changes in land use.

[1] Department of Finance. 2024. Table E-5 City/County Population and Housing Estimates. https://dof.ca.gov/forecasting/demographics/estimates/estimates-e5-2010-2021/. Accessed on June 3, 2024.

## 14.4 Applicable Regulations, Plans, and Standards

### 14.4.1 State

Not applicable.

### 14.4.2 Local

#### City of Belmont General Plan

The City of Belmont General Plan is the comprehensive planning document governing development within the city, and contains goals, policies, and programs describing the community's vision for economic viability, livable neighborhoods, and environmental protection.

The General Plan, as periodically amended, establishes policies for the orderly growth and development of the city, including its individual neighborhoods and districts. Among other purposes, the General Plan identifies policies necessary to protect and enhance those features and services which contribute to the quality of life of the community in which it serves.

The General Plan is a comprehensive policy plan which sets forth a series of written statements (goals, policies and objectives) defining the direction, character and composition of future land use development, and establishes guidelines (policies and actions) necessary to attain conformance with the plan. The General Plan Land Use Map visually represents the physical relationship of all portions of the text.

Relevant General Plan land use policies that have been adopted to reduce or avoid environmental impacts are identified below. Pursuant to CEQA, this discussion only identifies policies that have been adopted for the purpose of avoiding or mitigating environmental effects. Additional policies relevant to other specific environmental topics are identified in other chapters of this EIR.

## 14.5 Environmental Impacts and Mitigation Measures

### 14.5.1 Significance Criteria

The following significance criteria for land use, planning, population and housing were derived from the Environmental Checklist in CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address lead agency requirements and the full range of potential impacts related to this project.

An impact of the project would be considered significant if it would meet one of the following criteria.

- Physically divide an established community.
- 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.
- Induce substantial unplanned population growth either directly (through the construction of new homes or businesses), or indirectly (through the extension of roads or infrastructure).
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

## 14.5.2 Summary of No and/or Beneficial Impacts

### Physically Divide an Established Community

The project site is currently developed with an existing office building with surface parking, and surrounded by commercial, industrial, office, and hotel uses to the north, east, and south. The project would develop a new office/research campus with two commercial office/research buildings, a parking garage, courtyard, and surface parking. While this new development would introduce new structures to the existing site, these structures would retain a similar, general use of the site and similar patterns of circulation and movement within the community. Surrounding development adjacent to the project site would also remain the same, and no alterations to lanes of travel in the immediate project vicinity are proposed.

In this location the project would not physically divide an established community, as communities are typically defined by neighborhoods and their residents. This significance threshold is typically applied to projects such as new major roadways, rail lines, transit facilities or similar projects that result in a significant physical barrier that could segment established land uses and neighborhoods. Such impacts can affect access to parks, goods and services or other destinations in the community, divide residential neighborhoods, alter or lengthen vehicle trip patterns, or lead to similar effects that disrupt the existing cohesion of a community. No such circumstances or conditions are present at this project location. For these reasons, the proposed project would not physically divide an established community.

The environmental effects related to compatibility between proposed on-site land uses and adjacent land uses during both construction and operation are discussed within the respective impact sections of the following environmental resource chapters: Aesthetics, Air Quality, Noise and Transportation.

### Displace a Substantial Numbers of People or Housing

The project site is currently an underutilized office building with no existing housing units. No existing housing units or people would be displaced as a result of the proposed project.

## 14.5.3 Impacts of the Proposed Project

**Impact LU-1: The project would not substantially conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. This is a less than significant impact.**

### Construction and Operation

#### Existing Ordinances and Regulations

The proposed project would be required to comply with all applicable City of Belmont ordinances and regulations affecting project construction and operation, including those addressing water quality, noise, grading, infrastructure, lighting and similar design and engineering requirements. For the purposes of this EIR, it is assumed that all final improvement plans and conditions of approval will reflect all standard ordinances and regulations that are in place at the time that permits are issued.

The proposed project would result in increased building heights in excess of existing development standards. A Planned Unit Development (PD) zoning application has been submitted as part of the

project to allow these building heights specific to the project location. No changes to the General Plan are proposed to accommodate these building heights; however, this EIR evaluates their potential environmental consequences.

Additionally, the project is within the traffic pattern zone for the San Carlos Airport and is under the general departure flight path. Per 14 CFR Part 77, the Federal Aviation Administration (FAA) has reviewed the building height proposal and approved the proposed project in terms of airspace requirements. Please see Chapter 12 for more information regarding consistency with the San Carlos Airport Land Use Compatibility Plan.

### General Plan Consistency

As identified in Section 14.1.1 above, and throughout the EIR chapters, the General Plan contains several policies designed to ensure that development within the city, over time, provides a certain level of environmental protection through the consistent application of those policies. Relevant environmental policies are identified within the Regulatory Setting of each chapter to assist city staff and the public understand and review the project in the context of the city's broader guiding principles and vision.

Upon review of the General Plan land use and urban design policies that address environmental protection (as well as additional policies throughout the chapters of this EIR), there is no indication that the project, as mitigated, would be in direct conflict with these guiding policies such that significant environmental effects would occur. For example, the project:

- Does not conflict with any protected natural resource areas.
- Seeks to maintain an urban form and land use pattern that enhances the quality of life.
- Improves the city's image and physical appearance through design.

Table 14-1: General Plan Consistency Analysis at the end of this chapter provides a broader analysis of project consistency with the Belmont General Plan's land use and environmental policies.

Based on this analysis, the project is compatible with the environmental objectives of Belmont and would not conflict with the General Plan. Impacts are considered **less than significant**.

**Impact LU-2: The project could indirectly induce unplanned growth in the area surrounding the project. This is a less than significant impact.**

#### Construction

The project's construction timeline of 24-36 months would generate construction jobs at the site during this period. While the location of where construction workers live cannot be known at this time, it is reasonable to assume that workers would be a representative mix of local labor and workers commuting in from further distances to work on this project during certain construction phases. Construction requires skilled and unskilled labor from several different trades, so workers tend to rotate in and out of a project site for shorter periods of time depending on the phase of construction that is being completed. Because of this staggered work and wide range of trades, it is not expected that construction workers would represent a significant source of "unplanned growth" in the community. If some percentage of workers do relocate locally for the project, this effect would be temporary and considered **less than significant**.

### Operation

The 1301 Shoreway project would not directly induce unplanned population growth because it would not involve the construction of new housing (and resulting population). The project could result in indirect growth inducement, however, by constructing a research/office campus that is more than 3.5 times the size of the existing building on site (based on square footage), and assuming a proportional increase in employees (up to 2,500). The project would likely result in hundreds of additional employees seeking housing opportunities in the greater Belmont/San Carlos/Redwood City area and within San Mateo County. Based on ABAG forecast data, only 45 new households and approximately 125 new jobs are forecast for the City of Belmont, and adjacent cities have similarly modest growth forecasts.

The attraction of new employees resulting from this single project is unlikely to have a significant impact on regional population, however, as the area is highly urban in character and there are housing opportunities within the region to absorb this level of employment growth without causing predictable environmental effects. It is expected that most of these employees would already be residing and working in the region, and simply changing jobs and commute patterns or relocating locally to be closer to this new source of employment in Belmont. For these reasons, the potential for substantial, unplanned population growth locally is considered **less than significant**.

See also Chapter 21, Other CEQA Considerations, for additional information and analysis regarding growth inducement.

## 14.5.4 Cumulative Impact Analysis

The scope of the analysis of cumulative land use, population and housing impacts is based on the growth assumptions and projects identified in Chapter 4, Introduction to Environmental Analysis, which represents regional growth forecasts and other reasonably foreseeable development projects.

**Impact LU-3: The project will not substantially contribute to cumulatively considerable land use, planning, population or housing impacts. This is a less than significant impact.**

Land use impacts would be cumulatively considerable if the proposed project, in conjunction with other growth and past, present, reasonably foreseeable future projects, would physically divide an established community or result in inconsistency or conflicts with plans or policies adopted to protect the environment.

As identified above, the project is consistent with the land uses and development pattern as set forth in the General Plan and would not physically divide the community. Other past, present and future projects, including new development in Belmont, would not combine to create a new or significant adverse impact with respect to “physical division” of the community. In terms of policy consistency, it is assumed that all local projects would be developed consistent with local General Plans and municipal codes, would comply with exiting standards and regulations, and therefore would not combine to cause a conflict with any existing environmental regulations that have not been addressed elsewhere in this EIR. For these reasons, cumulative land use and planning effects are considered less than cumulatively considerable.

In terms of housing, the project would not introduce new housing as part of the project, which is consistent with the land use designation of the East Belmont area.

Increases in population over time, from the project as combined with other foreseeable growth and development, could incrementally strain infrastructure and public services systems within the city. However, such effects are either addressed cumulatively through the assessment of impact fees and proportional share (in the case of infrastructure and public services for example) and can only be mitigated through the adoption of ordinances or regulations rather than the imposition of conditions on a project-by-project basis (CEQA Guidelines Section 15130 c).

## 14.6 References

City of Belmont. 2017. *2035 General Plan and EIR.*

City of Belmont. 2017. *Draft Environmental Impact Report for the Belmont General Plan Update.*

**Table 14-1: General Plan Consistency Analysis**

| Goals and Policies | Project Consistency |
|---|---|
| ***Belmont General Plan Section 2: Land Use*** | |
| **Policy 2.3-4:** Focus new development in or directly adjacent to already-developed areas, where it can be served by existing public services and infrastructure. | ***Consistent***. The project site is an infill location. The proposed research/life science office campus use is consistent with underlying land use designation and surrounding development the Belmont area. |
| **Policy 2.6-6**: Ensure integrated site features, convenient access, and community identity in design of commercial development. | ***Consistent***. The project design includes an integrated design of landscaping, parking, and new structures. The project will modify existing site access to improve circulation and accessibility. The project design is visually appealing and appropriate for the character of Belmont along the US 101 commercial corridor. |
| **Goal 2.13:** Enhance the visual character and image of Belmont | ***Consistent***. The project will result in a new, modern commercial research/office campus that is visually prominent and architecturally innovative for the location. The combination of new structures and landscaping will reflect positively on Belmont's commercial sector. |
| **Policy 2.13-1:** Ensure that new development is balanced with preservation of open space and natural features. | ***Consistent***. The project will preserve the adjacent Belmont Creek and provide connections to natural features of the surrounding area. |
| **Policy 2.13-3**: Promote and ensure appropriate development. | ***Consistent***. The project is consistent with the intended use of the site and conforms to the character of the existing area with respect for the natural surroundings. |
| **Policy 2.13-4:** Minimize light and glare from new development. | ***Consistent***. The project will incorporate lighting consistent with city performance standards and utilizes anti-glare materials and finishes on building and window surfaces. |
| **Policy 2.13-5:** Require consistent street frontages. | ***Consistent***. The project will provide clear and consistent entrances to the buildings visible from street frontages. |
| **Policy 2.13-7:** Minimize visibility of exterior energy and telecommunication devices. | ***Consistent***. The project will incorporate rooftop screening around equipment to minimize visual impacts from the public vantage points. |
| **Policy 2.13-9:** Provide public gathering spaces. | ***Consistent***. The interior plaza, green spaces, sports courts and trail access/public parking provided throughout the project will be accessible to the public at the pedestrian level. |
| **Policy 2.13-10:** Promote the incorporation of public art in design. | ***Consistent***. While the precise location has not been finalized, the project site plan proposes a public art installation in a location visible to the public. |
| **Policy 2.23-1:** Update the City's inventory of historic resources to ensure that historic resources are preserved and protected in Belmont. | ***Not applicable***. Citywide policy. The project site does not contain any historical resources and will not affect any historical resources in the City of Belmont. |

| Goals and Policies | Project Consistency |
|---|---|
| **Policy 2.23-4:** Encourage adaptive reuse of historic structures as an option for preserving sites. | ***Not applicable***. The project site does not have a historical structure will not affect any historic structure in the City of Belmont. |
| ***Belmont General Plan Section 3: Circulation*** | |
| **Goal 3.1:** Provide for the safe and efficient movement of people and vehicles within and through the community. | ***Consistent.*** The project will prepare and implement a final transportation demand management (TDM) program to reduce the project's VMT. The program includes encouraging employees to use alternative modes of transportation to single-occupant vehicles. |
| **Policy 3.1-1:** Ensure land use and circulation planning is developed concurrently. | ***Consistent***. The project is consistent with the underlying General Plan land use and the project has been reviewed for adequacy of circulation and access. |
| **Policy 3.1-5:** Require new development and redevelopment projects to construct or pay their fair share toward improvements for all travel modes to provide and enhance connectivity to existing transportation facilities. | **Consistent**. The project sponsor shall pursue an additional transit stop at the 1301 Shoreway Road project site for the Redwood LIFE Caltrain shuttle that connects the Belmont Caltrain Station to the Redwood Shores community. The project will also be required to pay any established fees related to transportation that are in effect. |
| **Goal 3.2:** Reduce dependence on the private automobile for travel and achieve a reduction in vehicle-miles traveled (VMT) per capita of 15 percent by year 2035. | **Consistent.** The project sponsor will prepare and implement a TDM program to reduce VMT. |
| **Policy 3.2-1:** Promote energy efficiency and accommodate new technology in meeting transportation needs. | ***Consistent.*** The project sponsor shall coordinate with the city and Commute.org to promote reestablishing a shuttle service that connects the project to the San Carlos Caltrain Station or the Belmont Caltrain Station. The project sponsor shall plan for an additional stop at the 1301 Shoreway Road project site for the Redwood LIFE Caltrain shuttle that connects the Belmont Caltrain Station to the Redwood Shores community. |
| **Policy 3.2-2:** Look for ways to partner with ride-sharing services as a means to reduce the need for car ownership and cover service gaps in the public transportation system. | ***Consistent.*** The project sponsor shall coordinate with the city and Commute.org to promote reestablishing a shuttle service that connects the project to the San Carlos Caltrain Station or the Belmont Caltrain Station. The project sponsor shall plan for an additional stop at the 1301 Shoreway Road project site for the Redwood LIFE Caltrain shuttle that connects the Belmont Caltrain Station to the Redwood Shores community. |
| **Policy 3.2-3:** Maintain and expand transit and active transportation networks that connect neighborhoods with key destinations to encourage travel by non-automobile modes while also improving public health. | ***Consistent***. The project sponsor shall pursue an additional stop at the 1301 Shoreway Road project site for the Redwood LIFE Caltrain shuttle that connects the Belmont Caltrain Station to the Redwood Shores community. |

| Goals and Policies | Project Consistency |
|---|---|
| **Policy 3.2-4:** Support thoughtful and appropriate land use locations and densities with development or redevelopment in Belmont that promote alternatives to travel via single-occupant vehicles. | ***Consistent.*** The project is in a strategic location with direct accessibility from US 101 and will implement a TDM program to promote alternatives modes of travel. |
| **Policy 3.4-5**: Design new roads and road improvements to minimize visual and environmental impacts. | ***Not applicable***. The project will not require new roads. |
| **Policy 3.4-6**: Plan new roadways to preserve the beauty of the area, prevent erosion, and help shield residents from noise and air pollution. | ***Not applicable***. The project would not construct any new roadways. |
| **Goal 3.5:** Promote, provide, and maintain a safe and convenient pedestrian and bicycle system of hiking and riding trails, pedestrian paths, bicycle paths and lanes to promote active transportation. | ***Consistent***. The project will maintain the surrounding existing bike paths in the project area and provide upgrades to trail access along Belmont Creek. The site will also provide bicycle parking for employees and visitors. |
| **Policy 3.5-2:** Require public sidewalks in conjunction with all new non-residential development. | ***Consistent***. The project will maintain the public sidewalks along existing street frontages. |
| **Policy 3.5-8:** Support and provide bicycle and pedestrian connections to commercial and employment areas to enhance accessibility. | ***Consistent***. The project will maintain the surrounding existing bike paths in the project area and provide upgrades to trail access along Belmont Creek. The site will also provide bicycle parking for employees and visitors. |
| **Policy 3.5-17:** Provide pedestrian facilities that are accessible to persons with disabilities and ensure that roadway improvement projects address accessibility. | ***Consistent***. The project will provide pedestrian connections internal to the research/life science office campus and comply with all ADA requirements. |
| **Goal 3.6:** Promote Transportation Demand Management Programs and encourage increased transit use. | ***Consistent***. The project will prepare and implement a final TDM program that encourages transit use through shuttle and transit enhancements. |
| **Policy 3.6-2:** Encourage or require businesses to implement Transportation Demand Management Programs with an emphasis on connecting and sharing the service with other businesses in the City and region. | ***Consistent.*** The project will prepare and implement a final TDM program to reduce the project's VMT and promote alternative travel modes, including enhanced shuttle service. |
| **Policy 3.6-4:** Ensure that major new development is adequately served by transit. | ***Consistent.*** The project sponsor shall coordinate with the city and Commute.org to provide a shuttle service that connects the project to the San Carlos Caltrain Station or the Belmont |

| Goals and Policies | Project Consistency |
|---|---|
| | Caltrain Station. The project sponsor shall pursue an additional stop at the 1301 Shoreway Road project site for the Redwood LIFE Caltrain shuttle that connects the Belmont Caltrain Station to the Redwood Shores community. |
| **Goal 3.8:** Provide a balanced and well-managed parking supply that accommodates demand while maximizing efficiency. | ***Consistent***. A total of 1,626 parking spaces are proposed as part of the project, including 1,432 spaces in the parking garage, 93 valet parking spaces, and 101 additional uncovered surface parking spaces located along the project's perimeter. This is consistent with the city's commercial office parking standards. |
| **Policy 3.8-3:** Ensure that the City's parking requirements result in an efficient supply of parking in appropriate locations. | ***Consistent***. A total of 1,626 parking spaces are proposed as part of the project, including 1,432 spaces in the parking garage, 93 valet parking spaces, and 101 additional uncovered surface parking spaces located along the project's perimeter. This is consistent with the city's commercial office parking standards. |
| **Policy 3.8-4:** Encourage property owners to obtain and develop joint use off-street parking areas to serve existing businesses and anticipated new development. | ***Not applicable***. The project's neighboring commercial properties do not support uses that require joint use and are not configured for joint use. |
| **Policy 3.8-5:** Ensure that parking is consistent with guidelines established by the Americans with Disabilities Act (ADA). | ***Consistent***. On site parking proposed as part of the project would be ADA compliant. |
| **Policy 3.8-6:** Ensure parking supply associated with the demand from future development is adequate, balanced, and does not adversely impact adjacent residential areas. | ***Consistent.*** The project meets city parking standards and is not located in a residential area. |
| **Policy 3.8-7:** Review and incorporate dynamic parking and autonomous vehicle accommodations in any new parking plans (surface or garage). | ***Not applicable***. The parking structure will meet any existing standards for feasible technology such as accommodations for electric vehicle charging. However, autonomous vehicle technology is not yet a practical requirement. |
| ***Belmont General Plan Section 4: Parks and Recreation*** | |
| **Policy 4.1-3**: Ensure that all development projects comply with the City's parkland dedication requirements, in accordance with the Quimby Act. | ***Consistent***. The project is a research/life science office campus that will not directly result in population growth. The project will comply with all applicable developmental fees, including park impact fees. |
| **Policy 4.2-2:** Improve the quality and quantity of public community facilities in Belmont. | ***Consistent***. The project would provide new public spaces internal to the project such as plazas, trail access, pedestrian promenades, open landscaped areas and sports courts. |
| **Policy 4.2-3:** Continue joint use agreements with other agencies, institutions, and private organizations for public use of | ***Not applicable***. Citywide policy. |

| Goals and Policies | Project Consistency |
|---|---|
| recreational facilities not owned by the City. | |
| **Policy 4.7-1:** Ensure that residential and nonresidential development projects contribute to the City's park, recreation, and open space resources commensurate with their impacts, through the Quimby Act and establishment and collection of park impact fees. | ***Consistent***. The project will comply with all applicable development impact fees. |
| ***Belmont General Plan Section 5: Conservation*** | |
| **Policy 5.1-3:** Reduce risk of natural threats through maintenance and enforcement of development standards. | ***Consistent.*** The project will comply with development standards as set forth by the city of Belmont and will work to maintain the public spaces proposed as part of the project site. |
| **Policy 5.2-1:** Encourage retention of hazardous areas as open space. | ***Not applicable***. The project does not propose work on any areas identified as hazardous to public safety or welfare. |
| **Policy 5.3-1:** Support habitats of listed species and enhancement of contiguous areas. | ***Consistent***. The project will preserve habitats adjacent to the project site, will not impact listed species and will provide enhanced urban landscaping for common wildlife. |
| **Policy 5.3-2:** Support Belmont's ecologically important areas and seek to reduce impacts on them. | ***Consistent***. The project will maintain and protect Belmont Creek riparian corridor and adjacent areas, and will implement appropriate mitigation measures to reduce potential impacts on ecological areas. |
| **Policy 5.3-3:** Ensure development does not disturb sensitive habitat or species. | ***Consistent***. The biological resources report found that the project will not impact any State or federally-listed species, and will implement appropriate mitigation measures to reduce potential impacts on habitat. |
| **Policy 5.3-4:** Maintain functional wildlife corridors and habitat linkage. | ***Consistent***. The project will not extend beyond the current developed footprint. The adjacent marsh of Belmont Creek will remain intact as a wildlife corridor with project implementation. |
| **Policy 5.3-5:** Require use of best practices that preserve natural resources. | ***Consistent***. The project will implement mitigation and standard construction conditions to protect water quality, Belmont Creek and adjacent areas. |
| **Policy 5.3-6**: Avoid light pollution and unnecessary glare through design features and methods. | ***Consistent***. The project will incorporate lighting consistent with city performance standards and utilize anti-glare materials and finishes on building and window surfaces. |
| **Policy 5.3-7**: Encourage planting and maintenance of native vegetation in suitable habitat | ***Consistent.*** The project will incorporate native and non-native trees and vegetation dispersed throughout the site as specified in the landscape plan. |
| **Policy 5.3-8:** Encourage and use native or drought-resistant vegetation in landscaping. | ***Consistent***. The project will incorporate native and drought resistant vegetation in project landscaping. |

| Goals and Policies | Project Consistency |
|---|---|
| **Policy 5.3-9:** Promote the healthy growth of trees and control the removal of trees within the city. | ***Consistent***. The project will plant 156 new trees and transplant 20 existing trees on site. The project will comply with the City of Belmont Tree Ordinance. |
| **Goal 5.4:** Preserve and restore Belmont's waterways and adjacent corridors as valuable community resources. | ***Consistent***. The project will enhance the trail access to and along the Belmont Creek shoreline and avoid adverse effects on Belmont Creek through project design and regulatory review from BCDC for work within the shoreline band. |
| **Policy 5.4-3:** Protect, restore, and enhance a continuous corridor of native vegetation and habitat along Belmont's waterways. | ***Consistent.*** The project will enhance the corridor with native vegetation along the trail adjacent to the Belmont Creek shoreline and avoid adverse effects on Belmont Creek through other project design and regulatory review from BCDC for work within the shoreline band. |
| **Policy 5.4-4**: Preserve and enhance the natural riparian environment along waterway corridors. | ***Consistent.*** The project will enhance the Belmont Creek shoreline and avoid adverse effects on Belmont Creek through project design and regulatory review from BCDC for work within the shoreline band. |
| **Policy 5.5-2:** Encourage residents and businesses to use best management practices (BMPs) to reduce water pollutant loads that result from daily activities. | ***Consistent***. The project's water quality control plans and compliance with existing regulations will ensure that water quality is controlled and treated prior to discharge. |
| **Policy 5.5-3:** Require incorporation of structural and non-structural BMPs to mitigate or reduce the projected increases in pollutant loads. | ***Consistent***. The project's water quality control plans and compliance with existing regulations will ensure that water quality is controlled and treated prior to discharge. |
| **Policy 5.5-4:** Ensure that the design and construction of new infrastructure elements does not contribute to stream bank or hill-side erosion or creek or wetland siltation. | ***Consistent.*** The project's geotechnical evaluation concluded that the topography and slope of the creek bank is not in danger of failure or erosion caused by the project. The project would prepare and implement SWPPP with BMPs to control erosion. |
| **Policy 5.5-5:** Implement water pollution prevention methods to the maximum extent practicable, supplemented by pollutant source controls and treatment. | ***Consistent***. On-site BMPs and treatment devices for construction and operation are proposed. The project would prepare and implement SWPPP with BMPs to control erosion and stormwater runoff in accordance with all required water quality permits and the Water Quality Control Plan. |
| **Policy 5.6-1:** Work with the Mid-Peninsula Water District to meet State targets for reducing per capita urban water use. | ***Consistent***. The proposed project would include a number of water-efficient features consistent with current building codes. |
| **Policy 5.6-3:** Encourage the Mid-Peninsula Water District to continue and expand its water conservation programs. | ***Not applicable***. General city policy. |

| Goals and Policies | Project Consistency |
|---|---|
| **Policy 5.6-5:** Continue the City's Water Conservation Strategy to reduce water use, control water cost, and promote environmental sustainability in municipal buildings, parks, landscaped areas, and athletic fields. | ***Not applicable***. General city policy. |
| **Policy 5.7-1:** Continue to make improvements and upgrades to the wastewater system, consistent with the City's Sanitary Sewer System Capacity Analysis and the Silicon Valley Clean Water Conveyance System Master Plan. | ***Not applicable***. General city policy. |
| **Policy 5.7-2:** Periodically review and update development impact fees, wastewater connection charges, and monthly service charges to ensure that adequate funds are collected to operate and maintain existing facilities and to construct new facilities. | ***Not applicable***. General city policy. |
| **Policy 5.7-3:** Partner with Silicon Valley Clean Water to develop and implement a local purified/recycled water (treated wastewater) program for Belmont. | ***Not applicable***. General city policy. |
| **Policy 5.8-1**: Promote solid waste reduction, recycling, and composting to Belmont residents and businesses as an important way to conserve limited natural resources and reduce greenhouse gas emissions. | ***Consistent***. The proposed project would implement internal recycling programs and recycle demolished building materials. |
| **Goal 5.9:** Maintain and improve the reliability of the City's storm drainage system, and promote best management practices to protect this system from flooding, enhance water quality, and prevent infrastructure deterioration. | ***Consistent.*** The project will capture and manage stormwater flows through a series of on-site drainage zones. The project will also raise the base flood elevation for flood protection. |
| **Policy 5.9-2:** Encourage development projects to incorporate site design measures that facilitate groundwater | ***Consistent***. The project will install bioretention basins to treat stormwater flows prior to discharge to improve surface water quality, control the rate of discharge and allow for some percolation back into the groundwater basin. |

| Goals and Policies | Project Consistency |
|---|---|
| recharge and natural hydrological processes. | |
| **Policy 5.10-6:** Ensure compliance with the most current Bay Area Clean Air Plan by implementing the Plan's recommended Transportation Control Measures (TCMs). | ***Consistent***. The project will comply with General Plan goals, policies, measures, and emission reduction targets, and would therefore be in compliance with the most current Bay Area Clean Air Plan's TCMs. |
| **Goal 5.11:** Reduce emissions of greenhouse gases to 15 percent below the 2005 baseline levels by 2020 and to 50 percent below the 2005 baseline levels by 2035. | ***Consistent***. General city policy. The project will implement a Transportation Demand Management (TDM) program and demonstrate consistency with the city's CAP, and GHG emissions associated with the project would be less than significant. |
| **Policy 5.11-1:** Adopt a Climate Action Plan that incorporates a Greenhouse Gas Emissions Reduction Plan, which quantifies emissions and focuses on feasible actions to minimize impacts of General Plan implementation on climate change. | ***Consistent***. General city policy. The project has demonstrated consistency with the city's qualified CAP. |
| **Policy 5.11-2:** Support the Climate Action Plan's goals and implement the CAP's reduction measures and strategies to reduce green-house gas emissions. | ***Consistent***. General city policy. The project has demonstrated consistency with the city's qualified CAP. |
| **Policy 5.11-4:** Support and participate in regional efforts to reduce greenhouse gas emissions and implement adaptation strategies. | ***Consistent.*** General city policy. The project will implement a Transportation Demand Management (TDM) program and demonstrate consistency with the city's CAP, and GHG emissions associated with the project would be less than significant. |
| **Goal 5.12:** Preserve and protect areas and sites of prehistoric, cultural, and archaeological significance. | ***Consistent***. While there is no evidence the project site contains any prehistoric, cultural, or archaeological resources of significance, standard measures are required in the event that such resources are encountered during construction. |
| **Policy 5.12-1:** Ensure that development avoids potential impacts to sites suspected of being archeologically, paleontologically, or culturally significant. | ***Consistent***. While there is no evidence the project site contains any prehistoric, cultural, or archaeological resources of significance, standard measures are required in the event that such resources are encountered during construction. |
| **Policy 5.12-2:** If cultural, archaeological, paleontological, or cultural resources, tribal or otherwise, are discovered during construction, grading activity in the immediate area shall cease and | ***Consistent***. While there is no evidence the project site contains any prehistoric, cultural, or archaeological resources of significance, standard measures are required in the event that such resources are encountered during construction. |

| Goals and Policies | Project Consistency |
|---|---|
| materials and their surroundings shall not be altered or collected until evaluation by a qualified professional is completed. | |
| ***Belmont General Plan Section 6: Safety*** | |
| **Policy 6.1-1**: Maintain and enforce developments standards to meet safety codes and requirements associated with seismic activity. | ***Consistent***. The project will adhere to local building standards, recommendations of the geotechnical investigation and city engineering standards related to seismic activity. |
| **Policy 6.1-2:** Continue to regulate development to ensure adequate mitigation of safety hazards on sites with history or threat of seismic dangers. | ***Consistent***. General city policy. The project site is mapped in a zone of very high liquefaction susceptibility and a final construction level geotechnical evaluation shall be required for the project. |
| **Policy 6.1-3:** Prohibit development in areas at risk of landslides or liquefaction, or on slopes steeper than 30%, unless it can be reduced or ensured risks do not exist. | ***Consistent***. A final construction level geotechnical evaluation shall be required for the project, and the project will adhere to and incorporate all standards and recommended engineering measures to mitigate for settlement concerns related to lateral spreading from compression of underlying near-surface soils layers and Bay Mud layers. There are no slopes in excess of 30%. |
| **Policy 6.1-4:** Continue to require geotechnical site analysis for proposed development on sites as specified in the Municipal Code, prior to allowing site development. | ***Consistent***. A geotechnical investigation was prepared for the project, and a final construction level geotechnical evaluation shall be required. |
| **Policy 6.1-5:** Geotechnical studies shall identify any geologic hazards affecting the proposed project site, any mitigation measures, site suitability, net developable areas, and impacts from development. | ***Consistent***. A geotechnical investigation was prepared for the project, and a final construction level geotechnical evaluation shall be required. |
| **Policy 6.1-6:** Require geotechnical studies to include the study of expansive and creeping soils, as well as analysis of erosion, seismic, and other geotechnical hazards, and make recommendations. | ***Consistent***. A geotechnical investigation was prepared for the project, and a final construction level geotechnical evaluation shall be required. |
| **Policy 6.1-7:** Prohibit mitigation measures for potential geotechnical hazards if those measures could adversely affect surrounding property, including the use of public rights-of-way, or public health, safety, and welfare. | ***Consistent***. Based on the configuration of surrounding properties, mitigation measures proposed for the purpose of mitigating potential seismic-related hazards would not adversely affect surrounding property, the use of public rights-of-way, or public health, safety, and welfare. |

| Goals and Policies | Project Consistency |
|---|---|
| **Policy 6.1-8:** Ensure consideration of seismic and geologic hazards at the earliest possible point in the development process. | ***Consistent***. A geotechnical investigation was prepared for the project, and a final construction level geotechnical evaluation shall be required. |
| **Policy 6.1-9:** Require real estate transactions, development approval processes, and property titles to declare known or suspected seismic or geologic hazards on a property. | ***Consistent***. All geologic conditions have been disclosed through title search and the CEQA review/development review process. |
| **Policy 6.1-10:** Identify and catalogue structures that may be subject to serious structural damage in the event of a major earthquake, and provide information to property owners on ways to pay for rehabilitation of existing buildings. | ***Not applicable***. Policy addresses existing structures. |
| **Policy 6.1-11:** Support erosion prevention of hillside areas at risk of landslide by revegetation or other acceptable methods. | ***Not applicable***. The project is not located on a hillside and is not considered to be high risk for erosion. |
| **Goal 6.2:** Protect the community from risks to life and property posed by flooding. | ***Consistent***. General city policy. The project would raise the base flood elevation onsite, which would provide protection from flood flows. |
| **Policy 6.2-1:** Continue to pursue and implement flood control programs that reduce flood hazards. | ***Not applicable***. General city policy. |
| **Policy 6.2-3:** Require all proposed drainage facilities to comply with the city's storm drainage facility requirements to ensure they are properly sized to handle 100-year flood conditions. | ***Consistent***. The project will capture and manage stormwater flows through a series of drainage zones within the project boundaries. On-site storm water treatment facilities would be constructed concurrent with and as part of the project, and would comply with storm drainage facility requirements. |
| **Policy 6.2-6:** Require installation of protective structures or other design measures to protect proposed building and development sites from the effects of flooding in 100-year Flood Zones. | ***Consistent***. The project would raise the base flood elevation onsite, which would provide protection from flood flows and remove the site from the 100-year flood plain. |
| **Policy 6.2-8:** Comply with Federal Emergency Management Agency (FEMA) requirements to identify | ***Consistent***. The project would raise the base flood elevation onsite, which would provide protection from flood flows and remove the site from the 100-year flood plain. The project will |

| Goals and Policies | Project Consistency |
|---|---|
| flood hazard areas and control development within these areas. | obtain a Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) from FEMA. |
| **Goal 6.3:** Protect soils, surface water, and groundwater from contamination from hazardous materials. | ***Consistent***. The project as proposed will be required to show consistency with all state and local water quality regulations and measures, as well as all laboratory permitting requirements in place to reduce risk of exposure to hazardous materials. |
| **Policy 6.3-1:** Facilitate cleanup programs at contaminated sites, particularly on properties with the potential to develop or be reused for public purposes. | ***Consistent.*** While the project site itself is not a source of contamination, remediation and monitoring efforts associated with the nearby Brusco property at 248 Harbor Boulevard are ongoing and are being conducted under DEH oversight. |
| **Policy 6.3-2:** Require applicants for development projects in a potentially contaminated location to perform inspection and cleanup if the site is found to be contaminated with hazardous substances. | ***Consistent***. No hazardous materials were observed at the site based upon the findings of the Phase I ESA, and the site is not contaminated. |
| **Policy 6.3-3:** Require project applicants of potentially contaminated sites to have the site inspected by a registered Environmental Assessor. | ***Consistent***. No hazardous materials were observed at the site based upon the findings of the Phase I ESA (prepared by a registered environmental assessor), and the site is not contaminated. |
| **Goal 6.4:** Continue to promote the reduction, recycling, and safe disposal of household and business hazardous wastes through public education and awareness. | **Consistent**. General city policy. The project as proposed, with research/life science and office uses, will be regulated by numerous federal, state and local regulations addressing the management, transport and disposal of hazardous materials, including any requirements regarding public disclosure. |
| **Policy 6.4-1:** Continue to support the hazardous waste collection, management, and inspection efforts of San Mateo County, the State, and the Water Resources Control Board. | ***Not Applicable***. General city policy. |
| **Goal 6.7:** Foster an efficient and coordinated response to emergencies and natural disasters**.** | ***Consistent***. Emergency evacuation plans would be integrated as part of project building design and operations. The project upon completion would not significantly impair or interfere with city or county emergency response plans or interfere with evacuation plans. |
| **Policy 6.7-1:** Adopt, maintain, and periodically update a Local Hazard Mitigation Plan. | ***Not Applicable***. General city policy. |
| **Policy 6.7-3:** Update City codes and ordinances dealing with public safety and emergency | ***Not Applicable***. General city policy. |

| Goals and Policies | Project Consistency |
|---|---|
| preparedness and relief to comply with State law. | |
| **Policy 6.7-8:** Do not locate structures necessary for the protection of the public's health and safety, public assembly, or emergency services in hazardous areas, unless no reasonable alternative exists. | ***Not Applicable***. The proposed project is not necessary for the protection of the public's health and safety. |
| **Goal 6.9:** Support continuing public awareness of hazards, including avoidance, disaster preparedness, and emergency response procedures. | ***Not Applicable***. General city policy. |
| **Goal 6.10:** Make infrastructure investments, enforce regulations, and disseminate information that will improve disaster response and recovery. | ***Not Applicable***. General city policy. |
| **Policy 6.10-1:** Ensure that new roadways are developed in accordance with standards in the Municipal Code (Sec. 7-11) requiring all-weather access prior to issuance of building permit. In all new development, require adequate access to be provided for emergency vehicles. | ***Consistent***. The project has been reviewed by emergency service providers to ensure adequate access and project plans have been updated accordingly. |
| ***Belmont General Plan Section 7: Noise*** | |
| **Policy 7.1-2**: Use the Community Noise Level Exposure Standards as review criteria for new land uses. Require all new development that would be exposed to noise greater than the "normally acceptable" noise level range to reduce interior noise through measures. | ***Consistent***. Based on the peer reviewed noise analysis, the project would not be exposed to excessive noise levels. |
| **Policy 7.1-3:** Require noise-reducing mitigation to meet allowable outdoor and indoor noise exposure standards. | ***Consistent***. The project will be required to implement a construction noise control plan to minimize any potential interior and exterior noise increases as a result of project construction. A supplemental acoustical analysis for project-specific equipment will also be prepared to assess and mitigate operational noise (if necessary), ensuring that noise from HVAC equipment is in compliance with all applicable noise standards. |
| **Policy 7.1-4:** Alternative acoustical designs that achieve the prescribed | ***Consistent***. A supplemental acoustical analysis for project-specific equipment will be prepared to assess and mitigate |

| Goals and Policies | Project Consistency |
|---|---|
| noise level reduction may be approved, provided a qualified Acoustical Consultant submits information demonstrating that the required reductions to meet the specific targets for outdoor activity areas and interior spaces can be achieved and maintained. | operational noise (if necessary), ensuring that noise from HVAC equipment follows all applicable noise standards. Recommendations from that analysis shall be integrated into the project design as necessary. |
| **Policy 7.1-6:** Promote the use of noise attenuation measures to improve the acoustic environment inside residences where existing single-family residential development is located in a noise-impacted environment. | ***Consistent***. The nearest residential land uses are 560 feet away from the project site and adjacent to US 101. The noise analysis concluded that interior noise levels at the nearest residential receptors would be less than significant. |
| **Policy 7.1-8:** Continue to enforce applicable Federal and State Noise Insulation Standards (CCR, Title 24) and noise requirements. | ***Consistent***. The project will comply with noise insulation standards codified in the California Code of Regulations, Title 24: Part 1, Building Standards Administrative Code, and Part 2, California Building Code. |
| **Policy 7.1-10:** Require developers of new development anticipated to generate a substantial amount of vibration during construction to implement mitigation practices to reduce vibration. | ***Consistent***. The peer reviewed vibration analysis prepared for the project concluded that construction would not generate excessive groundborne vibration that would adversely affect people or structures. |

# 15 Noise & Vibration

## 15.1 Introduction

This section describes the potential noise effects that would be caused by implementation of the proposed project. Information used to prepare this chapter was sourced from the following primary documents:

- ICF, Noise Technical Report for the 1301 Shoreway Road Project, 2022 (**Appendix H**)
- City of Belmont, 2035 General Plan – Noise Element, 2017
- City of Belmont, Final Environmental Impact Report for the Belmont General Plan Update, 2017
- City of Belmont, *City Code*, as amended

## 15.2 Scoping Issues Addressed

During the NOP public comment and scoping period for the proposed project, comments received noted that laboratory buildings may require specialized rooftop ventilation and exhaust systems. Such systems may be a source of noise to nearby sensitive receptors. This issue has been considered and analyzed in this chapter of the EIR. Noise levels relative to nearby sensitive habitats are addressed in Chapter 7, Biological Resources.

## 15.3 Environmental Setting

### 15.3.1 General Information on Noise and Acoustics

Acoustics is the science of sound. Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a medium (e.g., air) to human (or animal) ear. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, or hertz (Hz).

Noise is defined as loud, unexpected, or annoying sound. The fundamental acoustics model consists of a noise source, receptor, and the propagation path between the two. The loudness of the noise source, obstructions, or atmospheric factors affecting the propagation path, determine the perceived sound level and noise characteristics at the receptor. Acoustics deal primarily with the propagation and control of sound. A typical noise environment consists of ambient noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this ambient noise is the sound from individual local sources. These sources can vary from an occasional aircraft or train passing by to continuous noise from traffic on a major highway. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a large range of numbers. To avoid this, the decibel (dB) scale was devised. The dB scale uses the hearing threshold of 20 micropascals (µPa) as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The dB scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels correspond closely to human perception of relative loudness. Table 15-1: Typical Noise Levels provides typical noise levels.

**Table 15-1: Typical Noise Levels**

| Common Outdoor Activities | Noise Level (dBA) | Common Indoor Activities |
|---|---|---|
| | **– 110 –** | Rock Band |
| Jet fly-over at 1,000 feet | | |
| | **– 100 –** | |
| Gas lawnmower at 3 feet | | |
| | **– 90 –** | |
| Diesel truck at 50 feet at 50 miles per hour | | Food blender at 3 feet |
| | **– 80 –** | Garbage disposal at 3 feet |
| Noisy urban area, daytime | | |
| Gas lawnmower, 100 feet | **– 70 –** | Vacuum cleaner at 10 feet |
| Commercial area | | Normal Speech at 3 feet |
| Heavy traffic at 300 feet | **– 60 –** | |
| | | Large business office |
| Quiet urban daytime | **– 50 –** | Dishwasher in next room |
| Quiet urban nighttime | **– 40 –** | Theater, large conference room (background) |
| Quiet suburban nighttime | | |
| | **– 30 –** | Library |
| Quiet rural 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, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

## Noise Descriptors

The decibel (dB) scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Most commonly, environmental sounds are described in terms of the equivalent noise level ($L_{eq}$) that has the same acoustical energy as the summation of all the time-varying events. While $L_{eq}$ represents the continuous sound pressure noise level over the measurement period, the day-night noise level (DNL or $L_{dn}$) and Community Equivalent Noise Level (CNEL) are measures of energy average during a 24-hour period. Each is applicable to this analysis and defined in Table 15-2: Definitions of Acoustical Terms.

**Table 15-2: Definitions of Acoustical Terms**

| Term | Definitions |
|---|---|
| Decibel (dB) | A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20. |
| Sound Pressure Level | Sound pressure is the sound force per unit area, usually expressed in µPa (or 20 micronewtons per square meter), where 1 pascals is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in dB as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 µPa). Sound pressure level is the quantity that is directly measured by a sound level meter. |
| Frequency (Hz) | The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and ultrasonic sounds are above 20,000 Hz. |
| A-Weighted Sound Level (dBA) | The sound pressure level in dB as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. |
| Equivalent Noise Level ($L_{eq}$) | The average acoustic energy content of noise for a stated period of time. 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. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night. |
| Maximum Noise Level ($L_{max}$)<br>Minimum Noise Level ($L_{min}$) | The maximum and minimum dBA during the measurement period. |
| Exceeded Noise Levels ($L_{01}$, $L_{10}$, $L_{50}$, $L_{90}$) | The dBA values that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period. |
| Day-Night Noise Level (DNL) | A 24-hour average $L_{eq}$ with a 10 dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity at 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 DNL. |
| Community Noise Equivalent Level (CNEL) | A 24-hour average $L_{eq}$ with a 5 dBA weighting during the hours of 7:00 a.m. to 10:00 a.m. and a 10 dBA weighting added to noise 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. |
| Ambient Noise Level | The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location. |
| Intrusive | That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level. |

Source: Compiled from Caltrans, *Technical Noise Supplement to the Caltrans Traffic Noise Analysis Protocol*, September 2013; Cyril M. Harris, *Handbook of Noise Control*, 1979; Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

### A-Weighted Decibels

The A-weighted decibel (dBA) sound level scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be used. Most commonly, environmental sounds are described in terms of an average[1] level that has the same acoustical energy as the summation of all the time-varying events.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends on the distance between the receptor and the noise source.

The perceived loudness of sounds is dependent on many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by dBA values. There is a strong correlation between dBA and the way the human ear perceives sound. For this reason, the dBA has become the standard tool of environmental noise assessment. All noise levels reported in this document are in terms of dBA, but are expressed as dB, unless otherwise noted.

### Addition of Decibels

The dB scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic dB is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound.[2] When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dBA higher than one source under the same conditions.[3] Under the dB scale, three sources of equal loudness together would produce an increase of approximately 5 dBA.[4]

### Sound Propagation and Attenuation

Sound spreads (propagates uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics.[5] No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of 3 dB per doubling of distance is assumed.

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[1] Note that this is not the arithmetic average. $L_{eq}$ is the constant noise level that would result in the same total sound energy being produced over a given period.
[2] FHWA, *Noise Fundamentals,* 2017. Available at: https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide02.cfm. Accessed July 25, 2023.
[3] Ibid.
[4] Ibid.
[5] California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, Page 2-29, September 2013.

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 about 5 dBA, while a solid wall or berm can reduce noise levels by 5 to 15 dBA.[6] The way 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 reduction of newer residential units is generally 28 dBA or more.[7]

### Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA.[8] Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most would accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in dBA, the following relationships should be noted[9]:

- Except in carefully controlled laboratory experiments, a 1-dBA change cannot be perceived by humans.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A minimum 5-dBA change is required before any noticeable change in community response would be expected. A 5-dBA increase is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

### Effects of Noise on People

Hearing Loss. While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise. The

[6] Federal Highway Administration, *Highway Traffic noise Analysis and Abatement Policy and Guidance*, 2017, https://www.fhwa.dot.gov/environMent/noise/regulations_and_guidance/polguide/polguide05.cfm, Accessed April 2024.
[7] Barbara Locher, et. al., *Differences between Outdoor and Indoor Sound Levels for Open, Tilted, and Closed Windows*, 2018.
[8] Compiled from James P. Cowan, *Handbook of Environmental Acoustics,* 1994 and Cyril M. Harris, *Handbook of Noise Control*, 1979.
[9] Compiled from California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, and FHWA, *Noise Fundamentals,* 2017.

Occupational Safety and Health Administration has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over 8 hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

Annoyance. Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The DNL as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. A noise level of about 55 dBA DNL is the threshold at which a substantial percentage of people begin to report annoyance[10].

### 15.3.2 General Information on Vibration

Sources of groundborne vibrations include natural phenomena (earthquakes, volcanic eruptions, sea waves, landslides, etc.) or man-made causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions). Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude, including vibration decibels (VdB), peak particle velocity (PPV), and the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave and is expressed in terms of inches-per-second (in/sec). The RMS velocity is defined as the average of the squared amplitude of the signal and is expressed in terms of velocity decibels (VdB). The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

Table 15-3: Human Response to Different Levels of Groundborne Vibration displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the individual's sensitivity. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Ground vibration can be a concern in instances where buildings shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. Common sources for groundborne vibration are planes, trains, and construction activities such as earth-moving which requires the use of heavy-duty earth moving equipment. For the purposes

[10] Federal Interagency Committee on Noise, *Federal Agency Review of Selected Airport Noise Analysis Issues*, August 1992.

of this analysis, a PPV descriptor with units of inches per second (in/sec) is used to evaluate construction-generated vibration for building damage and human complaints.

**Table 15-3: Human Response to Different Levels of Groundborne Vibration**

| Maximum PPV (in/sec) | Vibration Annoyance Potential Criteria | Vibration Damage Potential Threshold Criteria | FTA Vibration Damage Criteria |
|---|---|---|---|
| 0.008 | -- | Extremely fragile historic buildings, ruins, ancient monuments | -- |
| 0.01 | Barely Perceptible | -- | -- |
| 0.04 | Distinctly Perceptible | -- | -- |
| 0.1 | Strongly Perceptible | Fragile buildings | -- |
| 0.12 | -- | -- | Buildings extremely susceptible to vibration damage |
| 0.2 | -- | -- | Non-engineered timber and masonry buildings |
| 0.25 | -- | Historic and some old buildings | -- |
| 0.3 | -- | Older residential structures | Engineered concrete and masonry (no plaster) |
| 0.4 | Severe | -- | -- |
| 0.5 | -- | New residential structures, Modern industrial/commercial buildings | Reinforced-concrete, steel or timber (no plaster) |

PPV = peak particle velocity; in/sec = inches per second; FTA = Federal Transit Administration

Source: California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, 2020 and Federal Transit administration, *Transit Noise and Vibration Assessment Manual*, 2018.

## 15.4 Existing Conditions

### 15.4.1 Existing Noise Sources

The City of Belmont is impacted by various noise sources. Mobile sources of noise, especially cars and trucks, are the most common and significant sources of noise in most communities. Other sources of noise are the various land uses (i.e., residential, commercial, institutional, and recreational and parks activities) throughout the city that generate stationary-source noise. The existing ambient noise levels in the vicinity of the project site are dominated largely by the traffic on major roadways in the area, such as US 101 and Shoreway Road.

#### Noise Measurements

For this analysis, ambient noise has been measured to characterize ambient noise levels in the vicinity of the project, which was used to establish a baseline representation of existing conditions when evaluating the project's noise impacts. To quantify existing ambient noise levels near the project site, short-term (15-minute) and long-term (48-hour) ambient noise measurements were conducted between Wednesday, April 23rd and Friday, April 25th, 2022; refer to **Appendix H** for existing noise measurement data and **Figure 15-1: Noise Measurement Locations**.

Short-term (ST) measurements were conducted using a Larson Davis LxT Type-1 sound level meter, which measured $L_{eq}$ for 15-minute intervals. ST-1 was taken to represent ambient noise northeast of the project site across Belmont Creek, while Noise Measurements ST-2 and ST-3 were taken to represent the ambient noise level southeast of the project site in the existing developed areas off Twin Dolphin Drive and Shoreway Road. The primary noise sources during all three measurements were small aircraft and traffic attributed to US 101.

Long-term (LT) measurements were conducted using Piccolo II Type 2 sound level meters. Four long-term monitoring locations near the project site were selected for collecting long-term ambient noise data: Noise Measurements LT-1 ad LT-2 were taken immediately adjacent to the project site on Sem Lane, while Noise Measurements LT-3 and LT-4 were taken to represent ambient noise to the southwest of the project site in the residential areas across US 101. $L_{dn}$ noise levels from the long-term measurements ranged from 62.5 to 71.2 dBA $L_{dn}$, with higher noise levels generally at the locations close to major roadways and lower noise levels generally at the areas farther from major roadways.

Table 15-4: Short Term Noise Measurements and 15-5: Long Term Noise Measurements provides the ambient noise levels measured at these locations.

**Table 15-4: Short Term Noise Measurements**

| Site No. | Location | $L_{eq}$ (dBA) | $L_{min}$ (dBA) | $L_{max}$ (dBA) | Time |
|---|---|---|---|---|---|
| ST-1 | Twin Dolphin, walking path near southwest corner of parking lot | 59.4 | 47.7 | 75.6 | 11:10 a.m. |
| ST-2 | 230 Twin Dolphin Drive | 66.5 | 50.6 | 87.8 | 11:46 a.m. |
| ST-3 | 1399 Shoreway Road | 67.1 | 59.1 | 75.8 | 12:13 p.m. |

Noise Measurements taken by ICF between April 23rd and April 25th, 2022.

**Table 15-5: Long Term Noise Measurements**

| Site No. | Location | Day 1 $L_{dn}$ (dBA) | Day 2 $L_{dn}$ (dBA) |
|---|---|---|---|
| LT-1 | 120 Sem Lane | 68.1 | 67.0 |
| LT-2 | 1301 Shoreway Road | 71.2 | 69.3 |
| LT-3 | Karen Road, between Oneill Avenue and Harbor Boulevard | 64.0 | 62.5 |
| LT-4 | Southwest corner of Oneill Avenue and Kedith Street | 63.8 | 62.8 |

Noise Measurements taken by ICF between April 23rd and April 25th, 2022.

## Existing Mobile (Traffic) Noise

The project site is primarily surrounded by industrial and commercial uses. The existing mobile noise in the project area is generated along Shoreway Road, which is west of the project site, Marine Parkway, which is north of the project site, Cormorant Drive, which is southeast of the project site, and Holly Street which is southeast of the project site.

Traffic noise modeling was conducted using a spreadsheet based on the Federal Highway Administration (FHWA) Traffic Noise Model, version 2.5. This spreadsheet calculates the traffic noise level at a fixed distance from the centerline of a roadway, based on the traffic volume, roadway speed, and vehicle mix that is predicted to occur. The average daily noise levels along roadway segments in proximity to the project site is included in Table 15-6: Existing Traffic Noise.

**Table 15-6: Existing Traffic Noise**

| Roadway Segment | ADT | dBA $L_{dn}$ |
|---|---|---|
| **Shoreway Road** | | |
| North of Marine Parkway | 6,350 | 59.3 |
| South of Marine Parkway | 5,040 | 61.2 |
| North of Cormorant Drive | 4,560 | 60.8 |
| South of Cormorant Drive | 4,740 | 61.0 |
| North of Holly Street | 5,200 | 61.3 |

| Roadway Segment | ADT | dBA $L_{dn}$ |
|---|---|---|
| South of Holly Street | 3,760 | 58.7 |
| **Marine Parkway** | | |
| East of Shoreway Road | 30,670 | 67.4 |
| West of Shoreway Road | 37,940 | 68.4 |
| **Cormorant Drive** | | |
| East of Shoreway Road | 1,080 | 55.7 |
| **Holly Street** | | |
| East of Shoreway Road | 27,990 | 68.6 |
| West of Shoreway Road | 35,220 | 69.6 |

Source: ICF; refer to Appendix H.
Note: Modeled noise levels at a fixed distance of 50-feet from the roadway centerline.
ADT = average daily trips; dBA = A-weighted decibels

### Existing Stationary Noise

The primary sources of stationary noise in the project vicinity are those associated with the operations of nearby industrial uses, hotels, and existing office parks to the northeast. The noise associated with these sources may represent a single-event noise occurrence, short-term noise, or long-term/continuous noise.

## 15.4.2 Sensitive Receptors

The City of Belmont General Plan Noise Element describes residences, schools, places of worship, and hospitals as noise-sensitive land uses. The nearest residential noise-sensitive land use to the project site is a mobile home community approximately 300 feet southwest of the project site, and a single-family residential neighborhood starting at 560 feet west of the project site. Both areas are separated from the project site by US 101, and the ambient noise levels are highly influenced by US 101. Additionally, there are several hotels northwest of the project site, with the nearest one located approximately 100 feet away. Hotels are not specifically noted in the City of Belmont General Plan Noise Element as being noise-sensitive land uses; however, noise may cause disturbance to people who are temporarily residing in hotels, especially during the nighttime hours. There are commercial and industrial land uses in the project vicinity, including offices and a PG&E power substation. These uses are less sensitive to noise and vibration. Table 15-7: Sensitive Receptors lists the distances and locations of nearby sensitive receptors, which primarily includes residences.

**Table 15-7: Sensitive Receptors**

| Receptor Description | Distance and Direction from the Project Site[1] |
|---|---|
| Hotel | 100 feet northwest |
| Hotel | 220 feet northwest |
| Mobile Home Community | 300 feet southwest |
| Hotel | 420 feet northwest |
| Single Family Residential Uses | 560 feet west |

Source: Google Earth, 2024.




Source: ICF, 2024

**Figure 15-1: Noise Measurement Locations**

1301 Shoreway Project
*Draft EIR*

Kimley»Horn

## 15.5 Applicable Regulations, Plans, and Standards

### 15.5.1 State

#### California Government Code

California Government Code Section 65302(f) mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of "normally acceptable", "conditionally acceptable", "normally unacceptable", and "clearly unacceptable" noise levels for various land use types. Single-family homes are "normally acceptable" in exterior noise environments up to 60 CNEL and "conditionally acceptable" up to 70 CNEL. Multiple-family residential uses are "normally acceptable" up to 65 CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries, and churches are "normally acceptable" up to 70 CNEL, as are office buildings and business, commercial, and professional uses.

#### Title 24 – Building Code

The State's noise insulation standards are codified in the California Code of Regulations, Title 24: Part 1, Building Standards Administrative Code, and Part 2, California Building Code. These noise standards are applied to new construction in California for interior noise compatibility from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 65 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new multi-family residential and non-residential buildings, the acceptable interior noise limit for new construction is 45 dBA CNEL.

### 15.5.2 Local

#### City of Belmont General Plan

The City of Belmont General Plan identifies goals and policies for implementation within the Noise Element. The Noise Element provides a basis for comprehensive local programs to regulate environmental noise and protect citizens from excessive exposure.

The city uses the following classifications for compatibility of land uses at various noise levels, offering criteria the city can use in evaluating land use decisions:

- "Normally Acceptable"
    - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conversational construction, without any special noise insulation requirements.
- "Conditionally Acceptable"
    - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features

included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

- "Normally Unacceptable"
  - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
- "Clearly Unacceptable"
  - New construction or development should generally not be undertaken.

Table 15-8: Community Noise Exposure Matrix highlights land-use categories and the outdoor noise compatibility guidelines for the City of Belmont.

**Table 15-8: Community Noise Exposure Matrix**

| Land Use | Common Noise Exposure Range ($L_{dn}$ or CNEL, dB) by Interpretation[1, 2] | | | |
|---|---|---|---|---|
| | Normally Acceptable | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |
| Residential – Low Density Single Family, Duplex, Mobile Homes | 50 - 60 | 55 - 70 | 70 – 75 | 75 - 85 |
| Residential – Multi. Family | 50 - 65 | 60 - 70 | 70 – 75 | 75 - 85 |
| Transient Lodging – Motels, Hotels | 50 - 65 | 60 - 70 | 70 - 80 | 80 - 85 |
| Schools, Libraries, Churches, Hospitals, Nursing Homes | 50 - 70 | 60 - 70 | 70 - 80 | 80 - 85 |
| Auditoriums, Concert Halls, Amphitheaters | - | 50 - 70 | 65 - 85 | - |
| Sports Arena, Outdoor Spectator Sports | - | 50 - 75 | 70 - 85 | - |
| Playgrounds, Neighborhood Parks | 50 - 70 | - | 67.5 - 75 | 72.5 - 85 |
| Golf Courses, Riding Stables, Water Recreation, Cemeteries | 50 - 75 | - | 70 - 80 | 80 - 85 |
| Office Buildings, Businesses Commercial and Professional | 50 - 75 | 67.5 – 77.5 | 75 - 85 | - |
| Industrial, Manufacturing, Utilities, Agriculture | 50 - 75 | 70 - 80 | 75 - 85 | - |

Source: *City of Belmont 2035 General Plan* (City of Belmont 2017a).
Notes:
1. Noise exposure values are only provided for the range of 50 to 85 $L_{dn}$ or CNEL, dB
2. Matrix is adapted from guidelines provided by the State Office of Planning and Research

In addition to the land use compatibility standards described above, the City of Belmont General Plan also establishes guidelines for non-aircraft transportation noise sources. Refer to Table 15-9: Noise Standards for Transportation (Non-aircraft) Noise Sources for the city noise standards for transportation noise sources at both outdoor activity areas and interior spaces.

**Table 15-9: Noise Standards for Transportation (Non-aircraft) Noise Sources**

| Noise-Sensitive Land Use[2] | Outdoor Activity Areas[1] | Interior Spaces | |
|---|---|---|---|
| | $L_{dn}$/CNEL, dB | $L_{dn}$/CNEL, dB | $L_{eq}$, dB |
| Single-family Residential | 60 | 45 | - |
| Multi-family Residential | 65 | 45 | - |
| Transient Lodging | 65 | 45 | - |
| Hospitals, Nursing Homes | 65 | 45 | - |
| Theaters, Auditoriums, Music Halls | - | - | 35 |
| Churches, Meeting Halls | 65 | - | 45 |
| Office Buildings | - | - | 45 |
| Schools, Libraries, Museums | - | - | 45 |

Source: *City of Belmont 2035 General Plan* (City of Belmont 2017a).
1 Outdoor activity areas generally include backyards of single-family residences and outdoor patios, decks, or common recreation areas of multi-family residences. Where the location of outdoor activity areas is unknown or is not applicable, the exterior noise level standard shall be applied to the property line of the receiving land use.
2 As determined for a typical worst-case hour during periods of use.
CNEL = Community Noise Equivalent Level , dB = decibel(s) , $L_{dn}$ = day-night average level , $L_{eq}$ = equivalent continuous sound level

Noise criteria and guidelines for stationary sources of noise are also included in the City of Belmont General Plan (General Plan Table 7-3). Daytime noise levels (occurring from 8:00 a.m. to sunset on weekdays, or 10:00 a.m. to sunset on Saturday, Sunday, and holidays) are limited to 50 dBA $L_{eq}$ and 70 dBA $L_{max}$. Nighttime noise levels are limited to 45 dBA $L_{eq}$ and 65 dBA $L_{max}$. Refer to Table 15-10: Stationary Noise Sources for the General Plan transportation and stationary noise sources in the City of Belmont.

**Table 15-10: Stationary Noise Sources[1]**

| Sound Level ($L_{eq}$), dBA | Daytime[2] | Nighttime[3] |
|---|---|---|
| Hourly Equivalent | 50 | 45 |
| Maximum | 70 | 65 |

Source: *City of Belmont 2035 General Plan* (City of Belmont 2017a).
1 Sound level measurements shall be made at a point on the receiving property nearest where the sound source at issue generates the highest sound level.
2 Daytime is the period from 8:00 a.m. to sunset, Monday through Friday; and from 10:00 a.m. to sunset, Saturday, Sunday and holidays.
3 Nighttime is the period outside the hours of "daytime" above.
dBA = A-weighted decibel(s), $L_{eq}$ = equivalent continuous sound level, $L_{max}$ = maximum instantaneous sound level

Relevant General Plan Policies that directly address reducing and avoiding noise impacts include the following:

**Noise Element**

- Policy 7.1-2: Use the Community Noise Level Exposure Standards, shown in Table 15-7, as review criteria for new land uses. Require all new development that would be exposed to noise greater than the "normally acceptable" noise level range to reduce interior noise through design, sound insulation, or other measures.

- Policy 7.1-3: Require noise-reducing mitigation to meet allowable outdoor and indoor noise exposure standards. Noise mitigation measures that may be approved to achieve these noise level targets include but are not limited to the following:
    - Construct façades with substantial weight and insulation;
    - Use sound-rated windows for primary sleeping and activity areas;
    - Use sound-rated doors for all exterior entries at primary sleeping and activity areas;
    - Use minimum setbacks and exterior barriers;
    - Use acoustic baffling of vents for chimneys, attic and gable ends; and
    - Install a mechanical ventilation system that provides fresh air under closed window conditions.
- Policy 7.1-3: Alternative acoustical designs that achieve the prescribed noise level reduction may be approved, provided a qualified Acoustical Consultant submits information demonstrating that the required reductions to meet the specific targets for outdoor activity areas and interior spaces can be achieved and maintained.
- Policy 7.1-6: Promote the use of noise attenuation measures to improve the acoustic environment inside residences where existing single-family residential development is located in a noise-impacted environment, such as along an arterial street or adjacent to a noise-producing use.
- Policy 7.1-8: Continue to enforce applicable Federal and State Noise Insulation Standards (CCR, Title 24) and noise requirements.
- Policy 7.1-10: Require developers of new development anticipated to generate a substantial amount of vibration during construction to implement mitigation practices to reduce vibration, which can include: operating heavy equipment as far as practical from residential uses; using smaller bulldozers (operating weight less than 20,000 pounds) when grading must occur within approximately 50 feet of residential uses or other vibration sensitive uses; and using quiet pile driving technology when feasible.

### City of Belmont City Code

#### Chapter 15 Article VIII – Noise Control

The City of Belmont Municipal Code Chapter 15 Article VIII[7] contains regulations to protect its residents from excessive noise. Section 15-102 establishes day- and nighttime noise limits for various uses in the city. Daytime noise occurs from 8:00 a.m. to sunset on weekdays and 10:00 a.m. to sunset on Saturday, Sunday, and holidays. Nighttime noise occurs outside the hours of daytime noise. Continuous noise sources should use the average noise level ($L_{eq}$) while impulse noises should use the peak noise level ($L_{max}$). The City Code sets the following operational sound level limits that shall not be exceeded:

1. Residential: For all sources of sound measured from any residential property:
    - Nighttime hours: 55 dB
    - Daytime hours: 65 dB
2. Multi-family: For all sources of sound measured within a multi-family residential structure transmitting through a common interior partition (wall, floor, or ceiling) from one (1) dwelling unit to another:
    - Nighttime hours: 35 dB

    - Daytime hours: 45 dB
3. Non-residential: For all sources of sound measured from any non-residential property:
    - Nighttime hours: 55 dB
    - Daytime hours: 65 dB
4. Corrections for character of sound: In the event the alleged offensive noise contains a steady, audible tone, such as a whine, screech, beating, pulsating, throbbing or hum the standards for Residential and Multi-family properties shall be reduced by five (5) dB.
5. Any and all excessively annoying, loud or unusual noises or vibrations not exceeding the sound level limits in this subsection shall nonetheless be considered a noise disturbance if such noise or noises:
    - Offend the peace and quiet of persons of ordinary or reasonable sensibilities, or
    - Interfere with the comfortable enjoyment of life or property.

Noise from construction activities noise is subject to the following regulations by the Code:

1. Except as provided in number 2 below, all construction and related activities which require a city permit, including the use of powered equipment in connection with such activities, are allowed only during the hours of 8:00 a.m. to 5:00 p.m. Monday through Friday except Holidays, and 10:00 a.m. to 5:00 p.m. on Saturdays. All gasoline-powered construction equipment shall be equipped with an operating muffler or baffling system as originally provided by the manufacturer, and no modification to these systems is permitted.

2. The Building Official may allow construction and related activity outside the days and hours provided in number 1 above when:

    - Necessary for emergency repairs or to protect life or property from imminent threat of harm;
    - The construction site is more than 300 feet from a dwelling unit; or,
    - Noise from the allowed construction activity is in the Building Official's opinion comparable to the noise from non-construction activity in the immediate area.
    - Expanded construction hours provides quantifiable benefit to the public and noise will not unduly interfere with the comfortable enjoyment of life or property.

3. An exception granted under number 2 above, including the scope of allowed activity shall be noted on the building permit.

4. The Building Official may limit, condition, modify or eliminate an exception as necessary to limit noise disturbance.

During the allowable construction hours, the City Code does not include numerical thresholds that apply to construction noise. However, all gasoline-powered construction equipment must be equipped with an operating muffler or baffling system as originally provided by the manufacturer, and no modification to these systems is permitted. In addition, authorized land uses and construction activity established through the city's discretionary land use permit process may be subject to specific noise conditions of approval that may be more restrictive. Construction occurring outside of the daytime allowable hours for construction must be approved by the Building Official.

Section 15-102(e) of the City Code pertains to powered equipment used for non-construction activities, and states that noise from powered equipment must meet the previously stated noise thresholds of section 15-102(c) (e.g., 65 dBA during daytime hours and 55 during nighttime hours). Use of powered

equipment is limited to 8:00 a.m. to 7:00 p.m., Monday through Friday, and 10:00 a.m. to 5:00 p.m. on Saturdays, Sundays, and holidays.

The Municipal Code also stipulates that delivery activities are exempt from noise limitations when deliveries occur during the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday and between the hours of 9:00 a.m. to 5:00 p.m. Saturdays, Sundays, and holidays. In addition, emergency activities by a government entity for the protection of public health and safety are exempt from noise limitations.

## 15.6 Environmental Impacts and Mitigation Measures

### 15.6.1 Significance Criteria

According to the adopted Appendix G of the *State CEQA Guidelines*, impacts related to noise from a proposed project would be significant if the project would:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generate excessive groundborne vibration or groundborne noise levels; and
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

### 15.6.2 Study Methodology

#### Construction

Estimates of combined construction and demolition noise levels for the project were based on reference noise levels from the Federal Highway Administration (FHWA) roadway construction noise model, the FTA general assessment construction noise analysis method, and information provided by the project sponsor. The FTA recommends combining noise levels from the two loudest pieces of equipment expected to operate simultaneously in roughly the same location. For this analysis, the three loudest pieces of equipment expected to operate in a given construction phase were evaluated under the assumption they would operate simultaneously and in roughly the same location on the project site. This approach represents a reasonable worst-case scenario. As the City Code does not include numerical thresholds that apply to construction noise, the construction analysis compares construction noise to FTA thresholds for informational purposes.

Construction noise is assessed in dBA $L_{eq}$. This unit is appropriate because $L_{eq}$ can be used to describe noise level from operation of each piece of equipment separately, and levels can be combined to represent the noise level from all equipment operating during a given period. The FHWA noise source data used in the construction noise analysis include the A-weighted $L_{max}$ noise levels measured at a distance of 50 feet from the construction equipment as well as the utilization factors for the equipment. The utilization factor is the percentage of time each piece of construction equipment is typically operating at full power and used to estimate $L_{eq}$ values from $L_{max}$ values.

Construction haul truck noise was also considered in the analysis based on the estimated reasonable worst-case daily construction haul truck trips. Existing traffic noise levels were compared to Existing plus Haul Truck traffic noise levels to estimate the potential haul truck-related increase in noise along these

segments. The City Code does not include a specific threshold pertaining to construction haul truck noise. Therefore, anticipated daily haul truck noise was assessed to determine if a 3-dB increase (considered to be a "barely perceptible" increase) over existing traffic noise levels would occur.

#### Operations

The analysis of the existing and future noise environments is based on noise prediction modeling and empirical observations. Reference noise level data are used to estimate the project operational noise impacts from stationary sources. Noise levels are collected from field noise measurements and other published sources from similar types of activities are used to estimate noise levels expected with the project's stationary sources. Traffic noise levels were modeled to determine if direct and cumulative noise impacts associated with project-related increases in traffic would occur. Traffic noise modeling was conducted using a spreadsheet based on the FHWA Traffic Noise Model, version 2.5. This spreadsheet calculates the traffic noise level at a fixed distance from the centerline of a roadway, based on the traffic volume, roadway speed, and vehicle mix for each roadway segment.

Modeling was conducted to estimate noise from individual and combined equipment, including generators, based on estimated locations of project equipment as provided by the project applicant. Estimated noise levels are compared to the allowable noise levels in the City of Belmont identified above.

#### Vibration

Construction-related vibration resulting from the proposed project was analyzed using data and modeling methodologies provided by Caltrans' *Transportation and Construction Vibration Guidance Manual* (Caltrans 2020). Potential groundborne vibration impacts related to structural damage were evaluated, considering the distance from construction activities to nearby land uses.

### 15.6.3 Summary of No and/or Beneficial Impacts

#### Proximity to a Public or Private Airport

The San Carlos Airport is located approximately 0.8 miles north of the project site. Despite this nearby location, the project site is not located within the 60 CNEL contour for this airport based on the existing conditions in the 2015 San Carlos Airport Land Use Compatibility Plan. Based on the Compatibility Plan, commercial land uses are considered compatible with all noise levels. Additionally, there are no private airstrips near the project site. Therefore, the proposed project would not expose people working or residing in the project area to excessive noise levels resulting from either a public or public use airport or private airstrip and there would be no impact.

### 15.6.4 Impacts of the Proposed Project

**Impact N-1:** **The project would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. This is a less than significant impact with mitigation.**

### Construction

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Noise from construction of a given project varies depending on the type of equipment in use, how many pieces of equipment are operating at any one time, the proximity of the equipment to a noise receptor, and the duration of equipment use. Estimates of combined construction and demolition noise levels for the proposed project were based on reference noise levels from the Federal Highway Administration (FHWA) roadway construction noise model, as noted previously. For this analysis, the three loudest pieces of equipment expected to operate in a given construction phase were evaluated under the assumption they would operate simultaneously and in roughly the same location on the project site. Additionally, no nighttime construction is proposed for the project, so the construction noise analysis is focused on the potential for daytime construction noise impacts to occur. The project applicant has confirmed that construction activities would occur only during the daytime hours of 8:00 a.m. and 5:00 p.m. Monday through Friday, except holidays, and 10:00 a.m. to 5:00 p.m. on Saturdays, during which time there are no applicable quantitative noise criteria in the city.

Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. At the nearest land use that could be conceivably considered sensitive to noise (i.e. a hotel 100 feet northwest of the project site), modeled noise levels from project construction phases range from 78 to 83 dBA $L_{eq}$ using the analysis method described above. Based on the equipment list provided by the project applicant, the Structural Concrete construction phase is expected to be the loudest. The three loudest equipment expected to be used during this phase include two laser screeds and a gradall. At a distance of 100 feet from the project site, where the hotel is located, noise during the Structural Concrete phase could result in noise levels of 83 dBA $L_{max}$ and 80 dBA $L_{eq}$. At the nearest residential land uses 560 feet away from the project site, noise levels would be 68 dBA $L_{max}$ and 65 dBA $L_{eq}$; however, as noted above, the residential area is adjacent to US 101 and thus the project construction noise would likely be less noticeable due to the freeway noise. Modeled noise level results for the Structural Concrete construction phase are presented in Table 15-11: Reasonable Worst-Case Construction Noise, below.

**Table 15-11: Reasonable Worst-Case Construction Noise**

| **Construction Condition: Structural Concrete** | | | | |
|---|---|---|---|---|
| **Source Data**[3] | | **Maximum Sound Level (dBA)** | **Utilization Factor** | **$L_{eq}$ Sound Level (dBA)** |
| Source 1: Laser Screed – Sound level at 50 feet | | 85 | 50% | 82 |
| Source 2: Laser Screed – Sound level at 50 feet | | 85 | 50% | 82 |
| Source 3: Gradall – Sound level at 50 feet | | 83 | 40% | 79 |
| **Calculated Data**[2] | | **$L_{max}$ Sound Level (dBA)** | | **$L_{eq}$ Sound Level (dBA)** |
| All Sources Combined – Sound Level at 50 feet | | 89 | | 86 |
| **Distance between Source and Receiver (feet)** | **Geometric Attenuation (dB)**[1] | **Calculated $L_{max}$ Sound Level (dBA)** | | **Calculated $L_{eq}$ Sound Level (dBA)** |
| 25 | 6 | 95 | | 92 |
| 50 | 0 | 89 | | 86 |
| **100**[4] | **-6** | **83** | | **80** |
| 200 | -12 | 77 | | 74 |
| 300 | -16 | 74 | | 70 |
| 400 | -18 | 71 | | 68 |
| 500 | -20 | 69 | | 66 |
| **560**[4] | **-21** | **68** | | **65** |
| 700 | -23 | 66 | | 63 |
| 800 | -24 | 65 | | 62 |
| 900 | -25 | 64 | | 61 |
| 1000 | -26 | 63 | | 60 |

Source: ICF; refer to Appendix H.

Notes:

1. Geometric attenuation based on a 6 dB per doubling of distance.
2. This calculation does not include the effects, if any, of local shielding or ground attenuation from walls, topography, or other barriers that may reduce sound levels further.
3. Noise levels are based on source noise levels from the FHWA Roadway Construction Noise Model.
4. **Bold** denotes distance and sound levels from the project site to nearest sensitive receivers. 100 foot distance = nearest hotel; 560 foot distance = nearest residential land uses.

dBA = A-weighted decibel(s), $L_{eq}$ = equivalent continuous sound level, $L_{max}$ = maximum instantaneous sound level

Although temporary noise increases during daytime hours would occur during all phases of project construction, construction noise would be limited to the daytime hours when no numerical city noise criteria apply. Therefore, construction for the project would comply with local applicable construction criteria set forth in the City Code.

Based on the values in Table 15-11, the combined noise level could be 83 dBA $L_{eq}$ and 86 dBA $L_{max}$ at the hotel. Noise at the nearest residences would be 65 dBA $L_{dn}$ and 68 dBA $L_{max}$. At the hotel, noise levels range from 67 to 71 dBA $L_{dn}$, based on the data collected from noise measurements; consequently, construction noise levels of 83 to 86 dBA would be more than 10 dB greater than the existing noise levels. Such an increase could be considered a substantial increase to people temporarily residing at the hotel.

The City of Belmont does not have a quantitative construction noise standard. The FTA, however, has established a daytime threshold of 80 dBA $L_{eq}$ for residential uses 85 dBA $L_{eq}$ for non-residential uses to

evaluate construction noise impacts.[11] As shown in Table 15-10 noise levels at the closest sensitive receptor could potentially exceed the 80 dBA $L_{eq}$ standard during building construction. As such, Mitigation Measure MM N-1.1 requires that all construction equipment is equipped with properly operating and maintained mufflers and other state required noise attenuation devices. Further, MM N-1.1 would ensure the project would comply with the city's construction hours of 8:00 a.m. to 5:00 p.m. Monday through Friday except Holidays, and 10:00 a.m. to 5:00 p.m. on Saturdays. This mitigation is consistent with and reinforces existing General Plan policies and requirements of the City Code. With Implementation of MM N-1.1, construction noise impacts to nearby receptors would be **less than significant.**

**MM N-1.1 Construction Noise Control Plan**

The applicant shall identify site-specific noise attenuation measures to be included with construction plans to reduce noise to levels below the FTA threshold of 80 dBA $L_{eq}$. Prior to commencement of construction activities, the applicant shall submit the construction noise control plan to the city for review and approval. Noise attenuation measures shall be identified in the plan and implemented to reduce noise levels to the greatest extent feasible. Noise measures may include, but are not limited to, the following:

- Using smaller equipment with lower horsepower or reducing the hourly utilization rate of equipment on the site to reduce noise levels at 50 feet to the allowable level.
- Locating construction equipment as far as feasible from noise-sensitive uses.
- Requiring that all construction equipment powered by gasoline or diesel engines have sound control devices that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation.
- Prohibiting gasoline or diesel engines from having unmuffled exhaust systems.
- Not idling inactive construction equipment for prolonged periods (i.e., more than 2 minutes).
- Constructing a solid plywood barrier around the construction site and adjacent to operational businesses, residences, or other noise-sensitive land uses.
- Using temporary noise control blanket barriers.
- Monitoring the effectiveness of noise attenuation measures by taking noise measurements.
- Using "quiet" gasoline-powered compressors or electrically powered compressors and electric rather than gasoline- or diesel-powered forklifts for small lifting.

## Construction Traffic Noise

Construction haul truck noise was also considered in the analysis based on the estimated reasonable worst-case daily construction haul truck trips. According to the project applicant, up to 225 round-trip

[11] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, Table 7-2, Page 179, September 2018.

truck trips (or 450 total one-way truck trips to and from the project site) could occur on a reasonable worst-case construction day. Haul trucks would use US 101, exit at Holly Street, and turn north onto Shoreway Road to access the project site. Trucks are also expected to use the same route in reverse when leaving the project site. Note that during many construction days, there would be fewer than 450 truck trips. However, haul truck noise from a reasonable worst-case day is analyzed to provide a conservative assessment. The temporary addition of up to 450 haul truck trips per day on this route has been analyzed to determine if hauling activity would result in substantial increases to the ambient noise levels at nearby noise-sensitive uses. The City Code does not include a specific threshold pertaining to construction haul truck noise. Therefore, anticipated daily haul truck noise was assessed to determine if a 3-dB increase (considered to be a "barely perceptible" increase) over existing traffic noise levels would occur.

Modeling was conducted to estimate average daily traffic noise levels with and without the addition of haul truck trips (e.g., a comparison noise from "baseline" to the "baseline plus haul trucks" conditions). Table 15-12 shows estimated traffic noise levels along the roadway segments under "Baseline" and "Baseline plus Haul Truck Noise" conditions based on the assumptions described above.

**Table 15-12: Existing and Existing plus Haul Truck Noise Levels**

| Roadway Segment | Truck Trips on Segment (per day) | Modeled 2021 Baseline Traffic Noise (dBA $L_{dn}$) | 2021 Baseline + Truck Haul Noise (dBA $L_{dn}$) | Delta (dBA $L_{dn}$) |
|---|---|---|---|---|
| **Shoreway Road** | | | | |
| South of Marine Parkway | 450 | 61.2 | 65.2 | 4.0 |
| North of Cormorant Drive | 450 | 60.8 | 64.2 | 3.4 |
| South of Cormorant Drive | 450 | 61.0 | 64.3 | 3.3 |
| North of Holly Street | 450 | 61.3 | 65.3 | 4.0 |

Source: ICF; refer to Appendix H.
Note: This table only includes traffic on Shoreway Road and does not account for the influence from US-101. The actual noise levels on Shoreway Road, based on LT-2 from Table 15-5, are greater than both the baseline and baseline + haul truck noise levels.

As shown in Table 15-12, the temporary increases in haul truck activity would cause noise increases on Shoreway Road that would be greater than 3-dB, or "barely perceptible," increase in traffic noise. Additional context needs to be included, however, because Shoreway Road is directly adjacent to US 101 and is heavily influenced by noise from that roadway. The baseline noise levels modeled above (60.8 – 61.3 dBA $L_{dn}$) only account for vehicles on Shoreway Road. Actual noise levels are higher because US 101 noise is an adjacent major freeway. Noise levels from US 101 along Shoreway Road can be partially informed by referring to the data for long-term measurement site LT-2 from Table 15-5, which are 69 – 71 dBA $L_{dn}$. The measurement for LT-2 was conducted approximately 200 feet away from Shoreway Road; consequently, the noise levels adjacent or in close proximity to Shoreway Road (i.e., 50 feet) would be higher than 69 – 71 dBA $L_{dn}$, because the noise from US 101 would be even more predominant.

As such, noise levels along Shoreway Road are louder than 69 – 71 dBA $L_{dn}$ due to the influence of US 101, even though the modeled noise level that only accounts for Shoreway Road traffic show values of 60.8 – 61.3 dBA $L_{dn}$. Thus, the increases shown above in Table 15-12 do not account for highway noise, and those increases would not likely be noticeable to land uses along Shoreway Road. The actual measured noise levels at LT-2 are louder than the modeled haul truck noise level shown in Table 15-11, which indicates that there would not be a noticeable increase on Shoreway Road. Therefore, noise effects from construction haul truck activity would be **less than significant**.

### Operations

The current site operations include typical noise generating activities associated with office uses. Implementation of the project has the potential to create new sources of noise in the project vicinity compared to existing conditions. The major noise sources associated with the project that would potentially impact existing and future nearby residences include the following. These noise sources are discussed in further detail below.

- Mechanical equipment (i.e., trash compactors, specialized exhaust and ventilation systems, air conditioners, etc.);
- Activities at the loading areas (i.e., maneuvering and idling trucks, loading/unloading, and equipment noise);
- Off-site traffic noise.

#### Stationary Noise Sources

Implementation of the project would create new or intensified sources of noise in the project vicinity from mechanical equipment and truck loading areas.

##### *Mechanical Equipment*

The primary operational noise sources associated with the project would be mechanical equipment, such as ventilation fans and heating and cooling equipment on building rooftops, and equipment located in equipment rooms of the project buildings, and equipment associated with laboratory uses.

To evaluate the noise levels that would be generated by these noise sources, acoustical data (i.e., noise levels) for these items were derived from published literature and expert agencies, and general equipment information provided by the project applicant. Modeling was conducted to estimate noise from individual and combined equipment, based on estimated locations of project equipment as provided by the project applicant. Estimated noise levels are compared to the allowable noise levels in the City of Belmont.

The project also includes the installation of five diesel emergency generators (four 1,250 kW generators and one 500 kW generator). Although generator noise is typically considered exempt in the event of an actual emergency, noise during the testing of a potential emergency generator is evaluated.

##### *Heating, Cooling and Ventilation Equipment Noise*

The proposed project would involve the use of HVAC systems and equipment. Although project equipment is not yet finalized, some equipment is expected to be located on the roofs of both buildings, while HVAC equipment for the parking garage will be located in internal equipment rooms. All equipment will be designed, selected and operated in compliance with all property line noise ordinance requirements.

On the two office/R&D buildings, the roof areas are expected to consist of four direct outside air supply handling units, two quad-sets of exhaust fans, two general exhaust air fans, and a stairwell pressurization fan. Additionally, there will be a central electric chilled water plant, consisting of three centrifugal chillers, one multi-cell cooling tower, and chilled and condenser water pumps; and a central natural gas-fired condensing boiler plant, consisting of six hot water boilers, and seven heating hot

water pumps[12]. All of the roof-mounted equipment noted above would be located behind a screen. Noise from equipment located behind a screened enclosure may be reduced slightly by the screen but is typically not substantially reduced unless the screen is solid with no holes or gaps. Since details of the screen are not known at this time (and because it may be perforated), a reduction is not applied to noise sources located on the roof behind the screened enclosure.

Section 15-102(c) of the Belmont City Code establishes daytime and nighttime noise limits that apply to stationary sources of noise. Daytime hours are considered to be 8:00 a.m. to sunset on weekdays and 10:00 a.m. to sunset on Saturday, Sunday, and holidays. Nighttime hours are considered to be hours outside of the daytime hours defined above. When measuring noise from the receiving sensitive property, daytime noise is limited to 65 dBA and nighttime noise is limited to 55 dBA. Section 15-102(e) states that noise from powered equipment must meet the previously stated noise thresholds of section 15-102(c). Use of powered equipment is limited to 8:00 a.m. to 7:00 p.m., Monday through Friday, and 10:00 a.m. to 5:00 p.m. on Saturdays, Sundays, and holidays. Additionally, Table 7-3 in the City of Belmont General Plan (Table 15-9 in this EIR) provides standards for noise from stationary, non-transportation noise sources. During daytime hours, stationary source noise is limited to 50 dBA $L_{eq}$ and 70 dBA $L_{max}$ at the nearest noise-sensitive property. During nighttime hours, stationary source noise is limited to 45 dBA $L_{eq}$ and 65 dBA $L_{max}$.

Air handling units and standard HVAC package units, such as the air handlers proposed for the project, can produce sound levels in the range of about 70 to 75 dBA at 50 feet, depending on the size of the unit. A typical 100-horsepower propeller-driven cooling tower generates noise levels of approximately 74 dBA at 50 feet. Pumps can generate noise levels at 50 feet of approximately 81 dBA, while exhaust and ventilation fans can generate noise levels of approximately 79 dBA at 50 feet. Boilers, such as the condensing boiler that is included in the project plans, can produce noise levels of approximately 67 dBA at 50 feet, and, lastly, a heat pump chiller can produce noise levels of up to 71 dBA at 50 feet.

If all of the equipment listed above were to operate simultaneously, which is unlikely to occur frequently or at all, the combined noise level would be 84 dBA, assuming the upper end of the noise levels listed above. This estimate of 84 dBA is an approximation, and the actual noise level could be higher or lower depending on the actual equipment models used, the type of screen and/or shielding present, intervening structures or barriers, and the individual quantities of equipment (i.e. multiple pumps).

The nearest noise-sensitive land use is located approximately 100 feet from the roofs of the Buildings 1 and 2.[13] At this distance, sound would attenuate by 8 dB from geometric attenuation alone, resulting in an approximate noise level of 78 dBA. The roof screen would likely cause additional attenuation to occur. Although there are unknown variables, such as the type or function of any future laboratory use, it is conservatively assumed that equipment noise levels could exceed the city's allowable levels at the nearest sensitive uses, because an estimated level of 78 dBA would exceed the City Code limits and General Plan criteria. Implementation of Mitigation Measure MM N-1.2 requires the preparation of a supplemental acoustical analysis for project-specific equipment, to aid in reducing operational noise and ensuring that noise from HVAC equipment is in compliance with all applicable limits. Thus, with

[12] Natural gas boilers represent a reasonable worst case. Electric equipment for heating water, if required by current code, would generate lower noise levels.
[13] The hotel is located approximately 100 feet from the boundary of the project site; however, the buildings roofs are set-back within the project site.

implementation of MM N-1.2 and the recommendations from any supplemental analysis, impacts from mechanical equipment would be **less than significant**.

**MM N-1.2 Reduce Noise from Project Mechanical Equipment**

To reduce potential noise effects resulting from project heating, cooling, and ventilation equipment as well as project emergency generators at the proposed project, a supplemental noise analysis shall be prepared to estimate the actual noise levels of project-specific equipment once the equipment models and design features to attenuate noise have been selected. The analysis shall be conducted prior to the issuance of building permits and shall be prepared by persons qualified in acoustical analysis and/or engineering, demonstrating with reasonable certainty that the mechanical equipment selected for the project and the attenuation features incorporated into project design would not result in an exceedance of the applicable City noise standards of 45 dBA $L_{eq}$ and 65 dBA $L_{max}$ during the nighttime and 55 dBA $L_{eq}$ and 70 dBA $L_{max}$ during the daytime.

Options to reduce noise from heating and cooling equipment include enclosing equipment in mechanical equipment rooms, shielding equipment with mechanical screens at least as tall as the equipment, and selecting quieter equipment models.

All recommendations from the acoustical analysis necessary to ensure that noise sources meet the above standards shall be incorporated into the building design and operations. This measure should be implemented concurrently with MM AES-1.1 (Construction Screening) to provide a barrier that addresses both visual and noise effects.

### *Emergency Generator Noise*

Emergency generators included in the project could result in the generation of audible noise during testing. Noise from the operation of emergency generators during an emergency is typically exempt from local ordinances. However, even though the testing of emergency generators is a short-term (e.g., 30 minutes) and intermittent process (usually once per month), noise resulting from generator testing must comply with local noise limits for operational equipment noise. The project would include five emergency generators, all of which would be located outdoors. Two emergency generators would be located at the southern façade of Building 1 (between Building 1 and the proposed parking garage), while two other emergency generators would be in the northern corner of the project site, between Building 2 and Sem Lane. The fifth emergency generator would be between the proposed parking garage and Shoreway Road.

At the location of the generators, the nearest sensitive land uses would be approximately 400 feet from the Building 1 generators, 150 feet from the Building 2 generators, and 350 feet from the garage generator. Any noise from the generator testing would be attenuated by approximately 10 dB (over 150 feet) to 18 dB (over 400 feet), and 13 dB to the nearest sensitive land uses. Furthermore, the generators would be located within a walled generator yard, and there are numerous intervening buildings between the generators and sensitive receptors that would cause additional noise attenuation. Additionally, the hotel and residences are located adjacent to US 101 and are predominantly influenced by the roadway noise. As such, the temporary use of a generator for 30 minutes per generator per

month is unlikely to be noticeable at a distance of 150 to 400 feet in areas next to a major freeway with multiple intervening buildings, and therefore would have a **less than significant** impact.

### *Loading Area Noise*

The project is an office development that would necessitate occasional deliveries. The project would include loading docks that would be located at the southwest corner of Building 1 and the northeast corner of Building 2. At Building 2, the loading dock would be approximately 250 feet from the existing hotel, while at Building 1, the loading dock would be approximately 350 feet from the existing hotel and also 350 feet from the nearest residential land uses. Although some loading and unloading activities of larger trucks may occur, most deliveries are expected to be FedEx and UPS deliveries. The daily activities from UPS and FedEx deliveries would generate noise that would be similar to noise that is currently existing at the site and at the adjacent commercial and industrial land uses. Because loading and unloading noise is typical in the project area, and there are no sensitive receptors in the immediate vicinity of the loading docks, noise effects from this source of noise would not be substantial. Thus, impacts would be **less than significant**.

## Traffic Noise

Once operational, the project would result in an increase in traffic in the vicinity of the project. Project-specific traffic data, including average daily traffic volumes, roadway speeds, and vehicle mix percentages (i.e., the proportion of automobiles, trucks, buses, and other vehicles) were provided by Hexagon Transportation Consultants, Inc. (**Appendix I**). Modeling was conducted for the following scenarios to determine if direct and cumulative noise impacts associated with project-related increases in traffic would occur.

- Baseline (existing) conditions,
- Baseline (existing) plus-Project conditions,
- Cumulative no-Project conditions, and
- Cumulative plus-Project condition.

When assessing traffic noise impacts, the following thresholds are applied to determine the significance of project-related traffic noise increases:

1. An increase of more than 5 dBA is considered a significant traffic noise increase, regardless of the existing ambient noise level; and
2. In places where the existing or resulting noise environment is “conditionally acceptable,” “normally unacceptable,” or “clearly unacceptable,” based on the city Land Use Compatibility Guidelines, any noise increase greater than 3 dBA is considered a significant traffic noise increase.

According to the General Plan Noise Element, a noise level of up to 65 dBA $L_{dn}$ is considered normally acceptable for multi-family residential land uses, and 60 dBA $L_{dn}$ is considered normally acceptable for single-family residential land uses.

Traffic noise modeling was conducted using a spreadsheet based on the FHWA Traffic Noise Model, version 2.5. This spreadsheet calculates the traffic noise level at a fixed distance from the centerline of a roadway, based on the traffic volume, roadway speed, and vehicle mix for each roadway segment.

Average daily traffic volumes, roadway speeds, and vehicle mix percentages (i.e., the proportion of automobiles, trucks, buses, and other vehicles) provided by Hexagon were used to model traffic noise levels with and without project implementation along the roadways in the vicinity of the project site. Traffic noise was evaluated in terms of how project-related traffic noise increases could affect existing noise-sensitive land uses in the project vicinity. Table 15-13 provides the traffic noise modeling results.

**Table 15-13: Modeled Traffic Noise Levels**

| Roadway Segment | 2021 Baseline (dBA $L_{dn}$) | 2021 Baseline plus Project (dBA $L_{dn}$) | Change (dB) |
|---|---|---|---|
| **Shoreway Road** | | | |
| North of Marine Parkway | 59.3 | 59.3 | 0.0 |
| South of Marine Parkway | 61.2 | 63.6 | 2.3 |
| North of Cormorant Drive | 60.8 | 61.5 | 0.7 |
| South of Cormorant Drive | 61.0 | 61.5 | 0.6 |
| North of Holly Street | 61.3 | 61.9 | 0.5 |
| South of Holly Street | 58.7 | 58.8 | 0.1 |
| **Marine Parkway** | | | |
| East of Shoreway Road | 67.4 | 67.5 | 0.0 |
| West of Shoreway Road | 68.4 | 68.8 | 0.4 |
| **Cormorant Drive** | | | |
| East of Shoreway Road | 55.7 | 57.6 | 1.8 |
| **Holly Street** | | | |
| East of Shoreway Road | 68.6 | 68.6 | 0.0 |
| West of Shoreway Road | 69.6 | 69.7 | 0.1 |

Source: ICF; refer to Appendix H.
Note: Modeled noise levels at a fixed distance of 50-feet from the roadway centerline.
ADT = average daily trips; dBA = A-weighted decibels; $L_{dn}$= day-night noise levels

As shown in Table 15-13, modeling demonstrated that noise levels at roadway segments near the project site would increase by a maximum of 2.3 dB as a result of project operation. As described previously, a 3-dB increase is considered barely noticeable and would not constitute a significant increase in noise. An increase of 2.3 dB would not be considered substantial based on the thresholds defined previously. Therefore, project-related traffic noise increases would be **less than significant**.

With implementation of MM N-1.1 and MM N-1.2, as well as adherence to City Code requirements, noise impacts associated with construction, transportation, mechanical equipment, deliveries, loading/unloading activities, and parking lot noise would be reduced to a **less than significant level** with mitigation.

### Impact N-2: The project would not generate excessive groundborne vibration or groundborne noise levels. This is a less than significant impact.

#### Construction

Construction-related vibration resulting from the proposed project was analyzed using data and modeling methodologies provided by Caltrans' Transportation and Construction Vibration Guidance Manual (Caltrans 2020). This guidance manual provides typical vibration source levels for various types of construction equipment, as well as methods for estimating the propagation of groundborne vibration over distance. Table 15-14 provides the PPV levels of construction equipment expected to be used for

the proposed project; the levels are provided for a reference distance of 25 feet. All of the analyzed equipment is classified as continuous/frequent intermittent vibration sources. The PPV vibration levels for analyzed equipment were calculated using methods provided in Caltrans' Transportation and Construction Vibration Guidance Manual (Caltrans 2020).

**Table 15-14: Construction Equipment Vibration levels**

| Equipment Item | Reference PPV at 25 feet, in/sec[1] |
|---|---|
| Vibratory Roller | 0.210 |
| Auger Drill | 0.089 |
| Large Bulldozer[2] | 0.089 |
| Loaded Trucks[3] | 0.076 |
| Small Bulldozer[4] | 0.003 |

Source: ICF; refer to Appendix H.

Notes:

1. Obtained from Caltrans 2020.
2. Considered representative of other heavy earthmoving equipment such as excavators, graders, backhoes, etc.
3. Considered representative of a dump truck and water truck.
4. Considered representative of smaller equipment such as small a backhoe and front-end loader.

## Damage to Structures

Construction of the proposed project would involve the use of construction equipment that could generate ground-borne vibration. PPV vibration levels for project-specific equipment at a distance of 25 feet, and at other project-specific distances, are included in Table 15-15. Note that project construction would not involve the use of pile drivers.

**Table 15-15: Vibration Source Levels for Construction Equipment**

| Equipment | Vibration Levels (PPV) by Distance | | | | |
|---|---|---|---|---|---|
| | 25 Feet | 50 Feet | 75 Feet | 100 Feet | 175 Feet |
| Auger Drill | 0.089 | 0.0315 | 0.0171 | 0.0111 | 0.0048 |
| Large Bulldozer[1] | 0.089 | 0.0315 | 0.0171 | 0.0111 | 0.0048 |
| Loaded Trucks[2] | 0.076 | 0.0269 | 0.0146 | 0.0095 | 0.0041 |
| Small Bulldozer[3] | 0.003 | 0.0011 | 0.0006 | 0.0004 | 0.0002 |

Source: ICF; refer to Appendix H.

Notes:

1. Representative of an excavator.
2. Representative of a dump truck and water truck.
3. Representative of a backhoe and front-end loader.

The most vibration-intensive types of construction equipment expected to be used for the project are an auger drill, and an excavator (which can generate a vibration level similar to that produced by a large bulldozer). Water trucks, dump trucks, backhoes, and front-end loaders would also be used, but these generate lower vibration levels than a vibratory roller, an auger drill and an excavator.

The potential for structural damage to occur at adjacent or nearby buildings can be evaluated by estimated vibration levels from construction equipment at nearby uses and comparing to appropriate damage criteria. As noted above, construction equipment for the project would operate at distances of 100 feet from the nearest noise-sensitive land use. However, the City of Belmont Corporation Yard is approximately 60 feet from the project site, which is the nearest neighboring building. The buildings at

the city's corporation yard are likely best categorized as "Modern industrial/commercial buildings" under the Caltrans Guidelines for vibration-related damage, as shown in Table 15-3.

Based on an attenuation equation published by Caltrans, and as shown in Table 15-15, estimated vibration level at a distance of 60 feet from the most vibration-intensive equipment proposed for the project (e.g., an excavator or drill rig) would be approximately 0.02 PPV in/sec. This level of vibration is less than the 0.5 PPV in/sec Caltrans criterion for modern industrial/commercial buildings. Therefore, vibration-related damage effects would not occur at the corporation yard structures. Other nearby buildings are located further away and would not experience structural damage from vibration. The nearby hotels are also likely best categorized as modern industrial/commercial buildings. The nearest residential buildings are approximately 300 feet away, and, at that distance, vibration from the excavator or drill rig would attenuate to 0.002 PPV in/sec, which is substantially below the damage thresholds for all categories of buildings. As a result, construction of the proposed project would not generate excessive groundborne vibration that would affect structures. Impacts related to structural effects of vibration are considered **less than significant** based on the identified thresholds.

### Vibration-Related Annoyance

Typically, vibration-related annoyance is considered to be substantial if it is expected to result in sleep disturbance at nearby residences. Should vibration from project construction exceed the Caltrans "strongly perceptible" criterion at residential land uses during nighttime hours, impacts are often considered to be significant. The Caltrans "strongly perceptible" vibration-annoyance criterion is 0.1 PPV in/sec, as indicated in Table 15-3.

Note that construction activities for the proposed project would only occur during the daytime hours of 8:00 a.m. to 5:00 p.m. Monday through Friday, and 10:00 a.m. to 5:00 p.m. on Saturdays, with no construction proposed for nighttime hours. Therefore, no vibration-related annoyance impacts during nighttime hours, when people typically sleep, would occur.

This analysis conservatively uses the Caltrans "strongly perceptible" criterion to assess disturbance during daytime hours at the nearest uses. Temporary vibration-related annoyance effects to non-sensitive land uses, such as the corporation yard, are not generally considered to be substantial. Vibration-related annoyance at the hotel that is 100 feet from the project site could be considered substantial if vibration levels exceed the "strongly perceptible" threshold. Although construction activities are not proposed for nighttime hours, when residential land uses are considered to be most sensitive to vibration-related annoyance, vibration levels at the hotel are estimated. The vibration level generated by an excavator or drill rig at 100 feet would be approximately 0.01 PPV in/sec. This vibration level is below the Caltrans "Strongly perceptible" criterion for vibration-related annoyance of 0.1 PPV in/sec. The vibration level at the nearest residences, located approximately 300 feet from the project site, would be even lower. Therefore, daytime construction vibration levels would be below the strongly perceptible criterion at the nearest residential land uses, and the project would not expose people to substantial groundborne vibration during construction. Impacts related to vibration annoyance are considered **less than significant** based on the identified thresholds.

### Operations

The project would not generate groundborne vibration that could be felt at surrounding uses. Project operations would not involve railroads or substantial heavy truck operations. As a result, impacts from vibration associated with project operation would be **less than significant.**

## 15.6.5 Cumulative Impacts

Noise by definition is a localized phenomenon, and drastically reduces as distance from the source increases. Cumulative noise impacts involve development of the project in combination with ambient growth and other related development projects. As noise levels decrease as distance from the source increases, only projects in the nearby area could typically combine with the project to potentially result in cumulative noise impacts. Particularly from stationary sources. Mobile sources of noise, however, such as the addition of traffic on local roadways, is a more common source of cumulative noise.

**Impact N-3: The project would not contribute to cumulatively considerable noise impacts. This is a less than significant impact.**

### Cumulative Construction Noise

The project's construction activities, when properly mitigated, would be less than significant. The project construction would comply with city's construction hours of 8:00 a.m. to 5:00 p.m. Monday through Friday except Holidays, and 10:00 a.m. to 5:00 p.m. on Saturdays. There would be periodic, temporary, noise impacts that would cease upon completion of construction activities. The project would contribute to other proximate construction noise impacts if construction activities were conducted concurrently. However, based on the noise analysis above, the project's construction-related noise impacts would be less than significant following compliance with local regulations and mitigation measures outlined in this EIR.

Construction activities at other planned and approved projects as identified in Chapter 4 would be required to take place during daytime hours, and the city and project applicants would be required to evaluate construction noise impacts and implement mitigation, if necessary, to minimize noise impacts. Each project would be required to comply with the applicable City of Belmont limitations on allowable hours of construction. Therefore, project construction would not contribute to cumulative impacts and impacts in this regard are not considered cumulatively considerable.

### Cumulative Operational Noise

Cumulative noise impacts describe how much noise levels are projected to increase over existing conditions with the development of the project and other foreseeable projects. Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways due to buildout of the project and other projects in the vicinity. However, noise from generators and other stationary sources could also generate cumulative noise levels.

#### Stationary Noise

As discussed above, impacts from the project's operations would be less than significant. Due to site distance, intervening land use, and the fact that noise dissipates as it travels away from its source, noise impacts from on-site activities and other stationary sources would be limited to the project site and immediate vicinity which would be similar to existing uses.

Projected local growth and nearby projects identified in Chapter 4 would not compound or increase the operational noise levels generated by the project, as those projects are similar in use and not anticipated to be major sources of noise.

Due to the distance between the commercial development and the sensitive receptors, the presence of noise attenuating structures in the surrounding area, and that existing office uses already exist on-site, cumulative noise would not reach levels that exceed the city's Land Use Compatibility Guidelines at nearby sensitive receptors. Furthermore, each project would comply with applicable General Plan noise regulations and would maintain their generated stationary noise levels at an acceptable level for nearby uses. Thus, cumulative operational noise impacts from related projects, in conjunction with Project-specific noise impacts, would not be cumulatively significant.

### Mobile (Traffic) Noise

A project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds perception level (i.e., auditory level increase) threshold. As noted in **Appendix H** (Noise Technical Report), traffic noise impacts are considered significant if an increase of more than 5 dBA occurs, regardless of the existing ambient noise level. An increase of 3 dBA is considered significant in noise-sensitive areas.

In addition to existing plus project traffic noise, the noise analysis also identified cumulative (C/CAG) growth plus the project. Based on the Average Daily Trip (ADT) data provided (Hexagon and ICF), the largest increase in ADT created by the project would be along Shoreway Road south of Marine Parkway (an additional 3,690 daily trips compared to existing conditions). Noise levels from this increase in traffic along Shoreway Road was determined to be less than significant for the project, and the project's contribution to traffic on other local roads is significantly less than on Shoreway Road. This increase in daily project trips would remain the same in the cumulative scenario with background growth. However, the project's contribution to cumulative traffic would be further diluted in the cumulative scenario, as background growth (and resulting noise) would be greater. Because the project alone would not increase noise in excess of established thresholds, and the project's contribution would be even less under cumulative conditions, the project's cumulative effect is less than cumulatively considerable.

## 15.7 References

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# 16 Public Services and Recreation

## 16.1 Introduction

This chapter describes the potential effects on existing public services and recreation facilities that could result from implementation of the project. The discussion addresses existing public service providers in the area, identifies and analyzes potential environmental effects or changes resulting from the project, and recommends measures to reduce or avoid adverse impacts anticipated from project construction and operation, where warranted. For this subject, impacts generally occur only if the project would require the construction of new buildings or facilities in order to maintain adequate levels of performance and service in the community. Information used to prepare this section was sourced from the following documents:

- City of Belmont, 2035 General Plan – Land Use Element, Parks, Recreation, and Open Space Element, Circulation Element, and Safety Element, 2017
- City of Belmont, Final Environmental Impact Report for the Belmont General Plan Update, 2017
- Recent environmental documents prepared for the City of Belmont
- Parks, Recreation and Open Space Master Plan and EIR Addendum, 2024

## 16.2 Scoping Issues Addressed

During the Notice of Preparation (NOP) public comment and EIR scoping period for the proposed project, several comments were received regarding public services and recreation. The San Francisco Bay Conservation and Development Commission (BCDC) recommended that the EIR address public access to the Belmont Creek Trail and Bay Trail, consistency with Bay Plan public access policies. Other comments noted the potential for increased use of existing trail facilities and the potential impact of that use within the larger recreational service area, and the Sierra Club (Loma Prieta Chapter) questioned the ability of emergency service providers to respond to hazardous materials incidents at the site. These issues are addressed in this chapter.

## 16.3 Environmental Setting

### 16.3.1 Public Services

#### Fire Protection

The San Mateo Consolidated Fire Department (SMC Fire) provides emergency response to all service calls including fires, medical calls and vehicle accidents for the City of Belmont, City of Foster City, and City of San Mateo. SMC Fire has nine stations and covers a service area of approximately 40 square miles. SMC Fire responds to over 13,500 emergency calls for service a year, with over 60 percent of them being emergency medical incidents (SMC Fire, 2023). SMC Fire participates in a Joint Powers Agreement whereby the closest apparatus of the participating cities responds to each call (SMC Fire, 2018).

The project would be served by Station 14, which is located approximately 0.35-miles west of the project site on Granada Street. Station 14 is served by Engine 14, manned by three personnel, and

Hazmat 14, which is cross staffed. In 2023, Engine 14 responded to 1,769 incidents, and Hazmat 14 responded to 33 incidents.

In 2023, SMC Fire responded to a total of 15,641 incidents (SMC Fire, 2023). The average response time for incidents was five minutes and 27 seconds. The goal for San Mateo County Fire Service is to respond to 90% of all Priority 1 emergency calls in six minutes 59 seconds (6:59) or less. This time includes one minute for dispatch, up to two minutes for turnout time and four minutes for response or drive time for the first vehicle response. The response time goal for all units to arrive on-scene of any major emergency at a first alarm assignment is 11 minutes.

### Police Protection

The Belmont Police Department (BPD) is located at 1 Twin Pines Lane, approximately 0.7-mile southwest of the project site. The major responsibilities of BPD include street patrol, investigations, traffic patrol, and emergency services. The BPD is made up of a number of specialty units, including Patrol, Traffic, K9, Investigations, Youth Services, Dispatch, Records, Code Enforcement, SWAT, CNU and a Volunteer Program (City of Belmont, 2024).

The BPD does not have a standard for staffing levels and uses the ratio of officers per 1,000 residents, which is 1.2 as of the 2010 US Census population (City of Belmont, 2017). The BPD operates under a Mutual Aid Agreement with San Mateo County, which established a Countywide Protocol to provide mutual aid for every jurisdiction within the County.

### Schools

The project site is located within the Belmont-Redwood Shores School District (BRSSD) and Sequoia Union High School District (SUHSD). The BRSSD includes the following schools listed below within and outside the city. Total school enrollment for BRSSD in the 2022/2023 academic year was 4,108 students (Education Data Partnership, 2024a).

The closest school to the project site is Edison Montessori School, approximately 0.35 mile to the east of the project site in Redwood City. Other nearby local schools include:

- Little Lambs Montessori School (Preschool) in the City of Belmont
- Challenge Chinese School (Grades Preschool to 9$^{th}$) in the City of Belmont
- Nesbit Elementary School (Grades K to 8$^{th}$) in the City of Belmont
- Central Elementary School (Grades K to 5) in the City of Belmont

The Sequoia Union High School District (SUHSD) service area includes the cities of Atherton, Belmont, East Palo Alto, Menlo Park, Portola Valley, Redwood City, Redwood Shores, San Carlos and Woodside. Total school enrollment for SUHSD in the 2022/2023 academic year was 10,084 students (Education Data Partnership, 2024b).

High school aged students in Belmont may attend public schools within the SUHSD. The closest of these high schools is Carlmont High School, which is 1.6 miles southwest of the project site and where students are zoned and most enroll. Belmont residents may enter a lottery to attend other schools within the district but only prior to their freshman year. Other local high schools in the area, public and private, include:

- Sequoia High School (SUHSD) in Redwood City
- Design Tech High School (lottery-based public charter in the San Mateo Union High School District) in Redwood City
- Compass High School (private) in Belmont
- Notre Dame High School (private) in Belmont
- Menlo-Atherton High School (SUHSD in Atherton
- Woodside High School (SUHSD) in Woodside
- Redwood High School (SUHSD) in Redwood City

### Park and Recreation Facilities

Parks and open space within the City of Belmont account for approximately 14 percent, or around 409 acres, of land (Belmont Parks and Recreation Open Space Master Plan, 2024). The city provides six different types of parks and recreation facilities to its residents, none of which have a minimum or maximum size requirement. In addition, there is joint use planning and operation of school district athletic facilities for public recreation. Parks and recreational facilities are classified as follows:

- **Neighborhood Park Tier 1**. A small park located in a residential area and is intended to provide a pocket of green space in a neighborhood, seating, and either a play area or lending library for residents within a quarter mile radius.
- **Neighborhood Park Tier 2**. A medium-sized park oriented toward single visitors or groups of fewer than 20 people that supports connection to nature, social gathering of small groups, and recreation and play activities for residents within a half mile radius.
- **Community Park**. A large park that offers spaces for large group gathering and amenities that support dozens of users simultaneously for residents from across the city.
- **Undeveloped Park**. A site owned by the city that currently has limited or no park improvements, but are listed as areas slated for development into amenitized parks within the Belmont Parks and Recreation Open Space Master Plan.
- **School (JUA).** Athletic fields and facilities that operate under joint use agreements between the city and the School District and are used by the community during non-school hours.
- **Open Space.** A natural area open to the public that is minimally improved or underdeveloped, intended for the passive enjoyment of nature.

Park and recreation facilities in and around the city include parks, open space, and trails. The city currently manages the maintenance and improvement of 15 developed parks, 2 undeveloped parks, 4 school sites under a joint-use agreement (JUA), and 2 areas of dedicated open space, totaling 409 acres of total open space (Belmont Parks, Recreation & Open Space Master Plan, 2024). As mentioned above, the city has a Joint Use Agreement with BRSSD for year-round use of athletic fields for Fox, Ralston, Central and Nesbit Schools. The Joint Use Agreement was renewed in 2019 for another 10 years (City of Belmont 2020). The city also has a Joint Use Agreement with Crystal Springs Uplands School for limited use of its athletic field.

The nearest park in the project vicinity is O'Donnell Park, located at 350 Ralston Avenue, approximately one mile by travel west of the project site. O'Donnell Park is a 0.9-acre neighborhood park with grass

areas, playgrounds, basketball courts, tables, and bathrooms. Additionally, the Belmont Sports Complex is located 0.9 miles by travel to the northwest, and Dolphin Park in Redwood City is approximately 1.6 travel miles to the east. Open space in the city includes Waterdog Lake and Open Space and San Juan Canyon Open Space.

Other accessible open space areas include the adjacent Belmont Creek and associated Belmont Creek Trail, which creates a loop around the property from the end of Sem Lane around to Shoreway Road. A segment of the Bay Trail is located on opposite (eastern) side of Belmont Creek parallel to Twin Dolphin Drive. This segment connects to the San Francisco Bay shoreline via Marine Parkway.

#### Library and Other Public Facilities

The City of Belmont is served by the San Mateo County Library System. The San Mateo County Library System, a Joint Powers Authority, includes the cities of Atherton, Belmont, Brisbane, East Palo Alto, Foster City, Half Moon Bay, Millbrae, Pacifica, Portola Valley, San Carlos and Woodside, as well as unincorporated areas of the County of San Mateo. Additionally, the neighboring city of Redwood City is served by the Redwood City Public Library system. The closest library to the project site is the Redwood Shores Library of the Redwood City Public Library system, located at 399 Marine Pkwy, Redwood City, CA 94065 0.57 miles northeast from the project site.

## 16.4 Applicable Regulations, Plans, and Standards

### 16.4.1 Federal

There are no applicable federal regulations pertaining to public services and recreation.

### 16.4.2 State

#### Police Services

All law enforcement agencies within California are organized and operate in accordance with the applicable provisions of the California Penal Code. This code sets forth the authority, rules of conduct, and training for police officers.

#### Fire Protection

According to the California Department of Forestry and Fire Protection (CAL FIRE)'s Fire Hazard Severity Zone map, the city is within the Local Responsibility Area. Fire hazards in the built environment are addressed mainly through the application of the State Fire Code and the State Building Codes (CBC). The Fire Code addresses access and water, including road standards, and vegetation removal in high fire hazard areas. The CFC requires development to show proof of nearby water sources and adequate fire flows.

#### Schools

Senate Bill (SB) 50 (1998), which is funded by Proposition 1A, limits the power of cities and counties to require mitigation of developers as a condition of approving new development and provides instead for a standardized fee. SB 50 generally provides for a 50/50 state and local school facilities match. SB 50 also provides for three levels of statutory impact fees. The application level depends on whether state funding is available; whether the school district is eligible for state funding; and whether the school

district meets certain additional criteria involving bonding capacity, year-round schools, and the percentage of moveable classrooms in use.

California Government Code sections 65995–65998 set forth provisions to implement SB 50. Specifically, in accordance with Section 65995(h), the payment of statutory fees is "deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization…on the provision of adequate school facilities." The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code.

Pursuant to Government Code section 65995(l), "A state or local agency may not deny or refuse to approve a legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization as defined in Section 56021 or 56073 on the basis of a person's refusal to provide school facilities mitigation that exceeds the amounts authorized pursuant to this section or pursuant to Section 65995.5 or 65995.7, as applicable."

California Education Code Section 17620(a)(1) states that the governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district, for the purpose of funding the construction or reconstruction of school facilities.

### Parks

#### Quimby Act

The 1975 Quimby Act (California Government Code Section 66477) authorizes cities and counties to adopt ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for operation and maintenance of park facilities. A 1982 amendment (Assembly Bill [AB] 1600) requires agencies to clearly show a reasonable relationship between the public need for the recreation facility or parkland and the type of development project upon which the fee is imposed. Cities with a high ratio of park space to inhabitants can set a standard of up to 5 acres per 1,000 persons for new development. Cities with a lower ratio can only require the provision of up to 3 acres of park space per 1,000 persons.[1] The calculation of a city's park space to population ratio is based on a comparison of the population count of the last federal census to the amount of city-owned parkland.

#### Bay Conservation and Development Commission (BCDC) Bay Plan

The BCDC's San Francisco Bay Plan Public Access Policy No. 7 ensures a permanent guarantee of public access along the shoreline when provided as a condition of development. The policy notes that in the event of future sea level rise or flooding, public access provided as a condition of development should remain viable to provide equivalent access nearby.

[1] California Legislative Information, 2015, Assembly Bill No. 1191, Chapter 276

## 16.4.3 Local

### City of Belmont General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to parks and recreation that are relevant to the proposed project are found in the Parks, Recreation, and Open Space Element of the *City of Belmont 2035 General Plan.* The General Plan policies relative to public services that are relevant to the proposed project are identified below. Relevant General Plan Policies that directly address reducing and avoiding public services-related impacts include the following:

**Parks, Recreation, and Open Space Element**

- Policy 4.1-3: Ensure that all development projects comply with the City's parkland dedication requirements, in accordance with the Quimby Act, to provide adequate land for parks, open space, landscaping, and trails in appropriate locations through the dedication of land or otherwise providing for mini parks, planned trails, and other recreational space.
- Policy 4.2-2: Building on the needs assessment, improve the quality and quantity of public community facilities in Belmont.
- Policy 4.2-3: Continue joint use agreements with other agencies, institutions, and private organizations for public use of recreational facilities not owned by the City, especially in neighborhoods deficient in recreational facilities, if the joint use agreements can help meet the city's recreational needs and if the terms are favorable to the City.
- Policy 4.7-1: Ensure that residential and nonresidential development projects contribute to the City's park, recreation, and open space resources commensurate with their impacts, through the Quimby Act and establishment and collection of park impact fees.

### Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to parks and recreation. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Most provisions related to parks and recreation are included in Chapter 16, *Parks and Recreation*.

#### Chapter 16 – Parks and Recreation

Chapter 16 describes how the city has the authority to provide for parks and playgrounds, and regulate use of parks in the city. This Chapter also describes the operations and what are allowed activities within the city's parks.

#### Chapter 17 – Planning – Article III – Development Impact Fees

Chapter 17 Article III of the City Code ensures that future development in the city is subject to development impact fees in order to mitigate environmental impacts that derive from projects. The fees would be imposed based on specified capital improvement categories, including fees for transportation improvements, park land and facilities, affordable housing, and other capital improvements.

#### Chapter 17 – Planning – Article IV – Parkland Dedication Requirements

Chapter 17 Article IV of the City Code requires a Park Impact Fee for residential and nonresidential development as of October 2014, ensuring that all new growth in Belmont (not just developments to

which the Quimby Act applies) contribute to the city's park and recreation resources commensurate with their impact.

#### City of Belmont Parks, Recreation and Open Space Master Plan

The City of Belmont Parks, Recreation and Open Space Master Plan is a strategic document that analyzes the park system, facilities and recreation programming within the city and provides long-term vision for the park system through policies and standards.

## 16.5 Environmental Impacts and Mitigation Measures

### 16.5.1 Significance Criteria

The following significance criteria for public services and recreation were derived from the Environmental Checklist in CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address lead agency requirements and the full range of impacts of the project.

An impact of the project would be considered significant and would require mitigation if it would meet one or more of the following criteria:

- Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services: fire protection, police protection, schools, parks, libraries, or other public/civic facilities?
- Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

### 16.5.2 Summary of No and/or Beneficial Impacts

Not applicable. The project proposes in an intensification of commercial office uses at the project site and would result in an increased employment base within the project area. While the project would not result in a new residential population (the primary driver of public service demands), the project could potentially result in incremental demand or indirect impacts based on the thresholds of significance.

### 16.5.3 Impacts of the Proposed Project

**Impact PSR-1: The project would intensify land use and increase the number of employees in the City, incrementally increasing demands upon fire**

**protection facilities and corresponding service ratios. This is a less than significant impact.**

### Construction and Operation

SMC Fire is the fire district responsible for providing emergency response to all service calls including fires, hazmat incidents, medical calls and vehicle accidents in the city. The project site is located within the existing service area of SMC Fire. The closest SMC Fire station to the project site is Station 14, which is located approximately 0.35-mile southwest of the project site on Granada Street and houses the Hazmat Response Team. According to the fire district, SMC Fire has an adopted an average response time of five minutes and 27 seconds.

The project would develop a 6.91-acre site into a life science laboratory/office campus and parking garage. Office buildings would be up to 144 feet in height, with a net increase of +393,116 square feet of building space and up to a total of 2,500 employees. While this is a sizable increase in building area on the project site, the proposed use is similar to existing and surrounding uses on site, is located on a previously developed site, and therefore would not significantly change the demand for fire services to the property or necessitate the construction of new fire protection facilities. According to SMC Fire[2], the Station 14 Hazmat Response Team is equipped and qualified to handle hazardous materials incidents involving most materials commonly associated with local businesses and industries. A BSL-3 laboratory use or exposure incident may require specialized training and equipment, however, depending on the lab operations and the microbiological material present. Training and equipment would not be expected to require the construction of new facilities resulting in physical environmental effects. Biosafety response is addressed in Chapter 12, Hazards and Hazardous Materials.

There are no residential units proposed as part of the project, and therefore the project would not directly result in population growth or increase service demands more common to a residential population such medical emergencies.

According to the General Plan EIR, buildout of the General Plan would not increase demand for fire protection and emergency services and does not indicate a specific need to construct new fire stations or significantly expand existing stations or other facilities. This project would not alter those assumptions. The project is subject to review by the city and SMC Fire in terms of access, fire protection, building heights, and the ability for the department's fire apparatus to serve the development. The project site is currently served by sufficient fire protection services and the project would be subject to development impact fees per Chapter 17 Article III of the City Code. Therefore, through the development review process and compliance with Chapter 17 Article III of the City Code and General Plan policies, the project would have a **less than significant** impact on fire protection services and facilities.

**Impact PSR-2: The project would intensify land use and increase the number of employees in the City, incrementally increasing demands upon police**

[2] Personal communication with Deputy Chief Robert Marshall, SMC Fire, August 9, 2024.

**protection facilities and corresponding service ratios. This is a less than significant impact.**

### Construction and Operation

The BPD is responsible for providing law enforcement services to the city. The police department is located approximately 0.7-mile southwest of the project site. Currently, the BPD does not have adopted service ratios or standard impact calculations.

While the proposed project would increase overall building area on the project site, the proposed use is similar to existing and surrounding uses, is located on a previously developed site, and therefore would not significantly change the demand for police services to the project site. There are no residential units proposed as part of the project (that would drive service demands), and there is nothing unique to office uses that would significantly increase demand for police protection or service calls.

The project site is currently supported by sufficient law enforcement services and the project would be subject to development impact fees per Chapter 17 Article III of the City Code. Policies in the proposed General Plan serve to mitigate any increases in demand for police services. The increase in square footage and in employees on the project site would not affect BPD's ability to maintain service and would not result in the need for construction of new or expanded police facilities. With compliance with Chapter 17 Article III of the City Code and General Plan policies, the project would have a less than significant impact on police protection services and facilities. Impacts would be **less than significant**.

**Impact PSR-3: The project could increase the usage of existing local parks or other nearby recreational facilities such that physical deterioration of these facilities could occur or be accelerated. This is a less than significant impact.**

### Construction and Operation

The city currently manages the maintenance and improvement of 15 developed parks, 2 undeveloped parks, 4 school sites under a joint-use agreement (JUA), and 2 areas of dedicated open space, totaling 409 acres of total open space (Belmont PROS Plan, 2024). The nearest park in the project vicinity is O'Donnell Park, located at 350 Ralston Avenue, approximately 0.25 mile west of the project site. The General Plan identifies a city objective to provide three acres per 1,000 residents for community parks and two acres per 1,000 residents for neighborhood parks (five acres per 1,000 residents total).

As discussed above, the project would introduce a life science laboratory/office campus and parking garage on an existing, developed 6.91-acre site. The new buildings would result in a net increase of +393,116 square feet of building space and support up to 2,500 employees at buildout. While no residential uses are proposed, project development and the additional employees could incrementally increase demand on local park and recreation facilities, including increased use of the pathway along Belmont Creek, which includes the Belmont Creek trail along the eastern edge of the project site. The proposed project provides two sport courts, one located within the plaza which is intended for the private use of tenants, and another along Belmont Creek at the southern edge of the site which would be accessible to the public. These sport courts could reduce the demand on other nearby public recreation facilities. However, it is anticipated that use of existing park facilities by project employees and other local businesses (such as hotels and office park) would be incidental, consisting mainly of

passive activities such walking, taking breaks and lunches or exercising in these spaces. Such activities would not place a high demand on these facilities or physical equipment or accelerate their deterioration to the point where environmental effects would occur.

Regarding the Belmont Creek Trail specifically, this trail is physically separated from other land uses and trails by the creek and Highway 101. As such it functions more as a local amenity, with a more limited service area consisting of the project site, local hotels, and nearby commercial buildings between Marine Parkway and Cormorant Drive. Land uses to the south and east of Belmont Creek, such as the Westshore Office Park and Nikon, have direct access to the better-connected Bay Trail. Even with the increase of employees at the project site, the Belmont Creek Trail is a level, dirt and decomposed granite facility that would not be expected to deteriorate from increased active or passive use by project employees. Similarly, the basketball court at the south end of the project and other amenities dedicated for public access such as the proposed tables/seating/picnic areas and bike racks would be privately maintained and expected to experience occasional use.

With respect to BCDC Bay Plan policies, public access and parking will continue to be provided by the project consistent with the Plan. Specific details, however, such as city conditions, dedications or easements to memorialize access are a function of the planning review process and are not directly related to the physical environmental effects of the project.

As discussed in Chapter 3, Project Description, the project is also proposing several landscape improvements and amenities such as plazas, pedestrian promenades, open landscaped areas and sports courts. These on-site improvements would also provide opportunities for passive and active recreation, by on site employees and the public, further reducing potential increased demand on nearby facilities.

For these reasons, the project would not require the construction of new or expanded recreational facilities which might have an adverse physical effect on the environment and would not cause significant or accelerated physical deterioration of local parks or recreational facilities. Impacts would be **less than significant**.

**Impact PSR-4: The project would intensify land use and increase the number of employees associated with the project site. This intensification could incrementally increase demand on local public school facilities. This is a less than significant impact of the project.**

### Construction and Operation

As discussed above, the project does not propose any new residential units or anticipate a direct increase in population as a result of new employment. Without a new residential population, the project would not directly generate new students in the immediate area or have a direct effect on local school enrollment. This EIR acknowledges, however, that with the addition of up to 2,500 employees at this location, new workers relocating to the area could place greater demands on limited local housing supplies. That demand could incrementally induce the construction of new housing, also generating new students. Please see Chapter 21 of this EIR for additional information regarding growth inducement, which specifically addresses this issue.

The General Plan EIR acknowledges that buildout of the General Plan would increase demand for school facilities, and that the demand for educational facilities could result in the need for the construction of

new or altered school facilities. The proposed project would be subject to school facility impact fees to mitigate any potential project-related increases in student enrollment. Senate Bill (SB) 50 (Chapter 407, Statutes of 1998) governs the amount of fees that can be levied against new development. Payment of fees authorized by the statute is deemed "full and complete mitigation." Additionally, General Plan policies serve to mitigate any further impacts to school facilities. As a result of implementation of existing state regulations and the proposed General Plan policies as described above, impacts to schools would be **less than significant**.

**Impact PSR-5: The project would not incrementally increase demands upon library services and civic facilities. This is a less than significant impact of the project.**

#### Construction and Operation

As previously stated, the project does not propose any residential units or anticipate a significant increase in population resulting from increased employment. Demands and use of library and civic facilities are typically specific to the residential communities they serve, and it is unlikely that all or most of the employees would reside in the City of Belmont. Project implementation and new employees are not expected to significantly increase the demand on local library and civic facilities.

According to the General Plan EIR, buildout of the General Plan's land uses would likely increase demand on libraries and civic facilities over time. However, this employment-generating use would not significantly contribute that increased demand. For these reasons, impacts would be **less than significant**.

### 16.5.4 Cumulative Impact Analysis

The analysis of cumulative public service and recreation impacts encompasses development projects in the nearby project area.

**Impact PSR-6: The project, in conjunction with regional background growth and implementation of other similar projects, would incrementally increase demand upon public services and recreation impacts. The project's contribution to this impact is less than significant.**

New development and redevelopment in the surrounding project area, in addition to the project, could result in incremental increases in demand upon public services and recreation facilities in the city over time. However, the project is an office and research complex that will not directly result in population growth. As residential population growth is the primary driver for demand on these services and facilities the project's contribution is not cumulatively considerable. See also Chapter 21 of this EIR for additional information and analysis regarding growth inducing impacts.

According to the General Plan EIR, new development and redevelopment in the surrounding project area, including the project, could result in incremental increases in demand for public services and recreation facilities. However, existing State and local taxes and the payment of development impact fees on a project-by-project basis – collected to fund emergency services, park and recreation facilities, schools and municipal services - effectively mitigate the cumulative effects of development over time by

maintaining performance standards and physical infrastructure. For these reasons, impacts would be **less than significant**.

## 16.6 References

City of Belmont. 2017. *2035 General Plan and EIR*.

City of Belmont. 2024. Belmont Police Department. Available at: https://www.belmont.gov/departments/police. Accessed April 4, 2024

City of Belmont. 2024. Parks and Recreation. Available at: https://www.belmont.gov/departments/parks-and-recreation. Accessed April 4, 2024

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Redwood City. 2024. Redwood City Public Library. Available at: https://www.redwoodcity.org/departments/library. Accessed April 4, 2024.

San Mateo Consolidated Fire Department. 2023. 2023 Annual Report. Available at: https://www.smcfire.org/about-us/annual-reports/. Accessed April 4, 2024.

# 17 Transportation and Circulation

## 17.1 Introduction

This chapter describes potential environmental effects related to transportation and circulation that could be caused by development of the proposed project. Information used to prepare this chapter came from the following resources:

- City of Belmont, Resolution No. 2021 – VMT Policy, Adopted February 2021
- City of Belmont, 2035 General Plan, Adopted November 14, 2017
- California Department of Transportation (Caltrans)
- Hexagon Transportation Consultants, Inc., Office Development at 1301 Shoreway Drive Transportation Impact Analysis, January 19, 2024 (**Appendix I**)
- Hexagon Transportation Consultants, Inc., Sight Distance Analysis for the 1301 Shoreway Road Development, April 29, 2024 (**Appendix I**)
- Highway Capacity Manual (HCM), Transportation Research Board, 2000
- Highway Capacity Manual (HCM) 7th Edition, Transportation Research Board
- San Mateo County, Congestion Management Program, 2019
- Project application and related materials

## 17.2 Scope of the Transportation Evaluation and CEQA Requirements

In 2018, the California state legislature, in approving Senate Bill 734 (SB 743), directed the Office of Planning and Research (OPR) to develop guidelines for assessing transportation impacts based on vehicle miles traveled (VMT). In response to SB 743, the California Environmental Quality Act (CEQA) and its implementing guidelines (CEQA Guidelines) were significantly amended regarding the methods by which lead agencies are to evaluate a project's transportation impacts.

Section 15064.3 of the CEQA Guidelines sets forth the criteria for analyzing transportation impacts, acknowledging that lead agencies will need to adjust to these new requirements and providing ample flexibility about how such an analysis would be conducted. The City of Belmont (city) adopted Resolution No. 2021 on February 23, 2021, approving policies to comply with SB 743 related to the transition from use of level of service (LOS) to VMT in CEQA transportation analysis. Included in this resolution are recommendations regarding VMT methodology and thresholds of significance.

The reason for these changes, in short, is to acknowledge that traditional operational or engineering solutions to traffic congestion that focus on accommodating the automobile – such as roadway widening – lead to unintended consequences. Inefficient land use, more miles traveled, exacerbated air pollutant and greenhouse gas emissions and secondary effects of constructing roadway projects are part of the rationale behind SB 743. The State has therefore taken a bold step to pivot away from automobile-centered land planning, and to promote planning decisions and other trip reduction measures intended to reduce reliance on individual automobile trips in the course of daily living.

Understanding how the local roadway network functions from an engineering standpoint is still critical to local land use agencies to monitor traffic flow, identify safety issues, establish fees and manage congestion. However, for the purposes of evaluating environmental impacts under CEQA, the new regulations have removed congestion from the range of required subjects analyzed within CEQA documents. In a similar way, and for different reasons, parking requirements were removed from the CEQA Guidelines several years ago.

While this EIR must utilize VMT to assess potential transportation impacts and potential mitigation measures, this EIR also continues to analyze level of service in accordance with the city's transportation guidelines for purposes of determining whether the project complies with the applicable general plan goals, policies and programs. However, this additional information regarding the project's trip generation and predicted trip distribution on the roadway network is provided in a separate document (**Appendix I**) for informational purposes only, as additional delay – to an intersection or roadway segment – is no longer considered a significant impact under CEQA.

## 17.3 Scoping Issues Addressed

During the public comment scoping period for the proposed project, several comments regarding transportation and circulation were received and are addressed in this section. Caltrans commented that the EIR should address Vehicle Miles Travelled (VMT), travel demand reduction strategies, project responsibility for adverse effects on State facilities, construction impacts if the project encroaches on State right of way, and potential construction conflicts with nearby Caltrans projects. The San Francisco Bay Conservation and Development Commission (BCDC) comments focused on ensuring public access to the Bayshore and Belmont Creek, multi-modal access and public parking consistent with BCDC Bay Plan policies. The Sierra Club (Loma Prieta Chapter) noted that the EIR should address increased project and cumulative increases in congestion locally and inquired about the Transportation Demand Strategies that would be employed. Other comments from the public noted changing traffic conditions and general congestion in the Belmont and Redwood Shores areas, potential impacts to the roadway network and safety issues associated with traffic speeds. Issues associated with greenhouse gas (GHG) emissions are addressed in Chapter 11, Greenhouse Gas Emissions. Each of these items were incorporated into the EIR or will be addressed by the project.

## 17.4 Environmental Setting

This section presents information on existing transportation and circulation conditions in the project area.

### 17.4.1 Existing Roadway Network

Regional access to the project site is provided from U.S. Highway 101 (US 101) and El Camino Real/State Route 82 (SR 82). Regional project traffic is anticipated to primarily use the US 101 ramps at the Ralston Avenue/Marine Parkway interchange. Local roadways serving the project site include Shoreway Road and Sem Lane. The project site is bordered by Sem Lane, Shoreway Road, the Belmont Slough, and an electrical station. An overview of the existing street and highway system is provided below.

#### US 101

US 101 is a north-south freeway with generally four (4) mixed-flow lanes and one (1) Express Lane in each direction. The Express Lanes have been open to use since February 2022, which are free to 3+

person carpools, vanpools, buses, and motorcycles, while other vehicles will be tolled. US 101 provides access to Sonoma County, Marin County, San Francisco County, San Mateo County, and Santa Clara County. The posted speed limit on US 101 near the study area is 65 miles per hour (mph).

#### State Route 82/El Camino Real

State Route 82/El Camino Real is a north-south roadway with two (2) to three (3) lanes in each direction and a divided median. The posted speed limit is 35 mph near the study area. SR 82/El Camino Real is classified as an arterial in the City of Belmont General Plan.

#### Ralston Avenue/Marine Parkway

Ralston Avenue/Marine Parkway is an east-west roadway with one (1) to two (2) lanes in each direction and a divided median. The posted speed limit is 30 mph near the study area. Ralston Avenue transitions to Marine Parkway to the east of Shoreway Road. Ralston Avenue is classified as an arterial in the City of Belmont General Plan.

#### Shoreway Road/Oracle Parkway

Shoreway Road/Oracle Parkway is a north-south roadway with one (1) lane in each direction. The posted speed limit is 35 mph near the study area. Shoreway Road transitions to Oracle Parkway at the intersection with Marine Parkway. Shoreway Road/Oracle Parkway is classified as a collector in the City of Belmont General Plan.

#### Cormorant Drive

Cormorant Drive is an east-west roadway with one (1) lane in each direction. The posted speed limit is 25 mph near the study area. Cormorant Drive is classified as a local street in the City of Belmont General Plan.

#### Sem Lane

Sem Lane is an east-west roadway with one (1) lane in each direction. The posted speed limit is 25 mph near the study area. Sem Lane is classified as a local street in the City of Belmont General Plan.

#### Twin Dolphin Drive

Twin Dolphin Drive is a north-south roadway with two (2) lanes in each direction. The posted speed limit is 35 mph near the study area. Twin Dolphin Drive is located in the City of Redwood City.

#### Holly Street/Redwood Shores Parkway

Holly Street is an east-west roadway with two (2) lanes in each direction within the study area. Holly Street becomes Redwood Shores Parkway east of Twin Dolphin Drive. The posted speed limit is 35 mph near the study area. Holly Street is located in the City of Redwood City and the City of San Carlos.

### 17.4.2 Pedestrian Facilities

Existing pedestrian facilities surrounding the project site include sidewalks on the north side of Sem Lane (fronting the Extended Stay America Suites) and along the east side of Shoreway Road. In addition, there is a Class I path to the east of the project site that runs parallel to the Belmont Slough.

### 17.4.3 Bicycle Facilities

Class I bike paths are physically separated from motor vehicle lanes and offer two-way bicycle travel.

#### Existing Class I Bike Paths

There are several existing Class I bicycle paths within the study area:

- Parallel to Twin Dolphin Drive
- Parallel to Redwood Shores Parkway
- Parallel to Marine Parkway

Class II bike lanes on roadways are marked by signage and pavement striping. Painted buffers may separate the vehicle travel lanes from the bike lane and green bike lane pavement coloring may be used to highlight potential conflict zones between vehicles and cyclists.

#### Existing Class II Bike Lanes

There are several existing Class II bicycle lanes within the study area:

- Holly Street/Redwood Shores Parkway east of Industrial Road
- Marine Parkway east of Shoreway Road

Class III bike routes share the travel lane with motor vehicles and have signs and sharrow striping to guide bicyclists on paved routes.

#### Existing Class III Bike Routes

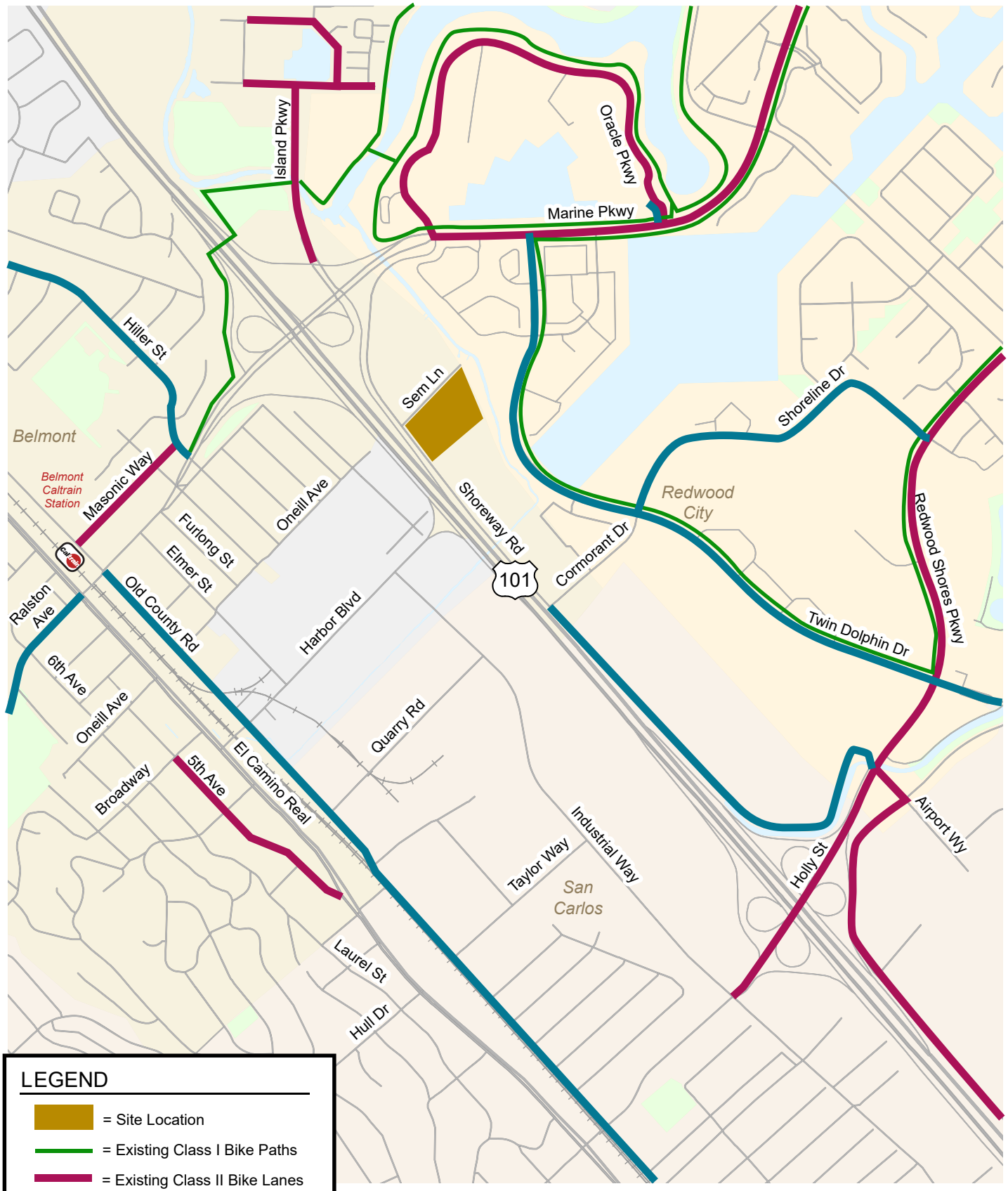
There are several existing Class III bicycle routes within the study area:

- Twin Dolphin Drive
- Shoreway Road (south of Cormorant Drive)
- Shoreline Drive

**Figure 17-1: Bicycle Facilities** shows the bicycle facilities in the project area.

### 17.4.4 Transit Service

San Mateo County Transit District (SamTrans) provides bus transit services within the City of Belmont and surrounding cities in San Mateo County. Caltrain provides rail transit services. There are no bus stops within walking distance (0.5 miles) to the project site. However, there are existing bus stops at the intersection of Marine Parkway/Twin Dolphin Drive that are slightly more than 0.5 mile from the project. The Twin Dolphin Shuttle service that would provide project access to the San Carlos Caltrain Station was suspended in July 2022.




Source:Hexagon, 2024

**Figure 17-1: Bicycle Facilities**

1301 Shoreway Project

*Draft EIR*

Not to scale

Kimley»Horn

## 17.5 Traffic Analysis Methodology

### 17.5.1 Vehicle Miles Traveled (VMT)

With the passage of SB 743, Vehicle Miles Traveled has become an important indicator for determining if a new development will result in a "significant transportation impact" under the California Environmental Quality Act. This report summarizes the VMT analysis and resultant findings for the proposed development.

The VMT analysis follows the City of Belmont's VMT methodology as outlined in Resolution 2021-021. The threshold of significance is based on the San Mateo County average VMT. For employment developments, the VMT impact threshold is 15 percent below the existing Countywide average home-based work trip VMT per employee.

The project VMT was determined by using the City/County Association of Governments of San Mateo County (C/CAG) VMT Estimation Tool (beta version) and the C/CAG travel demand model. Hexagon used the tool and model to calculate the San Mateo County average daily VMT per employee and determine the threshold by multiplying that value by 0.85 (or a 15 percent reduction). The tool and the model were also used to calculate the project's VMT per employee based on the project's location or transportation analysis zone (TAZ).

### 17.5.2 Supplemental Traffic Operations Evaluation

For informational purposes, supplemental intersection level of service, intersection queuing, and freeway analyses were conducted in accordance with the city's transportation guidelines for purposes of determining whether the project complies with the applicable general plan goals, policies, and programs. However, this additional information regarding the project's trip generation and predicted trip distribution on the roadway network – or operations analysis - is provided for informational purposes only and included within the Transportation Impact Analysis (**Appendix I**). Additional delay or congestions – to an intersection or roadway segment – is no longer considered a significant impact under CEQA.

## 17.6 Applicable Regulations, Plans, and Standards

### 17.6.1 Federal

#### Americans with Disabilities Act

The Americans with Disabilities Act (ADA) of 1990 prohibits discrimination toward people with disabilities and guarantees that they have equal opportunities as the rest of society to become employed, purchase goods and services, and participate in government programs and services. The ADA includes requirements pertaining to transportation infrastructure. The Department of Justice's revised regulations for Titles II and III of the ADA, known as the 2010 ADA Standards for Accessible Designs, set minimum requirements for newly designed and constructed or altered State and local government facilities, public accommodations, and commercial facilities to be readily accessible to and usable by individuals with disabilities. These standards apply to accessible walking routes, curb ramps, and other facilities.

#### Surface Transportation Assistance Act Routes (STAA – Federal Designation)

The Surface Transportation Assistance Act (STAA) of 1982 allows large trucks, referred to as STAA trucks that comply with maximum length and wide requirements, to operate on routes that are part of the National Network. The National Network includes the Interstate System and other designated highways that were a part of the Federal-Aid Primary System on June 1, 1991; states are encouraged, however, to allow access for STAA trucks on all highways.

### 17.6.2 State

#### California Complete Streets Act of 2008

This act requires that the circulation elements of local general plans accommodate a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways in a manner that is suitable to the rural, suburban, or urban context of the jurisdiction. Users are defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and riders of public transportation.

#### California Transportation Development Act

The Mills-Alquist-Deddeh Act (SB 325) (also known as the Transportation Development Act [TDA]) was enacted in 1971 to improve public transportation services and encourage regional transportation coordination. This law provides funding to be allocated to transit- and non-transit-related purposes that comply with regional transportation plans. The TDA provides two funding sources: 1) the Local Transportation Fund (LTF), which is derived from a ¼ cent of the general sales tax collected statewide, and 2) the State Transit Assistance fund (STA), which is derived from the statewide sales tax on diesel fuel.

#### Assembly Bill 413

This bill prohibits vehicles from stopping or parking within 20 feet of any unmarked or marked crosswalk or 15 feet of any crosswalk where a curb extension is present. Assembly Bill 413 (AB 413) would impose a state-mandated local program and thus the state would be required to reimburse local agencies and school districts for costs mandated by the state.

#### California Environmental Quality Act

The Steinberg Act (SB 743) was enacted in 2013 to shift the focus of transportation analysis from driver delay to reducing greenhouse gas emissions, creating multimodal networks, and promoting mixed land uses. SB 743 requires the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide alternative level of service metrics for transportation impact evaluations. The alternative criteria must encourage greenhouse gas emissions reductions, support the development of multimodal transportation networks, and promote a diversity of land uses. In August 2014, OPR released a preliminary discussion draft of changes to the CEQA Guidelines for review and comment, and the office is currently developing a revised draft for further review and comment. Under the new guidelines, measurements of transportation impacts may include vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated.

In 2018, the California state legislature, in approving SB 743 as amended, directed the Office of Planning and Research to develop guidelines for assessing transportation impacts based on vehicle miles traveled,

or VMT. In response to SB 743, the California Environmental Quality Act and its implementing guidelines (CEQA Guidelines) were significantly amended regarding the methods by which lead agencies are to evaluate a project's transportation impacts.

## 17.6.3 Regional

### San Mateo County Congestion Management Program

The C/CAG serves as the county's congestion management agency. C/CAG requires that projects that generate more than 100 peak hour trips analyze project impacts.

In addition, C/CAG has a transportation demand management policy and implementation guide that requires any new development project that generates more than 100 average daily trips to complete a TDM checklist and implement TDM measures. Depending on the size of the project, land use type, and proximity to high quality transit, the project would be required to meet a varying percent trip reduction. For more information on the TDM policy and implementation please refer to the C/CAG *Transportation Demand Management Policy Implementation Guide* and the following website: https://ccagtdm.org/wp-content/uploads/2022/04/CCAG_TDM-Policy-Update_Implementation-Guide_FINAL_4-19-2022_v11_CLEAN.pdf

### San Francisco Bay Conservation and Development Commission

The San Francisco Bay Conservation and Development Commission (BCDC) has outlined findings and policies in the San Francisco Bay Plan for transportation and public access. The following summarizes relevant transportation and public access policies:

- Transportation projects on the Bay shoreline and bridges over the Bay or certain waterways should include pedestrian and bicycle paths that will either be a part of the Bay Trail or connect the Bay Trail with other regional and community trails. Transportation projects should be designed to maintain and enhance visual and physical access to the Bay and along the Bay shoreline.

- A proposed fill project should increase public access to the Bay to the maximum extent feasible, in accordance with the policies for Public Access to the Bay.

- In addition to the public access to the Bay provided by waterfront parks, beaches, marinas, and fishing piers, maximum feasible access to and along the waterfront and on any permitted fills should be provided in and through every new development in the Bay or on the shoreline, whether it be for housing, industry, port, airport, public facility, wildlife area, or other use, except in cases where public access would be clearly inconsistent with the project because of public safety considerations or significant use conflicts, including unavoidable, significant adverse effects on Bay natural resources. In these cases, in lieu access at another location preferably near the project should be provided. If in lieu public access is required and cannot be provided near the project site, the required access should be located preferably near identified vulnerable or disadvantaged communities lacking well-maintained and convenient public access in order to foster more equitable public access around the Bay Area.

- Public access should be sited, designed and managed to prevent significant adverse effects on wildlife. To the extent necessary to understand the potential effects of public access on wildlife, information on the species and habitats of a proposed project site should be provided, and the likely human use of the access area analyzed.

- Public access that substantially changes the use or character of the site should be sited, designed, and managed based on meaningful community involvement to create public access that is inclusive and welcoming to all and embraces local multicultural and indigenous history and presence. In particular, vulnerable, disadvantaged, and/or underrepresented communities should be involved. If such previous outreach and engagement did not occur, further outreach and engagement should be conducted prior to Commission action.
- Access to and along the waterfront should be provided by walkways, trails, or other appropriate means and connect to the nearest public thoroughfare where convenient parking or public transportation may be available. Diverse and interesting public access experiences should be provided which would encourage users to remain in the designated access areas to avoid or minimize potential adverse effects on wildlife and their habitat.

- Roads near the edge of the water should be designed as scenic parkways for slow-moving, principally recreational traffic. The roadway and right-of-way design should maintain and enhance visual access for the traveler, discourage through traffic, and provide for safe, separated, and improved physical access to and along the shore. Public transit use and connections to the shoreline should be encouraged where appropriate.

- Federal, state, regional, and local jurisdictions, special districts, and the Commission should cooperate to provide appropriately sited, designed and managed public access, especially to link the entire series of shoreline parks, regional trail systems (such as the San Francisco Bay Trail) and existing public access areas to the extent feasible without additional Bay filling and without significant adverse effects on Bay natural resources. State, regional, and local agencies that approve projects should assure that provisions for public access to and along the shoreline are included as conditions of approval and that the access is consistent with the Commission's requirements and guidelines.

- The Public Access Design Guidelines should be used as a guide to siting and designing public access consistent with a proposed project. The Design Review Board should advise the Commission regarding the adequacy of the public access proposed. The Design Review Board should encourage diverse public access to meet the needs of a growing and diversifying population. Public access should be well distributed around the Bay and designed or improved to accommodate a broad range of activities for people of all races, cultures, ages, income levels, and abilities.

## 17.6.4 Local

### City of Belmont 2035 General Plan

Project relevant General Plan policies for Transportation are addressed in this section. Where inconsistencies exist, if any, they are addressed in the respective impact analysis below. Relevant General Plan Policies adopted specifically to improve transportation planning, efficiency, and safety include the following:

**Goal 3.1:** Provide for the safe and efficient movement of people and vehicles within and through the community that fosters accessibility and connectivity; accommodates a mixture of automobiles, transit, bicyclists, and pedestrians; and encourages higher transit ridership.

- Policy 3.1-1: Ensure land use and circulation planning is developed concurrently. In portions of Belmont that include significant open space resources, use area plans to address the balance and interface between natural and developed areas.
    - *Action 3.1-1a*: Pursue multimodal transportation infrastructure improvements needed to accommodate growth and land use changes proposed in the Land Use Element, particularly in areas where increased development intensity is planned, such as in the Belmont Village PDA and along the El Camino Real corridor. Support innovative site design techniques such as cluster-type housing to preserve sensitive environmental resources. *See also Policy 2.1-2 in the Land Use Element*.
- Policy 3.1-5: Require new development and redevelopment projects to construct or pay their fair share toward improvements for all travel modes to provide and enhance connectivity to existing transportation facilities.

**Goal 3.2:** Reduce dependence on the private automobile for travel and achieve a reduction in vehicle-miles traveled (VMT) per capita of 15 percent by year 2035, consistent with ABAG's Plan Bay Area VMT reduction targets.

- Policy 3.2-1: Promote energy efficiency and accommodate new and improved technology, such as alternative fuel vehicles, in meeting transportation needs.
    - *Action 3.2-1a*: Reduce dependence on single-occupant automobiles by supporting pedestrian and bicycle infrastructure improvements; implementing Transportation Demand Management strategies; and increasing transit ridership.
    - *Action 3.2-1b*: Support the provision of infrastructure for alternative fuel vehicles, such as electric vehicle charging stations to facilitate autonomous vehicle use, such as lanes, parking areas, etc.
- Policy 3.2-2: Look for ways to partner with ride-sharing services as a means to reduce the need for car ownership and cover service gaps in the public transportation system.
- Policy 3.2-3: Maintain and expand transit and active transportation networks that connect neighborhoods with key destinations to encourage travel by non-automobile modes while also improving public health.
    - *Action 3.2-3a*: Prioritize improvements to transit and active transportation networks within the "first mile" and "last mile" of connections to transit services where possible.

- Policy 3.2-4: Support thoughtful and appropriate land use locations and densities with development or redevelopment in Belmont that promote alternatives to travel via single-occupant vehicles. *See Policy 2.1-2 in the Land Use Element*.

**Goal 3.5:** Promote, provide, and maintain a safe and convenient pedestrian and bicycle system of hiking and riding trails, pedestrian paths, bicycle paths and lanes to: promote active transportation; reduce dependence on automobiles; provide recreation; furnish easy access to trails; permit safe, pleasant travel among parts of the community; connect local areas and destinations within the city through trails and paths and regional trail and path systems; and create opportunities for nature and conservation education.

- Policy 3.5-2: Require public sidewalks in conjunction with all new non-residential development.
- Policy 3.5-8: Support and provide bicycle and pedestrian connections to commercial and employment areas to enhance accessibility.
- Policy 3.5-17: Provide pedestrian facilities that are accessible to persons with disabilities and ensure that roadway improvement projects address accessibility and use universal design concepts.

**Goal 3.6:** Promote Transportation Demand Management Programs and encourage increased transit use through convenient, safe, efficient, and cost-effective services.

- Policy 3.6-2: Encourage (or require, for large employment centers with high projected trip generation rates) businesses to implement Transportation Demand Management Programs with an emphasis on connecting and sharing the service with other businesses in the City and region, such as commuter buses, carpools, and other forms of private transit, especially in conjunction with major new industrial or commercial development.
- Policy 3.6-4: Ensure that major new development is adequately served by transit.

**Goal 3.8:** Provide a balanced and well-managed parking supply that accommodates demand while maximizing efficiency.

- Policy 3.8-3: Ensure that the City's parking requirements result in an efficient supply of parking in appropriate locations.
- Policy 3.8-4: Encourage property owners to obtain and develop joint use off-street parking areas to serve existing businesses and anticipated new development that limits access driveways that may adversely impact pedestrian and bicycle facilities.
- Policy 3.8-5: Ensure that parking is consistent with guidelines established by the Americans with Disabilities Act (ADA).
- Policy 3.8-6: Ensure parking supply associated with the demand from future development is adequate, balanced, and does not adversely impact adjacent residential areas.
- Policy 3.8-7: Review and incorporate dynamic parking and autonomous vehicle accommodations in any new parking plans (surface or garage).

### City of Belmont Transportation Demand Management Program

The City of Belmont has established a transportation demand management (TDM) program to make it clear to project applicants and developers what the expectations and requirements are for their TDM plans. The TDM plan will be based on a point system in which projects will be required to meet the minimum number of points based on point values for each TDM measure implemented. The goal is to

achieve a 15 percent reduction below the city's current citywide average VMT per capita or VMT per employee. TDM measures and the point system can be seen in the Transportation Demand Management Program Report or on the city's website (https://www.belmont.gov/home/showdocument?id=20121).

## 17.7 Environmental Impacts and Mitigation Measures

### 17.7.1 Significance Criteria

#### CEQA Criteria

The following significance criteria for transportation and circulation were derived from the Environmental Checklist in CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address lead agency requirements and the full range of potential environmental impacts related to this project.

An impact of the project would be considered significant and would require mitigation if it would meet one of the following criteria (thresholds).

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
- Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) regarding VMT.
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.

#### City of Belmont VMT Criteria

In 2018, the California state legislature, in approving SB 743, directed the Office of Planning and Research to develop guidelines for assessing transportation impacts based on vehicle miles traveled, or VMT. In response to SB 743, the California Environmental Quality Act and its implementing guidelines (CEQA Guidelines) were significantly amended regarding the methods by which lead agencies are to evaluate a project's transportation impacts. As described in CEQA Guidelines Section 15064.3(a):

> *Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact.*

This section of the Guidelines sets forth the criteria for analyzing transportation impacts, acknowledging that lead agencies will need to adjust to these new requirements and providing ample flexibility about how such an analysis would be conducted. The City of Belmont adopted Resolution 2021-021- on February 23, 2021, approving policies to comply with SB 743 related to the transition from use of LOS to VMT in CEQA transportation analysis. Included in this resolution are recommendations regarding VMT methodology and thresholds of significance. The following states the determination for VMT for new development in the City of Belmont.

- *Baseline VMT: New development, long-range plans and transportation projects are required to have their VMT be measured against the San Mateo County Average VMT.*
- *CEQA VMT thresholds: The VMT threshold for new development is 15% below the Countywide average. Before or after mitigation measures such as TDM tools, projects which generate a level of VMT is at least 15% less than the San Mateo Countywide average will be deemed to have no transportation impact, per CEQA.*
- *CEQA Exemptions: The following Housing or Mixed-use projects (with at least 75% of the project consisting of housing) listed in A. through D., and small projects meeting criteria E., are hereby exempt from CEQA VMT analysis if they are:*
    - *A. Within the BVSP, or*
    - *B. Within ¼ mile of El Camino Real, or*
    - *C. Within ½ mile of the Belmont Caltrain Station, or*
    - *D. Any housing project anywhere in the city that contains at least 50% affordable housing, or*
    - *E. Any project (housing or non-housing) in Belmont that generates less than 110 daily trips is also exempt.*

### 17.7.2 Summary of No and/or Beneficial Impacts

#### Conflict with a Program, Plan, Ordinance or Policy Addressing the Circulation System (specific to bicycle and pedestrian facilities)

The project description and site plans submitted in November 2023 were reviewed to determine if the project would conflict with any adopted policies, plans, or programs regarding bicycle or pedestrian facilities. The *1301 Shoreway Road TIA* by Hexagon also discusses the project's potential impact on bicycle and pedestrian facilities. The following is a summary of these findings.

Currently there is no direct access to bicycle facilities adjacent to the project site. The nearest existing bicycle facilities are the existing Class III bike route along Shoreway Road to the south of Cormorant Drive and the existing Class II bike lanes along Marine Parkway to the east of Shoreway Road. Along Shoreway Road, adjacent to the project, there is an 8-foot shoulder in the southbound direction that starts approximately 200 feet south of the project and extends to Cormorant Drive. In the northbound direction on Shoreway Road, the travel lane is approximately 16 feet wide, which does provide a bicyclist with increased roadway width to share the lane with motorists.

The site will also provide bicycle parking for employees and visitors. Within the project site, long-term bicycle parking will be provided in Building 1, Building 2, and the parking garage. A total of 109 long-term bicycle parking spaces are proposed, which meets the City Code requirement. The project also proposes to provide 92 short-term bicycle parking spaces, which exceeds the 30-bicycle parking space requirement. Since the project does not conflict with a bicycle program, plan, or ordinance, and the project meets or exceeds the on-site bicycle parking requirements, there would be no impact on bicycle facilities.

As stated in the *1301 Shoreway Road TIA* by Hexagon, there are existing sidewalks on Shoreway Road and Ralston Avenue that connect the site to bus stops and to the Caltrain Station. In addition, there are

striped crosswalks and pedestrian signal heads with push buttons located at most signalized intersections in the study area. The project is proposing sidewalks along the project frontage of Sem Lane. The city has requested that the project widen the sidewalk to 6.5 feet along its project frontage. Since the project does not conflict with a pedestrian program, plan, or ordinance, and the project is providing sidewalk along its project frontage, there would be no impact on pedestrian facilities.

Based on the project description, the site plan, and the *1301 Shoreway Road TIA* by Hexagon, the proposed project would not conflict with adopted policies, plans, or programs regarding bicycle or pedestrian facilities, or decrease the performance or safety of such facilities. Therefore, there would be no impact.

#### Emergency Access

Based on a review of the site plan, the project is proposing a 24-foot fire aerial access lane in the surface parking lot adjacent to Shoreway Road, a 24-foot fire aerial access lane in the surface parking lot adjacent to Sem Lane, and a fire access lane between Buildings 1 and 2, off of Sem Lane. Both Shoreway Road and Sem Lane provide at least a 20-foot fire access lane for emergency vehicles to enter and exit the project site.

The project is also proposing multiple fire hydrants throughout the project site, including to the west of Building 1 (near the ADA parking spaces), in the sidewalk fronting Sem Lane (between the entry and exit lanes for this drop-off area), to the northeast of Building 1, to the east of the exit lane for the drop-off area on Sem Lane, and to the northeast of the parking garage.

The project will follow applicable City of Belmont regulations and guidelines and would not result in inadequate emergency access. Therefore, there would be **no impact**.

#### Vehicle Access and Sight Distance

As part of the *1301 Shoreway Road TIA* by Hexagon, Hexagon reviewed the project to determine if there would be any sight distance issues for the project driveways. The TIA concluded that there should be no sight distance issues for vehicles exiting project driveways because there is no on-street parking allowed on Shoreway Road or on Sem Lane near the project site and there are no horizontal curves or tall structures that would obstruct a driver's ability to see conflicting vehicles traveling on Shoreway Road or Sem Lane. A supplemental memorandum by Hexagon dated April 29, 2024, shows the sight distance triangles performed for the project driveways. The memorandum concluded that there are no obstructions with the line of sight for each project driveway. Additional information on the *1301 Shoreway Road TIA* by Hexagon and the *Sight Distance Analysis for the 1301 Shoreway Road Development* memorandum by Hexagon are included in **Appendix I**.

The project would not result in any sight distance issues or increase hazards due to a project design feature or incompatible use. Therefore, there would be **no impact**.

### 17.7.3 Impacts of the Proposed Project

**Impact TRA-1: The project would conflict or be inconsistent with adopted Vehicle Miles Traveled policies, plans, or programs per CEQA Guidelines section**

**15064.3. This is a less than significant impact with mitigation incorporated.**

Hexagon performed the VMT analysis for the project using two methods:

1. Beta version of the C/CAG VMT Estimation Tool
2. C/CAG travel demand model

Using the C/CAG VMT Estimation Tool, the existing San Mateo County average home-based work trip daily VMT per employee is 17.21 VMT per employee. Therefore, VMT impact threshold for employment developments is equal to 14.63 VMT per employee (or 15 percent below the County average). In the Existing plus Project condition, the project's VMT per employee equals 15.8 VMT per employee, which is based on the VMT per employee of similar uses in TAZ 1543, which is the location of the project based on a transportation analysis zone as established by the San Francisco Bay Area's Metropolitan Transportation Commission (MTC). Since the proposed project exceeds the city's threshold, the project results in a significant VMT impact without mitigation.

Using the C/CAG travel demand model, the existing San Mateo County average home-based work trip daily VMT per employee is 17.9 VMT per employee. Therefore, VMT impact threshold for employment developments is equal to 15.22 VMT per employee (or 15 percent below the County average). In the Existing plus Project condition, the project's VMT per employee equals 16.2 VMT per employee, which is based on the VMT per employee of similar uses in TAZ 1543, the location of the project. Since the proposed project exceeds the city's threshold, the project results in a significant VMT impact without mitigation.

Table 17-1: VMT Analysis Summary for the Project summarizes the VMT analysis for the project using the two different methodologies.

**Table 17-1: VMT Analysis Summary for the Project**

| Scenario | VMT per Employee | | | Reduction Percentage Needed to Meet Thresholds | Project Impact? |
|---|---|---|---|---|---|
| | Baseline | Threshold | With Project | | |
| **Employment VMT using C/CAG VMT Estimation Tool** | | | | | |
| Existing and Existing Plus Project | 17.21 | 14.63 | 15.8 | 7.4% | **Yes** |
| **Employment VMT using C/CAG Travel Demand Model** | | | | | |
| Existing and Existing Plus Project | 17.9 | 15.22 | 16.2 | 6.0% | **Yes** |

### MM TRA-1: Final Transportation Demand Management Program

Prior to occupancy, the project shall prepare and implement a final transportation demand management (TDM) program to reduce the project's VMT to below the significance threshold as noted in Table 17-1. The program includes encouraging employees to use alternative modes of transportation to single-occupant vehicles. The City of Belmont has an adopted TDM policy requiring projects that exceed 50,000 square feet to achieve 18 TDM points. Compliance with the city's TDM policy would

reduce the project trips and the VMT by an estimated 15 percent or more, which would be more than the required 7.4 percent reduction needed if using the C/CAG VMT estimation tool and the 6.0 percent reduction needed if using the C/CAG travel demand model. The effectiveness of the TDM plan shall be reviewed annually and adjusted as necessary to maintain these trip and VMT reductions.

Implementation of the final TDM plan would result in a less than significant VMT impact by reducing VMT to levels below established thresholds. It should be noted that the City of Belmont continues to recognize LOS within their respective plans, programs, ordinances, and policies as they transition to VMT thresholds. Therefore, a supplemental local transportation analysis, including a level of service analysis, is included for informational purposes in **Appendix I**. The recommendations of that operations analysis will be considered by the city during project review.

### Impact TRA-2: The project could conflict with a program, plan, ordinance, or policy addressing transit facilities. This is a less than significant impact with mitigation incorporated.

The project description and site plans submitted in November 2023 were reviewed to determine if the project would conflict with any adopted policies, plans, or programs regarding public transit facilities. In June 2024, the project description was updated to include life science uses. The *1301 Shoreway Road TIA* by Hexagon also discusses the project's potential impact on transit facilities. The following is a summary of their findings.

As stated in the *1301 Shoreway Road TIA* by Hexagon, there is no existing transit service within walking distance of the project site. The nearest bus stops to the project are slightly more than ½-mile away at the intersection of Marine Parkway and Twin Dolphin Drive. Since the project will likely generate demand for transit and particularly for Caltrain service, the project should support and work with other employers to provide a shuttle to Caltrain. Prior to July 2020, there was the Twin Dolphin Shuttle service that connected the project site to the San Carlos Caltrain Station, but this was suspended due to COVID-19 and the loss of funding from the Shuttle Grant and local employers. With an influx of new employees associated with the project, the absence of transit facilities within ½ mile of the project site is inconsistent with city policies and programs that seek to enhance transit service. This is a **significant** impact based on CEQA thresholds.

#### MM TRA-2: Transit Improvements

To enhance transit service and facilities consistent with City policy, the project sponsor shall coordinate with the City and Commute.org to reestablish local shuttle service such as the Redwood LIFE Caltrain shuttle stop at the project site that connects to the San Carlos Belmont Caltrain Station and Redwood Shores community. Because the feasibility, demand and location of additional shuttle stops are ultimately determined by Commute.org and the transit operator, the applicant's responsibility is limited to supporting a shuttle stop on the property, participating in applicable employer-based funding mechanisms, identifying a shuttle stop location on the project's final improvement plans, and promoting use of the shuttle and alternative modes of transportation through the project's TDM program.

Mitigation Measure MM TRA-2 would reduce this impact to a less than significant level by accommodating expanded transit options near the project site and providing employer-based financial support if a shuttle stop is implemented at this location. These actions are consistent with City of Belmont circulation policy.

## 17.8 References

Caltrans (California Department of Transportation). 2002. Guide for the Preparation of Traffic Impact Studies. Available at: http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf

City of Belmont. 2017. 2035 General Plan. Available at: https://www.belmont.gov/departments/community-development/2035-general-plan-update/final-adopted-general-plan

City of Belmont. February 2021. Resolution No. 2021 – VMT Policy. Available at: https://belmont-ca.granicus.com/MetaViewer.php?view_id=1&clip_id=650&meta_id=40793

City/County Associated of Governments of San Mateo County (C/CAG). 2019. Congestion Management Program Report 2019. Available at: https://ccag.ca.gov/wp-content/uploads/2020/04/2019-CMP-Final-040920.pdf

Hexagon Transportation Consultants, Inc. January 19, 2024. Office Development at 1301 Shoreway Drive Transportation Impact Analysis

Hexagon Transportation Consultants, Inc. April 29, 2024. Sight Distance Analysis for the 1301 Shoreway Road Development

San Mateo County. 2019. Congestion Management Program

Transportation Research Board. 2000. Highway Capacity Manual (HCM) 2000

Transportation Research Board. 2022. Highway Capacity Manual (HCM) 7th Edition

# 18 Tribal Cultural Resources

## 18.1 Introduction

This section describes the project's potential effects on tribal cultural resources that could be caused by implementation of the proposed project. Tribal cultural resources include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe. The information in this chapter identifies existing tribal cultural resources and environmental conditions in the area, identifies and analyzes environmental impacts based on accepted thresholds of significance, and recommends measures to reduce or avoid adverse impacts anticipated from project construction, operation, and site disturbance.

This section is based upon, and summarizes, the following cultural and historic resource reports:

- ICF, Archaeological Resources Technical Report 1301 Shoreway Road Project, City of Belmont, San Mateo County, California. June 2022
- City of Belmont, 2035 General Plan – Land Use Element and Conservation Element, 2017
- City of Belmont, Final Environmental Impact Report for the Belmont General Plan Update, 2017

These reports and their findings are summarized in this section, and care has been taken to protect confidential or culturally sensitive material known to be present in the general vicinity of the project site. The City of Belmont has also transmitted letters to the recommended tribal organizations and individuals identified by NAHC as consistent with the requirements of AB 52, discussed further below.

## 18.2 Scoping Issues Addressed

During the Notice of Preparation (NOP) public comment and scoping period for the proposed project, a letter was received from the Native American Heritage Commission (NAHC). Comments contained in the letter from NAHC generally related to requirements of AB 52 and the recommended steps for completing AB 52 consultation, a summary of SB 18 requirements and recommended steps, recommendations that a California Historical Resources Information Search (CHRIS) and Sacred Lands File search be completed, and example mitigation measures to avoid impacts to tribal cultural resources. The BCDC also commented on applicable Bay Plan policies and the importance of tribal outreach and consultation. These issues are addressed in this chapter and Chapter 8, Cultural Resources.

## 18.3 Cultural and Tribal Cultural Resources Assessment Methodology

### 18.3.1 Archival and Literature Search

To establish existing conditions and current tribal contacts, an archival research study was conducted from the following resources. The research was undertaken to determine if any known archaeological, historic resources, and/or tribal cultural resources were reported in or around the project area.

#### Northwest Information Center Records Search

On March 15, 2022, a records search was conducted by the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) at Sonoma State University (NWIC File No. 21-1497) for the project area. The purpose of this review was to access existing cultural resource survey

reports, archaeological site records, and historic maps to evaluate whether any previously documented prehistoric or historic archaeological sites, architectural resources, cultural landscapes, or other documented resources exist within or near the project site. Other sources of information referenced include the State Office of Historic Preservation (OHP) Archaeological Determinations of Eligibility, California Inventory of Historical Resources, historical maps, and local inventories.

### 18.3.2 Native American Consultation and Participation

Public Resources Code Sections 21080.3.1 and 21084.3(c), also referred to as Assembly Bill 52 (AB 52) requires CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015.

#### Sacred Lands File Search

The project archaeologist requested a Native American Heritage Commission (NAHC) search of their SLF on April 5, 2022, for the project area. On April 24, 2022, the NAHC reported *negative* results for the SLF search. The NAHC also provided a list of seven Native American tribal contacts and recommended that all be contacted regarding possible cultural and tribal cultural resources. The archaeologist provided the NAHC SLF results and the list of NAHC-listed tribal contacts to the city for use in their consultation/outreach efforts.

On May 17, 2024, the City of Belmont transmitted letters to the recommended tribal organizations and individuals identified by NAHC, requesting information or comments regarding the project and potential Native American cultural resources in the vicinity of the proposed project property. As of the date of this EIR, no representatives have requested a formal consultation regarding the project.

### 18.3.3 Site Reconnaissance

On March 31, 2022, ICF archaeologists conducted an intensive pedestrian survey of the entire project area. The survey included careful inspection of all exposed soils for prehistoric and historical period cultural materials (including tribal cultural resources), as well as for topographic indicators and soil characteristics that might be evidence of subsurface cultural materials. ICF documented the survey results using field notes, digital photography, and field maps.

The archaeologist found no evidence for previously unknown potentially significant cultural or tribal cultural resources during the survey. Similarly, no evidence was found to suggest the presence of potentially significant historical period archaeological resources.

## 18.4 Environmental Setting

The project area is in the eastern portion of the San Francisco Peninsula approximately one mile from the San Francisco Bay and 11 miles east of the Pacific Ocean. The immediate area is low (5 to 10 feet above mean sea level), flat land typical to the San Francisco Bay shore. The northern portion of the Santa Cruz Mountains are about 6 miles to the west. Numerous creeks and small drainages traverse the area trending north and east from the Santa Cruz Mountains to the Bay. The closest of these freshwater features is Belmont Creek that flows east about immediately northeast of the project area. Soils

consist of Urban land-Orthents, reclaimed complex, 0 to 2 percent slope, and Novato clay, 0 to 1 percent slope. The gentle easterly sloping alluvial plane within the San Mateo Quadrangle is covered by Holocene or latest Pleistocene to Holocene alluvial fan and associated deposits. An office building, constructed in 1983; a surface parking lot; and a basketball court currently occupy the site. The climate is characterized as Mediterranean, with warm dry summers and cooler moist winters.

### 18.4.1 Archaeological Setting/Prehistory

The project site is situated within the ancestral territory of the Costanoan, also commonly referred to as the Ohlone. Ohlone territory consisted of the area from the southern edge of the Carquinez Strait to a portion of the Big Sur and Salinas Rivers south of Monterey Bay. It also extended approximately 50 miles inland from the coast.

Ohlone is a sub-family of the Utian language group, which includes the Miwokan languages spoken by tribes in the North Bay, at Clear Lake Basin, and in the Consumnes, Mokelumne, and lower Sacramento River drainages of the Central Valley and western Sierra foothills. Linguists have identified six Ohlone languages with three dialects (Chochenyo, Ramaytush, and Tamyen) that were spoken within the San Francisco Bay Area. San Mateo county lies near approximate ethnolinguistic boundary between the Tamyen and Ramaytush dialects.

The Ohlone lived in village communities. These autonomous political units occupied a distinct territory. Village communities generally consisted of one main village that was occupied year-round and a series of smaller hamlets and resource gathering and processing locations that were occupied intermittently or seasonally. The tribal population within each territory ranged from 50 to 500 and was largely determined by the carrying capacity of the community's territory. At the time of Euro-American contact, the Lamchin tribe very likely occupied an area that included present-day Belmont.

Ohlone and neighboring groups distributed resources via trade networks to augment local economies. Ohlone traded abalone, mussels, salt, Olivella shells, and bows with the Sierra Miwok and Yokuts to the east. Pinon nuts obtained from the Yokuts are the only ethnographically documented import of the Ohlone, although undoubtedly other significant economic items, including the obsidian used for tools, were imported as well.

By the late 18th century, Spanish exploration and settlement in the Bay Area transformed Ohlone culture. Spanish settlers moved into Northern California and established the mission system. This exposed the Ohlone to diseases to which they had no immunity. The declining birth rates led to a population decline. Following the secularization of the missions in 1834, many Ohlone worked as manual laborers or house servants on ranchos.

### 18.4.2 Previously Identified Tribal Cultural Resources

No previous cultural resources studies have been conducted on the project site. However, nine cultural resources studies were conducted within a 0.25-mile radius of the project site. These consisted of record searches, literature reviews, and architectural and archaeological field surveys and test excavations. The NWIC records search identified no previously recorded archaeological resources on the project site or within 0.25 mile of the project site.

## 18.5 Applicable Regulations, Plans, and Standards

### 18.5.1 Federal

#### National Register of Historic Places Eligibility

The National Historic Preservation Act of 1966 (as amended through 2000) authorizes the National Register of Historic Places (NRHP), a program for the preservation of historic properties ("cultural resources") throughout the Nation. The eligibility of a resource for NRHP listing is determined by evaluating the resource using criteria defined in 36 CFR 60.4 as follows:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, association, and:

- That are associated with events that have made a significant contribution to the broad patterns of our history;
- That are associated with the lives of persons significant in our past;
- That embody the distinctive characteristics of a type, period, or method of construction;
- 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; or,
- That have yielded, or may be likely to yield, information important to prehistory or history.

Unless a site is of exceptional importance, it is not eligible for listing in the NRHP until 50 years after it was constructed.

All properties change over time. Therefore, it is not necessary for a property to retain all its historic physical features or characteristics in order to be eligible for listing on the NRHP. The property must, however, retain enough integrity to enable it to convey its historic identity; in other words, to be recognizable to a historical contemporary. The National Register recognizes seven aspects or qualities that, in various combinations, define integrity:

- Location – the place where the historic property was constructed or the place where the historic event occurred.
- Design – the combination of elements that create the form, plan, space, structure, and style of a property.
- Setting – the physical environment of a historic property.
- Materials – the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
- Workmanship – the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- Feeling – a property's expression of the aesthetic or historic sense of a particular period of time.
- Association – the direct link between an important historic event or person and a historic property (National Park Service, 1990).

To retain historic integrity a property will always possess several, and usually most, of these aspects. In order to properly assess integrity, however, significance (why, where, and when a property is important) must first be fully established. Therefore, the issues of significance and integrity must always be considered together when evaluating a historic property.

## 18.5.2 State

### CEQA, Archaeological Resources

CEQA and the CEQA Guidelines contain specific standards for determining the significance of impacts to archaeological sites (PRC §21083.2; 14 CCR §15064.5(c)). If the lead agency determines that the project may have a significant effect on unique archaeological resources, the EIR must address those archaeological resources (PRC §21083.2(a)). A "unique archaeological resource" is defined as an "archaeological artifact, object, or site" that, without merely adding to the current body of knowledge:

- Contains information needed to answer important scientific research questions and in which there is a demonstrable public interest;
- Has a special or particular quality such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person. (PRC §21083.2(g)).

Under CEQA, significant impacts on non-unique archaeological resources need not be addressed in an EIR. (PRC §21083.2(a), (h)).

The limitations in PRC §21083.2 relating to unique archaeological resources do not apply to archaeological sites that qualify as "historical resources." (PRC §21083.2(l)). If a lead agency finds that an archaeological site is a historical resource, impact assessment is governed by PRC §21084.1, which provides standards for identification of historical resources (14 CCR §15064.5(c)(2). See §§13.58, 20.94-20.98). The CEQA Guidelines also provide that public agencies should seek to avoid effects that could damage a "historical resource of an archaeological nature" when it is feasible to do so (14 CCR §15126.4(b)(3)).

### Native American Historic Resource Protection Act; Archaeological, Paleontological, and Historical Sites; Native American Historical, Cultural, and Sacred Sites (Pub. Res. Code § 5097-5097.994)

Public Resources Code Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of Native American human remains on non-federal public lands. California Public Resources Code Section 5097.9 states that no public agency or private party on public property shall "interfere with the free expression or exercise of Native American Religion." The Code further states that:

> "No such agency or party [shall] cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine…except on a clear and convincing showing that the public interest and necessity so require."

### Human Remains

Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the NAHC within 24 hours of this identification. The NAHC will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

### CEQA, Historic Resources

CEQA and the CEQA Guidelines contain specific standards for determining the significance of impacts on "historical resources" (PRC §21084.1, 14 CCR §15064.5). A resource listed in the California Register of Historical Resources, or determined by the State Historical Resources Commission to be eligible for listing in the Register, must be treated as an "historical resource" for purposes of CEQA. PRC §21084.1; 14 CCR §15064.5(a)(1). A resource designated as historically significant in a local register of historical resources, or identified as significant in an approved historical resources survey, is presumed to be significant. The presumption of significance may be overcome if the agency concludes, based on a preponderance of the evidence, that the site is not historically or culturally significant (PRC §21084.1; 14 CCR §15064.5(a)(2)).

A lead agency may also find that a site that does not meet any of these criteria should be treated as a historical resource under CEQA (PRC §21084.1; 14 CCR §15064.5(a)(4)). A lead agency may find that "any object, building, structure, site, area, place, record, or manuscript" is historically significant or significant in the "cultural annals of California" provided that its determination is "supported by substantial evidence in light of the whole record" (14 CCR §15064.5(a)(3)). The guidelines also note that a resource ordinarily should be considered historically significant if it meets the criteria for listing on the California Register of Historical Resources (14 CCR §15064.5(a)(3)).

### California Register of Historical Resources

In order to be determined eligible for listing in the California Register of Historical Resources (CRHR), a property must be significant at the local, State, or national level under one or more of the following four criteria as defined in Public Resources Code 5024.1 and CEQA Guideline 15064.5(a).

- It is associated with events or patterns of events that have made a significant contribution to the broad patterns of the history and cultural heritage of California and the United States.
- It is associated with the lives of persons important to the nation or to California's past.
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- It has yielded, or may be likely to yield, information important to the prehistory or history of the state and the nation.

In addition to meeting one or more of the above criteria, a significant property must also retain integrity. Properties eligible for listing in the CRHR must retain enough of their historic character to

convey the reason(s) for their significance. Integrity is judged in relation to location, design, setting, materials, workmanship, feeling, and association.

CEQA defines a substantial adverse change in the significance of a historical resource as a significant effect on the environment (PRC §21084.1; 14 CCR §15064.5(b)). A substantial adverse change means demolition, destruction, relocation, or alteration of the resource or its immediate surroundings resulting in the significance of the resource being materially impaired (14 CCR §15064.5(b)(1)). The significance of a resource is materially impaired when the physical characteristics that convey its historical significance and that justify its designation as a historical resource are demolished or materially altered in an adverse manner (14 CCR §15064.5(b)(2)). Construction of a project in the vicinity of historical structures that does not damage or materially alter any of them is not a substantial adverse change in the significance of a historical resource. *Eureka Citizens for Responsible Gov't v City of Eureka* (2007) 147 CA4th 357, 375.

#### California Historical Building Code, California Code of Regulations, Title 24, Part 8

The California Historical Building Code, defined in Sections 18950 to 18961 of Division 13, Part 2.7 of the Health and Safety Code, provides regulations and standards for the rehabilitation, preservation, restoration (including related reconstruction) or relocation of historical buildings or structures deemed by any level of government as having importance to the history, architecture, or culture of an area.

#### San Francisco Bay Conservation and Development Commission (BCDC) Bay Plan

The BCDC Bay Plan contains relevant guidelines and polices regarding environmental justice and social equity, specifically concerning indigenous communities. One of BCDC's overarching guiding principles is to "recognize and acknowledge the California Native American communities who first inhabited the Bay Area and their cultural connection to the natural resources of the region." Additionally, policies within the Bay Plan itself include direction in this regard such as Public Access Policy No. 5 in Section IV, which states that public access should be welcoming and inclusive, and "embrace local multicultural and indigenous history and presence."

### 18.5.3 Local

#### City of Belmont General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. General Plan policies relative to cultural, historical, archaeological, and tribal cultural resources are identified below. Relevant General Plan Policies that directly address reducing and avoiding tribal cultural resources impacts include the following:

**Conservation Element**

**Goal 5.12:** Preserve and protect areas and sites of prehistoric, cultural, and archaeological significance.

- Policy 5.12-1: Ensure that development avoids potential impacts to sites suspected of being archeologically, paleontologically, or culturally significant, tribal or otherwise, or of concern by requiring appropriate and feasible mitigation.
- Policy 5.12-2: If cultural, archaeological, paleontological, or cultural resources, tribal or otherwise, are discovered during construction, grading activity in the immediate area shall cease and materials and their surroundings shall not be altered or collected until evaluation by a qualified professional is completed.

- A qualified archaeologist or paleontologist must make an immediate evaluation and avoidance measures or appropriate mitigation should be completed, according to CEQA Guidelines.
- Use the State Office of Historic Preservation's recommendations for the preparation of Archaeological Resource Management Reports as guidelines.

## 18.6 Environmental Impacts and Mitigation Measures

### 18.6.1 Significance Criteria

The following significance criteria for cultural and tribal cultural resources were derived from the Environmental Checklist in CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address lead agency requirements and the full range of potential impacts related to this project.

An impact of the project would be considered significant and would require mitigation if it would meet the following criteria.

- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:
    a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
    b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.

### 18.6.2 Impact Assessment Methodology

For tribal cultural resources, the city transmitted letters to the recommended tribal organizations and individuals identified by NAHC, requesting information or comments regarding Native American tribal cultural resources in the vicinity of the proposed project property. The site was also surveyed by an archaeologist searching for evidence of tribal cultural resources. If construction activities would demolish or destroy an identified tribal cultural resource or if they would materially impair the characteristics that make it eligible, the impact is determined to be significant. If a cultural resource is not a tribal cultural resource as defined by the Public Resource Code, there is no potential for impacts and impacts are not analyzed by this criterion.

### 18.6.3 Summary of No and/or Beneficial Impacts

Not applicable. The potential for adverse effects upon historic, archaeological or tribal cultural resources based on the thresholds of significance warrants evaluation.

### 18.6.4 Impacts of the Proposed Project

**Impact TR-1: The proposed project would not change the significance of an identifiable site, feature, place, or cultural landscape with cultural value**

**to a California Native American tribe that is listed or eligible for listing as a historical resource. Therefore, the project would not have a substantial adverse effect on the significance of a tribal cultural resource.**

The proposed project would develop a 6.9-acre site into an office campus and parking garage, while covering the site with two feet of fill material. While the project would increase in building area on the project site, the proposed use is similar to existing and surrounding uses on site, on a previously developed site, and thus, would not significantly change the existing uses of the project site. There are no buildings or other identifiable historic resources present on the project site. There are no plans for modification or displacement associated with any other surrounding properties. For this reason, potential impacts to historic resources would be **less than significant**.

**Impact TR-2:** **The project has the potential to cause a substantial adverse change in the significance of a tribal cultural resource as determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. This is a less than significant impact with mitigation incorporated.**

### Construction and Operation

In compliance with PRC Section 21080.3.1(b), the city has provided formal notification to California Native American tribal representatives that have previously requested notification from the city regarding projects within the geographic area traditionally and culturally affiliated with the tribe. Native American groups may have knowledge about cultural resources in the area and may have concerns about adverse effects from development on tribal cultural resources as defined in PRC Section 21074.

On May 17, 2024, the city transmitted letters to the recommended tribal organizations and individuals identified by NAHC, requesting information or comments regarding Native American cultural resources in the vicinity of the proposed project. As of the date of this EIR, no representatives have requested a formal consultation regarding the project.

While the surface investigation identified no evidence of tribal cultural resources, and the research conducted provides no evidence that the site and its surrounds constitute a cultural landscape as defied in Public Resources Code section 21074, the possibility exists that tribal cultural resources could be discovered during construction.

During construction activities, the project would implement MM CR-2.1, MM CR-2.2, and MM CR-3.1, which would reduce impacts to archaeological resources, including resources that could be of cultural value to a tribe. As described in MM CR-2.1 and MM CR-2.2, awareness training would be implemented amongst project workers and work would stop if unknown precontact or historic-period archaeological materials are encountered during project activities. Per MM CR-3.1, if any human remains, including Native American burials, are found during construction activities, site disturbance would stop and the NAHC would be notified. With implementation of MMs CR-2.1, MM CR-2.2, and MM CR 3.1, impacts associated with tribal cultural resources would be reduced to a **less than significant** level. Potential impacts to known and unknown resources could be effectively mitigated through tribal representative

involvement and monitoring, as well as the protection and treatment of resources if advertently discovered consistent with state law and local policy.

### 18.6.5 Cumulative Impact Analysis

The geographic extent of cumulative impacts to tribal cultural resources is highly dependent on the resources under discussion. Unless part of a larger tribal cultural landscape, a project's impacts are typically site-specific.

**Impact TR-3: The project would not contribute to the cumulative change or disturbance to tribal cultural resources known to exist in the vicinity of the project. This would result in a less than significant cumulative effect on cultural resources.**

Because the project site is not part of a larger historic district or cultural resource landscape, the potential effects of the project upon yet undiscovered tribal cultural resources are site specific. Other development that could occur from background growth over time or through the projects identified in Chapter 4 would be equally site specific. NWIC records found no evidence of some common, larger resource in the immediate project area that the project site could contribute to. Therefore, the potential for the project to contribute to a cumulatively considerable effect is considered **less than significant**.

## 18.7 References

City of Belmont. 2017. *2035 General Plan and EIR*.

ICF. 2022. *Archaeological Resources Technical Report, City of Belmont, San Mateo County, California*.

# 19 Utilities and Service Systems

## 19.1 Introduction

This chapter describes the project's potential effects on utilities and service systems that could be caused by implementation of the project. The discussion addresses existing service systems in the affected area including municipal water supply, identifies and analyzes potential environmental impacts associated with the expansion or construction of those systems, and recommends measures to reduce or avoid adverse impacts anticipated from project construction and operation. Existing laws and regulations relevant to the provision and management of utility and service systems are also described. Information used to prepare this section came primarily from the following resources:

- City of Belmont, 2035 General Plan, Conservation Element, 2017
- Water Supply Assessment for 1301 Shoreway Road Project, EKI Environment and Water, October 2022 (**Appendix J**)
- Mid-Peninsula Water District, 2020 Urban Water Management Plan, September 2021
- Project application and related materials (including technical memos)

## 19.2 Scoping Issues Addressed

During the Notice of Preparation (NOP) public comment and scoping period for the proposed project, the Sierra Club (Loma Prieta Chapter) recommended that the EIR evaluate water supply and consumption by laboratory uses as well as an evaluation of the project's solid waste generation and the potential for a biohazard waste stream. These issues are address in this chapter and the project's Water Supply Assessment (WSA). The use and transport of hazardous materials are also addressed in Chapter 12, Hazards and Hazardous Materials.

## 19.3 Environmental Setting

### 19.3.1 Utilities and Service Systems

#### Water

##### Water Supply and Delivery

The city's potable water supply is provided by Mid-Peninsula Water District (MPWD, or District). MPWD's service area is approximately five square miles and primarily include the City of Belmont, with small portions of the service area within the city limits of San Carlos and in unincorporated parts of San Mateo County. Currently, MPWD purchases all its water from the San Francisco Public Utilities Commission (SFPUC). The main source of SFPUC's water supply (85 percent) comes from the upper Tuolumne River watershed in the Sierra Nevada and is stored in three major reservoirs: Hetch Hetchy Reservoir, Lake Lloyd, and Lake Eleanor. Water is delivered to the Bay Area via a system of aqueducts. SFPUC's remaining water supply comes from Bay Area reservoirs in the Alameda and Peninsula watersheds. None of the water sources within the city, including surface water, ground water, and recycled water, are viable or financially feasible to be developed.

MPWD has a guaranteed water supply of 3.891 MGD (approximately 4,358 acre-feet per year [AFY]) from SFPUC (MPWD, 2020). Water supplied to the project site is provided by American Water. MPWD does not draw on groundwater from wells for its supply; however, some private residences in Belmont may have private wells pursuant to Section 26 of the Belmont Municipal Code.

MPWD's service area includes approximately 8,116 service connections, including 7,875 total connections in the City of Belmont, consisting of 7,189 single-family, 173 multi-family, 338 commercial, 35 industrial, 76 institutional, and 64 large irrigation accounts. The MPWD water system includes 20 pumps, 11 water tanks, and 94 miles of water mains across nine pressure zones.

Immediately adjacent to the project site, existing water mains are located within Shoreway Road (8-inch line) and Sem Lane (12-inch line).

### Existing Project Site Water Demand

The project site is currently occupied by a 148,919 square foot multi-tenant commercial office building. The recent mix of tenants have included a medical provider, university, business consultant, realtor, and businesses in the technology sector.

Historical water use at the site has ranged between approximately 2.43 to 3.55 million gallons per year (MGY) between 2017 and 2021 and averaged 2.70 MGY over the last three years (MPWD, 2022a).

## Wastewater Collection and Treatment

### Existing Collection System

The City of Belmont operates a sanitary sewer system that serves a population of approximately 26,000 in an 8.7 square mile service area. The sewer system serves 7,689 connections as of June 30, 2021. The sewer system consists of 75 miles of gravity sewers (approximately 2,937 line segments), 2,700 manholes, 5 miles of force mains, and 10 pump stations. The sewers range in size from two (2) inches to twenty-seven (27) inches in diameter. There are no siphons. An existing 18-inch PVC sewer main is located in Shoreway Road fronting the property.

According to the city's 2010 Sanitary Sewer System Capacity Analysis Report, the wastewater system has constraints in meeting wet water hydraulic capacity for both existing and future flow conditions in certain pipeline segments. Though constrained in meeting current design standards, the analysis concluded that these segments could continue to convey wastewater with causing a spill hazard.

### Regional Wastewater Treatment

Most of the wastewater generated in the city is conveyed to the Silicon Valley Clean Water (SVCW) treatment plant, which treats wastewater with a two-stage biological treatment process prior to discharge into the deep-water channel of the San Francisco Bay. The SVCW plant services more than 220,000 people and businesses regionally and is located east of the project site at the end of the Redwood Shores community in Redwood City. This regional plant has an average dry weather flow permitted capacity of 29 million gallons per day (MGD) and an approximately 9-mile influent force main that conveys wastewater from the within the service area to five pump stations and ultimately to the treatment plant. The facility incurred no NPDES permit violations in 2021 or 2022, per recent operating budget reports (svcw.org).

Both the city and the SVCW treatment plant have on-going Capital Improvement Programs for the rehabilitation and replacement of the wastewater system, including the conveyance system and treatment plant improvements. As part of the CIP, SVCW identified a series of improvements referred to as the Wastewater Conveyance System and Treatment Plant Reliability Improvement Project. These improvements were designed to ensure that SVCW can efficiently convey and treat wastewater from its four member agencies over time. Improvements are wide ranging, including gravity pipeline, force main improvements, lift stations, headworks facility, odor control facilities, flow diversion structures and other components to enhance conveyance and treatment. The 22-acre treatment plant site has limited land for horizontal expansion (SVCW, 2017).

### Stormwater

The city's storm drainage infrastructure consists of 28 miles of storm drainpipes and two storm pump stations. Four main drainage areas – Belmont Creek, Laurel Creek, O'Neill Slough and Island Park Belmont Creek – collect about 80 percent of the storm runoff in the city. Belmont Creek is the primary storm drainage convenance in the city and is located immediately adjacent to the project site. The city is with a permittee of the Municipal Regional Stormwater Permit (MRP) issued by the California Regional Water Control Board.

The project site currently includes approximately 39,904 square feet of building footprint, 211,238 square feet of impervious paving, and 49,988 square feet of pervious landscaping. Stormwater generated at the site is collected on the property and flows through a private pump station prior to discharge into Belmont Creek. See Chapter 13, Hydrology and Water Quality for more information on surface drainage.

### Solid Waste

The City of Belmont is a member of the South Bay Waste Management Authority (SBWMA), also known as Rethink Waste. This agency is a joint powers authority whose other members include Atherton, Burlingame, Foster City, Hillsborough, Menlo Park, Redwood City, San Carlos, San Mateo, WBSD, and San Mateo County.[1] The City of Belmont has an agreement with Recology of San Mateo County (Recology), which provides waste collection, waste reduction recycling and composting services. Residential and commercial waste is sent to Shoreway Environmental Center on Shoreway Road for processing. The Shoreway Environmental Center is a regional recycling and transfer station owned by Rethink Waste and operated by South Bayside Industries (SBI). SBI is responsible for delivering materials to their next destination including organic waste to Blossom Valley Organics in Vernalis and Newby Island in San Jose, landfill waste to Ox Mountain Landfill in Half Moon Bay, construction and demolition waste to Zanker Recycling in San Jose, and recyclable waste to domestic and international markets (rethinkwaste.org).

Ox Mountain Sanitary Landfill (also known as Corinda Los Trancos Sanitary Landfill) has a permitted capacity to handle 3,598 tons per day. The remaining capacity available at the landfill is 22,180,000 cubic yards (CalRecycle, 2020). The landfill collects construction and demolition waste, sludge (biosolids), asbestos, tires, and mixed municipal wastes.

[1] City of Belmont, *2035 General Plan*, page 5-18

The San Mateo County Office of Sustainability has documented that this landfill has sufficient capacity to accommodate waste materials through the year 2039.[2]

Biomedical or similar waste subject to a Medical Waste Management Plan (such as a laboratory) typically involves the facility contracting with private, specialized companies to collect and dispose of waste at a licensed treatment, storage and disposal facility.

#### Electricity and Natural Gas

Electricity and natural gas in the city is provided by Pacific Gas & Electric (PG&E). In 2018 (the most recent year for which data is provided), the sources of electricity consisted of 15 percent from natural gas, 34 percent from nuclear power, 13 percent from large hydroelectric, and 39 percent from renewables (PG&E, 2020a). Local PG&E distribution lines are located in the public rights of way and currently connect to the project site.

#### Telecommunications

AT&T and Comcast currently provide telecommunication, cable television, and Internet services to the project site.

## 19.4 Applicable Regulations, Plans, and Standards

### 19.4.1 Federal

#### Water

##### Federal Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells. The SDWA applies to every public water system in the United States. The SDWA authorizes the U.S. Environmental Protection Agency (US EPA) to set national health-based standards for drinking water to protect against both naturally occurring and man-made contaminants that may be found in drinking water. The US EPA, states, and water systems work together to make sure that these standards are met.

Originally, the SDWA focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments greatly enhanced the existing law by recognizing source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water. This approach ensures the quality of drinking water by protecting it from source to tap.

The National Primary Drinking Water Standards establish the maximum contaminant levels (MCLs) allowed in public distribution systems. The National Secondary Drinking Water Standards establish the MCLs that apply to potable water supplies at the point of delivery to the customer. The EPA administers the SDWA at the federal level and establishes MCLs for bacteriological, inorganic, organic and radiological contaminants.

[2] Correspondence from Republic Services to Mr. Gordon Tong, San Mateo Office of Sustainability, July 2019.

#### Wastewater

##### Clean Water Act

The Federal Water Pollution Control Act of 1972, more commonly known as the Clean Water Act (CWA), regulates the discharge of pollutants into watersheds throughout the U. S. Under the CWA, the United States Environmental Protection Agency (U.S. EPA) implements pollution control programs and sets wastewater treatment standards.

##### National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established pursuant to the CWA to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Wastewater discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage treatment plant.

In California, the federal requirements are administered by the State Water Resources Control Board (SWRCB), and individual NPDES permits are issued by the California Regional Water Quality Control Boards (RWQCBs).

#### Solid Waste

##### Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. After several amendments, the Act as it stands today governs the management of solid and hazardous waste and underground storage tanks (USTs). The RCRA is an amendment to the Solid Waste Disposal Act of 1965. The RCRA has been amended several times, most significantly by the Hazardous and Solid Waste Amendments (HSWA) of 1984. The RCRA is a combination of the first solid waste statutes and all subsequent amendments. The RCRA authorizes the Environmental Protection Agency (EPA) to regulate waste management activities. The RCRA authorizes states to develop and enforce their own waste management programs, in lieu of the Federal program, if a state's waste management program is substantially equivalent to, consistent with, and no less stringent than the Federal program.

### 19.4.2 State and Regional

#### Water Supply

##### Senate Bill 610

Senate Bill (SB) 610 amended the Public Resources and Water Codes as they pertain to consultation with water supply agencies and water supply assessments. SB 610 requires water supply assessments (WSAs) for “projects” as that term is defined by Water Code Section 10912, which are subject to CEQA. SB 610

requires a city or county that determines a project is subject to the CEQA to identify any public water system that may supply water for the project and to request those public water systems to prepare a specified water supply assessment (WSA), except as otherwise specified. This WSA must be included in the administrative record (and included in environmental documentation for projects subject to CEQA) that serves as the evidentiary basis for an approval action by the city or county on such projects.

### Senate Bill 221

Whereas SB 610 requires a written assessment of water supply availability, SB 221 requires lead agencies to obtain an affirmative written verification of sufficient water supply prior to approval of certain specified subdivision projects. For this purpose, water suppliers may rely on an Urban Water Management Plan (if the proposed project is accounted for within the UWMP), a Water Supply Assessment prepared for the project, or other acceptable information that constitutes "substantial evidence."

"Sufficient water supply" is defined in SB 221 as the total water supplies available during normal, single-dry and multiple-dry water years within the 20-year (or greater) projection period that are available to meet the projected demand associated with a proposed project, in addition to existing and planned future uses.

### The Water Conservation Act of 2009

California legislation enacted in 2009 as Senate Bill (SB) 7 of the 7th Special Legislative Session (SB X7-7) instituted a new set of urban water conservation requirements known as "20 percent by 2020." These requirements stipulate that urban water agencies reduce per capita water use within their service areas by 20 percent relative to their use over the previous 10 to 15 years.

### Porter-Cologne Water Quality Control Act

California's Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act) grants the State Water Resources Control Board (SWRCB) and the RWQCBs power to protect surface water and groundwater quality and is the primary vehicle for implementing California's responsibilities under the Federal Clean Water Act. The SWRCB is divided into nine regions, each overseen by a RWQCB. The SWRCB is responsible for protecting California's surface waters and groundwater supplies.

Each RWQCB must formulate and adopt a Water Quality Control Plan (Basin Plan) for its region. The Basin Plan must conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State Water Policy. The Basin Plan establishes beneficial uses for surface and groundwater in the region and sets forth narrative and numeric water quality standards to protect those beneficial uses. Basin plans are updated every three years and provide the basis of determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. The Porter-Cologne Act also states that an RWQCB may include water discharge prohibitions applicable to particular conditions, areas, or types of waste within its regional plan. The Porter-Cologne Act is also responsible for implementing Clean Water Act Sections 401 and 402 and 303(d) to SWRCB and RWQCBs.

### The 2014 Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act of 2014 (SGMA), enacted in October 2014, applies to all groundwater basins in the state. Any local agency that has water supply, water management or land use

responsibilities within a groundwater basin may elect to be a "groundwater sustainability agency" for that basin. Local agencies have until January 1, 2017, to elect to become or form a groundwater sustainability agency.

In the event a basin is not within the management area of a groundwater sustainability agency, the county within which the basin is located will be presumed to be the groundwater sustainability agency for the basin. By enacting the SGMA, the legislature intended to provide local agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater within their jurisdictions.

### Wastewater

#### San Francisco Bay Regional Water Quality Control Board

The San Francisco Bay Regional Water Quality Control Board (RWQCB) is the local division of the SWRCB that has wastewater oversight authority over the project. SWRCB is a State department that provides a definitive program of actions designed to preserve and enhance water quality and to protect beneficial uses of water in California. NPDES permits allow the RWQCB to collect information on where the wastewater is disposed, what type of wastewater is being disposed, and what entity is disposing of the wastewater. The RWQCB is also charged with conducting inspections of permitted discharges and monitoring permit compliance. Please also refer to Chapter 13, Hydrology & Water Quality, for discussion on water quality monitoring in the city.

### Stormwater

#### San Francisco Bay RWQCB Basin Plan

The San Francisco Bay RWQCB regulates water quality in accordance with the area's Basin Plan, which lists the beneficial uses that the RWQCB has identified for local aquifers, streams, marshes, rivers, as well as the water quality objectives and criteria that must be met to protect these uses. The RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements, including permits for nonpoint sources such as the urban runoff discharged by a city's stormwater drainage system. The Municipal Regional Stormwater Permit (MRP) for San Mateo County requires local agencies in to incorporate stormwater controls in development projects, and provides specific guidelines on design measures, source controls, stormwater treatment measures, hydromodification management, and construction site controls. The Basin Plan also describes watershed management programs and water quality attainment strategies. See Chapter 13, Hydrology and Water Quality, for details regarding regulation of stormwater quality.

### Solid Waste

#### California Integrated Waste Management Act

California's Integrated Waste Management Act of 1989 (AB 939) requires that cities and counties divert 50 percent of all solid waste from landfills as of January 1, 2000, through source reduction, recycling, and composting. AB 939 also establishes a goal for all California counties to provide at least 15 years of ongoing landfill capacity.

To help achieve this goal, the Act requires that each city and county prepare a Source Reduction and Recycling Element to be submitted to the Department of Resources Recycling and Recovery (CalRecycle),

a department within the California Natural Resources Agency, which administers programs formerly managed by the State's Integrated Waste Management Board and Division of Recycling.

As part of CalRecycle's Zero Waste Campaign, regulations affect what common household items can be placed in the trash. Certain household materials—including fluorescent lamps and tubes, batteries, electronic devices and thermostats—that contain mercury are no longer permitted in the trash and must be disposed separately at Ox Mountain Landfill.

In 2007, SB 1016 amended AB 939 to establish a per capita disposal measurement system. The per capita disposal measurement system is based on a jurisdiction's reported total disposal of solid waste divided by a jurisdiction's population. CalRecycle sets a target per capita disposal rate for each jurisdiction. Each jurisdiction must submit an annual report to CalRecycle with an update of its progress in implementing diversion programs and its current per capita disposal rate.

#### California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act requires areas in development programs to be set aside for collecting and loading recyclable materials. The Act requires CalRecycle to develop a model ordinance for adoption by any local agency relating to adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model, or an ordinance of their own, governing adequate areas in development programs for collection and loading of recyclable materials.

#### CALGreen Building Code

The California Green Building Standards Code (CALGreen) came into effect for all projects beginning after January 1, 2011. Section 4.408, Construction Waste Reduction Disposal and Recycling, mandates that, in the absence of a more stringent local ordinance, a minimum of 50 percent of non-hazardous construction and demolition debris must be recycled or salvaged. The Code requires the applicant to have a waste management plan for on-site sorting of construction debris.

### 19.4.3 Local

#### Belmont General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. General Plan policies relative to utilities and service systems are identified below. Relevant General Plan Policies that directly address reducing and avoiding environmental issues related to utilities and service systems include the following:

**Conservation Element**

Policy 5.6-1: Work with the Mid-Peninsula Water District to meet State targets for reducing per capita urban water use.

Policy 5.6-3: Encourage the Mid-Peninsula Water District to continue and expand its water conservation programs.

Policy 5.6-5: Continue the City's Water Conservation Strategy to reduce water use, control water cost, and promote environmental sustainability in municipal buildings, parks, landscaped areas, and athletic fields, as feasible and appropriate.

Policy 5.7-1: Continue to make improvements and upgrades to the wastewater system, consistent with the City's Sanitary Sewer System Capacity Analysis and the Silicon Valley Clean Water Conveyance System Master Plan.

Policy 5.7-2: Periodically review and update development impact fees, wastewater connection charges, and monthly service charges to ensure that adequate funds are collected to operate and maintain existing facilities and to construct new facilities.

Policy 5.7-3: Partner with Silicon Valley Clean Water to develop and implement a local purified/recycled water (treated wastewater) program for Belmont, as technology and infrastructure allow.

Policy 5.8-1: Promote solid waste reduction, recycling, and composting to Belmont residents and businesses as an important way to conserve limited natural resources and reduce greenhouse gas emissions.

Policy 5.9-2: Encourage development projects of all sizes to incorporate site design measures that facilitate groundwater recharge and natural hydrological processes, allowing stormwater to infiltrate the ground on-site and/or be collected for reuse in landscaping and designated to on-site stormwater detention facilities. Such measures may include:

- Canopy trees or shrubs to absorb rainwater;
- Grading that lengthens flow paths over permeable surfaces and increases runoff travel time to reduce the peak hour flow rate;
- Partially removing curbs and gutters from parking areas where appropriate to allow stormwater sheet flow into vegetated areas;
- Installation of green roofs on buildings;
- Use of permeable paving in parking lots and other areas characterized by significant impervious surfaces;
- On-site stormwater detention, use of bioswales and bioretention basins to facilitate infiltration; and
- Integrated or subsurface water retention facilities to capture rainwater for use in landscape irrigation and other non-potable uses.

**Land Use Element**

Policy 2.3-4: Focus new development in or directly adjacent to already-developed areas, where it can be served by existing public services and infrastructure.

### Belmont City Code (Municipal Code)

#### Chapter 15.5 – Overhead Utility Facilities

Chapter 15.5 of the City Code establishes guidelines for modifications and undergrounding of poles, overhead wires and associated overhead structures within designated areas of the city, designated by public hearing. These designations on the basis of public necessity, health, safety, or welfare requiring removal of overhead utilities establish the time within which such removal and any subsequent underground installation shall be completed by, and which properties may be impacted.

### Chapter 21 Article V – Sewers and Sewage Disposal Use Regulations

Belmont City Code Chapter 21, Article V establishes the city's standards and conditions regarding sewer mains and sewerage disposal. This chapter establishes and enables the city to comply with applicable laws surrounding discharges into the jointly-used wastewater collection and treatment system.

### Chapter 21 Article VI – Storm Sewer System

Chapter 21 Article VI of the City Code establishes regulations to ensure that the city's storm sewer system only be used for drainage of rainwater, landscape and irrigation runoff, regulated discharges and other types of uncontaminated or unpolluted water runoff.

### Chapter 25.5 – Water Conservation Ordinance

The city's Water Conservation ordinance, outlined in Chapter 25.5 of the Belmont City Code, regulates water use in Belmont. This ordinance establishes control measures to ensure current water users conserve water. It also outlines measures to be taken for new development in order to maximize water conservation.

### Chapter 33 – Mandatory Organic Waste Disposal Regulations

Chapter 33 of the City Code outlines the regulations for disposal of organic waste in the City of Belmont. These regulations establish the requirements of participation in the city's organic waste collection service based for varying sizes of waste generators.

## 19.5 Environmental Impacts and Mitigation Measures

### 19.5.1 Significance Criteria

The following significance criteria for utilities and service systems were derived from the Environmental Checklist in CEQA Guidelines Appendix G. These significance criteria have been amended or supplemented, as appropriate, to address lead agency requirements and the full range of impacts of the project.

An impact of the project would be considered significant based on the following thresholds.

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- 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.
- Comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

### 19.5.2 Summary of No and/or Beneficial Impacts

Not applicable.

### 19.5.3 Impacts of the Proposed Project

**Impact UTIL-1: The project will require construction to connect and/or upgrade service systems to support the project. This is a less than significant impact with construction mitigation incorporated.**

#### Water Supply and Fire Flow Infrastructure

Based on the project's utility plans, water service to the project (for domestic use and fire) proposes to connect to the existing 12 inch main within Sem Lane at two locations. New lateral domestic water lines and fire flow lines are proposed as separate, independent connections along Sem Lane. Domestic water and fire flow lines would service the two office buildings, with the parking garage served by fire flow only.

Construction of these improvements would occur at the same time as other construction for the project. Physical construction would involve some trenching within the public rights of way, pipe installation, backfilling, compaction and repaving. Traffic management consistent with industry standards would be employed to allow continued safety and circulation around the construction area.

#### Sanitary Sewer Infrastructure

The proposed project would connect to the existing 18-inch sanitary sewer line located within Shoreway Road at two locations. Sewer laterals would be constructed internal to the project site to service both office buildings. These physical improvements would result in temporary construction impacts along Shoreway Road similar to water system impacts identified previously, including trenching and temporary disruption within in the public right of way. The improvements would be scheduled and constructed concurrent with the rest of the project, including demolition and removal of existing improvements that are no longer needed. Construction of significant line replacements, upgrades, pump stations or other significant off-site sewer improvements would not be required.

#### Storm Drain Infrastructure

Consistent with current stormwater and water quality regulations, the project will capture and manage stormwater flows through a series of drainage zones within the project boundaries. Stormwater would be managed by a series of catch/bioretention basins and flow through planters, ultimately flowing to the northeast corner of the property to an existing sump pump. After on-site treatment, runoff would be discharged to Belmont Creek similar to existing conditions. On-site storm water treatment facilities would be constructed (including demolition and removal of some existing improvements) concurrent with and as part of the project. See Chapter 13 regarding drainage system capacity, changes to hydrology and water quality.

#### Dry Utilities

Dry utilities (electricity, natural gas and telecommunications) currently service the property, via an 8-inch, high pressure natural gas line and electrical connections within Shoreway Road. Given these existing services adjacent to the project, no significant extensions would need to be constructed.

### Mitigation Measures

The specific impacts of construction – dust, noise, water quality, aesthetics, and traffic management – have been considered within those various chapters of this Draft EIR and are addressed through a combination of General Plan EIR mitigation measures (AQ-1, AQ-3 and AQ-4), project-specific mitigation measures (MM N-1.1 and MM AES-1.1) and several existing ordinances, regulations and standards governing construction methods. As the installation of infrastructure occurs in the early stages of project construction, those same measures and regulations will serve to effectively mitigate the temporary impacts associated with the construction and connection to all wet and dry utility systems. No additional or specific mitigation is warranted as it relates to the construction of these facilities and systems.

**Impact UTIL-2**: **The project would have sufficient water supplies to serve the project and reasonably foreseeable development during normal, dry and multiple dry years. This is a less than significant impact**.

### Construction

Water usage during construction would be limited to needs for dust suppression, equipment, cleanup, establishing landscaping and other incidental uses. During construction, water will likely be supplied through contracted site services as existing service systems may be tied off for construction. Compared to existing/historic water use at the site and office building, water use during construction will be nominal, short term, and impacts related to water supplies would therefore be **less than significant**.

### Operation

#### Total Project Water Demand and Conservation Measures

Water demand calculations were identified in the project's water supply assessment (WSA, EKI Water & Environment, October 2022) as peer reviewed by Kimley-Horn. EKI utilized water use information for an office/R&D campus project constructed in the last ten years to estimate average annual water demand for the proposed project. As noted in the WSA, water demand estimates assumed for R&D (which may include laboratories) are greater than for traditional office and commercial uses, and therefore the water demand for the 1301 Shoreway office project is considered conservative. These estimates were evaluated relative to current water use by similar uses in the region. Table 19-1: Estimated Annual Project Water Demand includes a summary of the water demand projections associated with the proposed land uses at project completion.

**Table 19-1: Estimated Annual Project Water Demand**

| Water Use | Area (SF) | Demand Factor | Demand Factor Units | Total Project Annual Water Demand (MGY) |
|---|---|---|---|---|
| Office/R&D | 542,035 | 0.18 | gpd/sf | 36 |
| Irrigation | 42,509 | n/a | n/a | 0.49 |
| Parking Garage | 441,280 | 0.02 | Gal/sf/cleaning | 0.11 |
| Distribution System Losses | n/a | 3.4% | % | 1.28 |
| Existing Site Demand | n/a | n/a | n/a | -2.70 |
| **Net Annual Water Demand** | | | | **35 MGY** |

Source: EKI, 2024.

The MPWD and the City of Belmont have adopted water efficient landscape ordinances consistent with the California Model Water Efficient Landscape Ordinance (MWELO). The City of Belmont has also adopted green building standards consistent with previous versions of the CalGreen building standards. As part of state requirements, all new developments must comply with these efficiency standards. As such, the proposed project development is required to include a number of water-efficient features, including, but not limited to:

- Use of low-flow lavatory faucets, kitchen faucets, toilets, and urinals in accordance with CalGreen Code; and
- Inclusion of low-water use landscaping and high efficiency irrigation systems to minimize outdoor water use in accordance with the MWELO.

In addition to the two office buildings, the project would include nine levels of above-grade parking totaling approximately 441,280 square feet. Water use associated with this space is anticipated to be minimal, limited to occasional cleaning of the facility. Outdoor water use was calculated for irrigated landscaping based on MWELO and DWR methodology. As noted in Table 19-1, net water demand was calculated by adding all sources of potential domestic use for the project, minus existing demand.

Using the more conservative demand estimates, the project is estimated to use greater than 13 times more water than the site's existing use from 2019 to 2021, even with application of these conservation measures. Actual use is likely to be less, given the methods used for the demand estimates.

## Project Demand Relative to MPWD Service Area Demand

Consistent with the Urban Water Management Plan (UWMP) Act (Water Code §10610-10657), the District's 2020 UWMP presents estimates of projected future water demand in five year increments, between the years 2025 and 2045 (MPWD, 2021). While the 2020 UWMP water demand projections account for background growth within the MPWD, it was determined by the District that the projected demand associated with the proposed project was not explicitly accounted for in the projected demand growth anticipated by the 2020 UWMP. In addition to the proposed project, MPWD has also received requests to prepare WSAs for the 642 Quarry Road (San Carlos) and 601 Harbor Boulevard (Belmont) development projects, both of which are redevelopment projects proposing the construction of new office and/or life science R&D uses.

Table 19-2: Projected Future Water Demand for Mid-Peninsula Water District below shows projected future water demand for MPWD based on the UWMP and forecasted growth, with the addition of the 1301 Shoreway project and these other specific proposed projects that were not accounted for in the UWMP projections.

**Table 19-2: Projected Future Water Demand for Mid-Peninsula Water District**

| Water Demand | Projected Annual Water Demand (MG) | | | | |
|---|---|---|---|---|---|
| | 2025 | 2030 | 2035 | 2040 | 2045 |
| MPWD District 2020 UWMP | | | | | |
| Single Family | 553 | 542 | 546 | 552 | 559 |
| Multi-Family | 147 | 143 | 143 | 143 | 144 |
| Commercial | 137 | 146 | 153 | 151 | 150 |
| Industrial | 35 | 32 | 29 | 27 | 25 |
| Institutional/Governmental | 34 | 34 | 36 | 37 | 38 |
| Landscape | 76 | 79 | 84 | 84 | 90 |

| | | | | | |
|---|---|---|---|---|---|
| Losses | 61 | 61 | 61 | 60 | 64 |
| 1301 Shoreway Road Project | 0 | 35 | 35 | 35 | 35 |
| Other Proposed Development Projects | 53 | 53 | 53 | 53 | 53 |
| **Total Water Demand** | **1,096** | **1,125** | **1,140** | **1,142** | **1,158** |

Source: Mid-Peninsula Water District, 2020 Urban Water Management Plan, September 2021

Based on this information, this WSA concluded that MPWD's contractual Individual Supply Guarantee (ISG) allocation of 3.891 million gallons per day (MGD) from SFPUC is sufficient to meet projected future demands within its service area. MPWD's future demands, inclusive of the project and two other reasonably foreseeable new development projects, are projected to reach, at most, 82% of the District's contractual ISG allocation in hydrologically normal years through 2045. Further, supply shortfalls that are currently projected during dry years are anticipated to occur irrespective of the three development projects. A significant source of uncertainty is how and when the Water Quality Control Plan for the San Francisco/Sacramento-San Joaquin Delta Estuary (Bay- Delta Plan Amendment) will be implemented and how it will affect the supply reliability of the City and County of San Francisco's Regional Water System (RWS).

The District will address projected shortfalls through implementation of the District's Water Shortage Contingency Plan (WSCP). In addition, as described in the WSA, the District, BAWSCA, and SFPUC are pursuing the development of additional water supplies to improve the RWS and District supply reliability. For these reasons, the WSA concluded that the District's total projected water supplies available during normal, single dry, and multiple dry water years during a 20- year time horizon will meet the projected water demand associated with the proposed project, in addition to the District's existing and planned future uses, with the implementation of its WSCP during dry years. Based on these contingency plans, the project's impact on water supply reliability is **less than significant**.

**Impact UTIL-3**: **The wastewater conveyance system (City of Belmont) and wastewater treatment provider (Silicon Valley Clean Water) have sufficient capacity within the wastewater system to accommodate the project. This is a less than significant impact.**

### Project Operations - Wastewater Treatment

SVCW's Wastewater Treatment Plant is located in the Redwood Shores area of Redwood City. The plant processes all wastewater delivered from the member agencies' service areas via the conveyance system. The plant is comprised of liquid and solids treatment processes. This regional plant has an average dry weather flow permitted capacity of 29 million gallons per day (MGD), and currently has a dry weather flow of between 12 and 13 MGD.[3] As a Joint Powers Authority (JPA) comprised of four member agencies including the City of Belmont, SVCW and the city regulate and monitor each member's proportionate flows to the treatment plant.

The project's preliminary sanitary sewer technical memorandum (BKF, September 2022) calculated that the project would result in a net increase of wastewater (over existing/historic conditions) based on a unit demand factor of 115 gallons per day per 1,000 square feet of office use. BKF estimated a net increase in average dry weather flow of 45,208 gallons per day (0.045 MGD) and an increase in peak dry

[3] Personal Communication, Jeff Brubaker, SVCW, May 22, 2024.

weather flows of 61,483 gallons per day (0.061 MGD) from the project. A peaking factor for wet weather flow is 9.32 times the average dry weather flow, or an increase of 421,339 gallons per day (0.421 MGD).

Given these increases using the modeling scenarios, compared to the treatment plant's remaining capacity (16-17 MGD), the project's contribution would be **less than significant** relative to the treatment plant's remaining capacity.

### Project Operations – Wastewater Conveyance

As noted above, the applicant prepared a technical memorandum dated September 29, 2022 (BKF Engineers, Inc.) to quantify the projected net increase in wastewater flows created by the project. BKF's calculations are based on City of Belmont data from the city's updated sewer model.

As noted previously, the project site is served by an 18-inch sewer main in Shoreway Road owned by the City of Belmont. As part of the project development, all existing lateral lines from the site to the sewer main will be removed. New 8-inch laterals will be installed and connected to the 18-inch main.

The capacity of the existing 18-inch sewer main in Shoreway Road was estimated by BKF from city data, based on peak wet weather flows. Existing peak wet weather flow is 430 gallons per minute (GPM). With an additional flow of 585 GPM from the project, the total proposed flow in the main is estimated at 1,015 GPM. This net increase would conservatively bring the sewer main to 76 percent of capacity. The technical memo notes that the capacity calculation for PVC piping, such as that proposed for the project, would reduce the peak flow depth to 66% of the pipe's capacity. As peak wet weather flows would not exceed pipeline capacity, the net increase is considered **less than significant**.

## Impact UTIL-4: The project will not generate solid waste beyond the capacity of existing infrastructure or landfills, and would comply with federal, State and local statues related to solid waste. This is a less than significant impact.

### Construction

Construction waste would be generated during construction activities. Construction waste would include demolition and disposal of the existing site improvements (including the existing building and parking lot asphalt) and other waste generated by new construction during the entire construction period. Demolition waste is expected to be taken to Zanker Recycling in San Jose, and/or the Corinda Los Trancos (Ox Mountain) Landfill near Half Moon Bay.

While there is no specific city policy regarding reduction of construction waste, the project would be required to divert waste away from landfills to meet CalGreen construction waste diversion requirements. Compliance with these requirements would result in a **less than significant** impact.

### Operation

As a part of California's continued commitment to reduce the amount of solid waste entering landfills, AB 939 (also known as the California Integrated Waste Management Act) requires each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means.

Solid waste generated by the office project would be handled in accordance with the requirements of AB 939. Garbage service and recycling in Belmont is provided by Recology of San Mateo County.

Commercial solid waste and recyclable materials collected by Recology will be taken to Shoreway Environmental Center, a recycling center and transfer station that implements and manages waste reduction and recycling programs.

As noted previously, solid waste from Belmont is disposed of at the Corinda Los Trancos (Ox Mountain) Landfill near Half Moon Bay. According to the Application for Solid Waste Facility Permit and Waste Discharge Requirements, the Corinda Los Trancos (Ox Mountain) Landfill had an estimated remaining capacity of approximately 20 million cubic yards as of April 30, 2018. More recent (July 2019) information from Republic Services estimates the operational life of the landfill would extend through 2039. On an average, the landfill receives 1,700 tons per day of solid waste. The maximum permitted throughput is 3,598 tons per day.

According to California Department of Resources (CalRecycle) website, estimated solid waste generation for office use can vary. Using an "office" rate of 0.006 pounds per square foot per day[4], the project is estimated to generate 3,252 pounds of solid waste per day if developed as a traditional office campus. This represents a net increase over existing conditions (existing building) of 1.16 tons per day, which would not exceed the landfill's maximum permitted throughput of 3,598 tons per day.

As identified in Chapter 3, Project Description, however, the project's development program assumes 50 percent R&D/life science laboratory, and 50 percent supporting office use. Using that assumption the project would be expected to generate significantly less traditional office solid waste but introduce a biomedical waste stream. As identified above, biomedical or similar waste subject to a Medical Waste Management Plan (such as a laboratory) typically involves the facility contracting with private, specialized companies to collect and dispose of waste at a licensed treatment, storage and disposal facility.

Laboratories with biosafety levels are required to obtain a number of permits from specific federal, State and county agencies. The types of permits vary based on the lab's activities and the biological agents they work with, and those regulations also address waste handling and disposal. The project will be required to development and implement a Medical Waste Management Plan based on its future operations.

Therefore, the proposed project would not generate solid waste that exceeds the landfill capacity, impair the attainment of solid waste reduction goals, or conflict with state regulations related to solid waste, including medical/laboratory waste. Impacts would be **less than significant** in this regard based on CEQA thresholds.

### 19.5.4 Cumulative Impact Analysis

The geographic range for the analysis of cumulative utility and service system service impacts is the reach and capacity of City of Belmont and other local and regional infrastructure that may be affected by a combination of the project, plus background regional growth and other projects as identified in Chapter 4. A combination of these assumptions could place incremental increased demands and capacity constraints upon local utility providers and local infrastructure in and around the city.

[4] https://www2.calrecycle.ca.gov/wastecharacterization/general/rates

**Impact UTIL-5**: **The project could contribute to cumulatively considerable utilities and infrastructure system impacts. This is a less than significant impact with implementation of ongoing City and service provider policies and Capital Improvement Programs.**

## Construction Effects

Construction-related impacts associated with any project's new connections or relocated services or infrastructure would be temporary and mitigated on a project-by-project basis. As projects would typically be constructed on independent schedules, the effects of such impacts would typically not combine to create a unique or significant environmental effect. The need for or location of any future major capital project that may be required as a result of cumulative development is unknown at this time. Analysis of construction impacts for any such improvements would be premature and speculative.

## Water Supply and System Demand

As noted in Impact UTIL-2, the project alone will not result in a significant impact to long term water supplies as projected in the 2020 UWMP, even with the additional (unaccounted for) increase in demand resulting from the project and two other potential projects in the same service area (642 Quarry Road and 601 Harbor Boulevard). However, as these projections and projects collectively could reach up to 82 percent of the District's contractual allocation in normal years through 2045, additional projects and/or intensification of existing land uses could further constrain District supplies, particularly in dry and multiple dry years.

CEQA Guidelines Section 15130 (c) acknowledges that with some projects, the only feasible mitigation for cumulative impacts may involve the adoption or ordinances or regulations rather than the imposition of conditions on a project-by-project basis. That is the case here. The potential for future supply shortfalls are already projected with or without the project. The District will address projected shortfalls through implementation of the District's Water Shortage Contingency Plan (WSCP). In addition, as described herein, the District, BAWSCA, and SFPUC are pursuing the development of additional water supplies to improve the RWS and District supply reliability. Simultaneously, the City of Belmont regularly updates its CIP projects and fee programs, and has adopted General Plan policies 6.6-1, 5.6-3 and 5.6-5 that address water use and conservation measures. Collectively it is reasonable to conclude that these programs, regulations and contingency plans will serve to address the potential for future dry weather shortfalls.

## Wastewater Conveyance and Treatment

As identified in Impact UTIL-3, the project, in addition to modeled background growth within the city and SVCW service areas, would have a less than significant impact on the local 18-inch sewer main and treatment plant capacity. However, additional large scale local projects and/or development intensification could result in additional, unforeseen demands on both specific segments of the conveyance system and/or treatment capacity, particularly during peak wet weather events.

Similar to the discussion of water above, SVCW is continuously engaged in advanced planning and specific improvement projects such as those within the Regional Environmental Sewer Conveyance Upgrade (RESCU) Program, Conveyance System Master Plan and Wastewater Conveyance System and Treatment Plant Reliability Improvement Project. The City of Belmont also regularly updates its CIP projects, Sewer System Capacity Analysis, and has adopted General Plan policies 5.7-1 and 5.7-2

regarding system upgrades and necessary fee updates. Collectively it is reasonable to conclude that these planned and ongoing projects, programs, regulations, and fee adjustments will continue to result in needed system improvements over time.

### Stormwater and Solid Waste

The project and other background growth would not increase demands on the local stormwater system as each new project is required to comply with stringent runoff capture and treatment regulations. With respect to solid waste, the Ox Mountain landfill has a projected capacity of about 15 years, while receiving solid waste from a very large service area. This is sufficient to service cumulative development into the near future. Over the long term it is possible that the landfill could require expansion, and/or alternative locations may be required. The need for or location of any future landfill project that may be required as a result of cumulative development could result in impacts associated with the construction of such a facility. However, the specifics and timing of any future landfill project is unknown at this time and therefore analysis of any such facility would be premature and speculative at this time.

## 19.6 References

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City of San Carlos. Undated. Biosafety FAQ. https://cityofsancarlos.primegov.com

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Mid-Peninsula Water District. 2021. *2020 Urban Water Management Plan*.

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# 20 Alternatives

This section describes the CEQA requirements for the analysis of project alternatives and describes the process used to define alternatives to the proposed project. Based on the project impacts identified, this section describes four alternatives to the proposed project and provides a comparative analysis for each. This discussion includes the evaluation of the No Project Alternative, as required by CEQA, a comparison of alternatives and identification of the environmentally superior alternative.

## 20.1 CEQA Requirements for Alternatives

CEQA requires that an EIR "…describe a reasonable range of alternatives to the 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. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation." (CEQA Guidelines §15126.6(a))

To comply with this requirement, the City of Belmont evaluated possible alternatives based on the following factors:

- Does the alternative accomplish most of the basic project objectives?
- Is the alternative potentially feasible (from economic, environmental, legal, social, technological standpoints)?
- Does the alternative avoid or substantially lessen any significant effects of the proposed project? Alternatives need be environmentally superior to the project in only some, not all, respects.
- Is the alternative reasonable and realistic? An EIR need not consider an alternative whose effect cannot reasonably be ascertained or whose implementation is remote and speculative, because unrealistic alternatives do not contribute to a useful analysis.

Each of these requirements is described in more detail in the following sections.

## 20.2 Consistency with Project Objectives

The basic purpose of an EIR's discussion of alternatives is to suggest ways project objectives might be achieved at less environmental cost. Accordingly, alternatives must be able to meet most project objectives, but they need not meet all of them. As stated in the CEQA Guidelines, the EIR's alternatives analysis should focus on alternatives that can eliminate or reduce significant environmental impacts even if they would impede attainment of project objectives to some degree or be more costly (14 CCR §15126.6(b)). The alternatives discussed must, however, be able to attain most of the basic objectives of the proposed project (14 CCR §15126.6(a)). As stated in Chapter 3, Project Description, the following objectives have been identified for the proposed project:

1. Create an integrated office and/or research and technology campus in an underutilized area of Belmont with a cohesive courtyard and with sufficient parking.

2. Build a project in a highly visible and accessible corridor to increase employment opportunities in the City of Belmont.
3. Create additional green space.
4. Provide Transportation Demand Management measures to reduce and mitigate vehicle miles traveled generated by the project.
5. Achieve architectural compatibility with surrounding vicinity through well-articulated buildings.
6. Address flood elevation requirements.
7. Improve site aesthetics through enhanced landscaping and amenities
8. Provide access to and amenities on lands within Bay Conservation and Development Conservation (BCDC) jurisdiction consistent with BCDC guidelines.
9. Deliver a sustainable and energy efficient project to reduce carbon load impact.
10. Improve street and pedestrian safety as well as vehicular, pedestrian and bicycle access through design efficiencies.

The determination of whether to eliminate or retain alternatives in this EIR was based on staff's review of each alternative's ability to meet most or all of these objectives, even if the alternative may be more costly than the proposed project or have environmental trade-offs.

## 20.3 Feasibility of Alternatives

CEQA requires that an EIR analyze alternatives that are potentially feasible. Among the factors that may be taken into account when addressing the potential feasibility of alternatives include site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or other regulatory limitations, jurisdictional boundaries, and proponent's control over alternative sites in determining the range of alternatives to be evaluated in the EIR (14 CCR 15126.6(f)(1)). The potential feasibility of potential alternatives considers the following factors:

- **Economic Feasibility**. Is the additional cost of the alternative or lost profits from the alternative sufficiently severe to render it impractical and not feasible? Alternatives that are capable of eliminating or reducing significant environmental effects even though they may be more costly must be considered (14 CCR 15126.6(b)). However, if the additional costs of implementing an alternative or lost profitability associated with an alternative are sufficiently severe, then these factors may render the alternative impractical or economically infeasible.
- **Legal Feasibility**. Are there legal constraints to implementing the alternative? For example, constructing the proposed project on an alternative site may not be legally feasible if the applicant does not own the site or applicable land use regulations or property restrictions prohibit the proposed project. For example, the proposed project may not be legally permissible in wilderness areas, wilderness study areas, restricted military bases, airports, and Indian reservations or on property that is not zoned to allow such a use. Any potential legal constraints affecting an alternative are identified based on a review of applicable local, State, and federal laws, regulations, plans, and policies.

- **Social Feasibility**. Would the alternative cause significant damage to the socioeconomic structure of the community and be inconsistent with important community values and needs? Similar to the environmental feasibility addressed below, this subject is primarily considered in regard to significant environmental effects.
- **Technical Feasibility**. Is the alternative feasible from a technological perspective, considering available technology? Are there any construction, operation, or maintenance constraints that cannot be overcome?

## 20.4 Potential to Eliminate Significant Environmental Effects

A key CEQA requirement for an alternative is that it must have the potential to "avoid or substantially lessen any of the significant effects of the project" (CEQA Guidelines Section 16126.6(a)). If an alternative is identified that clearly does not have the potential to provide an overall environmental advantage as compared to the proposed project, it is usually eliminated from further consideration.

### No Project Alternative

In addition to studying a reasonable range of alternatives based on the criteria set forth above, CEQA requires the EIR to analyze a "no-project" alternative. Consideration of the No Project Alternative is required by Section 15126.6(e) of the CEQA Guidelines. The analysis of the No Project Alternative must discuss the existing conditions at the time the Notice of Preparation was published (June 20, 2024), as well as: "what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" (CEQA Guidelines Section 15126.6 (e)(2)). The requirements also specify that: "If 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)).

## 20.5 Alternatives Evaluation Process

The City of Belmont identified a range of alternatives based on the screening criteria set forth above. The city also considered oral and written comments received during the CEQA scoping process that identified specific environmental concerns and factored into the selection process. The range of alternatives considered in the screening analysis encompasses:

- Potentially feasible alternatives that may have been identified during the public scoping process.
- Potentially feasible alternatives that the city has identified as a result of the independent review of the proposed project impacts.

## 20.6 Alternatives Eliminated from Further Consideration

**Alternative Site**. Alternative sites are generally evaluated in an EIR to avoid, lessen or eliminate the significant impacts of a project by considering the proposed development in an entirely different location. To be feasible, development of off-site locations must be able to be legally, practically, and financially viable, as well as meet most of the project's stated objectives.

The evaluation of alternative sites is best used for capital projects such as power plants, treatment plants, solar farms, public facilities and similar uses, where a public agency or other entity has land use

control over multiple sites, and the sites can be evaluated for environmental, financial, scientific or other constraints.

In this case the applicant does not own similar properties in the area with comparable characteristics such as size, compatible General Plan designation, visibility and access. An alternative site, even if available to the applicant, may not necessarily reduce or eliminate any environmental issues compared to the project. For these reasons, an alternative site is not considered feasible.

**Greater Creek Setback**. This alternative concept assumed a design that places the new buildings and parking structure further away from Belmont Creek (toward Shoreway Road) and reduces the amount of parking/pavement within the BCDC jurisdictional boundary. All other aspects of the development program would remain the same. While the intent of the alternative is to provide a greater riparian setback, and would meet most of the project objectives, the existing environmental condition already contains asphalt pavement within the BCDC jurisdictional boundary. Because the project as designed would not encroach on the riparian corridor, has considered BCDC policies, and water quality measures will be built into the project as proposed, such an alternative would not result in tangible environmental benefits based on CEQA thresholds. For these reasons, this alternative has been eliminated from further consideration.

## 20.7 Alternatives Selected for Analysis

### 20.7.1 Alternative A: No Project/No Development Alternative

#### Description

This required alternative assumes that the project as proposed would not be pursued, and that the owner (or future owner) would not pursue development of the property for the foreseeable future. The property is assumed to remain in its current condition with the existing medical office building, which could be leased and re-occupied instead of being demolished. Under this scenario intensification and redevelopment of the property to maximize building potential could occur in the more distant future but is not considered foreseeable at this time. Potential development under existing zoning and entitlements is evaluated under Alternative B, Development Consistent with Existing Zoning.

#### Ability to Meet Project Objectives

The No Project/No Development alternative would not meet the basic objectives of the proposed project. This alternative would result in the site remaining in its current use with the existing underutilized building, which is inconsistent not only with the applicant's stated objectives of improving an underutilized site and increasing employment opportunities, but also inconsistent with the city's vision and economic development objectives for the area as identified in the General Plan.

#### Comparative Analysis of Environmental Impacts

Under the No Project/No Development Alternative, none of the construction and operational project impacts identified in this EIR would occur. The site would remain in its current state for an unidentified length of time, and no intensification, public benefits or improvements would be realized in the near term.

## 20.7.2 Alternative B: Development Consistent with Existing Zoning

### Description

This alternative assumes that the property would be developed to the maximum allowed under the existing RC zoning designation (Belmont Zoning Ordinance Section 5.4). Hypothetically this could result in a project with one or more office buildings with an FAR of 1.8 and a maximum building height of 55 feet. To reach an FAR of 1.8 with existing building heights, the design of the project would require a much larger building footprint, greater site coverage and minimal setbacks. To reach a maximum FAR of 1.8 and provide adequate parking, site coverage could be 75 percent or more to accommodate office buildings and a parking structure.

With a maximum building height of 55 feet, a more realistic development scenario assumes two 4-story buildings of approximately 150,000 square feet each for a total of 300,000 square feet of office space, plus a 5-level parking garage. Based on parking standards for office use (City Code, Section 8A.2), this alternative would provide about 900 parking spaces when using the same 3 spaces per 1,000 square feet standard that the project has proposed. Using a parking structure instead of surface parking would still allow some areas for an open plaza, landscaping, and pedestrian connections, resulting in site coverage of about 45-50 percent (compared to the proposed project's 22 percent).

This alternative is intended to provide lower building heights, eliminate the need for a Planned Unit Development (PD) rezoning process and modified standards, and reduce VMT and GHG emissions as a result of the smaller scale of the development. While the RC district allows for a range of permitted and conditionally permitted uses, this alternative assumes commercial office use/R&D consistent with the project objectives.

### Ability to Meet Project Objectives

This alternative would meet some of the primary project objectives because it would result in a commercial office/R&D campus that that provides employment uses within newly constructed buildings. Other objectives, such as a more vertical design and efficient use of land, level of employment and open space/aesthetic design components, would be compromised. Specifically, this alternative would have difficulty achieving: a cohesive courtyard (Objective 1); additional green space (Objective 3); and architectural compatibility with its surroundings (Objective 5).

### Comparative Analysis of Environmental Impacts

**Aesthetics**. During construction visual changes at the site would be similar to the proposed project, and visual screening mitigation would also be required. With building heights lowered from up to 144 feet to 55 feet, Alternative B would be less visible and dominant from public vantage points and would cast shorter shadows on the neighboring hotel properties. The building heights would also be more consistent with the immediate surroundings. With the greater site coverage and reduced open space, however, the overall aesthetics of the development may not be as visually appealing or interesting.

While the aesthetic impacts from the project did not exceed any significance thresholds and were determined to be less than significant, the visual character and effect from shadow were identified as an environmental change to be disclosed. With lower building heights and reduced shadow, the degree of impact of Alternative B would be slightly reduced but would not reduce aesthetic impacts to a less than significant level.

**Air Quality**. With a reduction in overall square footage, criteria pollutant emissions from both construction and operations would be expected to be reduced with Alternative B. A project of smaller scale would be expected to reduce the construction timeline, and fewer employees would translate to fewer vehicle trips and mobile emissions.

**Biological Resources**. The site has limited biological resources, consisting mainly of non-native trees. With a larger footprint and greater site coverage, Alternative B would likely remove additional trees and have fewer spaces to plant new trees that could support avian species. For this reason, biological resource impact directly related to trees and urban habitat opportunities would be slightly greater with this alternative.

**Cultural and Tribal Cultural Resources**. Both the project as proposed and this alternative would disturb the entire project site and result in near surface earthwork for demolition, trenching and filling to raise the base flood elevation. In this context, the potential effects associated with inadvertent finds of cultural or tribal cultural resources would be similar.

**Energy**. Because Alternative B would result in smaller office development, it is assumed that corresponding energy demand would also be slightly reduced. However, neither the project nor the alternative would result in significant energy impacts under CEQA thresholds.

**Geology and Soils**. As the site would be completely built out as a result of the project or Alternative B, all effects related to seismic risk and soil hazards would be similar. Though the alternative would result in lower building heights, the construction methods, geologic conditions and requirements to comply with existing building codes would be similar to the project.

**Greenhouse Gas Emissions**. Similar to the air quality discussion, GHG emissions from both construction and operations would be expected to be reduced with Alternative B. A project of smaller scale would be expected to reduce the construction timeline and equipment use, and fewer employees would translate to fewer vehicle trips and associated mobile source emissions. Because the city has a qualified Climate Action Plan, impacts would remain less than significant under either scenario with implementation of BAAQMD best practices for construction.

**Hazards and Hazardous Materials**. Similar to the proposed project, Alternative B would require demolition and disposal of the existing building and construction of office buildings of a similar use. Because of the similarities of site conditions, site history, project type and ultimate use, any effects regarding the disposal, transport or exposure to hazardous materials or substance would also be similar.

**Hydrology and Water Quality**. Alternative B would have a larger footprint and site coverage, and therefore have fewer open areas available to be used for stormwater treatment and management. This footprint may also result in a greater percentage of impervious surface and therefore could generate more runoff compared to the project. Under either scenario the site would be completely built out and would still need to be designed consistent with all local, regional and state water quality requirements and it is assumed that all impacts would be reduced to a less than significant level. However, with a greater volume of runoff to be treated and disposed, this alternative would have slightly greater degree of impact related to site drainage patterns, water quality, and quantity of stormwater runoff.

**Land Use, Population and Housing**. By its design, this alternative would result in a project consistent with the General Plan and City Code. That consistency would remove the need for a Planned

Development or similar process to allow for increased building heights, and the project would be wholly consistent with existing policies adopted to minimize environmental effects. It should be noted, however, that any Planned Development application that is approved would also likely include (or be required to include) development standards and/or mitigation measures to similarly reduce environmental consequences to the extent feasible.

Neither the project nor Alternative B would result in significant or unplanned population growth, and neither would displace housing or people. Based on these factors, Alternative B would have similar (less than significant) effects compared to the project.

**Noise.** Alternative B would construct a large project on this site, in the same proximity to nearby land uses and sensitive receptors. While the physical dimensions of Alternative B would be different, the general effects of construction noise and duration would be similar to the project. Similarly, project office and laboratory operations would also be expected to generate similar levels of noise. With the lower building heights under Alternative B, however, rooftop HVAC and ventilation equipment would likely be closer to nearby receptors including the adjacent hotel, with a more direct line of sight compared to the project. While noise levels can be controlled and attenuated under either scenario, this closer proximity to noise sources under Alternative B may result in effects that are slightly greater than the project.

**Public Services and Recreation**. Alternative B would result a scaled down project in terms of use and employment square footage (and therefore a corresponding reduction in the number of employees). Neither the project nor the alternative would generate new population, which is a primary driver for public services and recreational demands. As a comparative exercise, there would be little difference in demand at the site between the project and Alternative B, resulting in similar (less than significant) impacts for both.

**Transportation**. Alternative B, with a 45 percent reduction in square footage, would be expected to result in a corresponding reduction in the number of office employees. While both the project and Alternative B would require a TDM plan and trip reduction strategies, overall VMT would be reduced with the alternative. The modifications to the project design would not be expected to result in line of sight or other safety issues, or conflict with city transportation policies or programs.

**Tribal Cultural Resources**. Similar to the Cultural Resources discussion, both the project as proposed and this alternative would disturb the entire project site and result in near surface earthwork for demolition, trenching and filling to raise the base flood elevation. In this context, the potential effects associated with inadvertent finds of tribal cultural resources would be similar.

**Utilities.** Because the project site has access to utility connections in Sem Lane and Shoreway Road, incidental and temporary effects related to utility construction and connection would be similar. However, as the reduced project size would incrementally reduce demand upon water supply and sewer capacity, the project's degree of impact on these resources and systems would be slightly reduced. Impacts for both the proposed project and Alternative B would be less than significant based on CEQA standards.

## 20.7.3 Alternative C: Reduced Parking Alternative

### Description

This alternative assumes a reduction in total parking from 1,626 proposed vehicle spaces to 1,300 (20 percent reduction from the minimum office parking standard). The alternative may require adjustments to the development program to accommodate the new parking plan or a smaller parking structure. A smaller parking structure could be designed with either a lower height, or slightly smaller footprint. Under this scenario, parking standards would be relaxed, with the project relying more heavily on Transportation Demand Management (TDM) measures to manage and reduce parking demand. The intent of this alternative is to reduce overall vehicle miles travelled (VMT) and greenhouse gas emissions through the promotion of alternative transportation modes.

### Ability to Meet Project Objectives

This alternative would meet most of the basic objectives of the project, as the overall development program would be similar. However, this alternative would have difficulty achieving sufficient parking (Objective 1). With a smaller parking structure, there would be more opportunities for providing open space or other amenities within the site plan. The practical trade off to this alternative is more limited on-site parking for employees and visitors.

### Comparative Analysis of Environmental Impacts

**Aesthetics**. With a similar project footprint but slightly smaller parking structure, the overall appearance of the project, building heights, visual access and visual changes would remain similar with Alternative C. The project's massing, shade and shadow and general character within the community would be similar compared to the proposed project.

**Air Quality**. With a 20 percent reduction in parking spaces, construction-related emissions would be similar but operational emissions are assumed to be slightly reduced due to a reduction in private vehicle trips and enhanced TDM measures.

**Biological Resources**. With a similar development footprint on the property, Alternative C would be expected to result in similar physical effects regarding biological resources, tree removal, riparian areas and bird strike.

**Cultural Resources**. Alternative C would result in a similar amount of grading and ground disturbance as the proposed project, and therefore result in similar potential effects regarding inadvertent discovery of resources.

**Energy.** With a 20 percent reduction in parking spaces, construction-related energy consumption would be similar but operational energy use associated with automobiles would be expected to be slightly reduced due to a reduction private vehicle use.

**Geology and Soils**. With a similar overall development footprint and building types, Alternative C would be expected to result in similar effects regarding seismic, geological and soil related hazards.

**Greenhouse Gas Emissions**. With a 20 percent reduction in parking spaces, construction-related GHG emissions would be similar but operational emissions are assumed to be slightly reduced due to a reduction in private vehicle trips and enhanced TDM measures.

**Hazards and Hazardous Materials**. With Alternative C, all internal uses of the proposed buildings (office and R&D/laboratory) would be the same, resulting in similar risks and regulatory requirements.

**Hydrology and Water Quality**. Alternative C would result in a similar area of site coverage and a comparable amount of impervious surface. As such, all potential effects related to increased runoff, erosion and water quality controls would also be similar to the proposed project.

**Land Use, Population and Housing**. Alternative C, with a 20 percent reduction in parking, would have no measurable differences compared to the proposed project in terms of land use, population, or policy consistency. All potential effects would therefore be similar.

**Noise.** With a development program similar to the proposed project, all construction related noise sources associated with Alternative C would be expected to be the same. With respect to project operations, all uses internal to the buildings and associated noise would be the same (such as rooftop equipment and HVAC systems). While a 20 percent reduction in parking could result in less on-site traffic and vehicles, measurable changes in noise levels are not expected. For these reasons, predicted changes in the noise environment would be similar with Alternative C.

**Public Services and Recreation**. Alternative C would result in the same number of employees as the proposed project, and therefore would have similar effects regarding public service demands and use of nearby recreational facilities.

**Transportation**. While the number of employees with Alternative C would be the same as the proposed project, a 20 percent reduction in parking availability would be expected to result in greater reliance on alternative modes of transportation and public transit for commuting workers. With a constrained parking supply, TDM measures such as more frequent shuttles, ride-share and transit incentives, staggered work hours, bicycle amenities and other measures could effectively reduce the number of single-occupancy private vehicles parking at the complex. This change in behavior could result in fewer vehicle miles travelled (VMT) and would support city policies related to promoting transit. As such, potential effects of Alternative C would be reduced compared to the project.

**Tribal Cultural Resources**. Alternative C would result in a similar amount of grading and ground disturbance as the proposed project, and therefore result in similar potential effects related to the inadvertent discovery of tribal resources.

**Utilities.** Alternative C, with a 20 percent reduction in parking, would maintain all interior office and R&D uses within the proposed buildings. The 20 percent reduction in parking would have no measurable effect on water, sewer, or other utility construction or demand. Potential effects would therefore be similar.

### 20.7.4 Alternative D: Office Use Only

#### Description

This alternative concept assumes that the proposed buildings are constructed and used only for professional office space, with no programmed laboratory or manufacturing uses. Multiple tenants could occupy the space, or the buildings could be leased to one or more larger tenants. The type of potential tenants could be wide ranging, such as financial services, technology, academics and research (non-laboratory), consulting services, corporate headquarters, medical office or similar uses. Ground

floor spaces could also include limited supporting commercial uses such as food service/cafes and convenience services. The total number of employees occupying the buildings under Alternative D could be slightly greater, as laboratory spaces could involve larger interior working spaces and higher ceilings (compared to typical private offices and work stations). All other aspects of the development program and design would remain the same. The intent of the alternative is to remove the laboratory elements and specialized design features required for a BSL-3 facility and reduce energy and water consumption, while meeting most or all of the project objectives.

### Ability to Meet Project Objectives

This alternative would meet all of the primary project objectives (stated objectives 1 through 10) because it would create a highly visible office campus, serve as a significant employment generator, create greenspace and provide amenities, address flood elevation requirements, etc. The project could also meet the applicant's financial and technological objectives for the property.

### Comparative Analysis of Environmental Impacts

**Aesthetics**. With building heights and development intensity nearly identical to the project as proposed, Alternative D would be expected to have similar environmental consequences in terms of community character, visual access to the Bay, and shade/shadow. It is expected that the impact would remain less than significant based on CEQA standards.

**Air Quality**. Changes in construction and operational emissions would be expected to be negligible with Alternative D. Because life science and biomedical research uses would typically involve more energy use and specialized HVAC equipment (and resulting indirect emissions), an office-only alternative would be expected to result in a slight reduction in the generation of criteria pollutants, particulate matter or odors. A slight increase in mobile source emissions could occur with additional employees; however, this would depend on the ultimate end user(s) and internal configuration of the space. Considering these environmental tradeoffs, the air quality effects of Alternative D are predicted to be slightly reduced compared to the proposed project as a matter of degree but would not avoid or eliminate an identified significant impact.

**Biological Resources**. The majority of the site and building footprint have limited biological resources, consisting of mainly non-native trees. With Belmont Creek along the project's eastern boundary, construction and operation of the project is subject to several protective measures to avoid impacts to sensitive habitats and water quality. As Alternative D would occupy the same building footprint, potential effects on biological resources would be similar and require the same mitigation.

**Cultural and Tribal Cultural Resources**. Both the project as proposed and this alternative would disturb the entire project site and result in surface disturbance and import of fill to raise the base flood elevation. In this context, the potential effects associated with inadvertent finds of cultural or tribal cultural resources would be similar.

**Energy**. Without the use of specialized equipment and technologies that are more energy intensive to support life science laboratory and research uses, Alternative D would be expected to result in reduced energy consumption compared to the proposed project. However, as the project's estimated energy use did not exceed established significance thresholds, the net result of Alternative D would be a slight reduction in the degree of impact based on CEQA standards.

**Geology and Soils**. As the site would be completely built out as a result of the project or this alternative, all effects related to seismic risk and soil hazards would be similar. The construction methods and geologic conditions would be the same as the project, and the same mitigation would apply.

**Greenhouse Gas Emissions**. Compared to the project as proposed, Alternative D would be expected to generate fewer GHG emissions from stationary sources than the project due to larger energy loads assumed with life science laboratory use. In terms of mobile sources (associated with employee vehicle trips), however, Alternative D could yield slightly higher GHG emissions assuming a slight increase in the number of employees within the buildings if the interiors are programmed for traditional office. With a decrease in stationary source emissions and minor increase in mobile sources, GHG impacts would be expected to be slightly reduced with Alternative D. Based on the EIR analysis, however, neither the project nor Alternative D would result significant environmental impacts based on established thresholds.

**Hazards and Hazardous Materials**. Compared to the project as proposed, Alternative D would result in reduced risk of upset related to the transport, use and disposal of hazardous materials and substances. Potential tenants and end users in a BSL 2 or BSL 3 facility could use or produce toxic substances, microbes and biological and/or medical materials and associated waste, which may require additional or specialized training for local first responders. Working with these materials would require specialized treatment, handling, containment and disposal. Alternative D, with traditional office uses only, would not involve the use or handling of these materials, or specialized response. While BSL 3 laboratories are designed and constructed for a specific purpose, are heavily regulated and contamination incidents are unlikely to occur, removing the potential for hazardous material exposure and risk of release during operations represents a reduced impact based on CEQA thresholds.

**Hydrology and Water Quality**. As the site would be completely built out as a result of the project or Alternative D, all effects related to site drainage patterns, water quality, and stormwater runoff would be similar.

**Land Use, Population and Housing**. With the same general development intensity and employment uses, Alternative D would be expected to have similar (less than significant) impacts. No housing or population would be directly generated or impacted. In terms of consistency with environmental goals and policies, the GC land use allows for office and research and development uses. Given these facts and circumstances, potential land use impacts of Alternative D would be similar.

**Noise.** Alternative D would construct a similarly large project on this site, in the same proximity to nearby sensitive receptors. As Alternative D would be a similar scale and height, the general effects of construction noise and duration would be similar to the project. Project operations, however, could be slightly different. The proposed project's specialized HVAC and ventilation equipment associated with laboratory use and occasional use and number of backup generators could result in higher noise levels at the adjacent hotels. Without these unique features, it is possible that Alternative D could have lower levels of operational noise, and therefore a reduced degree of impact compared to the project. The proposed project and Alternative D, however, would be subject to similar mitigation measures to provide attenuation based on the specific uses within the buildings. As such, the resulting effect and changes in the noise environment would also be similar.

**Public Services and Recreation**. Alternative D would result in a similarly sized project with employment-generating uses similar to the proposed project. The potential variation in number of employees would not significantly change demands for police, fire, civic or recreational facilities or services. As discussed under Hazards and Hazardous Materials, BSL 3 laboratory uses related to the proposed project may necessitate specialized response protocols and training for first responders. However, such training, if warranted, would not result in the construction of new facilities that would result in environmental impacts. As such, the effects on public services and recreation facilities under both scenarios would be less than significant and similar based on CEQA thresholds.

**Transportation**. With the potential for more employees with office only use, Alternative D could result in slightly greater effects with respect to total vehicle miles travelled (VMT). All other effects regarding safety, circulation geometry and consistency with city plans and policies would remain the same based on CEQA thresholds.

**Utilities.** Alternative D would connect to existing utility infrastructure in the same manner as the proposed project, with similar construction impacts. Operationally, the life science laboratory use has the potential to utilize more water and generate more wastewater than traditional office. While precise quantities cannot be known at this time, this reduced demand on water supply and wastewater infrastructure could result in slightly reduced impacts for Alternative D compared to the proposed project.

## 20.8 Comparison of Alternatives Summary

CEQA requires the following for alternatives analysis and comparison:

> "*The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed* (CEQA Guidelines Section 15126.6(d))."

The comparative merits of each alternative are provided in the narrative evaluation above. However, Table 20-1: Comparison of Impacts Against the Proposed Project, provides a visual representation of this comparison in graphic format.

**Table 20-1: Comparison of Impacts Against the Proposed Project**

| Subject/Area of Analysis in the EIR | Alternative A: No Project/No Development | Alternative B: Development Consistent with Existing Zoning | Alternative C: Reduced Parking Alternative | Alternative D: Office Use Only |
|---|---|---|---|---|
| Aesthetics | Reduced | Slightly Reduced | Similar | Similar |
| Air Quality | Reduced | Reduced | Slightly Reduced | Slightly Reduced |
| Biological Resources | Reduced | Slightly Greater | Similar | Similar |

| Subject/Area of Analysis in the EIR | Alternative A: No Project/No Development | Alternative B: Development Consistent with Existing Zoning | Alternative C: Reduced Parking Alternative | Alternative D: Office Use Only |
|---|---|---|---|---|
| Cultural and Tribal Cultural Resources | Reduced | Similar | Similar | Similar |
| Energy | Reduced | Slightly Reduced | Slightly Reduced | Slightly Reduced |
| Geology and Soils | Reduced | Similar | Similar | Similar |
| Greenhouse Gas Emissions | Reduced | Reduced | Slightly Reduced | Slightly Reduced |
| Hazards and Hazardous Materials | Reduced | Similar | Similar | Reduced |
| Hydrology and Water Quality | Reduced | Slightly Greater | Similar | Similar |
| Land Use, Housing and Population | Reduced | Similar | Similar | Similar |
| Noise | Reduced | Slightly Greater | Similar | Reduced |
| Public Services and Recreation | Reduced | Similar | Similar | Similar |
| Transportation | Reduced | Reduced | Reduced | Slightly Greater |
| Utilities and Service Systems | Reduced | Slightly Reduced | Similar | Slightly Reduced |

### 20.8.1 Environmentally Superior Alternative

In this section, the City of Belmont has identified the Environmentally Superior Alternative, as required by CEQA Guidelines Section 15126.6(d) and (e)(2). Based upon the comparison above, Alternative A, No Project/No Development, would result in the fewest environmental impacts.

If the environmentally superior alternative is the No Project Alternative, CEQA requires identification of an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)). Pursuant to the CEQA Guidelines, **Alternative D, Office Use Only**, would be the Environmentally Superior Alternative. With the removal of life science laboratory uses up to BSL-3, this alternative would reduce the degree of impact in several areas including total air quality and GHG emissions, energy use, water consumption and noise. Alternative D would also remove concerns regarding the use and transport of hazardous at the project site.

Alternative B, Development Consistent with Existing Zoning, would have some environmental benefits due to an overall reduction in size and scale. However, Alternative B would not completely avoid a significant impact, nor would it reduce any significant impact of the project to a less than significant level. Alternative B has the potential to increase the degree of impact in other areas such as biological resources, noise and water quality, due to the increased site coverage, location of rooftop equipment and more limited site area for open space and water quality treatment. Alternative B would meet some

of the project's stated objectives and represents a feasible alternative from a technological and environmental perspective; however, the economic feasibility of such an option, with a 45% reduction in leasable square footage, is questionable.

Alternative C, Reduced Parking, would meet most or all of the primary project objectives, but it would result in very similar environmental consequences when compared to the proposed project. While this alternative would result in fewer mobile source emissions by reducing parking inventory, these environmental benefits would be relatively small, and would not reduce any significant impacts to a less than significant level. Reducing the amount of parking also relies heavily on the successful implementation of Transportation Demand Management (TDM) measures. If ineffective, reducing on-site parking could also lead to unintended consequences of increased demand for on-street parking, or employees using restricted parking on neighboring property. For these reasons, Alternative C is not the environmentally superior alternative.

In conclusion, the project as proposed does not result in any significant unavoidable environmental effects, and the feasible alternatives analyzed, by comparison, do not eliminate or reduce one or more significant effects to a less than significant level once project mitigation is applied. The alternatives reduce environmental effects by a matter of degree but may not result in environmental benefits that warrant consideration of an alternative over the project as proposed.

# 21 Other CEQA Considerations

The information in this chapter presents several additional considerations and required subjects related to the project's environmental effects. Consistent with CEQA Guidelines Section 15126, an EIR must include the following subjects shown in Table 21-1: Consideration and Discussion Environmental Impacts. The table identifies where several of these specific subjects are contained in the EIR. Remaining subjects are discussed in this chapter.

**Table 21-1: Consideration and Discussion Environmental Impacts**

| Required Subject | Location within the EIR |
|---|---|
| Significant Environmental Effects of the Project | Within the analysis of each subject in Chapter 5 through Chapter 19 |
| Significant Environmental Effects Which Cannot be Avoided if the Project is Implemented | The EIR found no significant unavoidable effects |
| Significant Irreversible Environmental Changes Should the Project be Implemented | Chapter 21, in the paragraphs below |
| Growth Inducing Effects of the Project | Chapter 14, Land Use, Population and Housing, and Chapter 21, in the paragraphs below |
| Mitigation Measures Proposed to Minimize Significant Effects | Within the analysis of each subject in Chapter 5 through Chapter 19 |
| Alternatives to the Project | Chapter 20 |

## 21.1 Significant Irreversible Environmental Changes Caused by the Project

Section 15126.2(c) of the State CEQA Guidelines requires an EIR to discuss the significant irreversible environmental changes that would result from implementation of a proposed Project. Examples include: primary or secondary impacts of the project that would generally commit future generations to similar uses (e.g., highway improvements that would provide access to a previously inaccessible area); uses of nonrenewable resources during the initial and continued phases of the project; and/or irreversible damage that could result from any potential environmental accidents associated with the project.

### 21.1.1 Changes in Land Use Which Commit Future Generations

While the project requires an ordinance to implement a change in the city's zoning map from Regional Commercial to Planned Development, the 1301 Shoreway project would not convert undeveloped land, agricultural land or mineral resource reserves to urban use. Nor would the project create new highways or similar improvements that would provide access to an otherwise inaccessible area. As the project would redevelop a site with an existing medical office building with office and research uses, the physical changes (intensification and taller structures) would not commit future generations to a new or substantially different use that would cause irreversible environmental changes at this location.

### 21.1.2 Consumption of Non-Renewable Resources

The EIR is required to consider whether "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 non-use thereafter unlikely" (CEQA Guidelines Section 15126.2(c)). "Nonrenewable resource" refers to the physical features of the natural environment, such as land, waterways, etc. This may include current or future uses of non-renewable resources and secondary or growth-inducing impacts that commit future generations to similar uses. According to the CEQA Guidelines, irretrievable commitments of resources should be evaluated to ensure that such current consumption is justified.

A variety of resources, including energy, water, construction materials, and human resources would be irretrievably committed for the project's initial construction, infrastructure installation, and connection to existing utilities and its continued maintenance. Construction of the proposed project would require the commitment of a variety of other non-renewable or slowly renewable natural resources such as lumber and other forest products, sand and gravel, asphalt, petrochemicals, and metals.

Additionally, a variety of resources would be committed to the ongoing maintenance and life of the proposed project. An increase in the intensity of land use of the project site would result in an increase in area traffic over existing conditions. Fossil fuels are the principal source of energy, and the project would increase consumption of available supplies, including gasoline and electricity for laboratory operations. These energy resource demands relate to initial project construction, project operation, and on-going maintenance, as well as the transport of people and goods to and from the project site.

Development of the project will be reviewed for consistency with the adopted General Plan. The General Plan includes numerous policies and actions to ensure that future development within Belmont minimizes potential environmental impacts and contributes to the quality of life envisioned by the General Plan. These policies and actions are intended to promote a heathy community and energy conservation, focusing on energy efficiency in design, materials, construction, and use of buildings, alternative transportation modes and energy systems. The proposed project assumes the incorporation of these policies and actions into the project, as evidenced by the project design, preliminary TDM program, open space/landscape plan and other features. Further, additional site-specific mitigation measures and/or conditions of approval have been identified that require the project to reduce or avoid consumption of non-renewable resources during construction and operation.

### 21.1.3 Irreversible Damage from Environmental Accidents

The project proposes a potential land use (life science laboratory up to biosafety level [BSL] 3) which could generate hazardous emissions or involve the handling of hazardous materials, substances, or waste in significant quantities that could have an impact to surrounding uses in the unlikely event of upset or accident. In addition to common hazardous materials that would be routinely handled (e.g., cleaning products, paints, pesticides, petroleum, oil, lubricants, thinners, fertilizers, solvents, aerosols, corrosives, and fuels), a BSL 3 facility could also introduce the transport, use and disposal of biomedical materials such as tissues, fluids and cultures, microbes, chemical compounds, and radiological and medical equipment. Depending on the use and focus of the lab, several of these materials could be considered hazardous. The potential for risk of upset, accident or disaster at or near the facilities must be planned for.

A significant earthquake, structure fire, prolonged power outage, act of sabotage, equipment failure or human error are all potential – although unlikely – scenarios that could compromise the integrity of the laboratory facilities and possibly result in an unintended release of biological material into the immediate built and natural environment.

Several federal, state and local certifications, design standards and permit requirements are currently in place to prevent or reduce the risk of such a scenario. A BSL lab would be required to be designed with multiple internal containments, backup system and incident response plans. Commercial and laboratory uses are required to comply with all applicable federal, state, and regional regulations designed to reduce the risk of hazardous material generation and usage on the site.

Specific regulations are discussed in Chapter 12 (Hazards & Hazardous Materials). To minimize potential impacts associated with the accidental release of hazardous materials (known or unknown) into the environment during construction, Mitigation Measures HAZ-1.1 and HAZ-1.2 would be implemented to prevent the risk of accidental release. To further reinforce existing regulations and laboratory standards for operations, Mitigation Measure HAZ-1.3 is required to address BSL 3 design standards, and Mitigation Measure HAZ-2.1 addresses first responder coordination and training if a BSL 3 certification is pursued. With implementation of these existing regulations and project-specific mitigation measures, the risk of irreversible environmental damage from hazardous materials accidents during construction and operation would be reduced to a less than significant level.

## 21.2 Growth-Inducing Effects

Section 15126.2(e) of the State CEQA Guidelines provides the following guidance on growth-inducing impacts: a project is identified as growth inducing if it "could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment."

A project can have direct and/or indirect growth-inducement potential. Direct growth inducement would result if a project involves construction of new housing. A project can have indirect growth-inducement potential if it would establish substantial new permanent employment opportunities (e.g., commercial, industrial or governmental enterprises) or if it would involve a substantial construction effort with substantial short-term employment opportunities and indirectly stimulate the need for additional housing and services to support the new employment demand.

Similarly, under CEQA, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. Increases in population could result in greater demand for existing community service facilities, requiring construction of new facilities that could in turn cause significant environmental effects. The CEQA Guidelines also require analysis of the characteristics of projects that may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

The 1301 Shoreway project would not induce growth directly because it would not involve the construction of new housing. The project could result in indirect growth inducement, however, by constructing an office and life sciences campus that is more than 3.5 times the size of the existing building on site (based on square footage). Assuming a proportional increase in employees (up to 2,500), the project would likely result in hundreds of additional employees seeking housing opportunities in the greater Belmont/San Carlos/Redwood City area and within San Mateo County. Such growth and

attraction of new employees resulting from this single project is unlikely to have a significant impact, however, as the area is highly urban in character and there are housing opportunities in the region to absorb this level of employment growth without causing environmental effects. It is expected that many of these employees would already be residing in the region. In addition, the project is not of such a large size or construction duration as to create a significant influx of short-term construction labor that would require temporary housing.

The project's proposed building heights and massing, however, are similar to other nearby office, life science, and R&D projects, indicating market for similar employment-based development and intensification of existing parcels in the vicinity of the project. A well-designed project of this size, if successfully implemented, could conceivably further stimulate the market for similar projects on other nearby properties. Cumulatively, these development projects could result in thousands of local jobs, creating a need for housing growth beyond the project alone. While it is difficult to assess the potential environmental effects of such growth, it is reasonable to predict that increased demand for additional housing projects could lead to cumulative effects related to construction, GHG emissions, VMT increases and demands on public services.

See also Chapter 14, Land Use, Population and Housing regarding this subject.

# 22 EIR Preparers

## Lead Agency

### City of Belmont

Carlos de Melo, Community Development Director
Chris Dacumos, Contract Project Manager
Arianna O'Connell, Contract Associate Planner
Bridgitte Shearer, Parks and Recreation Director
Tracy Scramaglia, Assistant Public Works Director/City Engineer
Elizabeth Wada, Senior Civil Engineer

**External Reviewers**

Robert Marshall, Deputy Fire Chief
Sean Rose, Principal, S.R. Rose Engineering Inc.

## EIR Preparers

### Kimley-Horn and Associates (EIR Consultant)

Tad Stearn, EIR Project Manager
Ben Huie, P.E., Traffic Engineer
DJ Edwards, P.E., Water Supply Assessment and Sewer Memo Peer Review
Noemi Wyss, AICP, Air Quality/GHG/HRA Peer Reviews
Jessica Mauck, MA, RPA, Cultural Resources Manager and Peer Review
John Barden, Visual Simulations
Tanay Pradhan, Noise Study Peer Review
Mia Berg, Environmental Analyst
Miles Eaton, Environmental Analyst

### Denise Duffy & Associates (Biological Resource Assessment Peer Review)

Erin Harwayne, Senior Planner