1200-1340 OLD BAYSHORE HIGHWAY PROJECT

Draft Environmental Impact Report

Prepared for
City of Burlingame

September 2023

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CHAPTER 1
Introduction

DW Burlingame Venture, Limited Liability Company (LLC) (the Applicant), has filed an application with the City of Burlingame Planning Department to redevelop the property located at 1200-1340 Old Bayshore Highway in the city. The City of Burlingame (the City) will serve as Lead Agency pursuant to the requirements of the California Environmental Quality Act (CEQA), and will be responsible for preparing an Environmental Impact Report (EIR) for the 1200-1340 Old Bayshore Highway Project (the Project). For a detailed description of and exhibits depicting the Project, see Chapter 3, *Project Description*.

This EIR has been prepared by the City pursuant to CEQA (Public Resources Code [PRC] Section 21000 et seq.) and the CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations) to describe the potential environmental consequences of implementing the Project. As required under CEQA, the EIR evaluates and describes potentially significant environmental impacts, identifies mitigation measures to avoid or reduce the significance of potential impacts, and evaluates the comparative effects of potentially feasible alternatives to the Project.

1.1 Purpose of EIR

CEQA states that before a decision can be made to approve a project that would pose potential adverse physical effects, an EIR must be prepared that fully describes the environmental effects of the project. The EIR is a public information document that identifies and evaluates the potential environmental impacts of a project, recommends mitigation measures to lessen or eliminate significant adverse impacts, and examines feasible alternatives to the project. The information contained in the EIR must be reviewed and considered by the CEQA lead agency and by any responsible agencies (as defined in CEQA) before a decision to approve, disapprove, or modify the Project.

The CEQA Guidelines define the role and standards of adequacy of an EIR as follows:

- **Informational Document**. An EIR is an informational document that will inform public agency decision-makers and the public generally of the significant environmental effect(s) of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information that may be presented to the agency (see CEQA Guidelines Section 15121[a]).

- **Standards for Adequacy of an EIR**. An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information that enables them to make a decision that 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 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 the experts. The courts have looked not for perfection but for adequacy, completeness, and a good-faith effort at full disclosure (see CEQA Guidelines Section 15151).

- **Type of EIR.** An EIR can be tailored to different situations and intended uses, but all EIRs must meet the content requirements of Section 15120. This document is a project-level EIR. A project-level EIR focuses primarily on the changes in the environment that would result from all phases of the project including planning, construction, and operation of the specific development project (Section 15161).

CEQA Guidelines Section 15382 defines a *significant effect* on the environment as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project…" Therefore, in identifying the significant impacts of the Project, this EIR describes the potential for the construction and operation of the Project to result in substantial physical effects in the area affected by the project, and identifies mitigation measures that would avoid or reduce the magnitude of those effects. See Chapter 4.0, *Environmental Setting, Impacts, and Mitigation*, for further description of the approach to analyzing environmental impacts and identifying mitigation measures presented in this EIR.

1.2 Environmental Review Process

Having determined that an EIR would be required to evaluate changes in the environment that would result from construction and implementation of the Project, the City elected to not prepare an Initial Study checklist to accompany the NOP, as permitted by Section 15060(d) of the CEQA Guidelines. Rather, the EIR addressed all applicable potential environmental topics, and did not focus out any environmental issues out.

1.2.1 Notice of Preparation and Public Scoping

On August 12, 2022, a Notice of Preparation (NOP) was published for the 1200-1340 Old Bayshore Highway Project EIR. The NOP was distributed to governmental agencies, organizations, and persons interested in the Project along with notice to the general public. The City sent the NOP to agencies with statutory responsibilities in connection with the proposed Project with the request for their input on the scope and content of the environmental information that should be addressed in the EIR. A 30-day public comment period was provided which ended on September 12, 2022. A copy of the NOP is included in **Appendix A**. A scoping meeting was held on August 22, 2022 before the City of Burlingame Planning Commission to accept public input on environmental topics to be analyzed in the EIR and approaches to the impact analyses. Written comments received on the NOP, and Planning Commission meeting minutes of the scoping meeting, are included in **Appendix B**.

1.2.2 Draft EIR

This Draft EIR is being circulated to governmental agencies and to interested organizations and individuals that may wish to review and comment on the document. CEQA Guidelines Sections 15086(c) and 15096(d) require Responsible Agencies or other public agencies to provide comment on those project activities within the agency's area of expertise or project activities that are required to be carried out or approved by the agency, and the agency should support those comments with either oral or written documentation. Publication of this Draft EIR initiates a 46-day public review period, during which time the City of Burlingame will accept comments on the Draft EIR. The public review period for the Draft EIR for the proposed Project is from September 20, 2023 through November 3, 2023.

This Draft EIR, including supporting technical appendices and reference materials, can be accessed on the City's website at: https://www.burlingame.org/1200-1340bayshore. The City encourages agencies and interested parties to submit written comments on the Draft EIR electronically to the following email address: ckeylon@burlingame.org. Written comments may also be submitted via regular mail to:

Catherine Keylon, Senior Planner
City of Burlingame
Planning Division 501 Primrose Road
Burlingame, CA 94010

1.2.3 Comments and Responses and Final EIR

After the public review and comment period for the Draft EIR, the City will prepare a Final EIR in conformance with CEQA Guidelines Section 15132. The Final EIR will consist of:

- Revisions to the Draft EIR text, as necessary;
- A list of individuals and agencies commenting on the Draft EIR;
- Responses to comments received on the Draft EIR, in accordance with CEQA Guidelines Section 15088; and
- Copies of letters received on the Draft EIR.

CEQA Guidelines Section 15091(a) stipulates that no public agency shall approve or carry out a project for which an EIR has been certified that identifies one or more significant environmental effects of the project, unless the public agency makes one or more written findings. If the lead agency approves a project even though it would result in significant adverse environmental impacts that cannot be mitigated to a less-than-significant level, the agency must state the reasons for its action in writing. This "statement of overriding considerations" must be included in the record of project approval.

1.2.4 Mitigation Monitoring and Reporting Program

Throughout this EIR, mitigation measures have been described in language that will facilitate establishment of a Mitigation Monitoring and Reporting Program (MMRP). As required under CEQA (see CEQA Guidelines, Section 15097), an MMRP will be prepared and presented to the City Council at the time of certification of the Final EIR for the proposed Project and will identify the specific timing and roles and responsibilities for implementation of adopted mitigation measures.

1.3 Report Organization

Chapter 1, ***Introduction***, provides an introduction and overview of the proposed Project; describes the intended uses of the EIR, including the review and certification process; and discusses the organization of the Draft EIR.

Chapter 2, ***Summary of Environmental Impacts and Mitigation Measures***, summarizes the environmental impacts that would result from implementation of the proposed Project, lists proposed mitigation measures, and indicates the level of significance of impacts after mitigation. A summary of the alternatives to the Project, and the environmentally superior alternative, is also provided.

Chapter 3, ***Project Description***, provides a detailed description of the proposed Project, including a discussion of Project objectives, a description of proposed physical development and operational characteristics of the proposed Project, a description of Project construction, and a list of Project approvals.

Chapter 4, ***Environmental Setting, Impacts and Mitigation Measures,*** provides, with respect to each environmental impact category an introduction to environmental analysis, describes the Project's environmental setting, includes a regulatory framework, and discusses the methodology used for evaluating the environmental impacts of the proposed Project; provides a project-level analysis of the proposed Project and related improvements, and an analysis of cumulative impacts; and identifies mitigation measures that would reduce or avoid those impacts that are found to be significant.

Chapter 5, ***Other CEQA Considerations***, summarizes significant and unavoidable impacts, significant irreversible environmental changes, and any growth-inducing impacts associated with the Project.

Chapter 6, ***Alternatives***, describes the alternatives to the proposed Project that could avoid or substantially lessen the Project's significant effects and evaluates their environmental effects in comparison to the proposed Project.

Chapter 7, ***Report Preparation***, identifies the persons who prepared the EIR, and individuals who were consulted during its preparation.

Appendices. The appendices include the NOP, written and oral responses to the NOP, and various supporting technical studies prepared for the Project in support of the Draft EIR.

CHAPTER 2
Summary

2.1 Introduction

This EIR assesses the potentially significant environmental effects that could result from the implementation of the proposed 1200-1340 Old Bayshore Highway Project (the Project). The City of Burlingame (the City) will serve as Lead Agency pursuant to the requirements of the California Environmental Quality Act (CEQA), and will be responsible for preparing an Environmental Impact Report (EIR) for the Project.

This summary highlights the major areas of importance in the environmental analysis for the proposed Project, as required by Section 15123 of the CEQA Guidelines. It provides a brief description of the Project, the project objectives, any significant and unavoidable environmental effects, alternatives to the Project, and areas of controversy known to the City. In addition, this chapter summarizes (1) all potential environmental impacts that would occur as the result of implementation of the Project; (2) the recommended mitigation measures that would avoid or reduce significant environmental impacts; and (3) the level of impact significance after mitigation measures are implemented.

2.2 Project Description

The Project applicant proposes a life science and/or office development consisting of three life science and/or office buildings and two parking structures, along with site circulation, infrastructure, recreational and landscaping improvements. All existing Project site buildings and surface parking lots would be demolished and removed.

The proposed Project would construct three separate 11-story life science/office buildings totaling approximately 1.42 million gross square feet (gsf). The life science/office buildings would be designed to support either office or life science tenants. The Project would provide for flexibility in end use and range from an overall building program of 100 percent life science use to a 100 percent professional office use, or a combination thereof. The program would also include various amenities and 5,000 gsf of café/restaurant space. Two parking structures of 10-10½-stories plus two levels of basement parking each are proposed at the Project site, providing 3,400 parking spaces. 340 electric vehicle charging station (EVCS) stalls would be provided. The Project would include a number of building architectural and landscaping features with respect to bird safe design. The Project applicant is targeting for the design the Project buildings to meet the LEED™ Gold standard.

A total of approximately 237,600 square feet of landscaped area and open space would be provided under the Project. The proposed Project would also include overlooks and seating amenities. In addition, the proposed Project includes a number of shoreline improvements and other features relevant to sea level rise and flooding, including but not limited to, raising the ground level of the Project site, and installing sea walls and flood walls.

A new 1,475-foot segment of the Bay Trail would be extended across the Project site, and connect to existing segments of the Bay Trail at the north and south ends of the Project site. The Project would include one pedestrian/bicycle bridge that would span over Easton Creek. Bicycle and pedestrian access would be provided via the Project site pedestrian pathways and the Bay Trail, and new sidewalks on the Project site frontage and along Airport Boulevard. The Project would also extend the striped bike lane across the full length of the Project site along Old Bayshore Highway. Each life science/office building would provide a cycle center for tenants with shower facilities and secure long-term bike parking; and additional short-term parking would be provided at locations throughout the Project site.

To emphasize nearby public transit connectivity and facilitate transit ridership, the Project proposes to participate in funding a Commute.org shuttle service, with a stop adjacent to the Project site. The Project's also includes a Transportation Demand Management Plan is also summarized below.

2.3 Project Objectives

The underlying purpose of the proposed Project is to develop a major state-of the-art life science and/or office development, with supporting amenities at a prominent, signature waterfront location proximate to major transportation corridors and high quality transit such as BART and Caltrain. Other objectives of the proposed Project include:

- Create a world-class life science/office waterfront development of multiple buildings suitable for one or several major users, with amenities to serve employees, visitors, and members of the general public.
- Develop a site plan that preserves key view corridors and provides community benefits, including the creation of major new open spaces and Bay Trail connections that prioritize public access through the site and to the waterfront.
- Redevelop underutilized existing parcels and outdated structures and asphalt surfaces in a manner consistent with the City's General Plan vision for the Bayshore area as a regional recreation and business destination.
- Include well-designed, individual buildings of sufficient floor-plate size and design to accommodate a variety of building uses and phasing flexibility to ensure that the Project is responsive to market conditions and tenant demands, while providing community benefits that meet or exceed the City's requirements.
- Establish a development with sophisticated, unified architectural and landscape design and site planning consistent with City design review regulations and applicable General Plan policies, resulting in a distinctive project identity and strong sense of place and relationship to the waterfront context.

- Improve and enhance public access to the waterfront by extending the Bay Trail through the site and improving the waterfront and creek-side edges of the site through paving, wayfinding signage, street furniture, lighting, and other amenities.
- Promote public transit linkages and use of alternative modes of transportation by including shuttles and other Transportation Demand Management programs as well as bicycle and pedestrian access to and through the site, including safety enhancements to off-site bicycle and pedestrian infrastructure.
- Provide sufficient automobile parking to meet the demand of Project users consistent with City regulations and policies and with the aim to promote transit, electric vehicle, and other VMT-friendly travel.
- Incorporate sustainable and environmentally sensitive design and equipment, energy conservation features, water conservation and landscaping measures, and sustainable stormwater management features.
- Build shoreline infrastructure to contribute toward flood protection and sea level rise resiliency for the Project and the City.
- Provide a positive fiscal impact on the local economy through the creation of jobs, diversification of the types of employment in the City, enhancement of property values, increasing demand for nearby hotel uses, and generation of property tax and other development fees.

2.4 Significant and Unavoidable Environmental Effects

The Proposed Project would not result in any significant and unavoidable impacts. All potentially significant project impacts would either be less than significant or would be reduced to a less-than significant level with implementation of identified mitigation measures, as discussed throughout Chapter 4 of this EIR.

2.5 Alternatives to the Proposed Project

The objective of the alternatives analysis is to determine whether an alternative would feasibly obtain most of the project objectives, while avoiding or substantially lessening one or more of the significant effects of the proposed Project.

The alternatives identified for detailed evaluation and designed to inform public participation and reasoned choice by decision-makers are:

Alternative 1: No Project (No Development)

Alternative 2: Life Science (80 Percent Maximum) / Office Use Development

Alternative 3: Reduced Size Life Science / Office Development

2.6 Areas of Controversy

Areas of controversy known to the lead agencies, including issues raised by agencies and the public, must be identified in the Summary of an EIR (14 Cal. Code Regs. Section 15123).

On August 12, 2022, a Notice of Preparation (NOP) was published for the 1200-1340 Old Bayshore Highway Project EIR. A 30-day public comment period ended on September 12, 2022. A copy of the NOP is included in **Appendix A**. A scoping meeting was held on August 22, 2022 before the City of Burlingame Planning Commission to accept public input on environmental topics to be analyzed in the EIR and approaches to the impact analyses. Written comments received on the NOP, and Planning Commission meeting minutes of the scoping meeting, are included in **Appendix B**.

Based on the comments received during the public scoping period, issues of concern for the proposed Project include the following:

Aesthetics

- Impacts of proposed Project buildings on scenic resources and views, including East Bay Hills, San Bruno Mountain and the sky
- Wind, shadow and light/glare effects of proposed Project buildings

Air Quality/Greenhouse Gas Emissions

- Construction air emissions from Project construction traffic and dust
- Operational increases in air pollutant and greenhouse gas emissions from Project stationary and mobile sources

Biological Resources

- Construction impacts (e.g., from erosion, sedimentation and runoff) on shoreline habitat
- Bird strike risks from proposed building and lighting, and inclusion of bird-safe measures in Project design
- Shading impacts from proposed buildings on creek and shoreline vegetation
- Operational lighting impacts on marsh wetlands
- Operational impacts from human and domestic animal presence (e.g., noise from leaf blowers, litter, pets) on wildlife and wetlands

Cultural Resources, including Tribal Cultural Resources

- Conduct AB 52 tribal consultation
- Consider Native American history and cultural resources associated with Project site

Geology and Soils

- Safety and stability of Project site from proposed filling; and potential liquefaction hazards

Hazards and Hazardous Materials

- Potential disturbance of contaminated soil and groundwater from past uses on Project site during construction, and effects on estuarine sediments and waters
- Potential hazards on surrounding land uses from operation of proposed biotech uses

- Potential for any constructed wetland and water features and landscaped areas attract wildlife hazards and affect aviation operations
- Potential for proposed Project buildings to affect navigable airspace

Hydrology and Water Quality/Utilities and Service Systems

- Project's effect on drainage and flood hazards
- Sea level rise effect on potentially spreading hazardous contaminants in underlying soils
- Sea level rise effects on Project site utilities and vegetation

Land Use and Planning

- Compatibility of Project with Bay Conservation and Development Commission (BCDC) *Bay Plan* and *Public Access Design Guidelines for Shoreline Spaces;* and *San Mateo County Comprehensive Airport Land Use Plan for the Environs of San Francisco International Airport (ALUCP).*

Noise and Vibration

- Construction generated noise and vibration from heavy equipment and construction traffic
- Noise from building rooftop exhaust and HVAC systems

Population and Housing

- Project impacts on citywide and regional jobs/housing balance

Public Services and Recreation

- Recreational demand generated by the project and potential to result in physical deterioration of recreational facilities

Transportation

- Project transportation impacts, including at Broadway intersections and Caltrans overpass

Cumulative Impacts

- Account for other cumulative development, including 620 Airport Boulevard, 777 Airport Boulevard and 1669-1699 Old Bayshore Highway developments

Alternatives

- Include alternatives with 100-foot setback from Bay, creek and marshland; and building design that minimize potential for bird strike risks

Please also see Section 4.0.2, *Scope of Analysis*, for a discussion of the approach for determining which issues are within the purview of CEQA and therefore included in the scope of this EIR.

2.7 Summary of Impacts and Mitigation Measures

Table 2-1 summarizes the impacts of the proposed Project, identifies the significance determination of each impact, and presents the full text of the identified mitigation measures.

TABLE 2-1
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.1, Aesthetics			
Impact AES-1: The Project would not have a substantial adverse effect on a scenic vista.	LTS	None required.	NA
Impact AES-2: The Project would be located in an urbanized area and would not conflict with applicable zoning and other regulations governing scenic quality.	LTS	None required.	NA
Impact AES-3: The Project would not create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.	LTS	None required.	NA
Impact C-AES-1: The Project, when combined with other past, present, or reasonably foreseeable projects, would not have a substantial adverse effect on a scenic vista or conflict with applicable zoning and other regulations governing scenic quality.	LTS	None required.	NA
Impact C-AES-2: The Project, when combined with other past, present, or reasonably foreseeable projects, would not create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.	LTS	None required.	NA
Section 4.2, Air Quality			
Impact AIR-1: During Project construction, the proposed Project would result in a cumulatively considerable net increase of criteria pollutants or their precursors for which the project region is non-attainment under an applicable federal or state ambient air quality standard (NOx, ROG, PM_{10}, and $PM_{2.5}$).	S	**Mitigation Measure AIR-1a: Construction Emissions Minimization.** During Project construction, the construction contractor shall comply with the BAAQMD's current basic control measures for reducing construction emissions of fugitive PM_{10} and $PM_{2.5}$. The construction contractor shall comply with the following: • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material offsite shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.	LTS

S = Significant Impact
SU = Significant and Unavoidable with Mitigation
LTS = Less than Significant impact
NI = No impact
NA = Not applicable

TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.2, Air Quality (cont.)			
Impact AIR-1 (cont.)		• Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. • Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD phone number shall also be visible to ensure compliance with applicable regulations. **Mitigation Measure AIR-1b: Off-Road Equipment Tiers.** All construction equipment above 50 horsepower shall either be powered by electricity, or meet or exceed either EPA or CARB Tier 4 Final off-road emission standards if they are powered by diesel. **Mitigation Measure AIR-1c: Haul Truck Tiers.** During Project construction, on-road haul trucks shall be equipped with 2010 or newer model year engines. **Mitigation Measure AIR-1d: Exterior Paint.** The exteriors of the life science/office buildings will not be painted; rather, the exteriors shall entirely consist of glass, concrete or coated materials painted at the time of fabrication at an offsite facility. **Mitigation Measure AIR-1e: Interior Paint.** During Project construction and operation, the Project applicant shall use super-compliant architectural coatings during construction, and during operations that occur concurrent with construction for all buildings, which shall have volatile organic compound (VOC) content that meet South Coast Air Quality Management District (SCAQMD) Rule 1113 Architectural Coatings as revised on February 5, 2016.	
Impact AIR-2: During Project operations (including Project construction phases that would overlap with Project operations), the proposed Project would result in a cumulatively considerable net increase of criteria pollutants or their precursors for which the project region is non-attainment under an applicable federal or state ambient air quality standard (NOx, ROG, PM_{10}, and $PM_{2.5}$).	S	Implement Mitigation Measure AIR-1a, AIR-1b, AIR-1c, AIR-1d, and AIR-1e. **Mitigation Measure AIR-2: Zero-Emission Landscaping Equipment.** During Project operation, zero-emission landscaping equipment shall be used over conventional gasoline-fueled counterparts. The requirement for zero-emission landscaping equipment shall be included in the Project's landscaping maintenance agreement	LTS

S = Significant Impact
SU = Significant and Unavoidable with Mitigation
LTS = Less than Significant impact
NI = No impact
NA = Not applicable

TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.2, Air Quality (cont.)			
Impact AIR-3: Implementation of the proposed Project would not result in health risk impacts from exposure of sensitive receptors to substantial pollutant concentrations of diesel particulate matter emissions.	LTS	None required.	NA
Impact AIR-4: Implementation of the proposed Project would not result in emissions (such as those leading to odors) that would affect a substantial number of people.	LTS	None required.	NA
Impact AIR-5: Implementation of the Project could conflict with or obstruct implementation of the applicable air quality plan.	S	Implement Mitigation Measure AIR-1b.	LTS
Impact C-AIR-1: The Project in combination with past, present, and reasonably foreseeable future development in the project area could result in a cumulatively considerable net increase of criteria pollutants or their precursors for which the project region is non-attainment under an applicable federal or state ambient air quality standard (NOx, ROG, PM_{10}, and $PM_{2.5}$).	S	Implement Mitigation Measure AIR-1a, Mitigation Measure AIR-1b, Mitigation Measure AIR-1c, Mitigation Measure AIR-1d, and Mitigation Measure AIR-2.	LTS
Impact C-AIR-2: The Project, in combination with past, present, and reasonably foreseeable future development in the project area, would not contribute considerably to cumulative health risk impacts to sensitive receptors.	LTS	None required.	NA
Section 4.3, Biological Resources			
Impact BIO-1: Implementation of the proposed Project would not have a substantial adverse effect, either directly, indirectly, or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS (special-status fish, nesting birds, special-status roosting bats).	S	***Special-Status Plants*** None required.	NA
Special-Status Fish Species, Designated Critical Habitat, and Essential Fish Habitat *Construction Impacts*		**Mitigation Measure BIO-1a: Worker Environmental Awareness Training.** Personnel involved in outfall replacement and bridge construction over Easton Creek shall be trained by a qualified biologist (experienced in construction monitoring, as approved by the City/Agency) in the importance of the marine environment to special-status fish and other aquatic animals, and the environmental protection measures put in place to prevent impacts to these species, their habitats, and EFH. The training shall include, at a minimum, the following:	LTS

S = Significant Impact
SU = Significant and Unavoidable with Mitigation
LTS = Less than Significant impact
NI = No impact
NA = Not applicable

TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.3, Biological Resources			
Impact BIO-1 (cont.) ***Special-Status Fish Species, Designated Critical Habitat, and Essential Fish Habitat*** *Construction Impacts (cont.)*		• A review of the special-status fish and other aquatic animals, and sensitive habitats that could be found in or downstream from work areas. • Measures to avoid and minimize adverse effects to special-status fish and other aquatic animals, their habitats, and EFH. • A review of all conditions and requirements of environmental permits, reports, and plans (e.g., USACE permits). **Mitigation Measure BIO-1b: Seasonal In-Water Restrictions.** In-water work for outfall replacement shall be conducted between June 1 through November 30, based on the standard work windows for steelhead and Pacific herring. If completion of in-water work within this period is not feasible due to scheduling issues, new timing guidelines shall be established and approved by NMFS and CDFW prior to initiation of in-water work. **Mitigation Measure BIO-1c: Fish Exclusion at Dewatering Sites.** Prior to outfall replacement, Construction contractor shall install cofferdams to dewater the work areas. Cofferdams must be constructed with materials to effectively dewater the work area (e.g., inflatable rubber dams, sheet piles, or other materials). If inflatable rubber cofferdams are used, they must be installed at low tide when the work area is fully drained. If sheet pile cofferdams or other materials are used, the two sidewalls of the cofferdam must be placed first, followed by the final wall of the cofferdam on the downslope side (closest to the Easton Creek centerline). The final wall must be placed at low tide to minimize the amount and depth of water present within the cofferdam. Just before the final wall is installed, if water is present within the coffer dam, qualified biologists may use nets (with a maximum mesh size of 9.5 millimeters) to exclude fish from the construction area. At low tide, qualified biologists shall walk from the upper edge of the work area to the lower edge of the work area with a seine stretched across any wetted portion of the work area to encourage fish to move out of the construction area through the gap where the final wall would be installed. When the lower end of the construction area is reached, a block net would be installed in that gap to prevent fish from moving back into the cofferdam. This procedure shall be repeated until no fish remain in the dewatered area. The final sheet pile must then be installed. Upon completion of in-water work activities, coffer dams shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.	
Operational Impacts		None required	NA

S = Significant Impact
SU = Significant and Unavoidable with Mitigation
LTS = Less than Significant impact
NI = No impact
NA = Not applicable

TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.3, Biological Resources			
Impact BIO-1 (cont.) ***Birds Protected by the MBTA*** *Construction Impacts*		**Mitigation Measure BIO-1d: Nesting Bird Protection Measures.** Nesting birds and their nests shall be protected during construction by use of the following measures: • The construction contractor shall conduct initial vegetation removal, tree trimming and removal, ground disturbance, and demolition of existing buildings outside the bird nesting season (February 1 to August 31). • If vegetation removal, tree trimming and removal, ground disturbance, and demolition of existing buildings during the nesting season cannot be fully avoided, a qualified wildlife biologist (as determined by CDFW)[1] shall conduct pre-construction nesting surveys during the bird nesting season seven (7) or fewer days prior to the start of such activities or after any construction breaks of 14 days or more. Surveys shall be performed for the Project site, vehicle and equipment staging areas, and suitable habitat within 250 feet in order to locate any active passerine (songbird) nests and within 500 feet of these individual sites to locate any active raptor (birds of prey) nests. 1. If active nests are located during the pre-construction nesting bird survey, the qualified wildlife biologist shall evaluate if the schedule of construction activities could affect the active nests and the following measures shall be implemented based on their determination: a. If construction is not likely to affect the active nest, construction may proceed without restriction; however, a qualified biologist shall regularly monitor the nest at a frequency determined appropriate for the surrounding construction activity to confirm there is no adverse effect. Spot-check monitoring frequency would be determined on a nest-by-nest basis considering the particular construction activity, duration, proximity to the nest, sensitivity of the species to disturbance, and physical barriers that may screen activity from the nest. The qualified biologist may revise his/her determination at any time during the nesting season in coordination with the City of Burlingame. b. If it is determined that construction may affect the active nest, the qualified biologist shall establish a no-disturbance buffer around the nest(s) and all project work shall halt within the buffer until a qualified biologist determines the nest is no longer in use. Typically, these buffer distances are 250 feet for passerines and 500 feet for raptors; however, the buffers may be adjusted due to the pre-construction disturbance level and/or if an obstruction, such as a building, is within line-of-sight between the nest and construction.	LTS

[1] CDFW defines credentials of a "qualified biologist" within permits or authorizations issued for a project. Typical qualifications include a minimum of five years of academic training and professional experience in biological sciences and related resource management activities, and a minimum of two years of experience conducting surveys for each species that may be present within in the vicinity of the Project site.

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TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.3, Biological Resources			
Impact BIO-1 (cont.) ***Birds Protected by the MBTA*** *Construction Impacts (cont.)*		c. Modifying nest buffer distances, allowing certain construction activities within the buffer, and/or modifying construction methods in proximity to active nests shall be done at the discretion of the qualified biologist and in coordination with the City of Burlingame, who would notify CDFW. d. Any work that must occur within established no-disturbance buffers around active nests shall be monitored by a qualified biologist. If adverse effects in response to project work within the buffer are observed and could compromise the nest, work within the no-disturbance buffer(s) shall halt until the nest occupants have fledged. 2. Any birds that begin nesting within the Project site and survey buffers amid construction activities shall be assumed to be habituated to construction-related or similar noise and disturbance levels and no work exclusion zones shall be established around active nests in these cases; however, should these nesting birds begin to show disturbance associated with construction activities that could result in nest failure, no-disturbance buffers shall be established as determined by the qualified wildlife biologist.	
Operational Impacts	LTS	None required	NA
Special-Status and Otherwise Protected Bats	S	**Mitigation Measure BIO-1e: Avoidance and Minimization Measures for Bats.** A qualified biologist (as defined by CDFW) who is experienced with bat surveying techniques (including auditory sampling methods), behavior, roosting habitat, and identification of local bat species shall be consulted prior to initiation of construction activities to conduct a pre-construction habitat assessment of the Project site to characterize potential bat habitat and identify potentially active roost sites. No further action is required should the pre-construction habitat assessment not identify bat habitat or signs of potentially active bat roosts within the Project site (e.g., guano, urine staining, dead bats, etc.). The following measures shall be implemented should potential roosting habitat or potentially active bat roosts be identified during the habitat assessment in buildings to be demolished or relocated, or in trees adjacent to construction activities that could be trimmed or removed within the study area: 1. In areas identified as potential roosting habitat during the habitat assessment, initial building demolition, relocation, and any tree work (trimming or removal) shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15. These periods avoid the bat maternity roosting season and period of winter torpor. 2. If construction occurs during the roosting season, the qualified biologist shall conduct pre-construction surveys of potential bat roost sites identified during the initial habitat assessment no more than 14 days prior to building demolition or relocation, or any tree trimming or removal.	LTS

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TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.3, Biological Resources			
Impact BIO-1 (cont.) ***Special-Status and Otherwise Protected Bats*** *(cont.)*		3. If active bat roosts or evidence of roosting is identified during pre-construction surveys for building demolition or tree work, the qualified biologist shall determine, if possible, the type of roost and species. A no-disturbance buffer shall be established around roost sites until the start of the seasonal windows identified above, or the qualified biologist determines roost sites are no longer active. The size of the no-disturbance buffer would be determined by the qualified biologist and would depend on the species present, roost type, existing screening around the roost site (such as dense vegetation or a building), as well as the type of construction activity that would occur around the roost site. 4. Buildings and trees with potential bat roosting habitat or active roosts shall be disturbed only under clear weather conditions when precipitation is not forecast for three days and when daytime temperatures are at least 50 degrees Fahrenheit. 5. The demolition of buildings containing or suspected to contain potential bat roosting habitat or active bat roosts shall be done under the supervision of the qualified biologist during daytime. When appropriate, buildings shall be partially dismantled to significantly change the roost conditions, causing bats to abandon and not return to the roost, likely in the evening and after bats have emerged from the roost to forage. Under no circumstances shall active maternity roosts be disturbed until the roost disbands at the completion of the maternity roosting season or otherwise becomes inactive, as determined by the qualified biologist. 6. Trimming or removal of existing trees with potential bat roosting habitat or active (non-maternity or hibernation) bat roost sites shall follow a two-step removal process (which shall occur during the time of year when bats are active, according to a) above. a. On the first day and under supervision of the qualified biologist, tree branches and limbs not containing cavities or fissures in which bats could roost shall be cut using chainsaws or other handheld equipment. b. On the following day and under the supervision of the qualified biologist, the remainder of the tree may be trimmed or removed, either using chainsaws or other equipment (e.g., excavator or backhoe). c. All felled trees shall remain on the ground for at least 24 hours prior to chipping, off-site removal, or other processing to allow any bats to escape, or be inspected once felled by the qualified biologist to ensure no bats remain within the tree and/or branches.	
Operational Impacts		None required	NA

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TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.3, Biological Resources			
Impact BIO-2: Implementation of the proposed Project would not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or have a substantial adverse effect an on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS.	S	**Mitigation Measure BIO-2a: In-Situ Restoration of Temporary Impacts.** Although much of the impact on tidal salt marsh and open water/tidal aquatic habitat in Easton Creek resulting from outfall replacement will be permanent, some of the impacts may be temporary, occurring only during removal of the existing outfalls and installation of new ones. All temporarily impacted areas (i.e., areas where new hardened material will not be placed) will be restored by the Project applicant or designee following construction by restoring topography and soils to pre-project conditions. The sparse pickleweed habitat along Easton Creek is likely to become recolonized easily without the need for seeding and planting, as long as the existing hydrology and topography are restored following temporary impacts. **Mitigation Measure BIO-2b: Compensatory Mitigation for Permanent Impacts.** The Project applicant will provide compensatory mitigation for permanent loss of tidal salt marsh and open water/tidal aquatic habitat resulting from direct fill from outfall replacement, and for potential loss of tidal salt marsh from shading from bridges. The Project applicant will provide new wetland or aquatic habitat of the same type that was impacted to offset this impact, either through the creation, enhancement, or restoration of wetlands in an appropriate location or via the purchase of mitigation credits in a USACE, BCDC, and/or RWQCB-approved wetland mitigation bank. The purchase of such credits at a 1:1 ratio, on an acreage basis, or as specified by any state or federal permitting agencies, shall serve as full mitigation for impacts to these wetland features. If project-specific creation, enhancement, or restoration of wetland habitat is implemented, habitat will be restored or created at a minimum ratio of 1:1 (compensation: impact) on an acreage basis, or as otherwise required by any state or federal permitting agencies. USACE, BCDC, and/or RWQCB approvals may be required to authorize permanent impacts to this feature. If compensatory mitigation is not provided by purchasing mitigation credits from a USACE- or RWQCB-approved wetland mitigation back, then, the Project applicant will provide compensation by creating, enhancing, or restoring wetland habitat so as to achieve the 1:1 ratio somewhere in San Mateo County, or as otherwise required by any state or federal permitting agencies. A qualified biologist shall develop a “Wetland Mitigation and Monitoring Plan” describing the mitigation, which will contain the following components (or as otherwise modified by regulatory agency permitting conditions): • Summary of habitat impacts and proposed mitigation ratios • Goal of the restoration to achieve no net loss of habitat functions and values • Location of mitigation site(s) and description of existing site conditions • Mitigation design: – Existing and proposed site hydrology	LTS

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TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.3, Biological Resources			
Impact BIO-2 (cont.)		– Grading plan if appropriate, including bank stabilization or other site stabilization features – Soil amendments and other site preparation elements as appropriate – Planting plan – Irrigation and maintenance plan – Remedial measures and adaptive management • Monitoring plan (including performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule). Success criteria will include quantifiable measurements of wetland vegetation type (e.g., dominance by natives) and extent appropriate for the restoration location, and provision of ecological functions and values equal to or exceeding those in the wetland habitat affected. At a minimum, success criteria will include following: – At Year 5 post-mitigation, at least 75 percent of the mitigation site for tidal salt marsh will be dominated by native hydrophytic vegetation. The Wetland Mitigation and Monitoring Plan must be approved by the City of Burlingame prior to the wetland impacts, and implementation of the Plan must begin within one year after the discharge of fill into or construction of a bridge over tidal salt marsh or open water/tidal aquatic habitat.	
Impact BIO-3: Implementation of the proposed Project would not interfere substantially with the movement of a 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.	LTS	None required.	NA
Impact BIO-4: Implementation of the proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	LTS	None required.	NA
Impact C-BIO-1: Implementation of the proposed Project, in combination with past, present, and reasonably foreseeable future development, would not have a substantial adverse effect, either directly, indirectly, or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS (special-status fish, nesting birds, special-status roosting bats).	S	Implement Mitigation Measure BIO-1a, BIO-1b, BIO-1c, BIO-1d, BIO-1e, BIO-2a, and BIO-2b.	LTS

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TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.3, Biological Resources			
Impact C-BIO-2: Implementation of the proposed Project, in combination with past, present, and reasonably foreseeable future development, would not have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means; would and would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS.	S	Implement Mitigation Measure BIO-1a, BIO-1b, BIO-1c, BIO-1d, BIO-1e, BIO-2a, and BIO-2b.	LTS
Section 4.4, Cultural Resources, including Tribal Cultural Resources			
Impact CUL-1: The Project would not cause a substantial adverse change in the significance of a historical resource.	NI	None required.	NA
Impact CUL-2: The Project may cause a substantial adverse change in the significance of an archaeological resource pursuant to Public Resources Code Section 15064.5.	S	**Mitigation Measure CUL-2a: Cultural Resources Awareness Training.** Before any ground-disturbing and/or construction activities, an archaeologist meeting or under the supervision of an archaeologist meeting the Secretary of the Interior Standards for Archeology shall conduct a training program for all construction and field personnel involved in ground disturbance. If a Native American tribe has expressed interest in the Project via tribal consultation, they will be invited to participate in the training program. On-site personnel shall attend a mandatory pre-Project training that shall outline the general archaeological sensitivity of the area and the procedures to follow in the event an archaeological resource and/or human remains are inadvertently discovered. A training program shall be established for new Project personnel before they begin Project work. **Mitigation Measure CUL-2b: Inadvertent Discovery of Cultural Resources.** If pre-contact or historic-era archaeological resources are encountered during Project implementation, all construction activities within 100 feet shall halt, and a qualified archaeologist, defined as an archaeologist meeting the U.S. Secretary of the Interior's Professional Qualification Standards for Archeology, shall inspect the find within 24 hours of discovery and notify the City of their initial assessment. Pre-contact archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include building or structure footings and walls, and deposits of metal, glass, and/or ceramic refuse.	LTS

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TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.4, Cultural Resources, including Tribal Cultural Resources (cont.)			
Impact CUL-2 (cont.)		If the City determines, based on recommendations from a qualified archaeologist and a Native American representative (if the resource is pre-contact), that the resource may qualify as a historical resource or unique archaeological resource (as defined in CEQA Guidelines Section 15064.5) or a tribal cultural resource (as defined in PRC Section 21080.3), the resource shall be avoided, if feasible. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, the City shall consult with appropriate Native American tribes (if the resource is pre-contact), and other appropriate interested parties to determine treatment measures to avoid, minimize, or mitigate any potential impacts to the resource pursuant to PRC Section 21083.2, and CEQA Guidelines Section 15126.4. This shall include documentation of the resource and may include data recovery (according to PRC Section 21083.2), if deemed appropriate, or other actions such as treating the resource with culturally appropriate dignity and protecting the cultural character and integrity of the resource (according to PRC Section 21084.3).	
Impact CUL-3: The Project may disturb human remains, including those interred outside of designated cemeteries.	S	**Mitigation Measure CUL-3: Inadvertent Discovery of Human Remains.** In the event of discovery or recognition of any human remains during construction activities, such activities within 100 feet of the find shall cease until the appropriate County Coroner has been contacted to determine that no investigation of the cause of death is required. The Native American Heritage Commission (NAHC) will be contacted within 24 hours if it is determined that the remains are Native American. The NAHC will then identify the person or persons it believes to be the most likely descendant from the deceased Native American, who in turn would make recommendations to the lead agency for the appropriate means of treating the human remains and any grave goods.	LTS
Impact CUL-4: The Project may cause a substantial adverse change to tribal cultural resources, as defined in Public Resources Code Section 20174.	S	Implement Mitigation Measure CUL-2a, Mitigation Measure CUL-2b, and Mitigation Measure 2c.	LTS
Impact C-CUL-1: The Project, when combined with other past, present, or reasonably foreseeable projects, would not result in a significant cumulative impact to historical resources or tribal cultural resources.	LTS	None required.	NA
Impact C-CUL-2: The Project, when combined with other past, present, or reasonably foreseeable projects, would not result in a significant cumulative impact to archaeological resources, human remains, or tribal cultural resources.	S	Implement Mitigation Measure CUL-2a, Mitigation Measure CUL-2b, and Mitigation Measure 2c.	LTS

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TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.5, Energy			
Impact ENE-1: Implementation of the Project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	LTS	None required.	NA
Impact ENE-2: Implementation of the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	LTS	None required.	NA
Impact C-ENE-1: The Project, combined with cumulative development in the Project site vicinity and citywide, would not result in significant cumulative energy impacts.	LTS	None required.	NA
Section 4.6, 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 involving strong seismic ground shaking.	LTS	None required.	NA
Impact GEO-2: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.	LTS	None required.	NA
Impact GEO-3: The Project would not result in substantial soil erosion or the loss of topsoil.	LTS	None required.	NA
Impact GEO-4: The Project would not require development that would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	LTS	None required.	NA
Impact GEO-5: The Project would not require development that would be located on expansive soil resulting in substantial direct or indirect risks to life or property.	LTS	None required.	NA
Impact C-GEO-1: The Project, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on geology, soils, or paleontological resources.	LTS	None required.	NA

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TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.7, Greenhouse Gas Emissions			
Impact GHG-1: Construction and operation of development proposed under the Project would generate GHG emissions, either directly or indirectly, that could conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions of GHGs and lead to a significant impact on the environment.	S	Implement Mitigation Measure AIR-2a; Mitigation Measure AIR-2b; Mitigation Measure AIR-2c; Mitigation Measure AIR-2d; and Mitigation Measure AIR-3a.	LTS
Section 4.8, Hazards and Hazardous Materials			
Impact HAZ-1: The Project would not create a significant hazard to the public or the environment through the routine transport, use, disposal of hazardous materials; or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials.	S	**Mitigation Measure HAZ-1: Construction Soil and Groundwater Management Plan.** The contractor conducting excavation of fill and soil and dewatering of excavations shall develop and implement a soil and groundwater management plan (SGMP) for the management of soil, fill, soil gas, and groundwater before any ground-disturbing activity to manage contaminated materials, if encountered. The SGMP shall include the following, at a minimum: • Site description, including the hazardous materials that may be encountered. • Roles and responsibilities of on-site workers, supervisors, and the regulatory agency. • Training for site workers focused on the recognition of and response to encountering hazardous materials or unknown structures, e.g., underground storage tanks (USTs). • Notification requirements in the event of discovery of unknown structures or contamination. • Protocols for the materials (fill, soil, and dewatering effluent) testing, handling, removing, transporting, and disposing of all excavated materials and dewatering effluent in a safe, appropriate, and lawful manner. • Reporting requirement to the overseeing regulatory agency, if any contamination is found that requires agency oversight, documenting that site activities were conducted in accordance with the SGMP. The SGMP shall be submitted to the SMCEHS and the City of Burlingame Building Division for review to inform their permit approval process before the start of demolition and construction activities and as a condition of the grading, construction, and/or demolition permit(s). The contract specifications shall mandate full compliance with all applicable federal, state, and local regulations related to the identification, transportation, and disposal of hazardous materials. The SGMP shall include measures to remove and/or treat/remediate the impacted soil, fill, and groundwater, as needed, in a manner that is protective of human health and the environment and compatible with commercial land use, in compliance with all applicable regulatory standards, under	LTS

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TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.8, Hazards and Hazardous Materials (cont.)			
Impact HAZ-1 (cont.)		supervision of a qualified environmental professional. The SGMP shall describe measures for (i) management of excavated soil, fill, and groundwater, (ii) characterization of soil and fill to determine whether they qualify as hazardous waste under regulations such as 22 C.C.R. Section 66262.11 or other regulations identified in the SGMP or otherwise identified by the oversight agencies, and (iii) offsite disposal of excavated soil and fill, and disposal of dewatered groundwater in compliance with all applicable regulations. The SGMP shall also provide measures for the evaluation of vapor intrusion risk at the Project site, and if necessary, modification of the Project design and/or installation of a vapor intrusion mitigation system consistent with the procedures and performance standards set forth in DTSC's October 2011 Vapor Intrusion Mitigation Advisory or as otherwise determined applicable by the oversight agency at the time of construction. For work that would encounter groundwater, as part of the SGMP, the contractor(s) shall include a groundwater dewatering control and disposal plan specifying how groundwater (dewatering effluent) will be handled and disposed of in a safe, appropriate, and lawful manner. The groundwater portion of the SGMP shall include the following, at a minimum: • The locations at which groundwater dewatering is likely to be required. • Test methods to analyze groundwater for hazardous substances. • Appropriate treatment and/or disposal methods. • Discussion of discharge to a publicly owned treatment works or the stormwater system, in accordance with any regulatory requirements the treatment works may have, if this effluent disposal option is to be used.	
Impact HAZ-2: The Project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and could have the potential to create a significant hazard to the public or the environment.	S	Implement Mitigation Measure HAZ-1.	LTS
Impact HAZ-3: The Project would be located within an airport land use plan but would not result in a safety hazard or excessive noise for people residing or working in the project area or create a hazard to navigable airspace and/or operations at a public airport.	LTS	None required.	NA
Impact HAZ-4: The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	None required.	NA

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TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.8, Hazards and Hazardous Materials (cont.)			
Impact C-HAZ-1: The Project, in combination with past, present, and reasonably foreseeable future development would not result in a cumulatively significant impact related to hazards and hazardous materials.	LTS	None required.	NA
Section 4.9, Hydrology and Water Quality			
Impact HYD-1: Implementation of the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	S	Implement Mitigation Measure HAZ-1.	LTS
Impact HYD-2: Implementation of the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	LTS	None required.	NA
Impact HYD-3: Implementation of 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 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.	LTS	None required.	NA
Impact HYD-4: Implementation of the Project would not result in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.	LTS	None required.	NA
Impact HYD-5: Implementation of the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	S	Implement Mitigation Measure HAZ-1.	LTS

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TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.9, Hydrology and Water Quality (cont.)			
Impact C-HYD-1: Implementation of the Project, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on hydrology and water quality.	LTS	None required.	NA
Section 4.10, Land Use and Planning			
Impact LU-1: The Project would not physically divide an established community.	NI	None required.	NA
Impact LU-2: The Project would not 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.	LTS	None required.	NA
Impact C-LU-1: The Project, when combined with other past, present, or reasonably foreseeable projects, would not result in a significant cumulative land use and planning impact.	LTS	None required.	NA
Section 4.11, Noise and Vibration			
Impact NOI-1: Construction activities under the Project would not generate a substantial temporary increase in ambient noise levels in the vicinity of the Project site in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	LTS	None required.	NA
Impact NOI-2: Implementation of the Project would not generate substantial permanent increases in ambient noise levels in the vicinity of the Project site in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	LTS	None required.	NA
Impact NOI-3: Construction activities for the Project and related improvements would not result in generation of excessive groundborne vibration or groundborne noise levels.	LTS	None required.	NA

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TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.11, Noise and Vibration (cont.)			
Impact NOI-4: The Project is located within an airport land use plan but would not expose people residing or working in the Project area to excessive noise levels?	LTS	None required.	NA
Impact C-NOI-1: Implementation of the Project, combined with cumulative construction noise in the Project area, would not generate a substantial temporary increase in ambient noise levels from construction activity 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.	LTS	None required.	NA
Impact C-NOI-2: Implementation of the Project, combined with cumulative development in the project area, would not generate substantial permanent increases 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.	LTS	None required.	NA
Impact C-NOI-3: Implementation of the Project, combined with cumulative construction in the Project area, would not result in generation of excessive groundborne vibration or groundborne noise levels.	LTS	None required.	NA
Section 4.12, Population and Housing			
Impact POP-1: Implementation of the proposed Project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).	LTS	None required.	NA
Impact C-POP-1: Implementation of the proposed project, in combination with other development, could induce substantial unplanned population growth in an area, either directly or indirectly.	LTS	None required.	NA

S = Significant Impact
SU = Significant and Unavoidable with Mitigation
LTS = Less than Significant impact
NI = No impact
NA = Not applicable

TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.13, Public Services and Recreation			
Impact PSR-1: Implementation of the Project would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered fire protection and emergency medical response services facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection.	LTS	None required.	NA
Impact PSR-2: Implementation of the Project would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection.	LTS	None required.	NA
Impact PSR-3: Implementation of the Project would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools.	LTS	None required.	NA
Impact PSR-4: Implementation of the Project would not 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.	LTS	None required.	NA
Impact PSR-5: Implementation of the Project would include recreational facilities, but would not require the construction or expansion of recreational facilities which might have a substantially adverse physical effect on the environment.	LTS	None required.	NA

S = Significant Impact
SU = Significant and Unavoidable with Mitigation
LTS = Less than Significant impact
NI = No impact
NA = Not applicable

TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Section 4.13, Public Services and Recreation (cont.)			
Impact C-PSR-1: Implementation of the Project, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on public services that would require new or physically altered governmental facilities, construction of which could have significant physical environmental impacts.	LTS	None required.	NA
Impact C-PSR-2: Implementation of the Project, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on parks and recreation.	LTS	None required.	NA
Section 4.14, Transportation			
Impact TR-1: Implementation of the Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	LTS	None required.	NA
Impact TR-2: Implementation of the Project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	LTS	None required.	NA
Impact TR-3: Implementation of the Project would not substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	LTS	None required.	NA
Impact TR-4: Implementation of the Project would not result in inadequate emergency access.	LTS	None required.	NA
Impact C-TR-1: Implementation of the Project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not result in a cumulatively considerable contribution to a cumulative transportation impact.	LTS	None required.	NA

S = Significant Impact
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NI = No impact
NA = Not applicable

TABLE 2-1 (CONTINUED)
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
EIR Section 4.15, Utilities and Service Systems			
Impact UTIL-1: Implementation of the proposed Project would require or result in the construction of new or expanded water, wastewater treatment or storm water drainage, electric power, or telecommunications facilities, the construction or relocation of which would not cause significant environmental effects.	LTS	None required.	NA
Impact UTIL-2: Sufficient City water supply would be available to serve the Project and reasonably foreseeable future development under normal years even if the Bay Delta Plan Amendment is implemented. However, the Project would contribute to a shortfall in the City's water supply during single dry and multiple dry years with implementation of the Bay-Delta Plan Amendment.	S	**Mitigation Measure UTIL-2: Contribute to Water Conservation Programs under the City's Development Offset Program.** Per the Development Offset Program and the WSA, the Project applicant shall make a monetary contribution to pay for its fair share of funding of water conservation programs to offset the Project's contribution to the City's water demand overage of 9 MGY during multiple dry years. The Project applicant shall make this contribution in three installments prior to issuance of Certificate of Occupancy for each of the three office/R&D buildings in amounts calculated at that time which are proportional to each building's square footage.	LTS
Impact UTIL-3: The wastewater treatment provider would have adequate wastewater treatment capacity to serve the Project.	LTS	None required.	NA
Impact UTIL-4: Construction and operation of the Project would not generate solid waste in excess of State or local standards or the capacity of local infrastructure and would comply with federal, state and local statutes and regulations related to solid waste.	LTS	None required.	NA
Impact C-UTIL-1: Development under the proposed Project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the Project site, would not substantially contribute to cumulative impacts related to utilities and services systems.	LTS	None required.	NA

S = Significant Impact
SU = Significant and Unavoidable with Mitigation
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NI = No impact
NA = Not applicable

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CHAPTER 3
Project Description

3.1 Project Site and Vicinity Description

3.1.1 Project Site

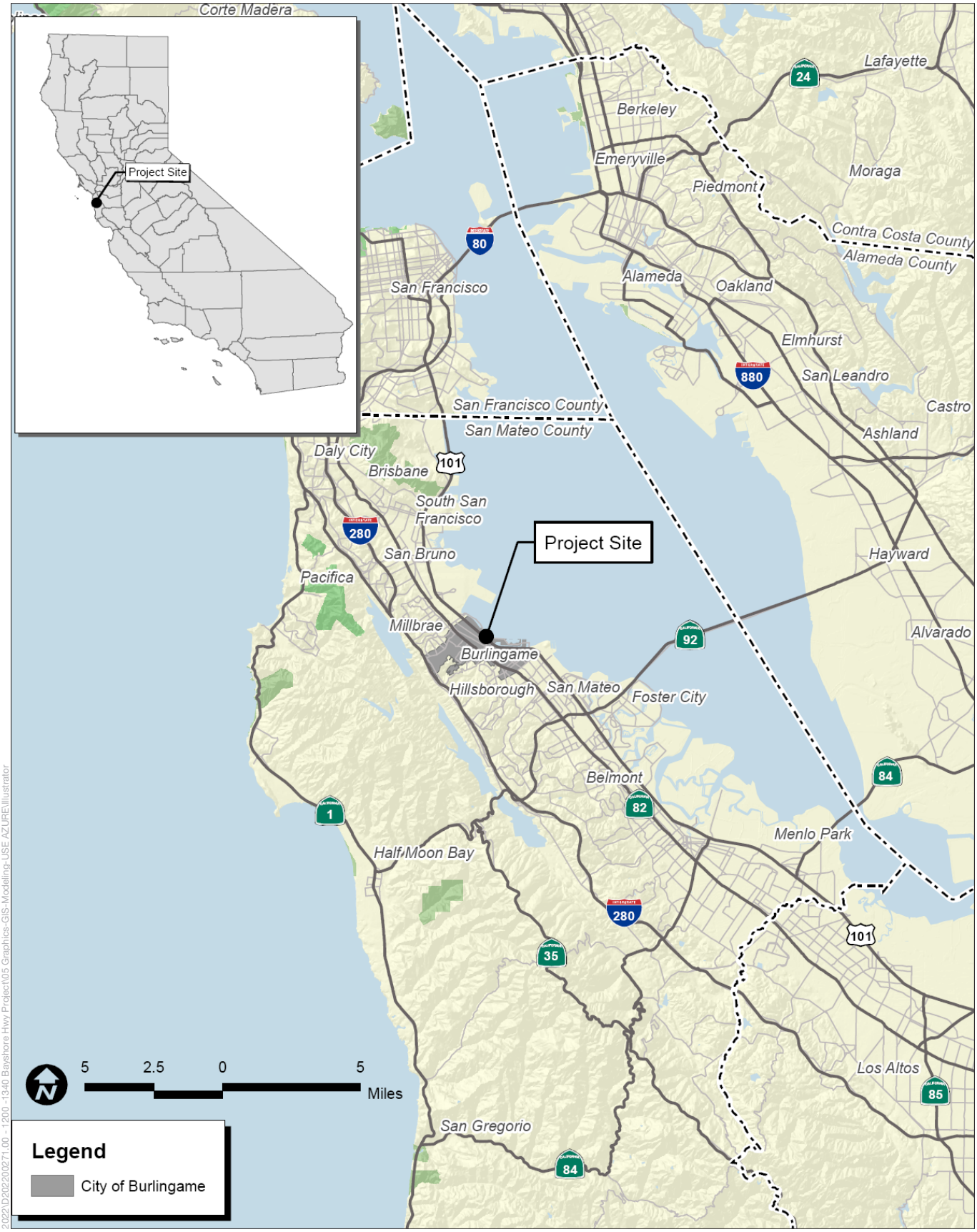
The Project site, commonly known as 1200-1340 Old Bayshore Highway,[1] is located along the bayfront in the City of Burlingame between Old Bayshore Highway and the San Francisco Bay (Bay). **Figure 3-1** includes a regional location map, and **Figure 3-2** includes an aerial photograph of Project site and vicinity. The approximately 12-acre Project site consists of 13 contiguous parcels, owned by DW Burlingame I Owner, LLC, DW Burlingame II Owner, LLC, and DW Burlingame III Owner, LLC. As shown in **Figure 3-3**, this includes Assessor's Parcel Numbers (APNs) 026113470, 026113330, 026113480, 026113450, 026142110, 026142220, 026142200, 026142240, 026142160, 026142170, 026142020, 026142030, and 026142180.

The Project site is relatively level, with ground surface elevation generally ranging between approximately 10 and 12 feet NAVD 88.[2] Easton Creek bisects the northern portion of the Project site. The creek configuration is comprised partially of an open channel and partially culverted within the Project site. An unnamed remnant channel partially bisects the southern portion of the Project site.

There are eight existing buildings on the Project site, totaling approximately 247,466 square feet (sf). These buildings were constructed between the mid-1950s through late 1960s and include several one- to three- story commercial buildings and a former movie theater. These buildings are presently occupied by a few businesses, including professional offices, hotel, an ambulance service, and restaurants. Operation of existing uses on the site involve approximately 83 employees. The existing buildings are surrounded by asphalt paved driveways and parking areas (approximately 550 spaces), concrete sidewalks, and areas of landscaping. Landscaping on the Project site consists of a variety of ornamental trees, shrubs, and groundcovers.

1 The property actually includes several addresses ranging between 1200 and 1340 Old Bayshore Highway.

2 North American Vertical Datum of 1988. NAVD 88 is the vertical control datum established in 1991 by the minimum-constraint adjustment of the Canadian-Mexican-United States leveling observations. It held fixed the height of the primary tidal benchmark, referenced to the new International Great Lakes Datum of 1985 local mean sea level height value, at Father Point/Rimouski, Quebec, Canada. (Source: National Marine Fisheries Service (NOAA). National Geodetic Survey. Website: https://geodesy.noaa.gov/datums/vertical/north-american-vertical-datum-1988.shtml.



SOURCE: First Carbon Solutions, 2022

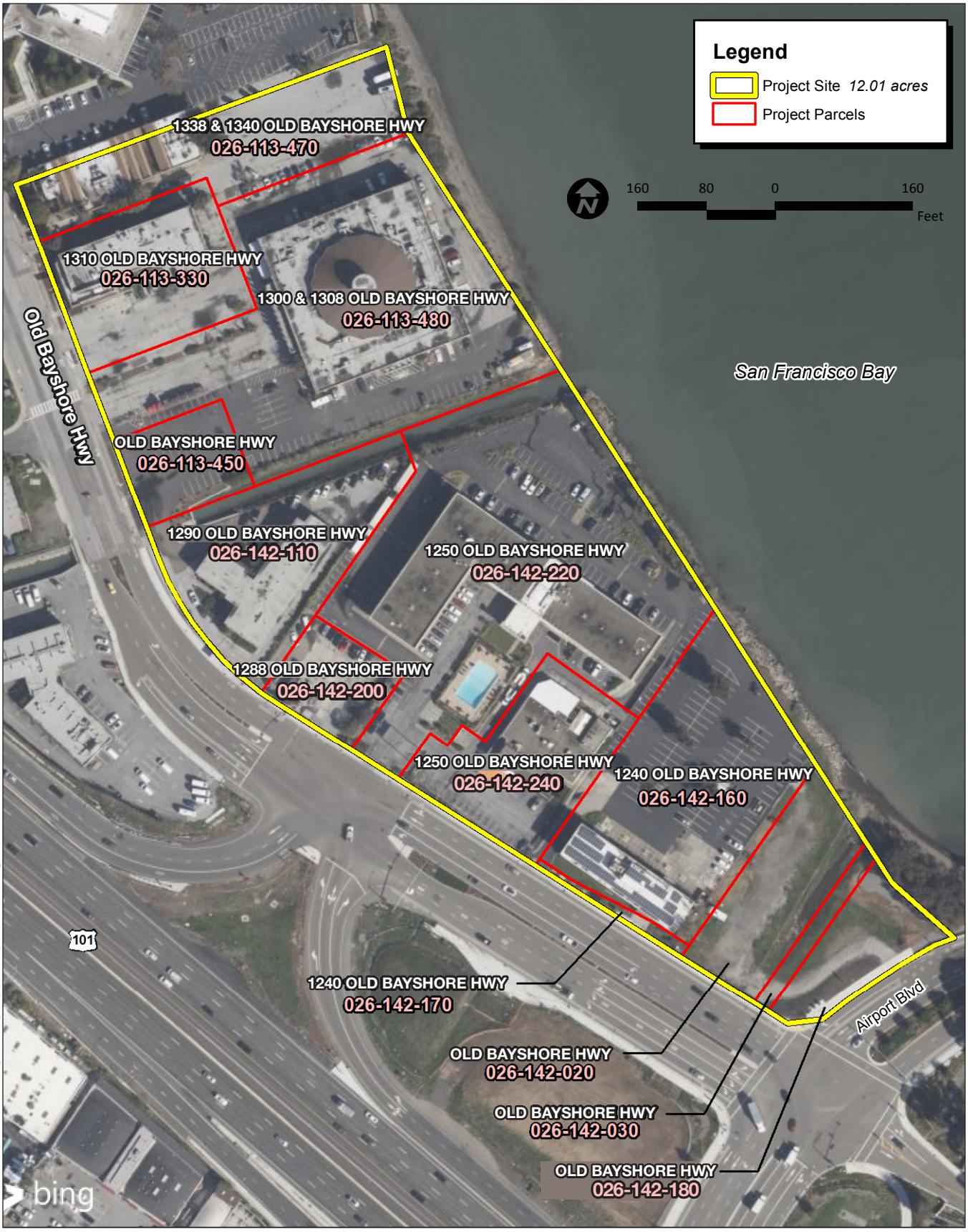
1200-1340 Old Bayshore Highway EIR

Figure 3-1
Regional Location

SOURCE: ESA, 2022; Google Earth, 2022

1200-1340 Old Bayshore Highway EIR

Figure 3-2
Aerial Photograph of Site Vicinity



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SOURCE: First Carbon Solutions, 2022

1200-1340 Old Bayshore Highway EIR

Figure 3-3
Project Parcels

The southernmost parcel on the Project site is largely unpaved but disturbed, containing a drainage ditch and unpaved gravel road, tidal salt marsh, and the aforementioned remnant channel. The drainage ditch extends north within the southern parcel from just north of Airport Boulevard and terminates at the remnant channel. There are three existing storm drainage outfalls on the Project site: one outfall on each side of Easton Creek and one outfall north of the existing 1300-1308 Old Bayshore Highway building; each outfall is directly connected to an existing on-site storm drain structure. Additionally, there is a storm drainpipe at the southern end of the Project site that discharges off-site stormwater from Airport Boulevard into the drainage ditch located on the Project site's southern parcel. The drainage ditch conveys stormwater runoff to the tidally influenced wetland area located at the mouth of the drainage channel.

Regional access to the Project site is provided by U.S. Highway 101 (U.S. 101). Local access in the vicinity is provided by Old Bayshore Highway, Broadway and Airport Boulevard. The recently completed U.S. 101/Broadway interchange, with northbound on- and off-ramp access at Old Bayshore Highway, is located adjacent to the Project site. Ten driveways along Old Bayshore Highway, and one driveway along Airport Boulevard currently serve the Project site. Existing paved off-street segments of the San Francisco Bay Trail (Bay Trail) currently terminate at the northeast and southeast corners of the Project site, the frontage of which is a missing link in the Bay Trail network. Currently, Bay Trail users go through the parking lot and onto the public sidewalk on Old Bayshore Highway to connect to the remainder of the trail.

The Project site is designated Bayfront Commercial in the City's General Plan, Envision Burlingame (General Plan), which was updated in 2020; and within the Bayfront Commercial (BFC) Zoning District. The San Francisco Bay Conservation Development Commission (BCDC) maintains jurisdiction over the 100-foot band of the Bay shoreline and Easton Creek channel portions of the Project site.

3.1.2 Surrounding Land Uses

Existing land uses in the Project site vicinity consist primarily of commercial office, light industrial, hotel, and warehouse and open space uses.

The Project site is bounded by a privately owned, partially submerged parcel abutting San Francisco Bay to the east, Old Bayshore Highway to the west and Airport Boulevard to the south. A nine-story commercial office building (One Bay Plaza, 1350 Bayshore Highway) and associated parking lots are located to the north of the Project site. The nine-story Hyatt Regency Hotel (1333 Old Bayshore Highway) and associated parking is located across Old Bayshore Highway to the west of the Project site. Southwest of the Project site is a two-story office building at 1299 Old Bayshore Highway. The seven-story Kahala Tower office building (851 Burlway Road) is located northwest of the Project site. Bayside Park is located across Airport Boulevard to the southeast of the Project site. U.S. Highway 101 is located approximately 250 feet west of the Project site.

The Project site is located approximately 0.3-mile south of the San Francisco International Airport (SFIA) south property boundary,[3] and just over one mile from the nearest SFIA runway. The

[3] The SFIA south airport boundary extends roughly from Mills Creek east over the Bay.

nearest Caltrain station is the Broadway station approximately 0.3 miles south of the Project site on Broadway at California Drive. The closest Bay Area Rapid Transit (BART) station is Millbrae Station (an intermodal station that also has Caltrain service), approximately 1.3 miles west of the Project site near the intersection of Millbrae Avenue and El Camino Real in the City of Millbrae.

3.2 Project Objectives

Section 15124(b) of the CEQA Guidelines requires that the Project Description of an EIR contain a statement of the objectives for the proposed Project, including the underlying purpose of the project.

The underlying purpose of the proposed Project is to develop a major state-of the-art life science and/or office development, with supporting amenities at a prominent, signature waterfront location proximate to major transportation corridors and high quality transit such as BART and Caltrain. Other objectives of the proposed Project include:

- Create a world-class life science/office waterfront development of multiple buildings suitable for one or several major users, with amenities to serve employees, visitors, and members of the general public.
- Develop a site plan that preserves key view corridors and provides community benefits, including the creation of major new open spaces and Bay Trail connections that prioritize public access through the site and to the waterfront.
- Redevelop underutilized existing parcels and outdated structures and asphalt surfaces in a manner consistent with the City's General Plan vision for the Bayshore area as a regional recreation and business destination.
- Include well-designed, individual buildings of sufficient floor-plate size and design to accommodate a variety of building uses and phasing flexibility to ensure that the Project is responsive to market conditions and tenant demands, while providing community benefits that meet or exceed the City's requirements.
- Establish a development with sophisticated, unified architectural and landscape design and site planning consistent with City design review regulations and applicable General Plan policies, resulting in a distinctive project identity and strong sense of place and relationship to the waterfront context.
- Improve and enhance public access to the waterfront by extending the Bay Trail through the site and improving the waterfront and creek-side edges of the site through paving, wayfinding signage, street furniture, lighting, and other amenities.
- Promote public transit linkages and use of alternative modes of transportation by including shuttles and other Transportation Demand Management programs as well as bicycle and pedestrian access to and through the site, including safety enhancements to off-site bicycle and pedestrian infrastructure.
- Provide sufficient automobile parking to meet the demand of Project users consistent with City regulations and policies and with the aim to promote transit, electric vehicle, and other VMT-friendly travel.

- Incorporate sustainable and environmentally sensitive design and equipment, energy conservation features, water conservation and landscaping measures, and sustainable stormwater management features.
- Build shoreline infrastructure to contribute toward flood protection and sea level rise resiliency for the Project and the City.
- Provide a positive fiscal impact on the local economy through the creation of jobs, diversification of the types of employment in the City, enhancement of property values, increasing demand for nearby hotel uses, and generation of property tax and other development fees.

3.3 Project Characteristics

3.3.1 Land Use Program and Space Summary

The Project applicant proposes a life science and/or office development consisting of three life science and/or office buildings and two parking structures, along with site circulation, infrastructure, recreational and landscaping improvements. All existing Project site buildings and surface parking lots would be demolished and removed.

A summary of the proposed life science/office building uses, by floor is presented in **Table 3-1**. The proposed Project would construct three separate 11-story life science/office buildings (South, Center, and North Buildings) totaling approximately 1.42 million gross square feet (gsf). The life science/office buildings would be designed to support either office or life science tenants. The Project would provide for flexibility in end use and range from an overall building program of 100 percent life science use[4] to a 100 percent professional office use, or a combination thereof. The program would also include various amenities and 5,000 total square feet of café/restaurant space. The life science buildings would have a floor-to-area ratio (FAR) of 2.71.

Figure 3-4 illustrates the ground floor site plan (Level 1). The ground level floor of the life science/office buildings would contain two café/restaurant spaces (South and Center Buildings), office tenant space, tenant amenities space (e.g., conference center, fitness area), lobbies, cycle centers, and back-of-house operations space. The cafe/restaurant spaces would be open to the public. The proposed cycle centers would provide bicycle storage and shower facilities, including long-term space for 509 long-term bicycles, and 264 lockers (to store personal belongings). Short-term bike space for 120 bicycles would also be provided throughout the Project site. The ground level of the life science/office buildings would also include internal loading docks and internal trash docks (up to six bays in each building), mechanical and electrical equipment rooms, fuel oil storage and emergency generator rooms, and fire command centers.

[4] This document conservatively assumes 100 percent life science use of the project buildings on environmental topics where the impacts of a life science use are anticipated to be greater than that of office use; and assumes 100 percent office use of the project buildings on environmental topics where the impacts of office use would be greater than that of life science use.

TABLE 3-1
SUMMARY OF PROPOSED LIFE SCIENCE/OFFICE BUILDING USES, BY LEVEL

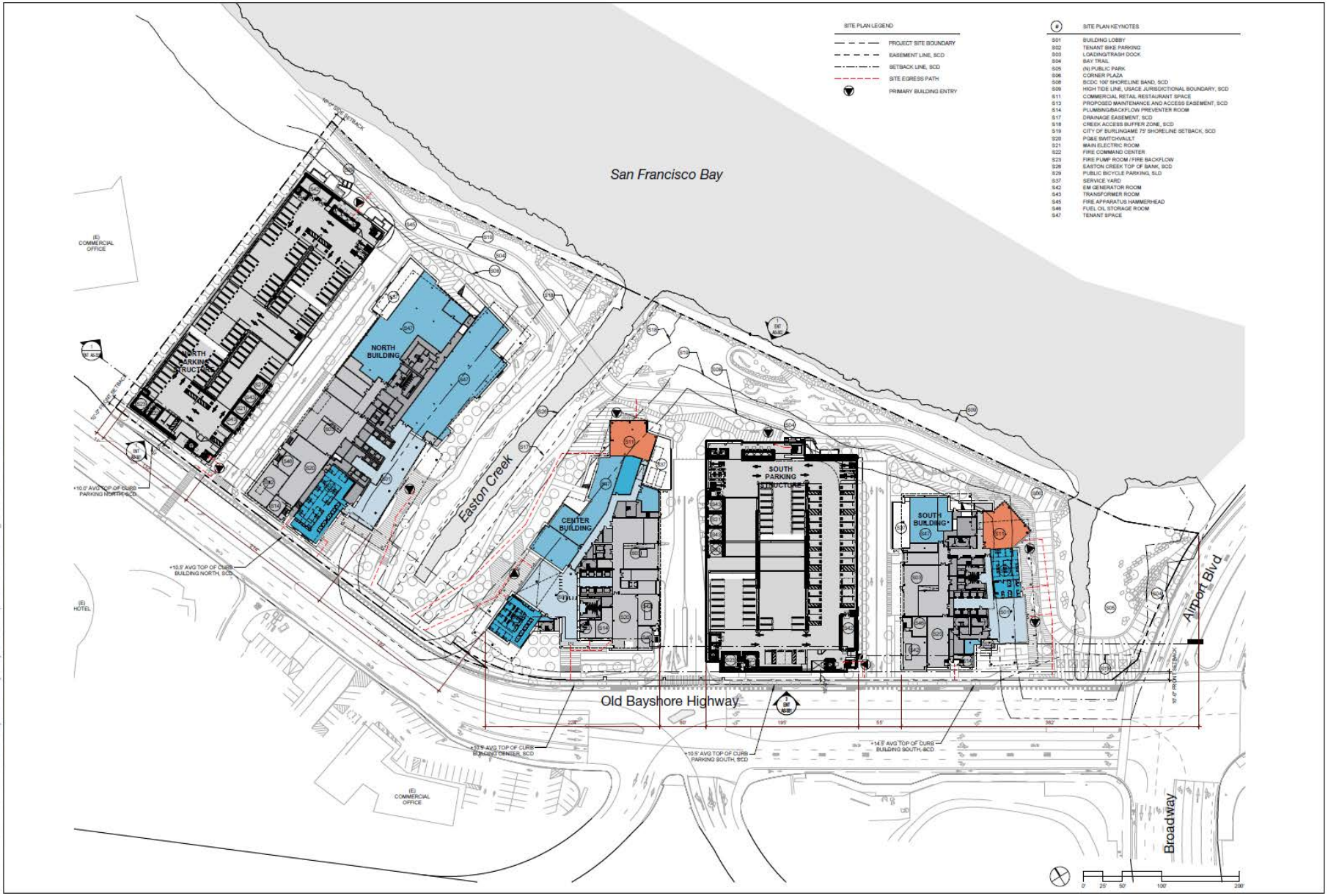
	North Building	Center Building		South Building		Total		
Floor Level	Life Science/ Office (gsf)	Life Science/ Office (gsf)	Café/ Restaurant (gsf)	Life Science/ Office (gsf)	Café/ Restaurant (gsf)	Life Science/ Office (gsf)	Cafe/ Restaurant (gsf)	Total (gsf)
Roof Level	13,600[a]	7,550[a]		6,600[a]		27,750[a]		27,750[a]
Level 11	36,900	26,100		26,500		89,500		89,500
Level 10	58,100	42,000		34,200		134,300		134,300
Level 9	58,100	42,000		34,200		134,300		134,300
Level 8	58,100	42,000		34,200		134,300		134,300
Level 7	58,100	41,900		34,100		134,100		134,100
Level 6	58,100	41,900		34,100		134,100		134,100
Level 5	58,100	41,900		34,050		134,050		134,050
Level 4	58,100	41,800		34,100		134,000		134,000
Level 3	58,100	41,800		34,000		133,900		133,900
Level 2	46,100	32,250		27,500		105,850		105,850
Level 1	54,500	35,850	2,500	28,500	2,500	118,850	5,000	123,850
Total	**615,900**	**437,050**	**2,500**	**362,050**	**2,500**	**1,415,000**	**5,000**	**1,420,000**

NOTE:
[a] Please note that this rooftop space would consist of mechanical rooms that count towards life science/office gross square footage per City zoning code. These rooftop spaces would be limited to use by maintenance personnel serving equipment, and are not intended for regular occupancy.

SOURCE: DW Burlingame I Owner, LLC, DW Burlingame II Owner, LLC, and DW Burlingame III Owner LLC; ESA

Figure 3-5 and **Figure 3-6** illustrate uses on Level 2, and Level 6 (representative of Levels 3 through 10), respectively, in each of the proposed life science/office buildings. Level 2 of the life science/office buildings would contain additional space for tenant and tenant amenities, lobby, and/or back of house operations. Levels 3 through 10 of the life science/office buildings would consist of tenant space. Level 11 would contain tenant space, with a portion of this level also consisting of a lower rooftop with mechanical space.

Figure 3-7 illustrates the proposed roof plan of the life science/office buildings. A limited amount of rooftop tenant space would be located in each life science/office building. This rooftop space would consist of mechanical rooms that would be limited to use by maintenance personnel serving equipment. Occupiable roof terraces would contain pavers, guardrails, and built-in trellis structures, as well as loose furniture provided by tenants. A rooftop mechanical penthouse screen would extend along the roof perimeter to screen most rooftop mechanical equipment from public view.



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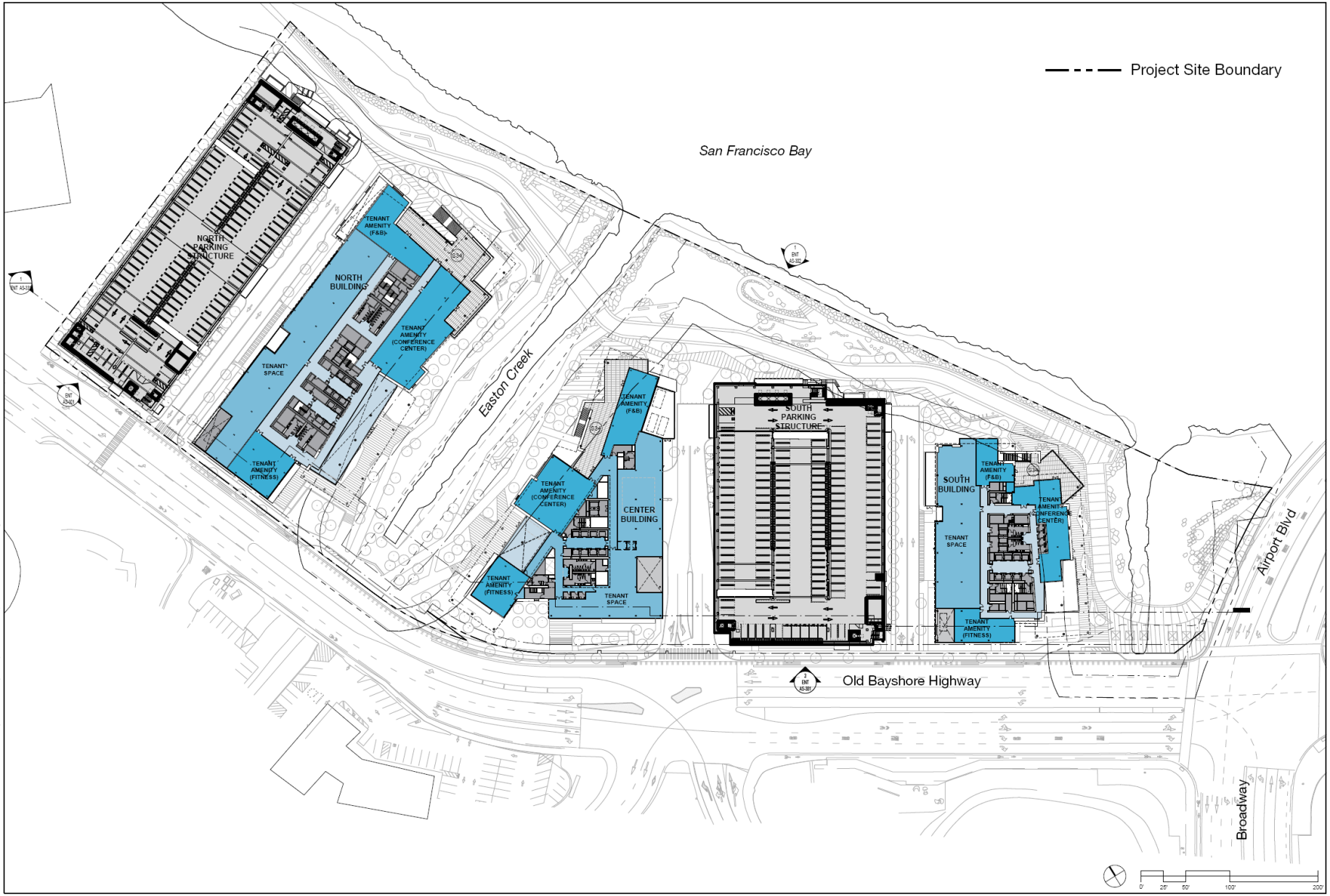
SOURCE: DW Burlingame I Owner, LLC, DW Burlingame II Owner, LLC, and DW Burlingame III Owner, LLC, 2022

1200-1340 Old Bayshore Highway EIR

Figure 3-4
Proposed Ground Level Site Plan



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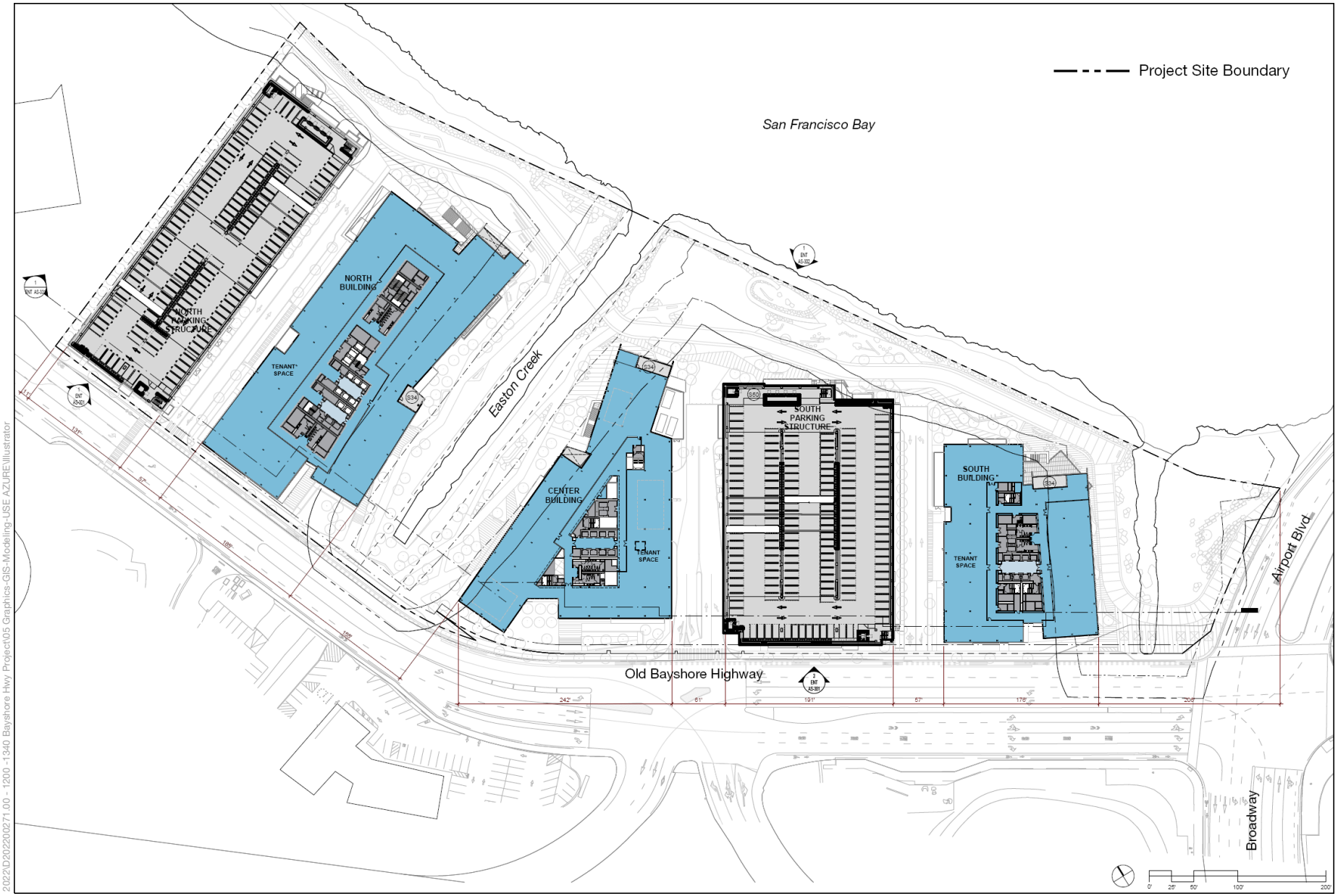
SOURCE: DW Burlingame I Owner, LLC, DW Burlingame II Owner, LLC, and DW Burlingame III Owner, LLC, 2022

1200-1340 Old Bayshore Highway EIR

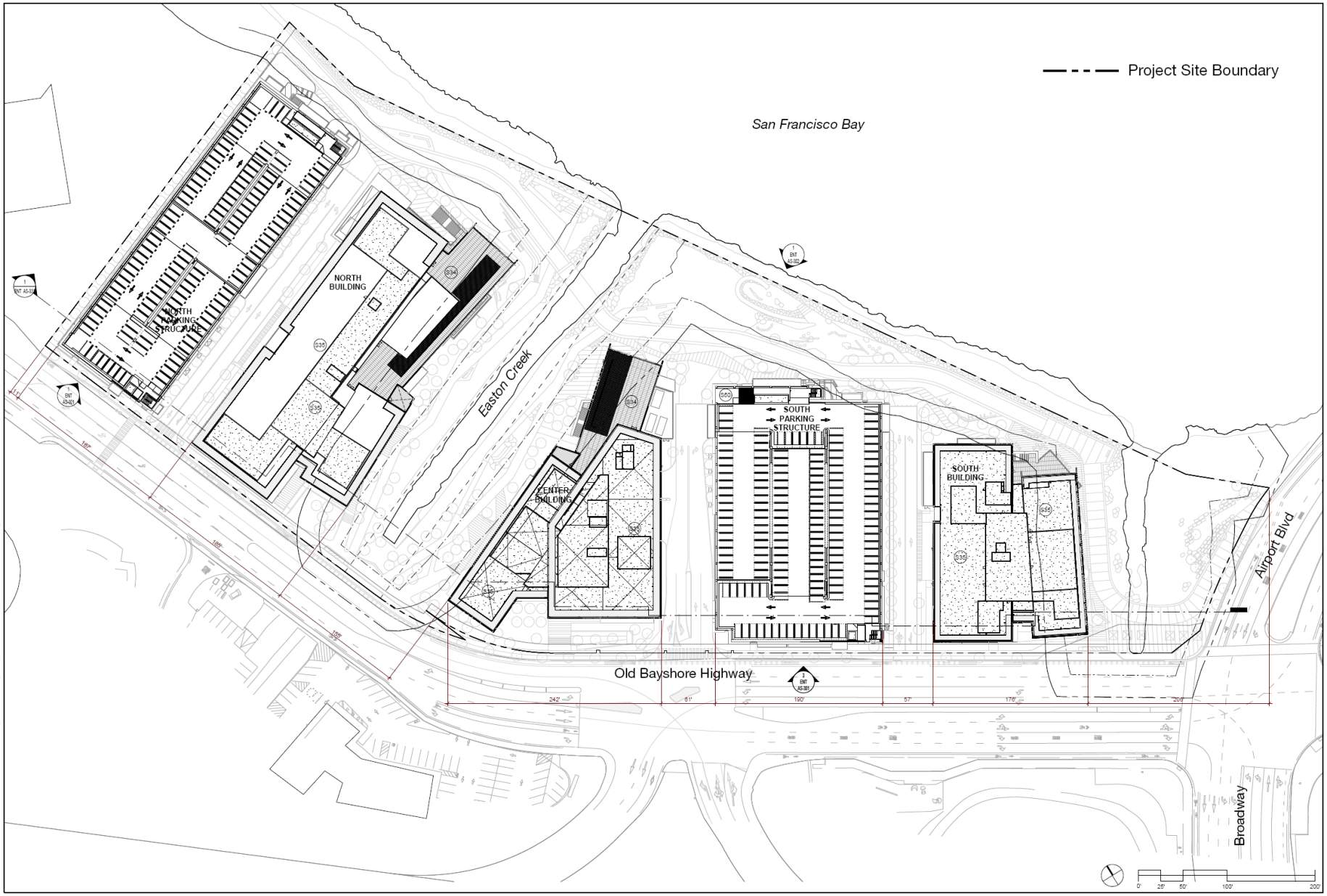
Figure 3-5
Proposed Level 2 Plan



SOURCE: DW Burlingame I Owner, LLC, DW Burlingame II Owner, LLC, and DW Burlingame III Owner, LLC, 2022

1200-1340 Old Bayshore Highway EIR

Figure 3-6
Proposed Level 6 Plan



SOURCE: DW Burlingame I Owner, LLC, DW Burlingame II Owner, LLC, and DW Burlingame III Owner, LLC, 2022

1200-1340 Old Bayshore Highway EIR

Figure 3-7
Proposed Roof Plan

Two parking structures of 10-10½-stories plus two levels of basement parking each are proposed (North and South Parking Structures) at the Project site, providing approximately 1.18 million gsf of parking. As summarized in **Table 3-2**, the proposed North Parking Structure would provide 1,632 parking spaces and the proposed South Parking Structure would provide 1,768 parking spaces, for a total of 3,400 parking spaces. Each of the levels of these parking structures would be utilized for parking. As indicated in Table 3-2, 40 of the parking stalls on Level 1 in the South Parking Structure would be public stalls, dedicated to the proposed restaurant/café use and Bay Trail users. The South Parking Structure would also include an airplane viewing platform at the top level. The great majority of the parking stalls (2,445 spaces) in the parking structures would be standard size, with 533 spaces designed as compact spaces. 340 electric vehicle charging station (EVCS) stalls would be provided. 42 parking stalls would be handicapped-accessible parking spaces, with 11 van accessible spaces.

TABLE 3-2
SUMMARY OF PROPOSED PARKING, BY LEVEL

Parking Level	North Structure	South Structure	Total
Level 10.5[a]	15		15
Level 10	147	133	280
Level 9	145	163	308
Level 8	145	164	309
Level 7	145	163	308
Level 6	145	164	309
Level 5	145	163	308
Level 4	139	164	303
Level 3	134	163	297
Level 2	120	134 (18 public)	254
Level 1	100	92 (22 public)	192
Basement Level 1	121	138	259
Basement Level 2	131	127	258
Total	**1,632**	**1,768**	**3,400**

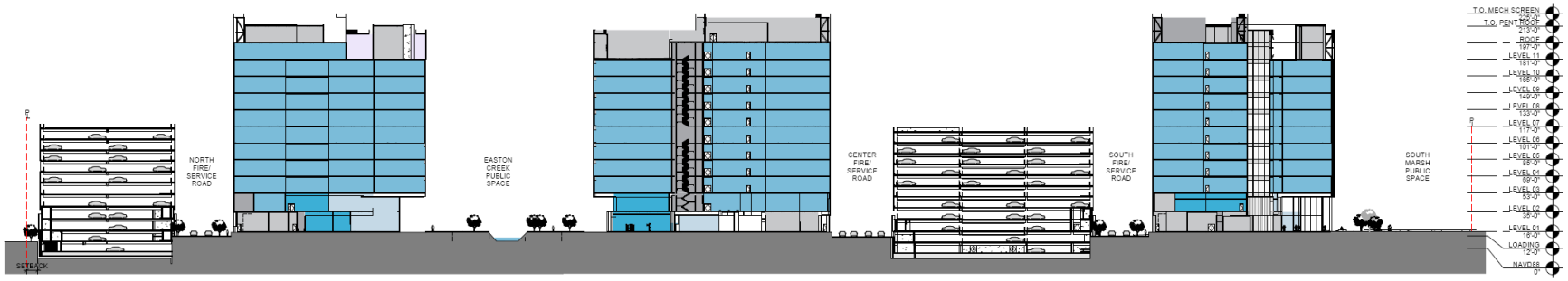
NOTE:
[a] North Parking Structure would have 10½ levels.

SOURCE: DW Burlingame I Owner, LLC, DW Burlingame II Owner, LLC, and DW Burlingame III Owner, LLC; ESA

3.3.2 Building Elevations

An elevation drawing of the Project site buildings (north-south section) is illustrated in **Figure 3-8**. The proposed South Building would measure 210 feet, 6 inches from average curb to top of the roof mechanical screen (an elevation of 225 feet as measured from NAVD 88). The proposed Center and North Buildings would each measure 214 feet, 6 inches from average curb to top of the roof mechanical screen (an elevation of 225 feet as measured from NAVD 88).

The proposed North Parking Structure would have a maximum height of 113 feet, 10 inches from above curb to top of parapet (an elevation of 123 feet, 10 inches as measured from NAVD 88). The proposed South Parking Structure would have a maximum height of 104 feet, 10 inches from



1 SITE SECTION - NORTH/SOUTH

SOURCE: DW Burlingame I Owner, LLC, DW Burlingame II Owner, LLC, and DW Burlingame III Owner, LLC, 2022

Figure 3-8
Proposed Building Elevations (North-South Section)

above curb to top of parapet (an elevation of 115 feet, 4 inches as measured from NAVD 88). Each parking structure would additionally contain two basement levels at a total depth of 21 feet below average curb.

3.3.3 Building Design

As illustrated in Figure 3-5, The North Building and the North Parking Structure would be located north of Easton Creek, and the Center and South Buildings as well as the South Parking Structure would be situated south of Easton Creek. The buildings would have an orientation with the longitudinal (longer) sides of the buildings largely perpendicular to the Bay shoreline, and traverse (shorter) sides generally parallel to the shoreline. The Project would comply with applicable California Green Building Standards Code (CALGreen) requirements and target Leadership in Energy and Environmental Design (LEED™) certification rating of Gold.

The proposed life science/office buildings would include balconies for views of the Bay. All buildings would have textured façades and glass walls on ground floor uses. Upper façades would be uniform, although patterned, with variation in material and scale for lower building elements.

The lowest two levels of the buildings, where they meet the ground, would have a comparatively more pedestrian-scaled massing, alternating between solid textured blocks and projecting glazed volumes.

The buildings and parking structures would be set back a minimum of 10 feet from Old Bayshore Highway and would comply with separation requirements sufficient for fire access.

3.3.4 Bird Safe Design

The Project would include a number of building architectural and landscaping features with respect to bird safe design. Bird safe design criteria include, but are not limited to:

- All glazing surface area on the Project would be 15 percent reflectivity or lower.
- Within the primary bird collision zone (0 to 60 feet elevation), no more than 10 percent of façade surface area would have non-bird-friendly glazing.
- The Project would use opaque (precast concrete) materials for the majority of façade area in the primary collision zone (0 to 60 feet) on all five buildings.
- All glazing on feature-related hazards (freestanding glass walls, railings, building corners, and areas where interior vegetation is present near glass) would have 0.25-inch diameter fritted dots in a 2-inch by 2-inch rectangular grid or will have a different pattern but receive concurrence from the American Bird Conservancy to have a threat factor of 15 or below.
- All bird-friendly glazing used elsewhere will have 0.25-inch diameter fritted dots in a 2-inch by 2-inch rectangular grid or will have a different pattern but receive concurrence from the American Bird Conservancy to have a threat factor of 20 or below.
- The predominant building façade materials at Levels 3 to 11 (approximately 40 feet to 190 feet above grade) would be structural silicone glazed curtain wall units with bird-safe variegated frit patterns throughout.

- The predominant parking structure façade materials would be vertical aluminum extrusions installed as an open-air screen.
- Exterior guardrails would be vertical metal pickets or glazing with 100 percent coverage with bird safe treatment.
- There would be minimal landscaping inside buildings near glass.
- There would be minimal vegetation in front of heavily glazed facades around the ground level building perimeters, and landscaping would not funnel birds into areas where they are surrounded by glazing.
- Landscaping on upper level-terraces and roof decks would be restricted to low-growing or shrub species with minimal visibility through perimeter facades.

3.3.5 Vehicular, Bicycle and Pedestrian Circulation

Vehicle Circulation

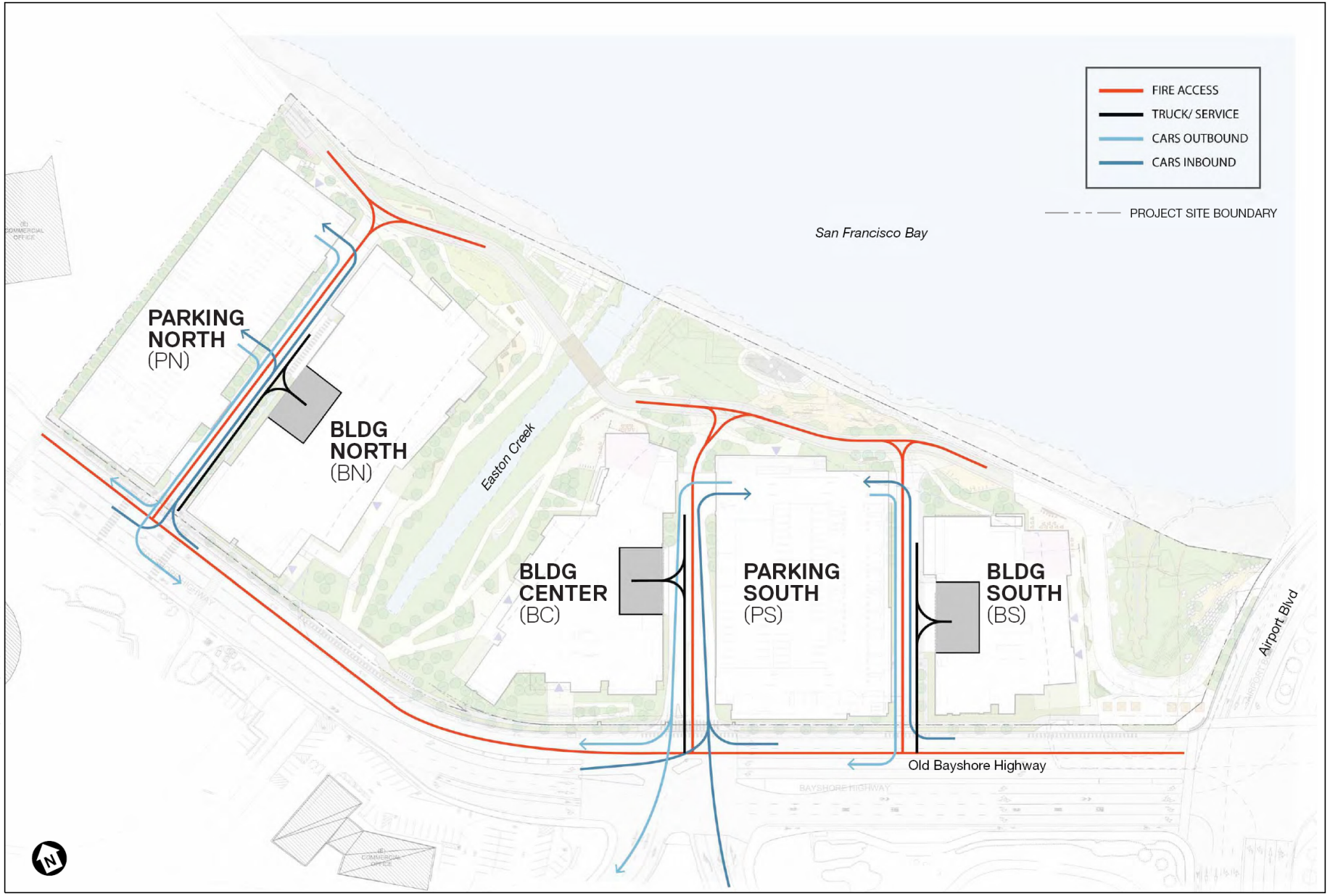
Figure 3-9 illustrates the proposed vehicle circulation plan for the Project. Three proposed driveways (north, central and south) on Old Bayshore Highway would provide vehicular access to and from the Project site. The northern driveway would provide vehicular access to the proposed two-lane North Service Road, leading to the North Parking Structure entrance/exits. A central driveway would provide vehicular access to the proposed Central Service Road, and hence to the South Parking Structure's north entrance/exit. The central driveway would be located on Bayshore Highway at its signalized intersection with the U.S. 101 northbound on-/off-ramps. The two-lane Central Service Road would widen to four lanes with center median at its approach to Old Bayshore Boulevard. The southern driveway would provide vehicular access to the proposed South Service Road, and hence the South Parking Structure's south entrance/exit. The southern driveway would allow right-turn-in/out movements only to/from the Project site. Two lay-by lanes would be provided along Old Bayshore Highway for passenger drop-off to all three buildings.

To emphasize nearby public transit connectivity and facilitate transit ridership, the Project proposes to participate in funding a Commute.org shuttle service, with a stop adjacent to the Project site. See also the Project's proposed Transportation Demand Management Plan, described in Section 4.14, *Transportation*.

Bicycle and Pedestrian Circulation

Figure 3-10 illustrates the proposed bicycle and pedestrian circulation plan for the Project. Bicycle access would be provided via the Project site pedestrian pathways as well as from the Bay Trail. As discussed above, each life science/office building would provide a cycle center for tenants with shower facilities and secure long-term bike parking; and additional short-term parking would be provided at locations throughout the Project site.

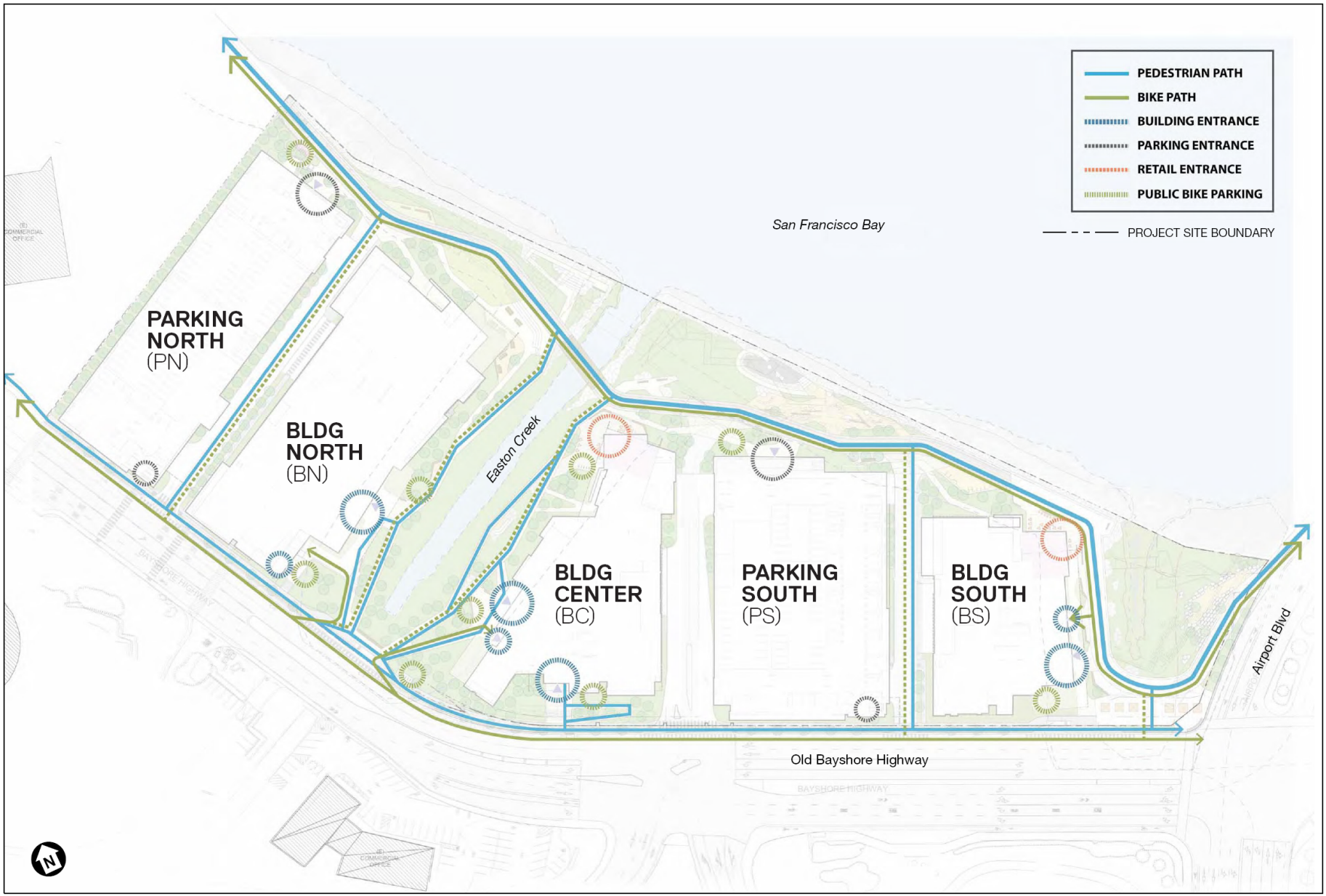
Pedestrian access would be provided by new sidewalks on the Project site frontage and along Airport Boulevard. In addition, a new 1,475-foot segment of the Bay Trail would be extended across the Project site, and connect to existing segments of the Bay Trail at the north and south ends of the Project site. The proposed Project also includes overlooks and seating amenities.



SOURCE: DW Burlingame I Owner, LLC, DW Burlingame II Owner, LLC, and DW Burlingame III Owner, LLC, 2022

1200-1340 Old Bayshore Highway EIR

Figure 3-9
Proposed Vehicle Circulation Plan



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SOURCE: DW Burlingame I Owner, LLC, DW Burlingame II Owner, LLC, and DW Burlingame III Owner, LLC, 2022

Figure 3-10
Proposed Bicycle and Pedestrian Circulation Plan

Within the Project site, the Bay Trail extension would consist of a minimum 20-foot-wide paved path. The Project would include one pedestrian/bicycle bridge over Easton Creek, between the North and Center Buildings. The bridge is proposed to span the creek and creek banks, and no piers or columns would be placed within the creek or its lower banks. The new segment of the Bay Trail would be designed at 17 feet NAVD across the Project site and sloped down at both ends to meet the existing Bay Trail. Grade transitions to the existing Bay Trail would be 4.5 percent maximum slope. Additionally, the Project would include a new public trail along both sides of the Easton Creek corridor, with opportunities for seating, gathering and refuge. This corridor would also provide a key pedestrian connection to/from Old Bayshore Highway. Tenant amenity plazas would also provide opportunities for dining, fitness, and outdoor gatherings. A children's play area would be constructed east of the South Parking Structure, and stairs, accessible ramps, and railings would be provided between Old Bayshore Highway and building entries.

Off-Site Circulation Improvements

Off-site improvements would include demolition of existing sidewalk, driveways, curb, and gutter on the frontage adjacent to the Project site. New driveways would be constructed to include either driveway aprons or curb returns and curb ramps. There would be new concrete sidewalk, curb, and gutter constructed along the Project frontage and other pavement replacement would occur as needed. Existing mid-block crosswalks across Old Bayshore Highway would be removed and one new crosswalk installed at a new signalized intersection located at the entrance to the north service road. The existing bicycle lane along the west side of Old Bayshore Highway would remain as a striped bike lane and be extended for the full length of the Project site along Old Bayshore Highway.

The Project proposes lane restriping at the intersection of U.S. 101 northbound off-ramp at Old Bayshore Highway, including one dedicated left-turn lane, one combined left-turn and through lane, and one combined right-turn and through lane. The Project also proposes restriping the southbound off-ramp of US-101 at Broadway to include two dedicated right-turn lanes, one dedicated left-turn lane, and one combined left-turn and through lane. These changes in lane configuration would require and include accompanying signal modifications at these intersections. In addition, the Project proposes to install new intersection medians on Old Bayshore Highway at the US-101 northbound off-ramp. Lastly, signal optimization is proposed at the Airport Boulevard-Broadway/Old Bayshore Highway intersection.

Frontage improvements on Old Bayshore Highway would also include new street lighting and street trees.

3.3.6 Lighting

Proposed exterior lighting would consist of wall- and surface-mounted lighting and recessed lighting (e.g., at building pedestrian and vehicular entrances), pole-mounted pedestrian scale lights (e.g., in the proposed plazas, surface parking areas, and other pedestrian circulation areas), one-side output wall lighting (for accent and sign lighting), and traffic-scale streetlights along Old Bayshore Highway.

Lighting would be designed to meet the requirements of Municipal Code Section 18.16.030 to prevent light spillage off-site. Generally, the site lighting would be designed such that there would be more lighting on the Project site along Old Bayshore Highway, with the lighting levels decreasing closer to the Bay side of the Project site.

3.3.7 Utilities

The proposed Project utility plan is illustrated in **Figure 3-11**. On-site utilities would be served by electricity and limited natural gas[5], domestic water, fire water, wastewater, and storm drain facilities. On-site utilities would be designed in accordance with applicable codes and current engineering practices. The Project would meet applicable CALGreen and City Reach Code requirements, as applicable. Details on proposed potable water, sanitary sewer and stormwater management infrastructure are described below.

Potable Water, Recycled Water, and Emergency Water

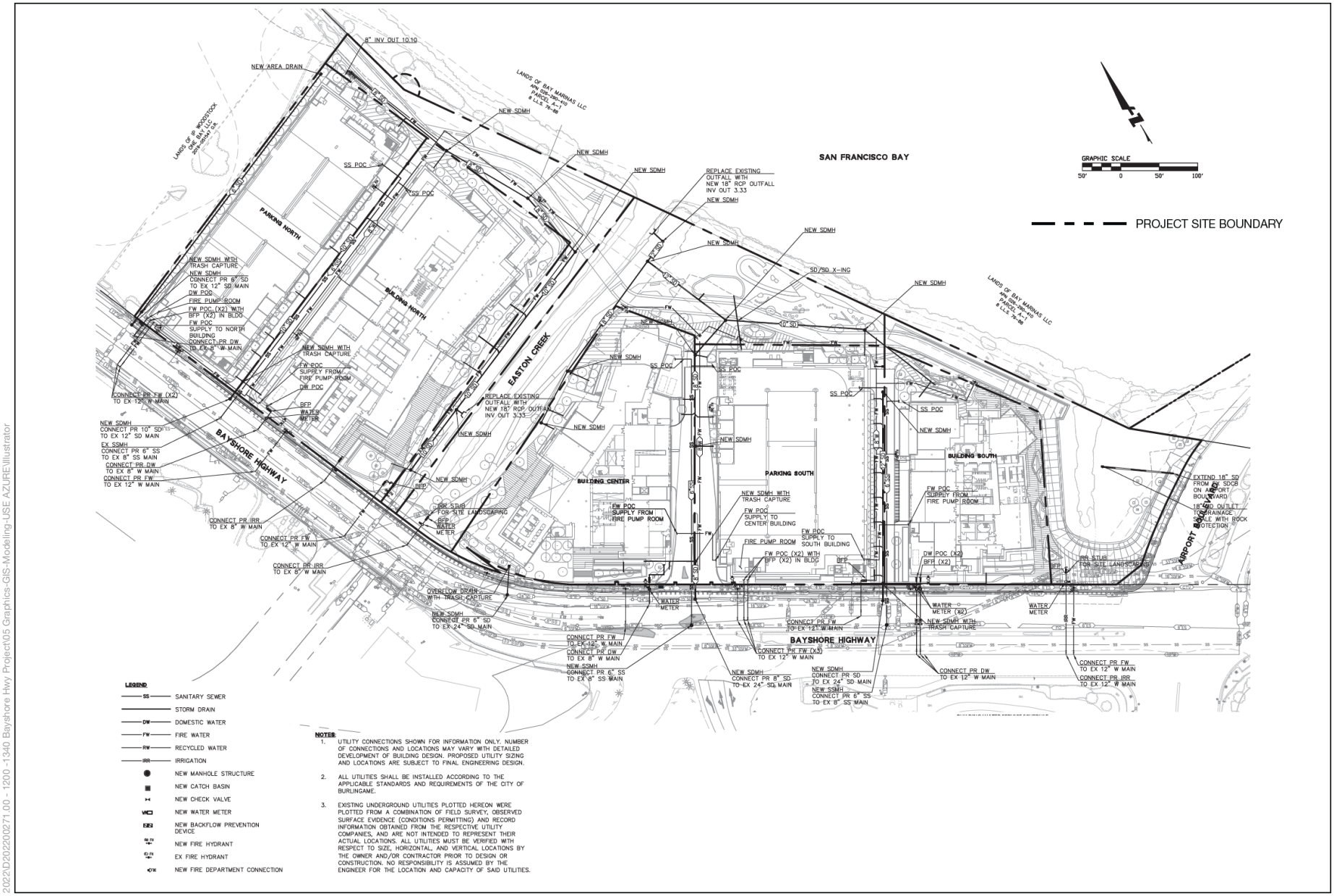
New potable water infrastructure, including service laterals, meters and backflow preventers, are proposed be installed on the Project site and connect to existing City water lines along the Project frontage in Old Bayshore Highway.

Although recycled water is not currently available at the Project site, the proposed Project's non-potable irrigation water would have separate meters than Project buildings, and all ground-level landscaping would be plumbed for future recycled water use when the City brings recycled water to the area. Separate domestic water service laterals and meters would be installed for each of the proposed life science/office buildings and parking garage structures, and would connect to the existing domestic water main.

Emergency water service for firefighting would be provided to each on-site structure. Each proposed building would be required to have two fire service connections, and each proposed parking structure would have a single connection. Additionally, an on-site fire water loop would be installed on each side of Easton Creek. To the south of Easton Creek, a fire water main would loop around the South Parking Structure and serve on-site fire hydrants. To the north of Easton Creek, a fire water main would run between the North Parking Structure and the North Building and serve on-site fire hydrants; a loop may also be required to extend around the south side of the North Building. Fire mains would be sized in conformance with future hydraulic analysis. Fire pump rooms would be located in the North and South Parking Structures, and shared across all five structures on the Project site.

The Project would implement water conservation measures, such as low-flow plumbing fixtures and drip irrigation. Furthermore, the proposed plant palette (see *Open Space and Landscaping* below) would be drought-tolerant and require limited irrigation once established.

[5] Natural gas service would be extended to the office/life science buildings and stubbed out for potential future lab use and for the café/restaurant use. For purposes of providing a worst-case assessment of impacts related to air quality and greenhouse gas emissions and energy resources, this EIR conservatively assumes use of natural gas to serve these uses.



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SOURCE: DW Burlingame I Owner, LLC, DW Burlingame II Owner, LLC, and DW Burlingame III Owner, LLC, 2022

1200-1340 Old Bayshore Highway EIR

Figure 3-11
Proposed Utility Plan

Sanitary Sewer

New sanitary sewer infrastructure would be installed at the Project site, with sanitary sewer lines proposed to extend beneath the service roads and connect to existing sanitary sewer collection lines in Old Bayshore Highway. A total of three laterals sized between 152 to 256 gallons per minute would serve the Project site; one sewer lateral would serve each building.

Stormwater Management

The proposed Project stormwater management plan is illustrated in **Figure 3-12**. The Project is increasing pervious areas of the site from 89,000 square feet (existing pre-Project) to 137,553 square feet (post-Project), an increase of 48,553 square feet. The Project would include bioretention areas sized at approximately 4 percent of impervious areas (i.e., proposed life science/office building and parking structure roofs and service driveways). Flows from the parking structures and the remainder of the Project site would be treated with the use of on-grade flow-through planters. Stormwater from site building roofs and impervious roads would be treated in the bioretention areas and then discharged to the City storm drain or Easton Creek outfalls. The Project would connect to the existing City storm drain main on Old Bayshore Highway. The Project would replace two existing outfalls on Easton Creek with new outfalls. On-site access roads would grade toward Old Bayshore Highway, and bioretention would be required along that frontage to collect and treat access road runoff.

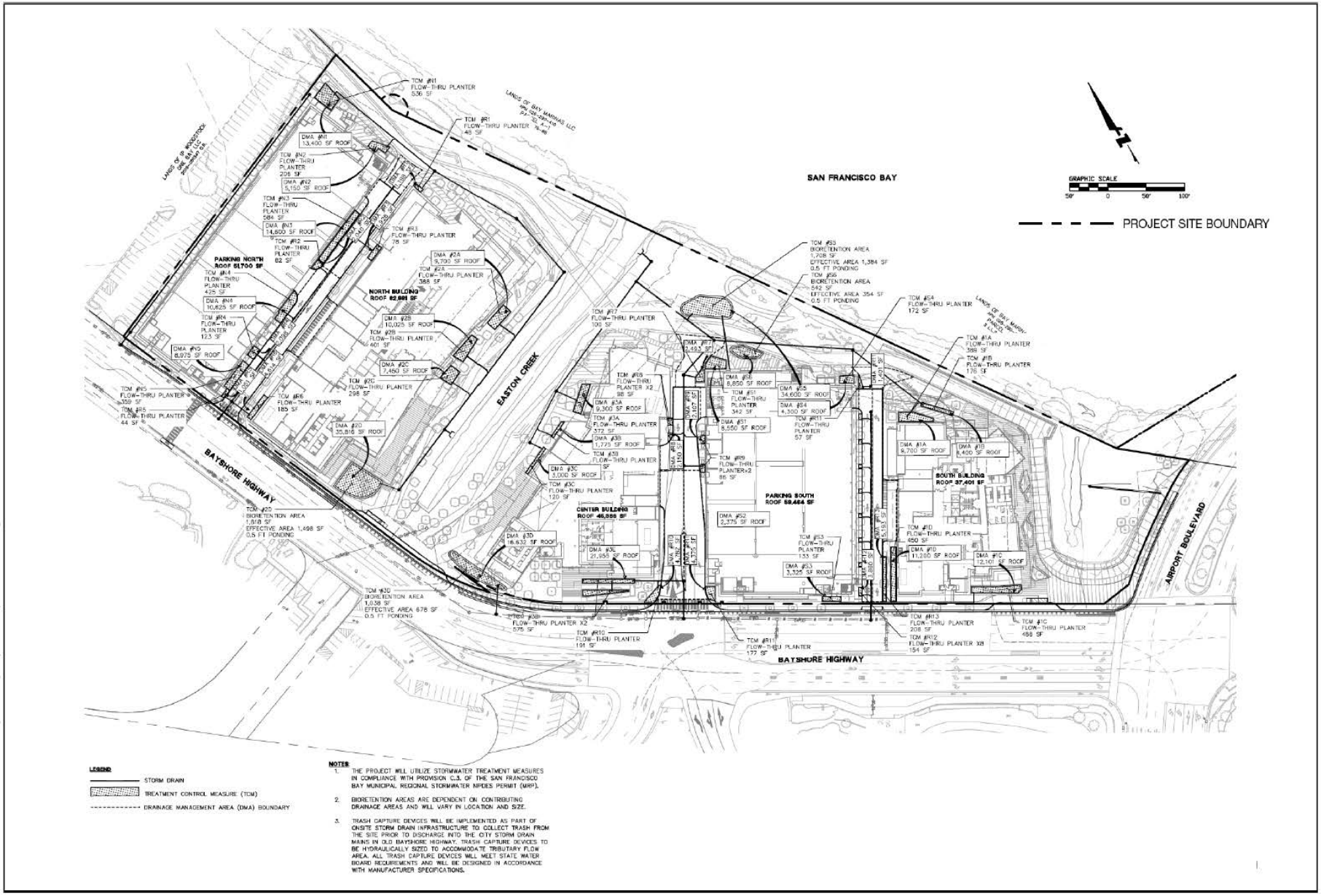
Electricity and Natural Gas

Existing Pacific Gas and Electric Company (PG&E) electric and gas lines in the vicinity would continue to serve the Project site. Natural gas service would be extended to the proposed office/life science buildings and capped for potential future lab use and for the café/restaurant uses.

3.3.8 Open Space and Landscaping

The Project includes open landscaped space with a variety of public amenities. Landscaping would be provided throughout the Project site, with open space areas surrounding Easton Creek and the unnamed remnant tidal channel and overlooking the shoreline frontage. As discussed under *Bicycle and Pedestrian Circulation*, above, the Bay Trail would be extended through the Project site; the concept plan includes natural plantings and public gathering spaces to accommodate a wide variety of uses. The proposed structures would be sited to provide view corridors through the Project to the Bay. A key Project feature is a proposed public plaza and seating area within the southern portion of the Project site, near the intersection of Old Bayshore Highway and Airport Boulevard/Broadway.

A total of approximately 237,600 square feet of open space would be provided under the Project. A conceptual landscape plan is illustrated in **Figure 3-13**. Approximately 26.2 percent of the Project site (or 137,552 square feet) would be landscaped, which would exceed the minimum requirement for the BFC Zoning District of 20 percent. 62 existing trees that would be removed on the Project site under the Project would be replaced by approximately 230 new trees. The planting design would meet the requirements of Chapter 18.17 (Water Conservation in Landscape) of the



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SOURCE: DW Burlingame I Owner, LLC, DW Burlingame II Owner, LLC, and DW Burlingame III Owner, LLC, 2022

1200-1340 Old Bayshore Highway EIR

Figure 3-12
Proposed Stormwater Management Plan

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SOURCE: DW Burlingame I Owner, LLC, DW Burlingame II Owner, LLC, and DW Burlingame III Owner, LLC, 2022

1200-1340 Old Bayshore Highway EIR

Figure 3-13
Proposed Landscape Site Plan

Municipal Code and California Code of Regulations Title 23, Division 2, Chapter 2.7 Model Water-Efficient Landscape Ordinance. Drip irrigation would be provided for all planting areas, and as described above under *Utilities*, purple pipe installed for irrigation with non-potable water when it is available. Public art and interpretive signage would be incorporated into the open space areas.

The proposed concept planting schedule is shown in **Figure 3-14**. The primary understory planting throughout the Project site would consist of drought-tolerant native and climate-adapted woody shrubs, herbaceous perennials, and evergreen perennial grasses. The backbone of the understory planting would be evergreen native woody shrubs adapted to Bay shore conditions, such as ceanothus, manzanita, toyon, and coyote bush. Plantings would also include native and drought-tolerant bunch grasses appropriate to the Bay shore upland, along with native flowering perennials such as yarrow, Pacific Coast iris, and coast buckwheat. Along Old Bayshore Highway and adjacent to building lobbies and entries, Mediterranean climate-adapted shrubs and grasses, such as dwarf European olive and lomandra, may be deployed in simple mass planting to accentuate transitions from public to private space. Trees would be selected for drought- and wind tolerance.

Shelter and wind exposure would be a key factor in the proposed tree selection and layout. California natives, such as Monterey cypress and coast live oak, would be selected wherever possible, but coast-adapted species, such as New Zealand Christmas tree and strawberry tree, would also be considered.

3.3.9 Sea Level Rise/Flood Control Improvements

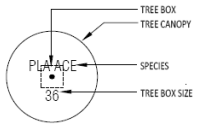
The Project would include sea level rise protection measures in compliance with the guidelines of Chapter 25.12.050 (Public Access, Flood and Sea Level Rise Performance Guidelines) of the City of Burlingame Municipal Code.

The Project site is served by an existing City storm drain system in Old Bayshore Highway and two existing outfalls along Easton Creek; these two outfalls would be replaced with two new outfalls as part of the Project. On-site stormwater would be captured and treated per Provision C.3 requirements prior to discharge to the storm drain.

The proposed Project includes the following shoreline improvements and other features relevant to sea level rise and flooding:

- Sea level rise and flood protection, including raised ground (elevated on fill), sea walls, flood walls, riprap slopes, settlement mitigation, and/or geotechnical provisions for seismic stability of the shoreline and along Easton Creek.
- Sections of sea wall would be epoxy-coated steel sheet piles installed with vibratory crane equipment.
- Approximately 260 linear feet of “soft” or “living” shoreline where feasible, including shoreline grading and planting that allows tidal influence in both current and future sea level conditions. Where wider areas exist between building faces and the property line on the Bayside, more gradual shoreline grading, planted earth benches, and riprap would be combined to allow for future tidal influence and shoreline resilience.

TREE SCHEDULE



TREES

SYMBOL	LATIN NAME	COMMON NAME	QTY.	SIZE
AES CAL 24	AESCULUS CALIFORNICA	CALIFORNIA BUCKEYE	3	24" BOX
ALN RHO 24	ALNUS RHOMBIFOLIA	WHITE ALDER	15	24" BOX
ARB MAR 24	ARBUTUS MARINA	STRAWBERRY TREE	13	24" BOX
CER OCC 24	CERCUS OCCIDENTALIS	WESTERN REDBUD	6	24" BOX
LOP CON 24	LOPHOSTEMON CONFERTUS	BRISBANE BOX	94	24" BOX
			2	36" BOX
PIS CHI 24	PISTACIA CHINENSIS 'KIETH DAVEY'	CHINESE PISTACHE	19	24" BOX
			3	36" BOX
PLA ACE 36	PLATANUS X ACERIFOLIA 'COLUMBIA'	COLUMBIA LONDON PLANE TREE	27	36" BOX
QUE AGR 24	QUERCUS AGRIFOLIA	COAST LIVE OAK	9	24" BOX
			16	36" BOX
QUE VIR 24	QUERCUS VIRGINIANA	SOUTHERN LIVE OAK	29	24" BOX
			6	36" BOX

TREE PLANTING NOTES

1. BIRD-SAFE DESIGN: FRUITING TREES AND SHRUBS THAT ATTRACT BIRDS SHALL BE KEPT CLEAR OF BUILDING EDGES AND GLAZING. LANDSCAPE ARCHITECT SHALL CONSULT WITH ECOLOGIST PRIOR TO FINALIZING PLANTING PLAN TO ASSURE BIRD-SAFE DESIGN.
2. ALL SITE TREES SHALL HAVE SUBDRAINAGE UNLESS OTHERWISE NOTED BY LANDSCAPE ARCHITECT.
3. FINAL TREE SELECTION AND LAYOUT SHALL BE REFINED BASED ON THE FOLLOWING SELECTION CRITERIA:
   a. SOILS AND HORTICULTURAL SUITABILITY
   b. SALT AND WIND TOLERANCE
   c. WATER EFFICIENT LANDSCAPE ORDINANCE (WELO) REQUIREMENTS
   d. AESTHETIC QUALITY
   e. ECOLOGICAL VALUE/HABITAT AND ENVIRONMENTAL CONSIDERATIONS.
   f. SUN & SHADE

CONCEPT PLANT LIST

SYMBOL	TAG	SCIENTIFIC NAME	BOTANICAL NAME	SIZE
BAYSHORE UPLAND - COASTAL SCRUB				
	P1-01	ACHILLEA MILLEFOLIUM "SONOMA COAST"	YARROW "SONOMA COAST"	1 GAL
		ARMERIA MARITIMA	THRIFT SEAPINK	1 GAL
		ARTEMISIA CALIFORNICA	CALIFORNIA SAGEBRUSH	1 GAL
		BACCHARIS PILULARIS "PIGEON POINT"	DWARF COYOTE BUSH	1 GAL
		CEANOTHUS GRISEUS	CALIFORNIA LILAC	1 GAL
		CEANOTHUS THYRSIFLORUS REPENS	CREEPING BLUE BLOSSOM	1 GAL
		ERIOGONUM LATIFOLIUM	SEASIDE BUCKWHEAT	1 GAL
		ERIOGONUM NUDUM	NUDE BUCKWHEAT	1 GAL
		ERIGERON GLAUCUS	SEASIDE SEASIDE DAISY	1 GAL
		ESCHSCHOLZIA CALIFORNICA	CALIFORNIA POPPY	1 GAL
		FRANGULA CALIFORNICA	COFFEEBERRY	5 GAL
		LUPINUS ALBIFRONS	SILVER LUPINE	1 GAL
		MIMULUS AURANTIACUS	STICKY MONKEYFLOWER	1 GAL
		MYRICA CALIFORNICA	PACIFIC WAX MYRTLE	15 GAL
		MUHLENBERGIA RIGENS	DEERGRASS	1 GAL
		STIPA PULCHRA	PURPLE NEEDLE GRASS	1 GAL
		SISYRINCHIUM BELLUM	BLUE-EYED GRASS	1 GAL
EASTON CREEK UPLAND				
	P1-02	ARCHTOSTAPHYLOS "POINT REYES"	POINT REYES MANZANITA	1 GAL
		CALAMAGROSTIS FOLIOSA	MENDOCINO REED GRASS	1 GAL
		CEANOTHUS THYRSIFLORUS REPENS	PROSTRATE BLUE BLOSSOM	1 GAL
		CEANOTHUS THYRSIFLORUS REPENS	PROSTRATE BLUE BLOSSOM	1 GAL
		FESTUCA CALIFORNICA	CALIFORNIA FESCUE	1 GAL
		FRANGULA CALIFORNICA	COFFEEBERRY	1 GAL
		IRIS DOUGLASIANA	DOUGLAS IRIS	1 GAL
		JUNCUS PATENS	COMMON RUSH	1 GAL
		MUHLENBERGIA RIGENS	DEER GRASS	1 GAL
		MYRICA CALIFORNICA	PACIFIC WAX MYRTLE	15 GAL
		RIBES SANGUINEUM GLUTINOSUM	PINK FLOWERING CURRANT	15 GAL
BUILDING EDGE PLANTING				
	P1-03	CEANOTHUS SPECIES	BLUE BLOSSOM	1 GAL
		CALAMAGROSTIS FOLIOSA	MENDOCINO REED GRASS	1 GAL
		FESTUCA CALIFORNICA	CALIFORNIA FESCUE	1 GAL
		IRIS DOUGLASIANA	DOUGLAS IRIS	1 GAL
		MUHLENBERGIA RIGENS	DEER GRASS	15 GAL
BAYSHORE HWY EDGE				
	P1-04	LOMANDRA LONGIFOLIA "BREEZE"	DWARF MAT RUSH	1 GAL
		OLEA EUROPEA "DWARF OLIVE"	DWARF OLIVE	1 GAL
		WESTRINGIA FRUTICOSA "MUNDI"	LOW COAST ROSEMARY	1 GAL
STREETCAPE				1 GAL
	P1-05	LOMANDRA LONGIFOLIA "BREEZE"	DWARF MAT RUSH	1 GAL
		PHORMIUM "SHIRAZ"	NEW ZEALAND FLAX	15 GAL
				1 GAL
TURF GRASS				
	P1-06	TURF GRASS	TURF GRASS	SOD

PLANTING NOTES

1. BIRD-SAFE DESIGN: FRUTING TREES AND SHRUBS THAT ATTRACT BIRDS SHALL BE KEPT CLEAR OF BUILDING EDGES AND GLAZING. LANDSCAPE ARCHITECT SHALL CONSULT WITH ECOLOGIST PRIOR TO FINALIZING PLANTING PLANS TO ASSURE BIRD-SAFE DESIGN.
2. FINAL PLANT SELECTION AND LAYOUT SHALL BE REFINED BASED ON THE FOLLOWING SELECTION CRITERIA:
   A) SOILS AND HORTICULTURAL SUITABILITY
   B) SALT AND WIND TOLERANCE
   C) WATER EFFICIENT LANDSCAPE ORDINANCE (WELO) REQUIREMENTS
   D) AESTHETIC QUALITY
   E) ECOLOGICAL VALUE/HABITAT AND ENVIRONMENTAL CONSIDERATIONS, INCLUDING ADJACENT CREEK AND WETLAND HABITAT
   F) SUN & SHADE

WATER EFFICIENT LANDSCAPING ORDINANCE (WELO)

1. PER CODE SECTION 25.36.020, THE PLANTING DESIGN CONFORMS TO CHAPTER 18.17 OF THE MUNICIPAL CODE AND THE CALIFORNIA CODE OF REGULATIONS SECTIONS 490,495, CHAPTER 2.7, DIVISION 2 TITLE 23 MODEL WATER-EFFICIENT LANDSCAPE ORDINANCE.
2. ALL LANDSCAPE PLANTING AREAS SHALL INCLUDE A 3 INCH MINIMUM LAYER OF MULCH.
3. PROVIDE DRIP IRRIGATION TO ALL PLANTING AREAS. PROVIDE COPPER SUPPLY LINES AND CONTROL WIRE CONDUIT TO EACH PLANTER.

LANDSCAPING NOTES

1. PER CODE SECTION 25.36.020 LANDSCAPE AREAS SHALL PRIMARILY CONSIST OF GRASS, ANNUALS, PERENNIALS, GROUNDCOVER, SHRUBS, TREES AND OTHER LIVING VEGETATION.
2. ARTIFICIAL TURF IS NOT USED.
3. PER CODE SECTION 25.36.020 "LANDSCAPE COVERAGE REQUIREMENTS FOR COMMERCIAL INDUSTRIAL, AND MIXED USE ZONES": SHRUBS, GROUNDCOVER, AND OTHER PLANT MATERIAL SHALL COVER ALL AREAS NOT OCCUPIED BY STRUCTURES, PARKING AREAS, STORAGE, TRASH ENCLOSURES, DRIVEWAYS, AND SIDEWALKS, AND OTHER PEDESTRIAN AREAS.
4. PER CODE SECTION 25.36.020 "LANDSCAPE IRRIGATION AND MAINTENANCE" THE PROPERTY OWNER SHALL MAINTAIN RETAINING WALLS, CRIBBING, DRAINAGE STRUCTURES, PLANTED SLOPES, AND OTHER PROTECTIVE DEVICES IN GOOD CONDITION AND REPAIR AT ALL TIMES.

IRRIGATION NOTES

1. Primary irrigation for all planting areas will be sub-surface drip or bubbler based irrigation, with drip tubes at 18-inches on center.
2. Secondary microspray at select planting areas.
3. Spray or Rotor irrigation in no-mow turf area only.
4. Moisture sensors shall be provided in each planting zone/micro-climate.
5. Provide quick couplers at every 100 feet of mainline
6. Locate controllers in mechanical rooms.
7. Location of valves and other components shall be consolidated and to reduce visual impact.
8. PVC lateral pipes will serve the sub-surface system from copper mainline(s) from the building.
9. Coordinate irrigation penetrations with MEP and Waterproofing engineers.

PROJECT SITE BOUNDARY

SOIL NOTES

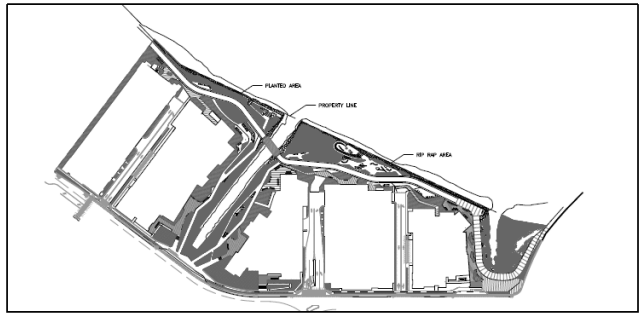
1. ALL ON-GRADE PLANTING AREAS SHALL HAVE MINIMUM 12" DEPTH OF IMPORTED HORTICULTURAL TOPSOIL.
2. ALL ON-STRUCTURE GROUNDCOVER PLANTING SHALL HAVE 12-24" DEPTH OF IMPORTED SOIL MIX ENGINEERED FOR ON STRUCTURE PLANTING.
3. TREE PLANTING ON GRADE SHALL HAVE AMENDED SOIL FOR MINIMUM 10 SQUARE FEET AT THE DEPTH OF THE TREE BOX.

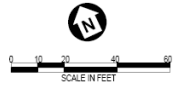
LANDSCAPING COVERAGE REQUIREMENTS

TOTAL SITE:

	LANDSCAPING DEFINITION	ALLOWED/REQUIRED	LANDSCAPING PROVIDED	COMPLIANT?
TOTAL SITE:	PER C.S. 25.36.020(B) LANDSCAPING CONSISTS "PRIMARILY OF GRASS, ANNUALS, PERENNIALS, GROUNDCOVER, SHRUBS, TREES, AND OTHER LIVING VEGETATION." THERE IS NO ARTIVICIAL TURF IN THIS PROPOSED PLAN.	20% OF TOTAL SITE AREA WITHIN PROPERTY LINE SHALL BE LANDSCAPING.	SITE AREA: 523,775 sq. ft. LANDSCAPING IN SITE AREA: 137,553 sq. ft.	YES 26.2% LANDSCAPE COVERAGE

LANDSCAPE COVERAGE





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SOURCE: DW Burlingame I Owner, LLC, DW Burlingame II Owner, LLC, and DW Burlingame III Owner, LLC, 2022

Figure 3-14
Proposed Planting Schedule

- A steel sheet pile sea wall would be installed along both sides of Easton Creek and along the entire bay shoreline of the Project site. Sheet piles would be driven entirely outside of aquatic/jurisdictional habitats, likely using a vibratory hammer suspended from a crane. Typical sound levels produced by the vibratory hammer are approximately 80 decibels (db). After completion, the sea walls would largely be embedded/buried within Project landscaping.
- Grading and placement of fill for the South Entry Plaza would occur at Old Bayshore Highway to bring the entry plaza to road grade at about 17.5 feet, with a stepped seating area and earthwork slopes returning this elevation to the grade of the existing tidal marsh.
- Enhanced existing tidal marsh, which would include earthwork, grading, and native planting. Grading would achieve moderate slopes from the marsh up to the entry plaza and Bay Trail. All marsh enhancements would occur outside the jurisdictional wetland area.

3.3.10 Sustainability Features

The Project applicant is targeting for the design of the Project buildings to meet the LEED™ Gold standard. The buildings would comply with the City of Burlingame Reach Code, which prohibits natural gas in most instances. Electric space heating/cooling and domestic water heating would reduce carbon emissions.

Fossil fuels would generally be utilized only for potential limited laboratory/research and development uses, for emergency generators, and for public café/restaurant tenants, as allowed by the Reach Code. Tenant cafeterias would utilize only electricity and no fossil fuels. Proposed building glazing would control interior heat and light transmission for energy efficiency. As discussed under *Open Space and Landscaping*, above, the Project would include approximately 237,600 square feet of landscaped area and open space consisting of picnic and play areas, landscaped areas, and creek and wetlands, which would considerably reduce the amount of impervious services that are currently present on-site. As discussed in *Utilities*, above, stormwater runoff from certain areas of the Project site would be directed to natural stormwater treatment systems, including bioretention areas. The Project would also implement water conservation features, including low-flow plumbing fixtures and drip irrigation for a drought-tolerant landscape.

3.4 Project Construction

3.4.1 Construction Schedule and Phasing

Table 3-3 presents the preliminary Project construction schedule and phasing. Construction is expected to occur over a 43-month duration. The Project is proposed to be constructed in three overlapping phases, with staggered start and end dates. Phase 1 would include demolition of all existing structures on the Project site as well as some grading and site preparation. Phase 1 would also include construction of the proposed Center Building and the South Parking Structure. Phase 2 would include construction of the South Building. Phase 3 would include construction of the North Building and the North Parking Structure, and site finishing. Each phase also would also include installation of utilities, and exterior hardscaping and landscaping improvements.

TABLE 3-3
PROJECT CONSTRUCTION SCHEDULE AND PHASING

	Start Date	End Date	Estimated Construction Weekdays
Phase 1			
Demolition	Month 1	Month 2	40
Site Preparation	Month 1	Month 2	40
Building Construction	Month 2	Month 29	589
Architectural Coating	Month 28	Month 29	24
Finish Grading	Month 22	Month 23	30
Paving	Month23	Month 25	50
Landscaping	Month 25	Month 28	50
Phase 2			
Site Preparation	Month 10	Month 12	40
Building Construction	Month 10	Month 39	623
Architectural Coating	Month 38	Month 39	24
Finish Grading	Month 32	Month 33	30
Paving	Month 33	Month 35	40
Landscaping	Month 35	Month 37	40
Phase 3			
Site Preparation	Month 15	Month 17	40
Building Construction	Month 15	Month 43	604
Architectural Coating	Month 42	Month 43	24
Finish Grading	Month 36	Month 37	30
Paving	Month 37	Month 39	40
Landscaping	Month 39	Month 41	40
	43 Month Duration		

NOTE: Construction start and end dates are estimated to be a reasonable assumption for the construction period.

SOURCE: Devcon 2022

All construction staging laydown and worker parking would occur on the Project site, and as the parking structures are completed, worker parking would shift into the parking structures. The exception would be during a portion of Phase 3, when an off-site laydown area and/or parking may be used, if available.

3.4.2 Construction Employment, Equipment and Methods

Project construction would generate temporary construction jobs on-site that would vary in number, depending on the specific construction activities being performed and overlap between construction phases. Therefore, varying numbers of construction workers would be present on the Project site, depending on the phase of construction.

A variety of mobile and stationary construction equipment would be used on the Project site and/or immediate vicinity during construction. This is expected to include use of drilling rigs for

pile installation for foundations, and cranes for steel and/or precast erection, and building façades. Other mobile equipment such as excavators, backhoes, front-end loaders, dozers, pavers, rollers, forklifts and temporary generators would be used at the Project site for a range of other construction tasks, including site clearing, excavation and grading, building construction, and/or hardscape and landscape materials installation. Project construction would generate off-site truck trips for deliveries of building materials, transportation of construction equipment to and from the Project site, hauling of soils and debris from the site. A variety of other smaller mechanical equipment would also be used at the Project site during the construction period, such as saw cutters and welders.

To reduce potential noise and vibration effects associated with pile installation, piles would be installed using a drilled, cast-in-place method, such as auger-cast or torque down piles, or a vibratory hammer suspended from a crane for sheet piles comprising portions of the proposed sea wall, as opposed to impact pile driving.

3.4.3 Demolition and Recycling

Figure 3-15 presents the proposed demolition plan for the Project site. Demolition of existing features on the property would include the removal of the existing buildings, concrete sidewalk, asphalt parking area, fencing, and on-site vegetation. The total existing impervious surface to be demolished is approximately 424,000 square feet. An estimated 27,620 tons of demolition debris would be generated by proposed demolition of existing buildings and asphalt paving at the Project site.

It is anticipated that approximately 1,236 tons of removed asphalt would be recycled on-site and re-used as base rock or for temporary roads. An additional estimated 14,000 tons of construction debris would be recycled off-site. Any off-hauled construction debris or soil that contained hazardous materials would be transported and disposed of in accordance with applicable local, State and federal regulations. All other construction debris would be disposed of at a permitted landfill.

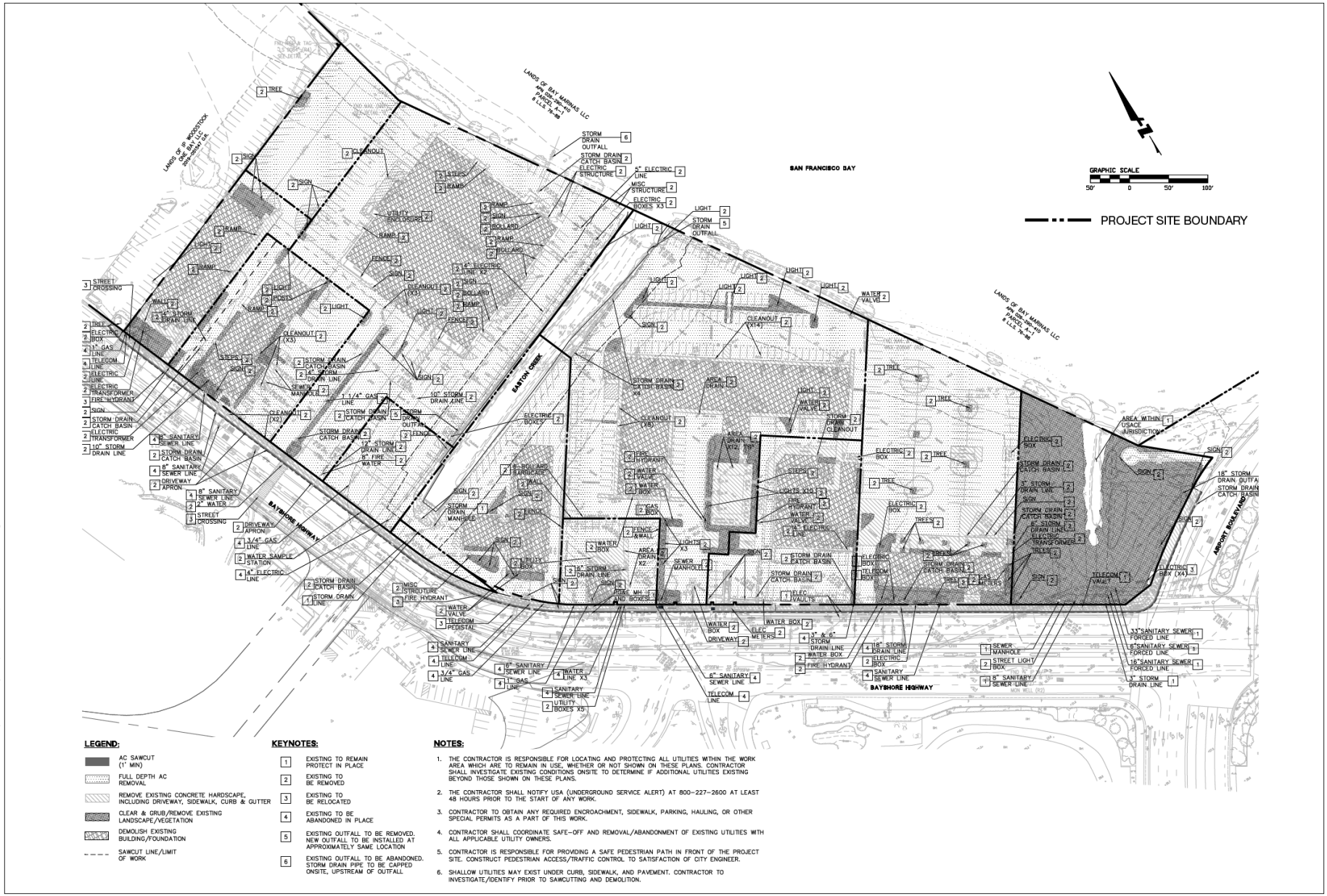
3.4.4 Tree Removal

62 existing trees (including, but not limited to, palm, eucalyptus, pine, poplar and juniper) within the Project site are proposed to be removed under the Project. As discussed under *Open Space and Landscaping*, above, new trees would be planted on the Project site to replace the loss of these trees.

3.4.5 Site Grading

Figure 3-16 presents the proposed grading plan for the Project site, indicating final grade elevations. A majority of site grading would occur during Phase 1 of the Project, although some finish grading and site preparation would occur during Phases 2 and 3. The Project would require soil import and export, as summarized in **Table 3-4**.

Excavation depths are anticipated to extend to a maximum of approximately 27 feet below 11.5-foot grade, resulting in the need for dewatering during construction.

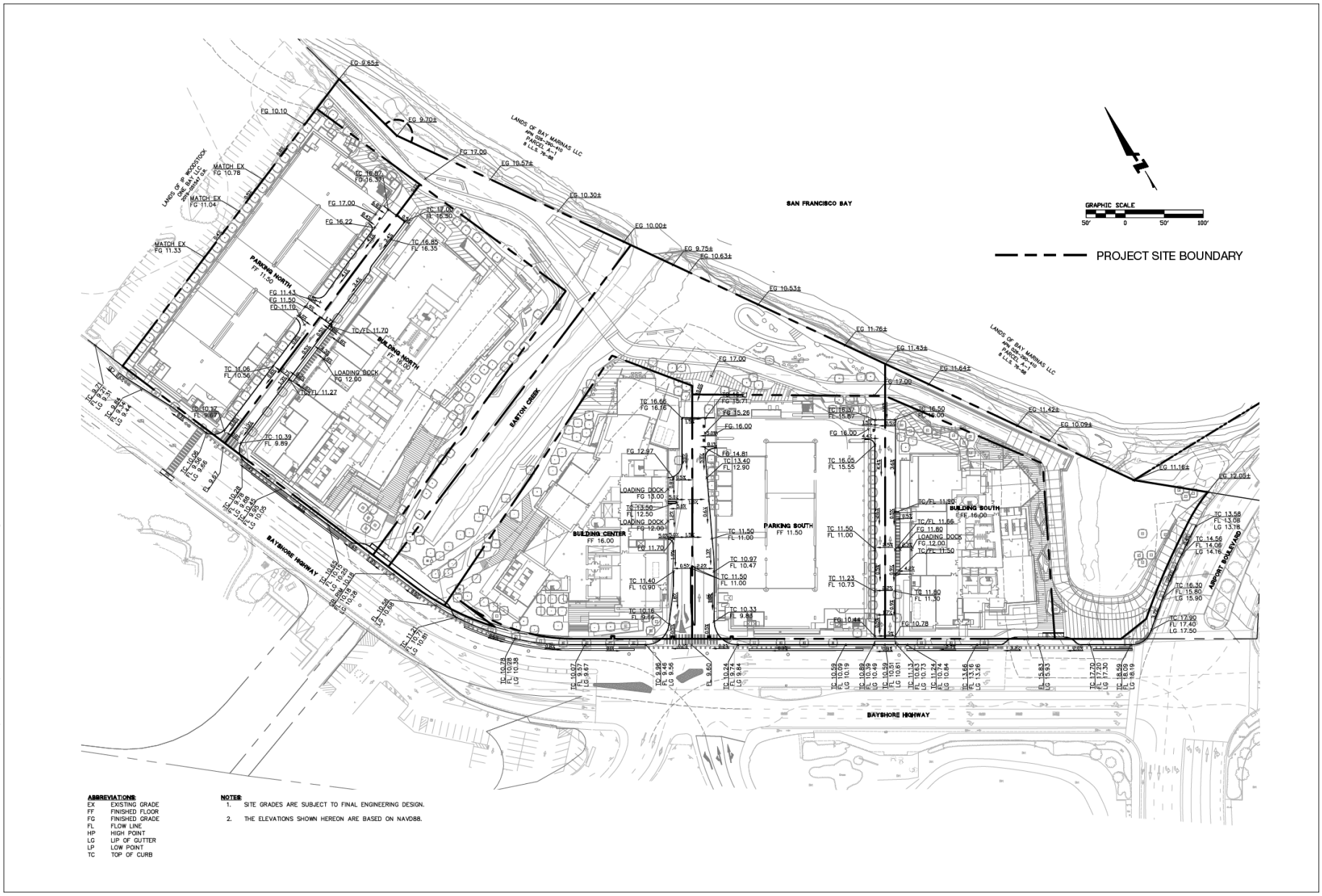


2022\D2022002\71.00 - 1200 -1340 Bayshore Hwy Project\05 Graphics-GIS-Modeling-USE AZURE\Illustrator

SOURCE: DW Burlingame I Owner, LLC, DW Burlingame II Owner, LLC, and DW Burlingame III Owner, LLC, 2022

1200-1340 Old Bayshore Highway EIR

Figure 3-15
Proposed Demolition Plan



SOURCE: DW Burlingame I Owner, LLC, DW Burlingame II Owner, LLC, and DW Burlingame III Owner, LLC, 2022

1200-1340 Old Bayshore Highway EIR

Figure 3-16
Proposed Grading Plan

TABLE 3-4
PROJECT CONSTRUCTION SOIL IMPORT AND EXPORT

Construction Activity	Type	Volume
Site Preparation	Import	86,014 CY
	Export	156,442 CY
Grading	Import	24,550 CY
	Export	17,658 CY
	Total Soil Import	**110,564 CY**
	Total Soil Export	**174,100 CY**

SOURCE: Devcon 2022

Given the depth of excavation, limited and temporary dewatering would be required during construction; in which case, water would be discharged to the City's sewer system, after on-site treatment, if necessary. No permanent groundwater dewatering would be required during operation.

3.4.6 Hours of Construction

Construction contractors would be required to limit the hours of standard construction activities in accordance with City requirements. The Municipal Code restricts construction activities to between the hours of 8:00 a.m. and 7:00 p.m. on weekdays and 9:00 a.m. and 6:00 p.m. on Saturdays with no work allowed on Sundays and holidays. Title 18 - Building Construction 18.07.110 Section 305.1 was amended and allows properties in the Bayfront Commercial (BFC), Innovative Industrial (I/I) and Rollins Road Mixed Use (RRMU) zones only to begin construction work at 7:00 a.m. instead of 8:00 a.m. on weekdays. However, the use of chainsaws, jackhammers, pile-drivers or pneumatic impact wrenches is prohibited from 7:00 a.m. to 8:00 a.m., unless written approval is granted by the building official pursuant to an exception listed in the 18.07.110 Section 305.1 amended.

3.5 Project Approvals

The Project site is located within the City of Burlingame. For the purpose of the EIR, the City is the Lead Agency responsible for certification of the Final EIR as well as conducting design review and other discretionary planning approvals. The Project would require a number of approvals from the City, including:

- Environmental review under the California Environmental Quality Act;
- Commercial Design Review;
- Tentative Parcel Map and Final Parcel Map Approval;
- Special Permits for Height above 65 feet and Tier 3 Increased FAR (per BFC Zone);
- Tree removal permits;
- Master sign program;
- Development Agreement; and
- Approval of off-site Improvements

The Project may require approvals from other federal, regional and state entities, including, but not limited to, the Federal Aviation Administration, the County Association of Governments of San Mateo County/Airport Land Use Commission (ALUC), Association of Bay Area Governments (ABAG), U.S. Army Corps of Engineers, California Department of Fish & Wildlife, Caltrans, San Francisco Bay Conservation Development Commission (BCDC), San Francisco Bay Regional Water Quality Control Board, City/County Association of Governments of San Mateo County (C/CAG), Bay Area Air Quality Management District, and/or National Marine Fisheries Service (NOAA).

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CHAPTER 4
Environmental Setting, Impacts, and Mitigation Measures

4.0 Introduction to Environmental Analysis

This chapter describes the environmental setting, assesses impacts, and identifies measures that would avoid or lessen the severity of the significant impacts of the proposed 1200-1340 Old Bayshore Highway project. This section, Section 4.0, *Introduction to the Environmental Analysis*, outlines the issues analyzed in this chapter, describes the overall approach to the impact analysis, explains the significance determinations and terminology used in the impact analysis, and provides the basis for the cumulative impact analysis.

4.0.1 Definition of Terms Used in the EIR

This EIR uses a number of terms that have specific meaning under CEQA. Among the most important of the terms used in the EIR are those that refer to the significance of environmental impacts. The following terms are used to describe environmental effects of the proposed Project:

- **Significance Criteria:** The criteria or thresholds used by the City, as lead agency under CEQA, to determine whether the magnitude of an adverse, physical environmental impact would be considered significant. In determining the level of significance, the analysis recognizes that the proposed Project must comply with relevant and applicable federal, State, regional and/or local regulations and ordinances which are regularly enforced through building codes and standards and/or other means.
- **Significant Impact:** An impact is considered significant if the proposed Project *could* result in a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of a project-related or cumulative physical change from baseline conditions, compared to a specified significance criterion. A significant impact is defined as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance."[1]
- **Less-than-Significant Impact:** An impact is considered less than significant when the impact caused by the proposed Project would not exceed the applicable significance criterion.
- **Less-than-Significant Impact with Mitigation:** An impact is considered less than significant with mitigation if the proposed Project could result in a substantial adverse change when

[1] CEQA Guidelines Section 15382.

evaluated with respect to one or more significance criteria, but feasible mitigation is available that would effectively reduce the impact to below the significance criterion.

- **Significant and Unavoidable Impact:** Significant impacts resulting from implementation of the Project that cannot be feasibly avoided or mitigated to a less-than-significant level, that is, to a level below the applicable significance criterion.
- **Cumulative Impact:** Under CEQA, a cumulative impact refers to "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."[2] A significant cumulative impact is one in which the cumulative adverse physical environmental effect would exceed the applicable significance criterion and the contribution of the proposed project would be "cumulatively considerable."[3] If the contribution of the project to a significant cumulative impact is less than considerable, the cumulative impact is considered less than significant.
- **Mitigation Measure:** A mitigation measure is a feasible action that could be taken that would avoid or reduce the magnitude of a significant impact. Section 15370 of the CEQA Guidelines defines mitigation as:

  a) Avoiding the impact altogether by not taking a certain action or parts of an action;

  b) Minimizing impacts by limiting the degree of magnitude of the action and its implementation;

  c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

  d) Reducing or eliminating the impact over time by preservation and maintenance during the life of the action; and operations

  e) Compensating for the impact by replacing or providing substitute resources or environments.
- **Feasible:** Under CEQA, the term feasible means "means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."[4]

4.0.2 Scope of Analysis

This EIR includes project-level analysis of the environmental impacts of the proposed Project. The analysis at the project-level is intended to provide sufficient detail to permit project approval and implementation following certification of the 1200-1340 Old Bayshore Highway Final EIR.

Decreased Development Square Footage

Since the Notice of Preparation (NOP) for the proposed Project was released in August 2022 (see **Appendix A**), the Project applicant slightly decreased the size of the Project's office/life science buildings from 1.46 million gross square feet (gsf) to 1.42 million gsf (a decrease of approximately 3 percent). This incremental decrease in building space did not substantially change the building footprints, shape, heights, or the Project's overall proposed operational characteristics, as described in the NOP. Accordingly, the NOP adequately described the Project as currently proposed for the

2 CEQA Guidelines Section 15355.
3 CEQA Guidelines Section 15130(a).
4 CEQA Guidelines Section 15364.

purpose of providing agencies and the public with the opportunity to comment on environmental scoping issues for the EIR.

Aesthetics and Parking Analysis

CEQA Statute Section 21099(d) states that "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment."[5] Accordingly, aesthetics and parking are not considered in determining if a project has the potential to result in significant environmental effects for projects that meet all of the following three criteria:

a. The project is in a transit priority area;[6]
b. The project is on an infill site;[7] and
c. The project is residential, mixed-use residential, or an employment center.[8]

The proposed Project meets each of the above three criteria because it (1) is within a transit priority area, as it is located within one-half mile of the Broadway Caltrain station (2) is located on an infill site, as the lots that comprise the Project site are located within an urban area that have been previously developed; and (3) would meet the definition of an employment center, as it is zoned for commercial use with an floor area ratio exceeding 0.75, and as noted above, located within a transit priority area. Thus, this EIR does not consider aesthetics and the adequacy of parking as significant impacts of the Project under CEQA. Nevertheless, the public and decision-makers may be interested in information pertaining to the aesthetic effects of the proposed Project, and may desire that such information be provided as part of the environmental review process. Therefore, this EIR provides an assessment of potential aesthetic impacts.

Effects of the Environment on the Project

In 2015 the California Supreme Court held that "CEQA generally does not require an analysis of how existing environmental conditions will impact a project's future users or residents." *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369, 386. The Supreme Court explained that, where existing hazards exist, an agency is only required to analyze the potential impact of such hazards on future users or residents if the project would exacerbate those existing environmental hazards or conditions. Thus, with respect to such issues as geologic and seismic hazards, exposure to existing levels of air pollution and noise, and the like, CEQA does not require consideration of the effects of bringing a new population into an area where

5 Refer to CEQA *Statute s*ection 21099(d)(1).

6 CEQA *Statute* 21099(a)(7) defines a "transit priority area" as an area within 0.5 mile of an existing or planned major transit stop if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program or applicable regional transportation plan. A "major transit stop" is defined in CEQA *Statute* 21064.3 as a site containing any of the following: an existing rail or bus rapid transit station; a ferry terminal served by either a bus or rail transit service; or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

7 CEQA *Statute* 21099(a)(4) defines an "infill site" as a lot located within an urban area that has been previously developed, or a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses.

8 CEQA *Statute* 21099(a)(1) defines an "employment center" as a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 and located within a transit priority area.

such hazards exist, as long as the project itself would not increase or otherwise affect the conditions that create those hazards.

Economic and Social Effects

Under CEQA, economic and social effects by themselves are not considered to be significant impacts, and are relevant only insofar as they may serve as a link in a chain of cause and effect that may connect the proposed project with a physical environmental effect, or they may be part of the factors considered in determining the significance of a physical environmental effect.[9] In addition, economic and social factors may be considered in the determination of feasibility of a mitigation measure or an alternative to the proposed project.[10] As such, the potential effect of the Project on economic and social issues, in and of themselves, such as tax revenues, crime, the cost of public services, or property values are not part of this EIR. That being said, the City may evaluate a wide range of factors, including social or economic effects, in its consideration of the merits of the proposed Project.

4.0.3 Organization of the Impact Analysis

Chapter 4 is organized as follows and focuses on the environmental resource topics listed below:

4.1 Aesthetics
4.2 Air Quality
4.3 Biological Resources
4.4 Cultural Resources / Tribal Cultural Resources
4.5 Energy
4.6 Geology and Soils
4.7 Greenhouse Gas Emissions
4.8 Hazards and Hazardous Materials
4.9 Hydrology and Water Quality
4.10 Land Use and Planning
4.11 Noise and Vibration
4.12 Population and Housing
4.13 Public Services and Recreation
4.14 Transportation
4.15 Utilities and Service Systems
4.16 Effects Found Not to Be Significant

Each environmental topic discussion includes these main subsections:

- *Environmental Setting*, which includes a description of the existing environmental setting;
- *Regulatory Framework*, including relevant City plans and policies, and federal, State, and local laws, regulations, and policies; and
- *Impacts and Mitigation Measures*, which describes the (1) significance criteria; (2) analysis methodology, (3) potential project-specific and cumulative impacts; and (4) proposed feasible measures that would eliminate or reduce the severity of significant project-specific and/or cumulative impacts.

This EIR identifies all environmental impacts with an alpha-numeric designation that corresponds to the environmental resource topic. The resource identifier is followed by a number that indicates the sequence in which the impact statement occurs within the section. For example, Aesthetics impacts begin with "AES," Air Quality impacts begin with "AIR;" "Impact AES-1" is the first

[9] CEQA Guidelines Section 15131.
[10] CEQA Guidelines Section 15364.

(i.e., "1") aesthetic impact identified in the EIR, and AIR-1 is the first air quality impact. All impact statements are presented in bold text. The significance of the impacts prior to implementation of mitigation measures is stated in parentheses immediately following the impact statement (further discussed below).

Each mitigation measure is labeled and numbered to correspond with the impact that it addresses. Where multiple mitigation measures address a single impact, each mitigation measure is numbered sequentially. For example, "Mitigation Measure AIR-1a and Mitigation Measure AIR-1b" are identified to address the first air quality impact. All mitigation measure statements are presented in bold text.

4.0.4 Section Structure

Each environmental resource section follows a set structure, as described below.

Introduction

This subsection summarizes the applicable topic analysis and its relevance to the proposed Project.

Existing Environmental Setting

According to Section 15125 of the CEQA Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of the project to provide the "baseline condition" against which project-related impacts are compared. Normally, the baseline condition is the physical condition that exists when the Notice of Preparation ("NOP") is published (in the case of the proposed Project, the NOP was published in August 2022). However, the CEQA Guidelines and applicable case law recognize that the date for establishing an environmental baseline cannot always be rigid. Physical environmental conditions may vary over a range of time periods; thus, the use of environmental baselines that differ from the date of the NOP may be reasonable and appropriate when conducting the environmental analyses. Some sections rely on a variety of data to establish an applicable baseline, as described in those sections.

Regulatory Framework

The regulatory setting presents relevant information about City plans and policies, and federal, State, regional, and/or local laws, regulations, ordinances, plans, policies and standards that pertain to the environmental resources addressed in each section.

Applicable City documents presented in the Regulatory Framework sections of this EIR include, but are not limited to, the City of Burlingame General Plan (*Envision Burlingame*), City of Burlingame Municipal Code, City of Burlingame 2030 Climate Action Plan Update, and City of Burlingame 2020 Urban Water Management Plan.

Significance Criteria

According to CEQA Guidelines Section 15382, a significant effect on the environment means "a substantial, or potentially substantial, adverse change in any of the physical conditions within the

area affected by the project." Significance criteria are identified for each environmental issue area in each resource section. The environmental criteria and considerations applied to determine the significance of Project-related changes in the environment are based in part on the CEQA Guidelines Appendix G, and additional criteria, as applicable. The significance criteria serve as benchmarks for determining if proposed activities or conditions would result in a significant adverse environmental impact when evaluated against the baseline conditions.

Approach to Analysis

Each section describes the analytical methods and key assumptions used to evaluate effects of the proposed Project.

Impacts and Mitigation Measures

The EIR evaluates the environmental consequences and potentially significant impacts that would result from implementation of the proposed Project. The impacts identified are compared with predetermined significance criteria (discussed above), and classified according to significance categories discussed above.

To the extent the residual impact may still be significant even after implementation of the conditions, laws and regulations, potentially feasible mitigation measures are identified which would eliminate or substantially reduce the severity of the impact. The effectiveness of a mitigation measure is determined by evaluating the residual impact remaining after its application. Those impacts meeting or exceeding the impact significance criteria after potentially feasible mitigation measures are incorporated are identified as residual impacts that remain significant and unavoidable. Implementation of more than one mitigation measure may be needed to reduce an impact below a level of significance.

Cumulative Impact Analysis

An analysis of cumulative impacts follows the project-specific impacts and mitigation measures evaluation in each section. A cumulative impact consists of an impact that is created as a result of the combination of the impact of the project evaluated in the EIR together with the impacts from other past, present and reasonably foreseeable projects causing related impacts.[11]

As noted above, where a cumulative impact is significant when compared to baseline conditions, the analysis must address whether the project's contribution to the significant cumulative impact is "considerable." If the contribution of the project is considerable, then the EIR must identify potentially feasible measures that could avoid or reduce the magnitude of the project's contribution to a less-than-considerable level. If the project's contribution is not considerable, it is considered less than significant and no mitigation for the project's contribution is required.[12]

[11] CEQA Guidelines Section 15355.
[12] CEQA Guidelines Section 15130(a)(3).

The geographic scope of the cumulative impact analysis varies depending upon the specific environmental issue area being analyzed. The geographic scope defines the geographic area within which a project may contribute to a specific cumulative impact. Therefore, past, present, and future reasonably foreseeable projects within the defined geographic area for a given cumulative issue must be considered. The cumulative impact analysis in each technical section includes a description of the cumulative analysis methodology and the geographic or temporal context in which the cumulative impact is analyzed (e.g., localized, citywide, the Bay Area Air Basin, other activity concurrent with Project construction, etc.).

Consistent with CEQA Guidelines Section 15130(b), the cumulative impact analysis considers the Project's effects in combination with the projections contained within previously-approved planning documents and forecasting models, including but not limited to *Envision Burlingame*, the City/County Association of Governments of San Mateo County countywide travel demand model, City of Burlingame 2020 Urban Water Management Plan, and regional planning documents from the Association of Bay Area Governments (ABAG), Bay Area Air Quality Management District (BAAQMD), as well as applicable associated environmental review documents.

In addition, consistent with CEQA Guidelines Section 15130(b), the cumulative impact analysis also considers other known or reasonably foreseeable projects that could combine with potential impacts from implementation of the Project within the local geographic area. This includes proposed projects currently undergoing environmental review, approved projects that are not yet constructed, and approved projects that are currently undergoing construction. As described in **Table 4.0-1** and location shown in corresponding **Figure 4.0-1**, there are three cumulative projects which, due to their proximity (located within one-half mile of the Project site), would have the greatest potential to contribute to localized cumulative effects: 1499 Old Bayshore Highway (8--story Office/R&D building and 7 -level parking garage), 250/258 Anza Boulevard (sports complex, including 3-story building) and 1095 Rollins Road (6-story apartment building).

TABLE 4.0-1
LIST OF CUMULATIVE PROJECTS IN BURLINGAME

Status of Project and Key Number (please see corresponding Figure 4.01)	Address	Land Use Descriptor			Notes
		Office (sf)	Commercial (sf)	Residential (units)	
1.	1499 Old Bayshore Highway	315,200	--	--	Proposed Project Currently Under Environmental Review: 8-Story Lab/Office Building and One 7-Level Parking Garage
2.	250/258 Anza Boulevard	--	71,024 sf		Approved but Not Constructed Project: Sports Complex, including 3-Story Building
3.	1095 Rollins Road	--	--	150 units	Approved and Under Construction: 6-Story Apartment Building

SOURCE: City of Burlingame; ESA 2022

SOURCE: ESA, 2022; Google Earth, 2022

1200-1340 Old Bayshore Highway EIR

Figure 4.0-1
Cumulative Project Map

4.1 Aesthetics

As discussed in more detail in Section 4.0, *Introduction to Environmental Analysis,* pursuant to CEQA Section 21099(d), this EIR does not consider aesthetics in determining the significance of Project impacts under CEQA. As a result, an assessment of the proposed Project's aesthetic effects is presented in this section for informational purposes. Furthermore, wind and shadow analysis are not required by CEQA, but also included in this section for informational purposes.

The aesthetic analysis included in this section was developed based on the proposed Project description, review of applicable regulations and policies, physical and photographic reconnaissance of the Project site and vicinity and computer-generated visual simulations prepared by PreVision Design. The shadow analysis is based on a shade study prepared by PreVision Design, and the wind analysis is based on a pedestrian wind analysis prepared by Rowan Williams Davies & Irwin Inc. (RWDI)[1].

4.1.1 Environmental Setting

City of Burlingame

The City of Burlingame is bounded by the City of Millbrae to the northwest, San Francisco Bay to the east, the City of San Mateo to the southeast, and the Town of Hillsborough to the southwest. U.S. Highway 101 (U.S. 101) traverses Burlingame primarily in a northwest-southeast direction, in proximity to the Project site. Interstate 280 (I-280) is located in the hills to the west of the City. Beyond I-280 to the west, the Santa Cruz Mountains provide a visual backdrop to the City.

Burlingame's Bayfront area covers approximately 2.5 linear miles of frontage along San Francisco Bay. The Bayfront area is characterized by the open waters of the Bay, recreation and open space resources, and office buildings, hotels, and restaurants that benefit from their proximity to San Francisco International Airport (SFO). The San Francisco Bay Trail runs along the Bayfront, providing a pedestrian and bicycle connection between recreation opportunities and services along the Bay. While the trail is substantially complete, gaps occur where the trail route crosses private lands.

Project Site and Vicinity

The Project site is relatively level and consists of 13 contiguous parcels, as shown in Figure 3-3 in Chapter 3, *Project Description*. Easton Creek bisects the northern portion of the Project site. An unnamed remnant channel partially bisects the southern portion of the Project site. The Project site is bounded by a privately owned, partially submerged parcel abutting San Francisco Bay to the east, Old Bayshore Highway to the west, and Airport Boulevard to the south. The Project site is located approximately 0.3-mile south of the SFO south property boundary and just over one mile from the nearest SFO runway. There are eight existing buildings on the Project site, which comprise several one- to three-story commercial buildings and a former theater. Existing paved

[1] The PreVision Design shade and shadow study is included in **Appendix SHDW**, and RWDI wind analysis is included in **Appendix WIND**.

off-street segments of the San Francisco Bay Trail currently terminate at the northeast and southeast corners of the Project site, creating a missing link in the Bay Trail network.

Existing land uses in the Project site vicinity include office, commercial, hotel, industrial, warehouse, and recreational uses. A nine-story commercial office building and associated parking lots are located to the north of the Project site. The nine-story Hyatt Regency San Francisco Airport Hotel and associated parking is located across Old Bayshore Highway to the west of the Project site. A two-story office building is located across Old Bayshore Highway to the southwest of the Project site. Bayside Park is located across Airport Boulevard to the southeast of the Project site.

Visual and Scenic Resources

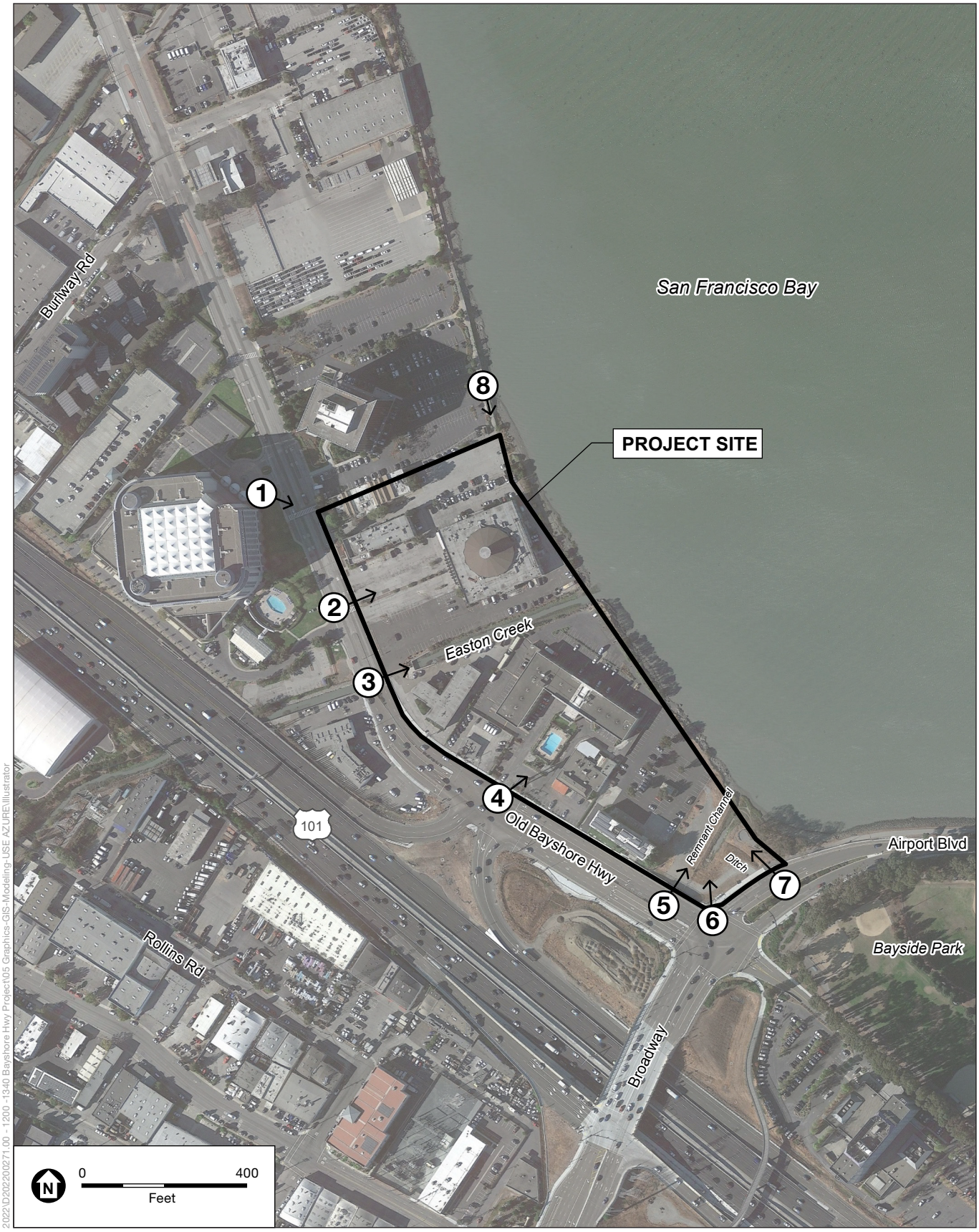
Visual and scenic resources identified in the *Burlingame General Plan* include groves of mature trees, tree-lined streets, and views of marshlands and San Francisco Bay from the Burlingame hills and Old Bayshore Highway and Airport Boulevard. Burlingame also has several roadways—El Camino Real in particular—that may qualify for scenic designation under the California Streets and Highways Code, Section 260, but none is currently designated as scenic under the State program. These roadways are considered scenic because they provide visual access to natural features like bodies of water, mountains, and trees, as well as built features like historic landmarks, historic districts, and architecturally significant buildings. The closest State Scenic Highway to the Project site is I-280, which is over 2 miles to the west of the Project site (Caltrans, 2023).

Scenic Views

The *Burlingame General Plan* identifies views of Burlingame's hills and the open Bayfront as scenic views that merit protection and enhancement. There are various panoramic views of San Francisco Bay and the Burlingame's hills from the City, particularly for motorists on the elevated U.S. 101. Intermittent scenic views of the Bay are held from other north/south roadways in the Project vicinity. In the vicinity of the Project site, views of the Santa Cruz Mountains and Skyline Ridge (collectively referred to as "the hillsides") are visible when facing west. However, the hillsides are viewed mainly through channelized view corridors. The higher elevations of Burlingame provide eastern views of the City, the Bay, and the East Bay Hills. Due to the relatively flat topography and existing development on the Project site and in the immediate vicinity, there are limited existing scenic views through the Project site. However, given the lack of vertical development along the Easton Creek channel on the Project site, the creek corridor affords existing views from Old Bayshore Highway through the Project site to San Francisco Bay.

Visual Character

Figure 4.1-1 provides an aerial view of the Project site and the locations of photographic views of the Project site included in subsequent figures. **Figure 4.1-2** through **Figure 4.1-5** present photographic views of the Project site from publicly accessible locations. As discussed in more detail under Section 4.4, *Cultural Resources, including Tribal Resources*, the eight buildings on the Project site were constructed between 1954 and 1966. The former Hyatt Music Theater is the most visually prominent of the Project site buildings, representing a Midcentury Modern-style theater with distinctive futuristic design elements inspired by the Space Age. Easton Creek bisects



SOURCE: ESA, 2022; Google Earth, 2022

1200-1340 Old Bayshore Highway EIR

Figure 4.1-1
Viewpoint Location Map for Existing Photographs

Viewpoint 1: View from Old Bayshore Highway toward commercial buildings at 1338-1340 Old Bayshore Highway and 1310 Old Bayshore Highway within the northwestern portion of the Project site. View facing southeast.

Viewpoint 2: View toward the southwest façade of the former theater building at 1300-1308 Old Bayshore Highway within the northern portion of the Project site. View facing northeast.

SOURCE: ESA, 2022

1200-1340 Old Bayshore Highway EIR

Figure 4.1-2
Views 1 and 2 of Project Site

Viewpoint 3: View toward Easton Creek, which bisects the northern portion of the Project site, and San Francisco Bay. The former theater building at 1300-1308 Old Bayshore Highway and parking lot (left) are located directly north of the creek, and the two-story office building at 1290 Old Bayshore Highway (right) is located directly south of the creek. View facing northeast.

Viewpoint 4: View toward the three-story hotel and one-story restaurant within the Project site at 1250 Old Bayshore Highway. View facing northeast.

SOURCE: ESA, 2022

1200-1340 Old Bayshore Highway EIR

Figure 4.1-3
Views 3 and 4 of Project Site

Viewpoint 5: View toward the unnamed remnant channel that partially bisects the southern portion of the Project site, with San Francisco Bay visible to the northeast and east. View facing northeast.

Viewpoint 6: View toward the southern end of the Project site, with mature trees and partial views of the three-story hotel within the Project site at 1250 Old Bayshore Highway, a nine-story commercial office building located to the north of the Project site, and the nine-story Hyatt Regency San Francisco Airport Hotel located across Old Bayshore Highway to the west of the Project site. San Francisco Bay is visible to the east. View facing north.

SOURCE: ESA, 2022

1200-1340 Old Bayshore Highway EIR

Figure 4.1-4
Views 5 and 6 of Project Site

Viewpoint 7: View toward a terminus point of the San Francisco Bay Trail at the southern edge of the Project site. View facing north.

Viewpoint 8: View toward a terminus point of the San Francisco Bay Trail at the northern edge of the Project site. View facing south.

SOURCE: ESA, 2022

1200-1340 Old Bayshore Highway EIR

Figure 4.1-5
Views 7 and 8 of Project Site

and provides a distinctive visual demarcation on the Project site. Within the Project site, Easton Creek is primarily an open channel but enters a culvert as it approaches Old Bayshore Highway.

The visual character of portions of the Project site is deteriorated, with certain buildings in varying states of disrepair, and two buildings (1310 and 1338-1340 Old Bayshore Highway) currently boarded up; in addition, some of the existing landscaping is generally not well maintained, and certain parking lots exhibit wear.

Existing paved off-street segments of the San Francisco Bay Trail (Bay Trail) currently terminate at the northeast and southeast corners of the Project site.

Light and Glare

Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments; however, these lights have the potential to produce spillover light and glare, and if designed incorrectly, could be considered unattractive. Although nighttime light is a common feature of urban areas, spillover light can adversely affect light-sensitive uses, such as residential units at nighttime.

Glare results when a light source directly in the field of vision is brighter than the eye can comfortably accept. Squinting or turning away from a light source is an indication of glare. The presence of a bright light in an otherwise dark setting may be distracting or annoying, referred to as discomfort glare, or it may diminish the ability to see other objects in the darkened environment, referred to as disability glare. Reflective glare, such as the reflected view of the sun from a window or mirrored surface, can be distracting during the day.

Burlingame is a built-out urbanized area with fairly high levels of ambient night lighting and glare from headlights along the various roadways in the area. This is in contrast to the darker ambiance of the San Francisco Bay itself to the east, although lighting is visible on the various bridges in the Bay. The Project site and vicinity consist of urban built-out uses that create and are subject to ambient light and glare typical of urban areas. The Project vicinity to the north includes numerous warehouses supporting SFO, which are subject to nighttime activity requiring lighting. Lighting from SFO runways is currently visible from the Project site and surrounding area.

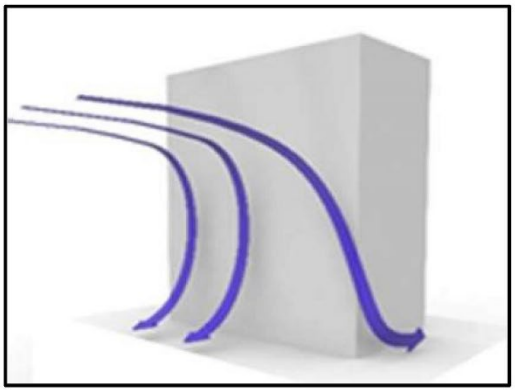
Wind

The comfort of pedestrians varies under different conditions of sun exposure, temperature, clothing, and wind speed.[2] Winds of about 4 mile per hour (mph) have no noticeable effect on pedestrian comfort. With speeds from 4 to 7 mph, wind is felt on the face. Winds from 8 to 12 mph will cause clothing to flap and extend a light flag mounted on a pole. Winds from 12 to 18 mph will raise loose paper, dust, and dry soil. For winds from 18 to 24 mph, the force of the wind will be felt on the body. With winds greater than about 24 mph, umbrellas are used with difficulty, there is difficulty in walking steadily, and wind noise is unpleasant. Winds over about 38 mph impede walking and gusts can blow people over. Expressed another way, as stated in the pedestrian wind study conducted for the proposed project, winds up to an average of 6 mph are

[2] T.V. Lawson, and A.D. Penwarden, "The Effects of Wind on People in the Vicinity of Buildings," *Proceedings of the Fourth International Conference on Wind Effects on Buildings and Structures, London, 1975*, Cambridge University Press, Cambridge, U.K., 605–622, 1976.

suitable for sitting, winds up to 8 mph are acceptable for a person standing still, winds up to 10 mph are suitable for strolling (leisurely walking), and winds up to 12 mph are acceptable when walking from one place to another; higher speed winds are generally considered to be uncomfortable for pedestrians.[3] Winds are considered unsafe if gusts of 56 mph that can affect a person's balance occur 0.1 percent of the time or more (9 hours or more per year).[4] According to the wind study, winds comfortable for walking or strolling are appropriate for sidewalks and parking areas. However, at building entrances, lower wind speeds—winds comfortable for standing—are more suitable so as not to interfere with pedestrians entering and exiting buildings.

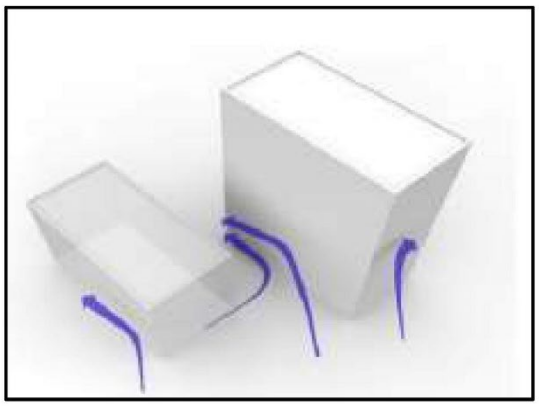
The wind environment for pedestrians can be adversely affected by buildings that are considerably taller than surrounding structures, particularly where such taller buildings present large, flat, and primarily unarticulated surfaces towards the prevailing winds. A building that is much taller than the surrounding buildings or terrain can intercept and redirect winds that might otherwise flow overhead and bring them down the vertical face of the building to ground level, result in in ground-level turbulence (variability in wind speed and pressure). These redirected winds, or downwashes, can be relatively strong and turbulent, particularly around building corners, and may in some instances be incompatible with the intended uses of nearby ground-level spaces (see **Figure 4.1-6a**). Buildings spaced closely together can also result in increased wind speeds at pedestrian level as the winds are channeled between closely spaced structures (see **Figure 4.1-6b**). However, groups of buildings can interact with and slow approaching winds due to the friction and drag created by the many individual structures, resulting in calmer pedestrian winds at locations sheltered by groups of buildings.[5]



Downwashing and Corner Acceleration

SOURCE: RWDI, 2022

Figure 4.1-6a



Channeling and Corner Acceleration

Figure 4.1-6b

[3] Rowan Williams Davies & Irwin Inc., "Peninsula Crossing, Burlingame, CA; Pedestrian Wind Assessment," July 19, 2022. The indicated speeds represent average wind speeds occurring 80 percent of the time.

[4] The standard of 56 mph (25 meters per second) is based on research originally conducted in England in the 1970s. It should be noted that a 56-mph gust may occur during a period of lower hourly *average* wind speed.

[5] It is noted that some users benefit from strong winds: among these are those engaged in windsurfing and board-sailing, both of which occur in the vicinity of Coyote Point Recreation Area, about 1.5 miles (about 8,000 feet) east of the Project site. However, because of the distance between the site and Coyote Point, development at the Project site would not be anticipated to result in meaningful changes in wind speed or turbulence for these recreational users of the Bay. This is because the effects of buildings on wind speed and wind turbulence are limited to a distance of about 10 times (in this case, about 2,150 feet, or 0.4 miles) and about 25 times (about 5,350 feet, or 1 mile), respectively, the building height. Therefore, windsurfing and board-sailing are not discussed further.

Existing Conditions at the Project Site and in the Vicinity

Existing development in the Project area generally consists of one- to three-story commercial buildings surrounded by surface parking. The prevailing westerly winds are somewhat slowed by these structures and then accelerate when they reach the open waters of San Francisco Bay. Because most existing development is no more than 40 feet in height, it has minimal effects on localized ground-level wind speeds and turbulence. However, there are three notable exceptions, in that the Project site is close to three of the taller buildings now in the Bayfront area. Immediately north of the project site is the 9-story, approximately 120-foot-tall One Bay Plaza office building, at 1350 Bayshore Highway, while the nine-story, approximately 120 foot-tall Hyatt Regency Hotel is directly across Bayshore Highway. Slightly more distant and northwest of the site is a seven-story, 95-foot-tall office building, Kahala Tower, at 851 Burlway Road. These taller structures result in some localized acceleration of wind speeds and increased turbulence around their building bases.

Wind data from SFO shows that annual prevailing winds are primarily from directions emanating between the west and northwest. Monthly wind data shows that average wind speeds are highest in spring and summer (April – September) and that prevailing winds are generally from the west and northwest. The lowest average speeds occur in November, December, and January. However, strong winds in December and January also blow from the southeast, and are generally associated with winter storms.[6]

Shadow

The existing one- to three-story buildings on the Project site cast relatively little shadow. Most existing shadow falls on the existing surface parking lots on the Project site, although existing buildings do cast small amount of shadow on portions of the eastern sidewalk of Old Bayshore Highway in the early morning hours year-round. Existing shadow on Easton Creek primarily occurs in the morning hours between mid-fall and mid-winter, although shadow also reaches the creek in the very early morning before 9:00 a.m. around the spring and fall equinoxes. Existing shadow on the San Francisco Bay shoreline is limited to late afternoon hours. [For reference, the shadow impacts analysis in Section 4.1.3 presents figures that include existing shadows cast in the Project vicinity on the summer solstice, vernal/autumnal equinox, and winter solstice (Figures 4.1.17 through 4.1-19, respectively)].

4.1.2 Regulatory Framework

State

State Scenic Highway Program

California's Scenic Highway Program was created by the Legislature in 1963 to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to designated scenic highways. The State laws governing the Scenic Highway Program

[6] Iowa State University, Iowa Environmental Mesonet, Wind Roses for San Francisco International Airport, 1948-present. Available on the internet at: http://mesonet.agron.iastate.edu/sites/windrose.phtml?network=CA_ASOS&station=SFO. Accessed January 9, 2023.ww

are found in the California Streets and Highways Code, Division 1, Chapter 2, Article 2.5, Section 260 et seq. The State Scenic Highway System includes a list of federal and State highways that are either eligible for designation as scenic highways or have been so designated. These highways are identified in Streets and Highways Code Sections 263 through 263.8. A highway may be designated scenic based upon the amount of natural landscape that can be seen by travelers, the scenic quality of the landscape, and the extent to which existing development intrudes upon the traveler's enjoyment of the view. As noted above in Section 4.1.1, *Environmental Setting*, the closest State Scenic Highway to the Project site is I-280, which is over 2 miles away (Caltrans, 2023).

San Francisco Bay Conservation and Development Commission and Bay Plan

The San Francisco Bay Conservation Development Commission (BCDC) is a state agency with permit authority over the San Francisco Bay and its shoreline. Created by the McAteer-Petris Act in 1965, BCDC regulates filling, dredging, and changes in use in the Bay. It is necessary to obtain a BCDC permit prior to undertaking most work in the Bay or within 100 feet of the shoreline, including filling, dredging, shoreline development, and other work. Several different types of permit applications exist, depending on the size, location, and impacts of a project.

In addition, BCDC regulates new development within 100 feet of the shoreline to ensure that maximum feasible public access to and along the Bay is provided. In Burlingame, this includes all creeks draining to San Francisco Bay as far inland as the east side of Old Bayshore Highway, Anza Lagoon, Sanchez Channel, Burlingame Lagoon, and the Sanchez Marsh. Within the Project site BCDC, this includes Easton Creek and the remnant channel in the southern portion of the site. In Burlingame, standards for providing shoreline access have been adopted by both BCDC and the Burlingame City Council. These standards define how public access is provided on shoreline properties and establish measurable standards for implementation. Development within BCDC's jurisdiction is required to conform to these standards (City of Burlingame, 2019b).

The San Francisco Bay Plan (Bay Plan) was prepared by BCDC from 1965 through 1969 and amended through 2019 in accordance with the McAteer-Petris Act (BCDC, 1965). The Bay Plan guides the protection and use of the Bay and its shoreline. Under the McAteer-Petris Act, the Bay Plan provides policy direction for BCDC's permit authority regarding the placement of fill, extraction of materials, determining substantial changes in use of land, water, or structures within its jurisdiction, protecting the Bay habitat and shoreline, and maximizing public access to the Bay.

Part IV of the Bay Plan contains findings and policies that pertain to development of the Bay and shoreline. These findings and policies address the many facets that comprise the uses, needs, and design issues associated with balancing the environmental, ecological, economic, recreational and social objectives of development within or along the shoreline of the Bay. They include: (1) Safety of Fills; (2) Protection of the Shoreline; (3) Dredging; (4) Water-Related Industry; (5) Ports; (6) Airports; (7) Transportation; (8) Commercial Fishing; (9) Recreation (including Marinas); (10) Public Access; (11) Appearance, Design and Scenic Views; (12) Salt Ponds and Other Managed Wetlands; and (13) Other Uses.

The following Appearance, Design and Scenic Views policies of the Bay Plan are applicable to the proposed Project:

1. To enhance the visual quality of development around the Bay and to take maximum advantage of the attractive setting it provides, the shores of the Bay should be developed in accordance with the Public Access Design Guidelines.[7]

2. All bayfront development should be designed to enhance the pleasure of the user or viewer of the Bay. Maximum efforts should be made to provide, enhance, or preserve views of the Bay and shoreline, especially from public areas, from the Bay itself, and from the opposite shore. To this end, planning of waterfront development should include participation by professionals who are knowledgeable of the Commission's concerns, such as landscape architects, urban designers, or architects, working in conjunction with engineers and professionals in other fields.

3. In some areas, a small amount of fill may be allowed if the fill is necessary—and is the minimum absolutely required—to develop the project in accordance with the Commission's design recommendations.

4. Structures and facilities that do not take advantage of or visually complement the Bay should be located and designed so as not to impact visually on the Bay and shoreline. In particular, parking areas should be located away from the shoreline. However, some small parking areas for fishing access and Bay viewing may be allowed in exposed locations.

5. Shoreline developments should be built in clusters, leaving areas open around them to permit more frequent views of the Bay. Developments along the shores of tributary waterways should be Bay-related and should be designed to preserve and enhance views along the waterway, so as to provide maximum visual contact with the Bay.

6. In order to achieve a high level of design quality, the Commission's Design Review Board, composed of design and planning professionals, should review, evaluate, and advise the Commission on the proposed design of developments that affect the appearance of the Bay in accordance with the Bay Plan findings and policies on Public Access; on Appearance, Design, and Scenic Views; and the Public Access Design Guidelines. City, county, regional, state, and federal agencies should be guided in their evaluation of bayfront projects by the above guidelines.

7. Views of the Bay from vista points and from roads should be maintained by appropriate arrangements and heights of all developments and landscaping between the view areas and the water. In this regard, particular attention should be given to all waterfront locations, areas below vista points, and areas along roads that provide good views of the Bay for travelers, particularly areas below roads coming over ridges and providing a "first view" of the Bay (shown in Bay Plan Maps).

[7] The Commission has adopted advisory "Public Access Design Guidelines" to assist in the siting and design of public access to San Francisco Bay. The Design Review Board was formed in 1970 of professional designers to advise the Commission on the adequacy of public access of proposed projects in accordance with the Bay Plan.

Local

City of Burlingame General Plan

The *Burlingame General Plan* is a long-range policy document that guides decision-making and establishes the requirements for the design and development of new projects, conservation of resources, economic development, mobility and infrastructure improvements, expansion of public services, and community amenities in the City. The General Plan is intended to provide direction through the year 2040. The General Plan includes the following goals and policies that are applicable to the proposed Project:

Chapter IV. Community Character

Goal CC-1: Incorporate sustainable practices in all development decisions.

> ***Policy CC-1.10: Site Design.*** Establish sustainable site design standards that maintain and protect valuable stands of vegetation, minimize impacts of runoff to San Francisco Bay and local creeks, reduce water consumption, optimize buildings' solar orientation, and minimize the impact of new structures on wind movement.

Goal CC-6: Establish a cohesive design character for the Bayfront area that protects views to the waterfront, encourages biking and walking, accommodates water-based recreation and ferry service, and addresses sea level rise.

> ***Policy CC-6.1: View Preservation.*** Ensure that new development preserves public views to the waterfront. Consider sightlines and viewsheds from Bayfront open spaces when planning future projects.

> ***Policy CC-6.4: Design Character.*** Establish design standards that facilitate attractive interfaces between use types, enhance the public realm, and activate commercial districts. Prioritize pedestrian improvements and waterfront access.

Chapter IX. Healthy People and Healthy Places

Goal HP-7: Protect local scenic resources, and preserve views of the natural amenities in the city.

> ***Policy HP-7.3: City and County Scenic Roadways.*** Protect local scenic roadways by preserving mature trees wherever possible, maintaining landscaping along roadways, and ensuring that development and land uses do not detract from the aesthetics of the corridor. Consider establishing specific design guidelines for residential development, commercial development, and roadway signage along scenic corridors.

> ***Policy HP-7.5: Connectivity to Recreational Amenities.*** Coordinate and identify connectivity opportunities between scenic routes and adjacent public recreation areas such as parks, scenic outlooks, and biking and hiking trails. Prioritize the development of separated bicycle lanes along scenic routes to connect with recreational trails.

> ***Policy HP-7.7: Shoreline Views.*** Protect views to the Bay shoreline by identifying viewsheds to the Bay from key locations and restricting the height of buildings within these viewsheds. Ensure that new Bayfront development does not detract from the scenic qualities of the area, and consider adopting commercial and hotel design guidelines specific to the Bayfront.

City of Burlingame Zoning Ordinance

The City of Burlingame Zoning Ordinance (Title 25 of the City of Burlingame Municipal Code) is the primary tool used by the City to carry out the goals, objectives, and policies of the General Plan. The Zoning Ordinance also establishes standards such as minimum lot size, maximum building height, street setbacks, view corridor requirements, and other standards that guide development of projects in the City. The Project site is zoned as Bayfront Commercial (BFC) under the City's Zoning Ordinance. This district allows entertainment establishments, restaurants, hotels and motels, retail, and higher-intensity office uses. The maximum permitted building height within the BFC zone is 65 feet, unless the applicant seeks a special permit, which allows an increase in height and obtains FAA approval.

Design Review

With specific exceptions, such as minor additions to buildings, design review is required for construction, relocation, or significant modification of any structure in the City of Burlingame. As specified in Chapter 25.68, *Design Review*, of the Zoning Ordinance, design review is a discretionary Planning Commission review process that includes public notice with a public hearing conducted as is required for all Commission actions. The primary purpose of design review is to ensure that proposed development is compatible with the physical and environmental characteristics of the site and surrounding properties; provides for safe and convenient access and circulation for pedestrians and vehicles; is of high-quality design; and implements General Plan policies, applicable design guidelines, and any other applicable City planning-related documents.

4.1.3 Impacts and Mitigation Measures

Significance Criteria

As discussed above, and in more detail under the *Approach to Analysis* for aesthetics below*,* pursuant to CEQA Section 21099(d), this EIR does not consider aesthetics in determining the significance of Project impacts under CEQA. As a result, an assessment of the proposed Project effects against criteria a) through d), above, is presented for informational purposes.

For projects that do not meet the screening criteria set forth in CEQA Section 21099(d), Appendix G of the CEQA Guidelines indicate a proposed project may result in a significant impact related to aesthetics if it would:

a) Have a substantial adverse effect on a scenic vista.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area,[8] would the project conflict with applicable zoning and other regulations governing scenic quality.

[8] The Project site qualifies as an "urban area" as defined in CEQA Guidelines Section 21094.5 because it is located in an incorporated city.

d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.

This analysis employs the criteria above for informational purposes.

Criteria Not Analyzed

Based on the Project site location, there would no impact related to the following topics for the reasons described below:

- ***Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.*** As discussed in Section 4.3, *Cultural Resources, including Tribal Resources*, none of the buildings on the Project site were determined to qualify as historical resources as defined in CEQA Guidelines Section 15064.5. Consequently, removal of the buildings under the Project would have no significant impact on historical architectural resources. In addition, there are no unique trees, rock outcroppings or other natural features on the Project site that would qualify as scenic resources. Furthermore, as noted above, the closest state scenic highway to the Project site is I-280, which is over 2 miles away. No state scenic highways are located in or easily visible from the Project site. Therefore, there would be no Project impact related to substantial damage of scenic resources within a state scenic highway. Accordingly, this topic will not be evaluated further in this section.

Approach to Analysis

Aesthetics

As discussed in further detail in Section 4.0, *Introduction to the Environmental Analysis*, the proposed Project substantially meets the criteria set forth in CEQA Section 21099(d), which states that "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment." Thus, this EIR does not consider aesthetics and the adequacy of parking in determining the significance of Project impacts under CEQA. Nevertheless, the public and decision-makers may be interested in information pertaining to the aesthetic effects of the proposed Project and may desire that such information be provided as part of the environmental review process. Therefore, this EIR provides an assessment of potential aesthetic impacts.

The analysis in Impacts AES-1 and AES-2 below is aided by the visual simulations prepared by PreVision Design for the EIR in coordination with the City of Burlingame. The visual simulations depict existing and proposed views of and through the proposed Project site. The visual simulations were prepared from representative locations. The viewpoints in the visual simulations were selected to capture a representative sample of existing and proposed views of the Project site in terms of both sensitive viewing locations, such as public recreational uses, and publicly accessible views. The visual simulations of the Project site are based on available preliminary building plans and designs. With respect to cumulative development, since final detailed building plans of cumulative development are not yet available, building massing in the simulations illustrate rough approximations of their building form, but do not include features such as

setbacks, modulation, and potential variation in the depths of façade planes, and fenestration (windows). Therefore, the visual simulations of this cumulative development can be considered a conservative depiction of potential visual changes associated with cumulative development.

Wind

Although a wind analysis is generally not required under CEQA, because of the height of the proposed Project buildings, and because of their proximity to the Bayfront and the proposed Bay Trail extension through the Project site, an analysis of potential wind effects on pedestrian activity was undertaken and is presented for informational purposes.

Accordingly, a pedestrian wind analysis was undertaken for the proposed Project by RWDI.[9] The wind analysis employed computational fluid dynamics—a computer-based approach to simulation of existing and future conditions—to evaluate the potential wind impact of the proposed Project. The wind analysis was based on several factors, including a review of the regional long-term meteorological data from the nearby San Francisco International Airport; dozens of wind studies completed by RWDI for comparable projects in the Bay Area; and wind assessment tools developed internally by RWDI engineers and climate scientists, as well as the firm's history in wind analysis and the resulting engineering judgment. The analysis evaluated a three-dimensional model of the proposed Project provided by the Project design team in August 2022. The computer model of existing and proposed conditions includes the necessary building and terrain massing details that would affect the local wind flows in the area and around the Project site. Winds were evaluated for 16 compass directions and the results for a pedestrian's height of 5 feet above grade were derived. Separate model runs were conducted to simulate summer conditions and winter conditions.

Shadow

Although a shadow analysis is generally not required under CEQA, because of the height of the proposed Project buildings, and because of their proximity to the Bayfront and the proposed Bay Trail extension through the Project site, an analysis of potential shading effects on publicly accessible open spaces was undertaken and is presented for informational purposes.

Accordingly, a shadow study was prepared for the proposed Project by PreVision Design.[10] The shadow study included a compilation of existing building and topographical data from aerial photography and imagery and employed Google™ Earth Pro to develop 3D models of existing buildings. Using this data, a virtual 3D area model was built, including a model of the proposed Project (provided by the Project applicant), and used to simulate and render both existing and with-Project shadow conditions.

The distance a project shadow can reach is determined by the height of the building and the elevation of the sun in the sky. Close to sunrise and sunset, the sun is so low in the sky that shadows cast by short objects can be extremely long and shadow lengths change very quickly;

9 Rowan Williams Davies & Irwin Inc. (RWDI), "Peninsula Crossing, Burlingame, CA; Pedestrian Wind Assessment," August 30, 2022.

10 PreVision Design, 1200-1340 Bayshore Shadow Study," January 9, 2023.

also, shading is nearly complete in highly developed areas. For this reason, it can be more useful to consider the shadows that occur during other portions of the day, when there is generally more use of open spaces and shadow lengths change more slowly. Accordingly, the shadow images were generated at 9:00 a.m., 12:00 noon, and 3:00 p.m. on the summer solstice (assumed to be June 21), the spring/fall equinoxes (March 21 and September 21), and the winter solstice (December 21), to bracket the range of Project impacts.

Impact Analysis

Impact AES-1: The Project would not have a substantial adverse effect on a scenic vista. (*Less than Significant*)

Under CEQA, scenic vistas are those that are experienced from publicly accessible locations and include urban skylines, valleys, mountain ranges, or large bodies of water. As noted above in Section 4.1.1, *Environmental Setting*, the *Burlingame General Plan* identifies views of Burlingame's hills and the open Bayfront as scenic views that merit protection and enhancement.

There are various panoramic views of San Francisco Bay and Burlingame's hills from the City, particularly for motorists on the elevated U.S. 101. Intermittent scenic views of the Bay are held from other north/south roadways in the Project vicinity. In the vicinity of the Project site, views of the Santa Cruz Mountains and Skyline Ridge (collectively referred to as "the hillsides") are visible when facing west. However, the hillsides are viewed mainly through channelized view corridors. The higher elevations of Burlingame provide eastern views of the City, the Bay, and the East Bay Hills. Due to the relatively flat topography and existing development on the Project site and in the immediate vicinity, there are limited existing scenic views through the Project site. However, given the lack of vertical development along the Easton Creek channel on the Project site, the creek corridor affords existing views from Old Bayshore Highway through the Project site to San Francisco Bay, as does the undeveloped southern portion of the Project.

The proposed Project would have a significant effect on scenic vistas under CEQA if it would substantially block or degrade scenic views from public vantage points. Please note that impacts on views from private property are not considered significant effects on the environment. Scenic vistas considered in this analysis include long-range panoramic views of hillsides and the open Bayfront.

As described in Chapter 3, *Project Description*, the proposed Project would demolish and remove all existing buildings and surface parking lots on the Project site. The Project site would be regraded, raising the elevation of site, which currently ranges between approximately 10 and 12 feet NAVD 88.[11] Proposed elevations across the site would vary depending on location, to as much as 16 feet NAVD for the finished floor elevations. Redevelopment of the Project site would include three 11-story life science/office buildings (South, Center, and North Buildings) and two parking structures, along with site circulation, infrastructure, recreational, and landscaping improvements.

[11] North American Vertical Datum of 1988.

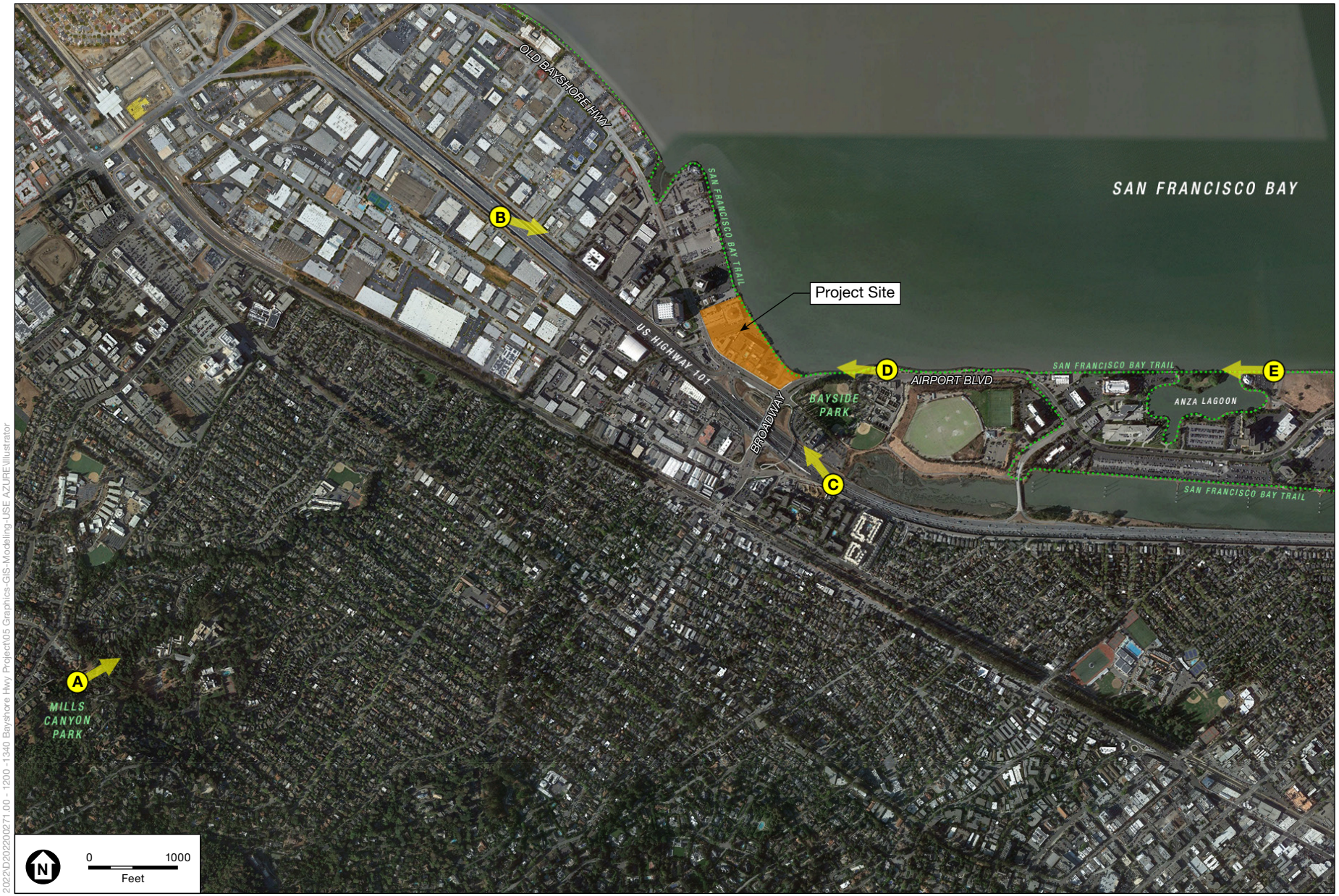
As illustrated in Figure 3-8 in Chapter 3, the proposed South Building would measure 210 feet, 6 inches from average curb to top of the roof mechanical screen (an elevation of 225 feet as measured from NAVD 88). The proposed Center and North Buildings would each measure 214 feet, 6 inches from average curb to top of the roof mechanical screen (an elevation of 225 feet as measured from NAVD 88). The proposed North Parking Structure would have a maximum height of 113 feet, 10 inches from above curb to top of parapet (an elevation of 123 feet, 10 inches as measured from NAVD 88). The proposed South Parking Structure would have a maximum height of 104 feet, 10 inches from above curb to top of parapet (an elevation of 115 feet, 4 inches as measured from NAVD 88).

As illustrated in Figure 3-5 in Chapter 3, the North Building and the North Parking Structure would be located north of Easton Creek, and the Center and South Buildings as well as the South Parking Structure would be situated south of Easton Creek. The buildings would have an orientation with the longitudinal (longer) sides of the buildings largely perpendicular to the Bay shoreline, and traverse (shorter) sides generally parallel to the shoreline. The proposed life science/office buildings would include balconies for views of the Bay. All buildings would have textured façades and glass walls on ground floor uses. Upper façades would be uniform, although patterned, with variation in material and scale for lower building elements. The lowest two levels of the buildings, where they meet the ground, would have a comparatively more pedestrian-scaled massing, alternating between solid textured blocks and projecting glazed volumes. The buildings and parking structures would be set back a minimum of 10 feet from Old Bayshore Highway. The proposed Project would also include sea-level-rise, flood-control, recreational, and other shoreline improvements, including a new 1,475-foot segment of the Bay Trail that would be extended across the Project site and connect to existing segments of the Bay Trail at the north and south ends of the Project site.

As previously noted, visual simulations were prepared to depict existing and proposed views of and through the Project site based on available preliminary building plans and designs. The locations and direction of the viewpoints for the visual simulations are indicated on **Figure 4.1-7**.

View from Mills Canyon Park

Figure 4.1-8 depicts existing and proposed views from Mills Canyon Park, approximately 2 miles southwest of the Project site (Viewpoint A). From this vantage point, although fairly remote, portions of the proposed Project life science/office buildings and two parking structures would be noticeable and would partially obstruct existing views of the Bay and the East Bay Hills. While the proposed Project would limit some existing views of these scenic resources from specific locations, abundant views of these features that are currently available from the higher elevations of Burlingame would remain with implementation of the proposed Project. Consequently, the proposed Project would not have a substantial adverse effect on scenic vistas under CEQA from this vantage point.



SOURCE: PreVision Design, 2023

1200-1340 Old Bayshore Highway EIR

Figure 4.1-7
Visual Simulation Viewpoint Map

ESA

Existing

Proposed

SOURCE: PreVision Design

1200-1340 Old Bayshore Highway EIR

Figure 4.1-8
Viewpoint A: Existing and Proposed Views from Mills Canyon Park, Approximately 2 Miles Southwest of the Project Site in the City of Burlingame

View from Southbound U.S. Highway 101

Figure 4.1-9 depicts existing and proposed views from southbound U.S. 101, approximately 0.5 mile northwest of the Project site (Viewpoint B). From this vantage point, upper portions of proposed North and Center Buildings would be visible beyond the seven-story office building located at 851 Burlway Road across Old Bayshore Highway to the northwest of the Project site and the nine-story Hyatt Regency San Francisco Airport Hotel located to the west of the Project site across Old Bayshore Highway. This location does not afford high-quality scenic views. Consequently, the proposed Project would not have a substantial adverse effect on scenic vistas from this vantage point.

View from Northbound U.S. Highway 101

Figure 4.1-10 depicts existing and proposed views northbound U.S. 101, approximately 0.2 mile southeast of the Project site (Viewpoint C). From this vantage point, portions of the proposed South Parking Structure and Center Buildings and North Buildings would be visible to the west of the Hyatt Regency Hotel located to the west of the Project site across Old Bayshore Highway. This location does not afford high-quality scenic views. Consequently, the proposed Project would not have a substantial adverse effect on scenic vistas from this vantage point.

View from the San Francisco Bay Trail (approximately 0.2 mile east of the Project site)

Figure 4.1-11 depicts existing and proposed views from the San Francisco Bay Trail, approximately 0.2 mile east of the Project site (Viewpoint D). From this vantage point, existing close-range views of the Project site (including its existing buildings and shoreline), the Hyatt Regency Hotel, the nine-story One Bay Plaza building located to the north of the Project site, and more distant views of Burlingame's hills and the Santa Cruz Mountains would be replaced with views of the Bay-facing portions of the proposed Project's three life science/office buildings, two parking structures, and proposed shoreline improvements described above. While the proposed Project would block or limit some existing views of Burlingame's hills and the Santa Cruz Mountains from this location, this location does not offer long-range panoramic views of hillsides and mountains and does not comprise a scenic vista. Moreover, because of the active use of the Bay Trail, any obstruction of hillsides would be dynamic and temporary in nature for pedestrians and bicyclists traveling along trail. Consequently, the proposed Project would not have a substantial adverse effect on scenic vistas from this vantage point.

View from the San Francisco Bay Trail (approximately 1 mile east of the Project site)

Figure 4.1-12 depicts existing and proposed views from the San Francisco Bay Trail, approximately 1 mile east of the Project site (Viewpoint E). From this vantage point, existing medium-range views of the Project site (including its existing buildings and shoreline), the Hyatt Regency Hotel and the One Bay Plaza building would be replaced with views of the Bay-facing portions of the proposed Project's three life science/office buildings, two parking structures, and proposed shoreline improvements described above. From this vantage point, existing long-range existing views of Burlingame's hills and the Santa Cruz Mountains would be partially blocked by the new proposed Project buildings. While the proposed Project would block or limit some existing views of Burlingame's hills and the Santa Cruz Mountains from this location, given the active use of the Bay Trail, and the dynamic and temporary nature of the obstruction for pedestrians and bicyclists traveling along trail, the effect on scenic vistas from this vantage point would be less than significant.

Existing

Proposed

2022\D2022002271.00 - 1200 -1340 Bayshore Hwy Project\05 Graphics-GIS-Modeling-USE AZURE\Illustrator

SOURCE: PreVision Design

1200-1340 Old Bayshore Highway EIR

Figure 4.1-9
Viewpoint B: Existing and Proposed Views from Southbound U.S. 101, Approximately 0.5 Mile Northwest of the Project Site

Existing

Proposed

SOURCE: PreVision Design

1200-1340 Old Bayshore Highway EIR

Figure 4.1-10
Viewpoint C: Existing and Proposed Views from Northbound U.S. 101, Approximately 0.2 Mile Southeast of the Project Site

Existing

Proposed

SOURCE: PreVision Design

1200-1340 Old Bayshore Highway EIR

Figure 4.1-11
Viewpoint D: Existing and Proposed Views from the San Francisco Bay Trail, Approximately 0.2 Mile East of the Project Site

Existing

Proposed

SOURCE: PreVision Design

1200-1340 Old Bayshore Highway EIR

Figure 4.1-12
Viewpoint E: Existing and Proposed Views from the San Francisco Bay Trail, Approximately 1 Mile East of the Project Site

Overall Proposed Project Impact on Scenic Vistas

The higher elevations of Burlingame provide eastern views of the City, the Bay, and the East Bay Hills. The heights of the proposed Project buildings would not substantially affect these vistas because of the distance between the viewers and the Project site, the superior position of the viewers (i.e., at a higher elevation) relative to the Project site, the built-out urban nature of the City, and the vast expanse of the Bay views. The proposed Project structures would be a minor element in the views from higher elevations in the City.

General Plan Goals CC-6 and HP-7 and Policies CC-6.1 and HP-7.7 protect public views of the waterfront by restricting the height of buildings within the associated viewsheds. The BFC Zoning District allows a maximum base height of 65 feet, with additional height permitted through a Special Permit and FAA approval. The proposed Project would require a Special Permit for the heights of the proposed buildings and parking structures, and Tier 3 increased floor to area ratio (FAR). The proposed Project would be consistent with all other applicable zoning regulations and development standards, including those pertaining to setbacks, view corridors, lot coverage, lot frontage, and minimum lot size. With respect to view corridors (views to the Bay), the proposed Project would be consistent with Municipal Code 25.12.060(B), in that it proposes building frontage along the length of property of 68 percent, less than the 75 percent maximum allowed under this code. In fact, the Project would increase the view corridor from 30 percent (423 feet) under existing conditions to 32 percent (446 feet) with the Project development.

Therefore, if the City were to approve the requested Special Permit for the proposed Project's increased height and FAR, the proposed Project would be consistent with the BFC land use designation and zoning. Finally, the proposed Project would be subject to the City's design review process, which would require a finding that the proposed Project is consistent with applicable General Plan policies, design guidelines, and any other applicable City planning-related documents prior to approval of the proposed Project.

While the proposed Project would construct taller buildings compared to surrounding uses, the Project would be consistent with the vision of the City for the area east of U.S. 101 as expressed in the General Plan, which includes high-rise development. Moreover, the size and scale of the proposed structures would be consistent with the development envisioned in the General Plan for the Bayfront area. The new height and bulk associated with the proposed Project would not contribute to any significant additional blockage of views to the hillsides. Public views towards the Project site would be altered; however, when considering portions of the existing Project site currently exhibit signs of disrepair as discussed in Section 4.1.1, *Environmental Setting*, the quality of existing views of the Project site are currently comprised. Furthermore, the height of the proposed structures enables substantial public space on the Project site, with buildings covering less than 50 percent of the site. Notably, the Project would extend the Bay Trail along the shoreline through the Project site, which would allow for new opportunities for Bay Trail users to enjoy scenic views towards the Bay and the East Bay Hills from this proposed public access area. Consequently, the proposed Project would not have a substantial adverse effect on a scenic vista.

Mitigation: None required.

Impact AES-2: The Project would be located in an urbanized area and would not conflict with applicable zoning and other regulations governing scenic quality. (*Less than Significant*)

The Project site qualifies as an "urban area" as defined in CEQA Guidelines Section 21094.5 because it is located in an incorporated city. Therefore, as discussed above under *Significance Criteria*, as a project located in an urbanized area, the proposed Project would have an adverse effect related to scenic quality if it were to conflict with applicable regulations governing scenic quality. The City of Burlingame and the BCDC are the agencies with land use jurisdiction for the Project site related to scenic quality.

Consistency with the City of Burlingame General Plan and Zoning Ordinance

The Project site is designated Bayfront Commercial in the *Burlingame General Plan* and is within BFC Zoning District. As discussed in Section 4.10, *Land Use and Planning*, all development in the City must conform to the land use regulations and policies of the General Plan and the Zoning Ordinance. General Plan Goals CC-6 and HP-7 and Policies CC-6.1 and HP-7.7 protect public views of the waterfront by restricting the height of buildings within the associated viewsheds. Policy CC-6.4 promotes design standards that facilitate attractive interfaces between use types, enhance the public realm, and activate commercial districts.

The BFC Zoning District allows a maximum base height of 65 feet, with additional height permitted through a Special Permit. The proposed Project would require a Special Permit for the proposed buildings and parking structure heights and Tier 3 increased FAR. As indicated in Impact AES-1, the proposed Project would be consistent with all other applicable zoning regulations and development standards. Therefore, if the City were to approve the requested Special Permit for the proposed Project's increased height, the proposed Project would be consistent with the BFC land use designation and zoning. Finally, the proposed Project would be subject to the City's design review process, which would require a finding that the proposed Project is consistent with applicable General Plan policies, design guidelines, and any other applicable City planning-related documents prior to approval of the proposed Project.

As discussed above, the Project is consistent with the type, size and scale of the proposed development envisioned in the General Plan for the Bayfront area, and the Project would not contribute substantially to additional blockage of views to the hillsides. Furthermore, the Project would provide for substantial public space on the Project site.

General Plan Policy HP-7.3 protects scenic roadways by preserving mature trees wherever possible, maintaining landscaping along roadways, and ensuring that development and land uses do not detract from the aesthetics of the corridor. Airport Boulevard has been identified in this policy as a scenic roadway deserving special design treatment. The proposed Project would improve the streetscape along its property line at Airport Boulevard and frontage on Old Bayshore Highway, improving sidewalks, curbs, and gutters, retaining and extending the delineated bike lane, planting street trees, and installing monument signage, uplighting, and other street lighting. The proposed Project would also include an inviting south entry plaza along Airport Boulevard and connect the Bay Trail across the project site. Consequently, the proposed

Project would not conflict with the applicable policies and regulations governing scenic quality included in the City of Burlingame General Plan and Zoning Ordinance.

Consistency with the BCDC San Francisco Bay Plan

As discussed in Section 4.1.2, *Regulatory Framework*, BCDC is a state agency with permit authority over the San Francisco Bay and its shoreline. The San Francisco Bay Plan guides the protection and use of the Bay and its shoreline. The Bay Plan contains findings and policies that pertain to development of the Bay and shoreline. Bay Plan policies related to appearance, design, and scenic views that are applicable to the proposed Project are provided above in Section 4.1.2. In general, Bay Plan policies related to appearance, design, and scenic views are aimed at enhancing the visual quality of development around the Bay and taking maximum advantage of the attractive setting it provides. The policies emphasize that the shores of the Bay should be developed in accordance with the BCDC Public Access Design Guidelines, a design resource for development projects along the Bay shoreline, in order to achieve a high level of design quality.

The proposed Project would be generally consistent with the BCDC Bay Plan and Public Access Design Guidelines objectives and policies by encouraging recreational facilities along the Bay, including the proposed extension of the Bay Trail through the property; providing greater public access to the Bay and a variety of on-site public amenities; and designing buildings and structures to minimize the visual impact on the Bay and shoreline views.

As described in Chapter 3, *Project Description*, the proposed Project would include sea-level-rise, flood-control, utility, recreational, and other improvements that could be subject to BCDC permit approval (see also Section 4.10, *Land Use and Planning*). BCDC would determine if the proposed Project is consistent with the McAteer-Petris Act and the policies and findings of the Bay Plan prior to approving BCDC permits to allow the implementation of the proposed Project. Compliance with the applicable permit requirements would ensure that the proposed Project would not conflict with applicable BCDC policies and regulations governing scenic quality.

For the reasons stated above, the proposed Project would not conflict with applicable zoning and other regulations governing scenic quality.

Mitigation: None required.

Impact AES-3: The Project would not create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area. (*Less than Significant*)

As discussed above in Section 4.1.1, *Environmental Setting*, Burlingame is a built-out, urbanized area with fairly high levels of ambient night lighting and glare from headlights along the various roadways in the area. This is in contrast to the darker ambiance of the San Francisco Bay itself to the east, although lighting is visible on the various bridges in the Bay. The Project site and vicinity consist of urban built-out uses that create and are subject to ambient light and glare typical of urban areas. The Project vicinity to the north includes numerous warehouses supporting

SFO, which are subject to nighttime activity requiring lighting. Lighting from SFO runways is currently visible from the Project site and surrounding area.

Proposed development at the Project site would result in increased nighttime lighting from vehicles, interior circulation areas, parking structures, the new office/life science buildings, and security features. Lighting would continue to be provided throughout the Project site by roadway/driveway lights, area lights, bollards, and inground lights. However, as the existing structures on the Project site are lit at night and there are existing surface parking lot lights, the increase in ambient light as a result of the Project would not be substantial.

Proposed exterior lighting would consist of wall- and surface-mounted lighting and recessed lighting (e.g., at building pedestrian and vehicular entrances), pole-mounted pedestrian scale lights (e.g., in the proposed plazas, surface parking areas, and other pedestrian circulation areas), one-side output wall lighting (for accent and sign lighting), and traffic-scale streetlights along Old Bayshore Highway. Lighting would be designed to meet the requirements of Municipal Code Section 18.16.030 to prevent light spillage off-site. Generally, as demonstrated by the Project's proposed photometric plan, the site lighting would be designed such that there would be greatest lighting on the Project site along Old Bayshore Highway, with the lighting levels decreasing closer to the Bay side of the Project site. The increase in levels of lighting compared to existing conditions would not adversely affect day or nighttime views in the area. Glass surfaces on the proposed structures would increase reflected sunlight, ambient light, and glare compared with existing conditions. However, as described above, the new exterior lighting for the Project would be designed to reduce light and glare, per existing regulations. Consequently, the proposed Project would not create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.

Mitigation: None required.

Cumulative Impacts

This section presents an analysis of the cumulative effects of the proposed Project in combination with other past, present, and reasonably foreseeable future development that could cause cumulatively significant impacts related to aesthetics, wind, or shadow. Significant cumulative impacts related to aesthetics, wind, or shadow could occur if the incremental impacts of the proposed Project combined with the impacts of cumulative development identified in *Cumulative Impact Analysis* in Section 4.0, *Introduction to Environmental Analysis*, would result in a significant cumulative impact and if the proposed Project's contribution would be considerable. Table 4.0-1 describes, and corresponding Figure 4.0-1 illustrates the location of, the cumulative projects in the City of Burlingame considered in this EIR.

Impact C-AES-1: The Project, when combined with other past, present, or reasonably foreseeable projects, would not have a substantial adverse effect on a scenic vista or conflict with applicable zoning and other regulations governing scenic quality. (*Less than Significant*)

Scenic Vistas

To help inform the discussion of cumulative effects on scenic vistas and scenic quality, visual simulations were prepared for those viewpoints analyzed for the Project for which reasonably foreseeable cumulative development would also be visible. It was determined that of the five viewpoints considered for the Project (Viewpoints A through E), only Viewpoints A, B and E would have cumulative development that would be visible.

With respect to cumulative development as depicted in these visual simulations, as discussed under *Approach to Analysis*, only building massing of the cumulative developments are presented in the visual simulations, however, they can be considered to represent a conservative depiction of potential visual changes associated with those developments.

Figure 4.1-13 depicts existing and proposed views, with cumulative development, from Mills Canyon Park, approximately 2 miles southwest of the Project site (Viewpoint A). The only cumulative development depicted in this figure that would be visible are the 250/258 Anza Boulevard development (sports complex, including its high golf netting) and the 777 Airport Boulevard development (13-story office/research and development building), identified as cumulative projects Nos. 5 and 7 in Table 4.0-1 and corresponding Figure 4.0-1 in Section 4.0, *Introduction to Environmental Analysis*. From this vantage point, portions of the proposed Project life science/office buildings and two parking structures, and the aforementioned cumulative projects, would be noticeable and would partially obstruct existing views of the Bay and the East Bay Hills at the location of the proposed buildings. While the proposed Project, combined with cumulative development, would limit some existing views of these scenic resources from specific locations, abundant views of these features that are currently available from the higher elevations of Burlingame would remain with implementation of the proposed Project and cumulative development. Consequently, the proposed Project, combined with cumulative development, would not have a substantial adverse effect on scenic vistas from this vantage point.

Figure 4.1-14 depicts existing and proposed views, with cumulative development, from southbound U.S. 101, approximately 0.5 mile northwest of the Project site (Viewpoint B). The only cumulative development that would be visible is the 1499 Old Bayshore Highway development (8-story laboratory/office building and 7-level parking garage), identified as cumulative project No. 3 in Table 4.0-1 and corresponding Figure 4.0-1 in Section 4.0. From this vantage point, upper portions of the proposed Project's North and Center Buildings would be visible beyond the office building located at 851 Burlway Road and the Hyatt Regency Hotel. Portions of the proposed 1499 Old Bayshore Highway development would also be visible to the east. However, this location does not afford high-quality scenic views. Consequently, the proposed Project, combined with cumulative development, would not have a substantial adverse effect on scenic vistas from this vantage point.

Figure 4.1-13 - View A: Proposed Views, with Cumulative Development, from Mills Canyon Park, Approximately 2 miles Southwest of the Project Site in the City of Burlingame

Figure 4.1-14 - View B: Proposed Views, with Cumulative Development, from Southbound U.S. 101, Approximately 0.5 Mile Northwest of the Project Site

SOURCE: PreVision Design

1200-1340 Old Bayshore Highway EIR

Figure 4.1-13 and Figure 4.1-14

Figure 4.1-15 depicts existing and proposed views with cumulative development, from the San Francisco Bay Trail, approximately 1 mile east of the Project site (Viewpoint E). Similar to Viewpoint B, the only cumulative development that would be visible is the is the 1499 Old Bayshore Highway development. From this vantage point, existing medium-range views of the Project site (including its existing buildings and shoreline), the Hyatt Regency Hotel, the One Bay Plaza building would be replaced with views of the Bay-facing portions of the proposed Project's three life science/office buildings, two parking structures, and proposed shoreline improvements. From this vantage point, existing long-range existing views of Burlingame's hills and the Santa Cruz Mountains would be partially blocked by the proposed Project buildings, and furthermore, existing long-range views of Burlingame's hills would be partially blocked by the aforementioned cumulative project. While the proposed Project, combined with cumulative development, would block or limit some existing views of Burlingame's hills and the Santa Cruz Mountains from this location, given the active use of the Bay Trail, and the dynamic and temporary nature of the obstruction for pedestrians and bicyclists traveling along trail, the effect on scenic vistas from this vantage point would be less than significant.

Consequently, the proposed Project, combined with cumulative development, would not have a substantial adverse effect on scenic vistas.

SOURCE: PreVision Design 1200-1340 Old Bayshore Highway

Figure 4.1-15
Viewpoint E: Proposed Views, with Cumulative Development, from the San Francisco Bay Trail, Approximately One Mile East of the Project Site

Scenic Quality

As discussed in Impact AES-2 and in Section 4.10, *Land Use and Planning*, all development in the City must conform to the land use regulations and policies of the General Plan and the Zoning Ordinance, including applicable development standards and regulations governing scenic quality. As also discussed in Section 4.10, a BCDC permit would be required prior to undertaking work in the Bay or within 100 feet of the shoreline, including filling, dredging, shoreline development. BCDC would determine if the proposed Project and applicable shoreline cumulative development is consistent with the McAteer-Petris Act and the policies and findings of the Bay Plan, including policies governing scenic quality, prior to approving BCDC permits to allow development. Required compliance with these regulations and policies ensures that the proposed Project, combined with cumulative development, would not conflict with applicable zoning and other regulations governing scenic quality.

Mitigation: None required.

Impact C-AES-2: The Project, when combined with other past, present, or reasonably foreseeable projects, would not create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area. (*Less than Significant*)

Proposed development at the Project site, combined with cumulative development, would result in increased nighttime lighting from vehicles, interior circulation areas, structures, and security features. However, lighting for the proposed Project and cumulative projects in the City must meet the requirements of Municipal Code Section 18.16.030 to prevent light spillage off-site. In addition, glass surfaces introduced by the proposed Project, combined with cumulative development, could increase reflected sunlight, ambient light, and glare compared with existing conditions. However, new exterior lighting for the Project and cumulative development would be designed to reduce light and glare per existing regulations. Consequently, the proposed Project, combined with cumulative development, would not create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.

Mitigation: None required.

Informational Analysis of Wind and Shadow Effects

As stated above, given the height of the proposed Project buildings, and because of their proximity to the Bayfront and the proposed Bay Trail extension through the Project site, an analysis of wind and shadow was undertaken for informational purposes and is presented here.

Wind

Project Effects

Under existing conditions at the Project site, the pedestrian wind analysis found that wind speeds are generally acceptable for all pedestrian uses, based on the wind speed usability criteria set forth

in Section 4.1.1, *Environmental Setting*, with the exception of relatively small areas around the corners of some of the existing buildings.[12] In particular, summertime wind speeds—especially during the stronger afternoon winds—are considered uncomfortable, and potentially unsafe, at the southwest corner of the former cinema building, the northeast corner of the Holiday Inn Express, and in the narrow gap between the southwest corner of the Max's restaurant building and the northeast corner of the three-story building at 1240 Old Bayshore Highway.[13] Winter winds are generally less strong, on average.

The Project's proposed three life science/office buildings, at up to approximately 215 feet in height above average curb (the South Building would be five feet shorter than the other two), would be the tallest structures along the Bayfront, at nearly twice the height of the nearby One Bay Plaza and Hyatt Regency buildings. The two parking structures would be shorter than proposed buildings—about 105 and 114 feet tall above average top of curb, respectively, but still considerably taller than existing buildings on the Project site. With the relatively lack of nearby closely spaced structures, the proposed Project would be relatively exposed and vulnerable to prevailing winds, although the buildings' architectural articulation and the proposed trees would help reduce winds on the site.

The height of the proposed development, particularly the three life science/office buildings, and the relatively close spacing of the buildings would intercept prevailing westerly winds and direct them downward while accelerating these winds and channeling them through the gaps between the buildings. Because average wind speeds are typically greatest around a building's base at the corners where downwashing winds accelerate, and because the proposed Project would result in channeling of winds between buildings, the wind study found that uncomfortable and potentially unsafe winds would be expected at certain locations on the Project site during the spring-summer period of strongest average winds. **Figure 4.1-16** presents predicted mean summer wind conditions at grade level under existing and proposed Project conditions.

In particular, uncomfortable and potentially unsafe winds are anticipated at the west end of the service drive between the proposed Center Building and the South Parking Structure (Location A on Figure 4.1-16). These winds would result from westerly and northwesterly winds downwashing from the west side of the Center Building and channeling between the structures.

[12] These criteria are as follows: average wind speeds up to 6 mph are suitable for sitting, up to 8 mph are acceptable for standing still, up to 10 mph are suitable for strolling, and up to 12 mph are acceptable when walking from one place to another, while higher speed winds are generally considered to be uncomfortable for pedestrians.

[13] As noted in Section 4.1, *Environmental Setting*, winds are considered unsafe when gusts can affect a person's balance. However, the computational wind analysis undertaken for the proposed Project focuses average wind speeds and cannot accurately predict short gusts. Therefore, where winds are described herein as "uncomfortable and potentially unsafe," the "uncomfortable" designation is more reliable and "potentially unsafe" is used as a conservative descriptor.

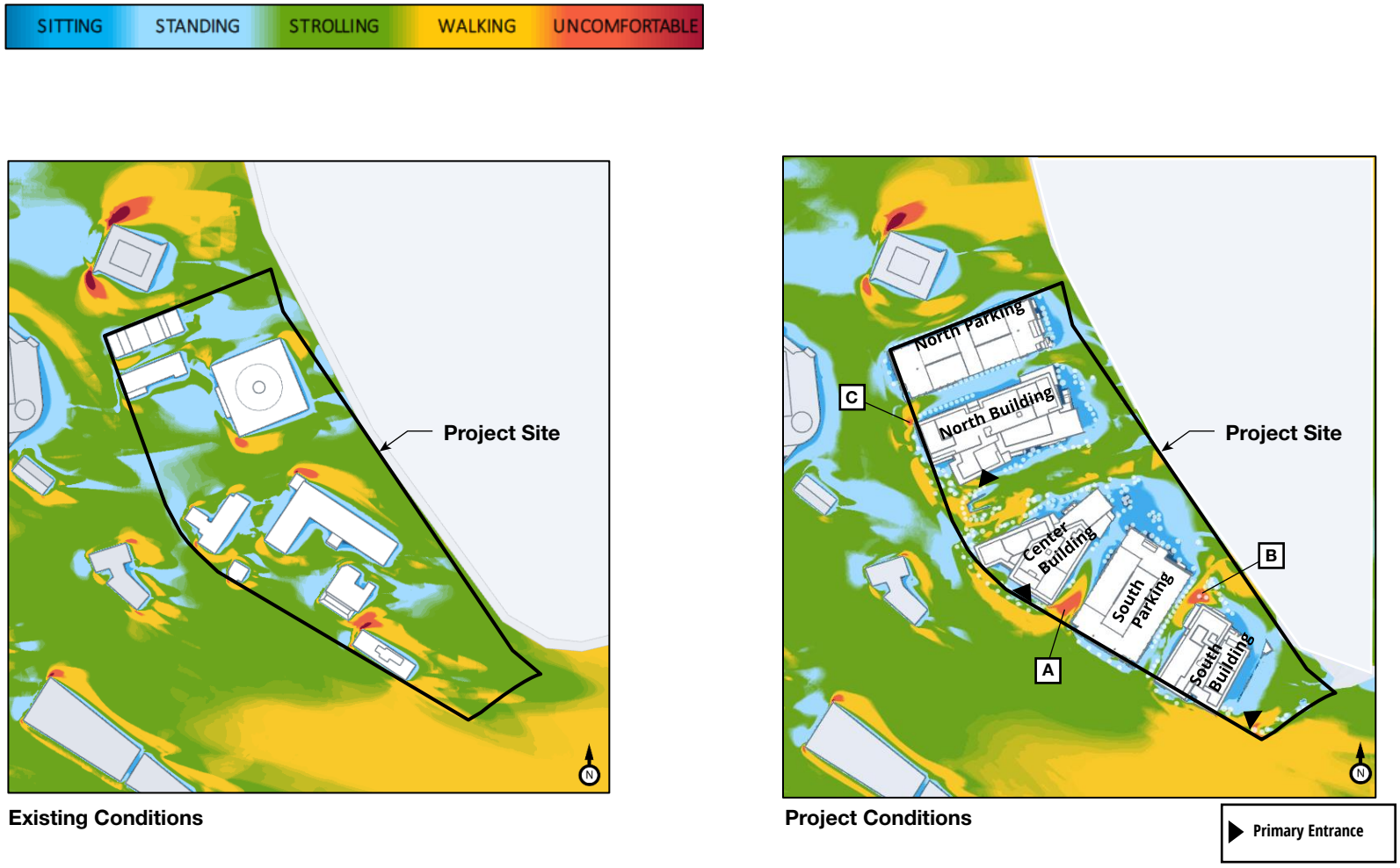


Image 6: Predicted Mean Summer Wind Conditions at Grade Level – Existing (left) and Proposed (right)

RWDI Project #2103594
August 30, 2022

SOURCE: RWDI, 2022

Figure 4.1-16
Predicted Mean Summer Wind Conditions at Grade Level – Existing and Proposed

ESA

However, most of this area would not be used by pedestrians, but rather by vehicles entering and leaving the South Parking Structure and by service vehicles making deliveries/calls at the proposed Center Building. Although there would be pedestrian activity at the proposed crosswalk at the west end of the driveway, the crosswalk would be largely, if not entirely, outside the area of uncomfortable winds, and therefore the effect would not be considered to adversely affect pedestrians. Wind speeds could be reduced at the west end of the driveway by the installation of canopies and/or trellises on the buildings to deflect downwashing winds. Vertical wind screens and/or trees adjacent to the driveway could also reduce wind speeds, but the site plan may not allow sufficient space for these features.

The other area of uncomfortable and potentially unsafe winds would be at the northeast corner of the South Building, where west and northwest winds would blow over the lower South Parking Structure and accelerate around the northeast corner of the South Building, between this building corner and the southeast corner of the parking structure (Location B on Figure 4.1-16). This area, too, would provide vehicular access, also to and from the South Parking Structure; however, the Project would also include a sidewalk between the driveway and the South Building, and therefore this area could see substantial pedestrian use. Accordingly, the Project applicant, in consultation with the Project wind consultant, could develop and incorporate into the Project design wind-reduction features at Location B to reduce the speed of, and potentially avoid, uncomfortable and potentially unsafe wind speeds. Wind reduction features may include installation of some combination of canopies and/or trellises on the buildings to deflect downwashing winds, and/or vertical wind screens to shield pedestrians from uncomfortable and potentially hazardous winds.

Finally, the Project would also create a small area of uncomfortable and potentially unsafe winds at the northwest corner of the North Building, where west and northwest winds would accelerate down the building and around this corner (Location C on Figure 4.1-16). As with Location B, this area would include a sidewalk adjacent to the North Building, and therefore this area could see substantial pedestrian use. Accordingly, the Project applicant, in consultation with the Project wind consultant, could develop and incorporate into the Project design wind-reduction features at Location C to reduce the speed of, and potentially avoid, uncomfortable and potentially unsafe wind speeds. Wind reduction features may include installation of some combination of canopies and/or trellises on the buildings to deflect downwashing winds, and/or vertical wind screens to shield pedestrians from uncomfortable and potentially hazardous winds.

As noted, the conditions described above would be anticipated to occur during the spring-summer period of highest average wind speeds. The wind analysis determined that wind conditions during other periods of the year would generally be calmer, and that no uncomfortable or potentially unsafe winds would occur other than during the spring-summer period.

The primary pedestrian entrances to the proposed life science/office buildings are expected to have acceptable conditions (i.e., comfortable for standing or better), except for the North Building, where conditions comfortable for walking or strolling are predicted in the summer. However, no uncomfortable or potentially unsafe winds are anticipated.

The Bay Trail along the water's edge is predicted to have conditions comfortable for walking or better in the summer and strolling or better in the winter. No uncomfortable or potentially unsafe winds are anticipated along the Bay Trail.

> **Improvement Measure AES-4: Wind Reduction Features.**
>
> The Project applicant, in consultation with the Project wind consultant, could develop and incorporate into the Project design wind-reduction features at Locations B and C (indicated Figure 4.1-16 in the EIR), as described above, to reduce the speed of, and potentially avoid, uncomfortable and potentially unsafe wind speeds. Wind reduction features may include installation of some combination of canopies and/or trellises on the buildings to deflect downwashing winds, and/or vertical wind screens to shield pedestrians from uncomfortable and potentially hazardous winds.

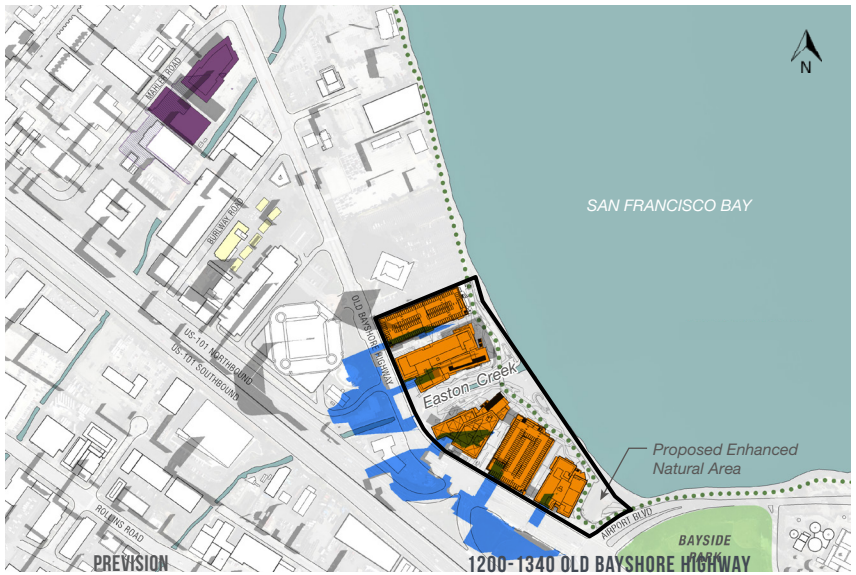
Cumulative Effects

The closest large cumulative projects to the Project site are 1499 Old Bayshore Highway (8-story laboratory/office building and 7-level parking garage, about 1,200 feet north-northwest of the Project site); 1095 Rollins Road (6-story multi-family residential building, about 1,500 feet south-southwest of the Project site); and 777 Airport Boulevard (13-story office/R&D building, about 2,800 feet east-southeast of the Project site). None of these projects is upwind of the proposed Project in the prevailing westerly winds. Moreover, none of these projects are close enough such that winds affected by any of these projects would combine with the proposed Project to result in cumulative changes in wind speed. Therefore, there would be no cumulative wind effect.

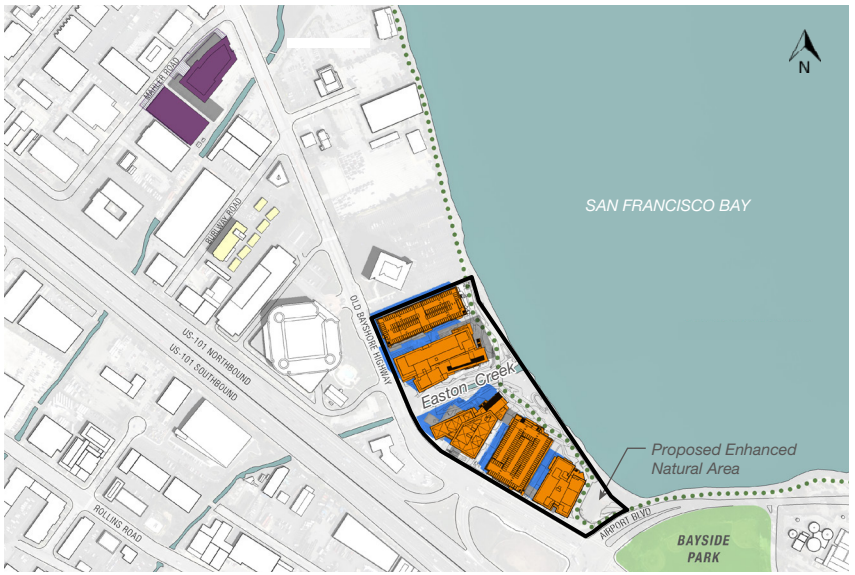
Shadow

Project Effects

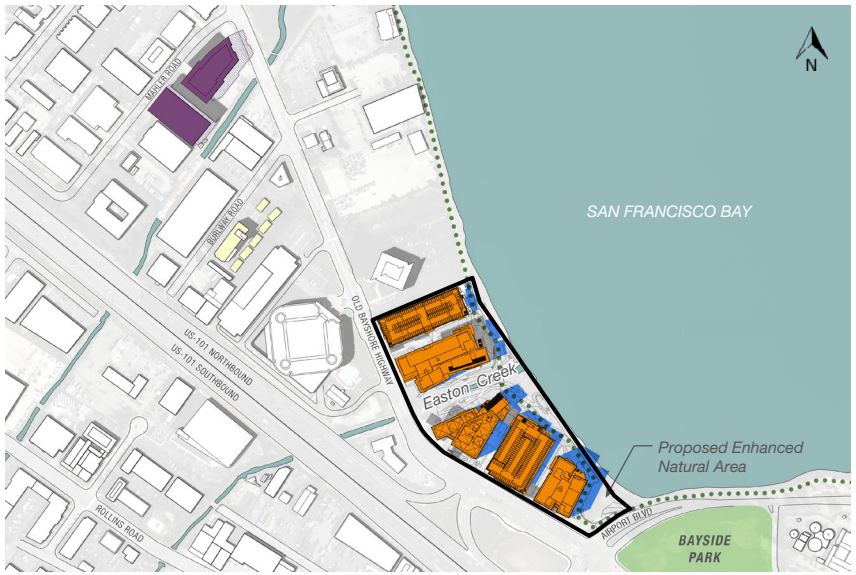
On the summer solstice (June 21; see **Figure 4.1-17**) at 9:00 a.m., Project shadow would extend westward, reaching parking lots and buildings (Hyatt Regency Hotel and commercial building at 1299 Old Bayshore Highway). Shadow would also fall on a small portion of Easton Creek. Shadow would recede eastward through the morning and, by 12:00 noon, would cover only portions of the Project site and a portion of the eastern sidewalk of Old Bayshore Highway. Shadows would advance eastward during the afternoon, and by 3:00 p.m. would cover a portion of the proposed Bay Trail extension along the Project site's Bay frontage and also would reach the proposed enhanced natural area at the south end of the Project site. Later in the afternoon, Project shadow would continue to cover much of the Bay Trail extension and enhanced natural area, and would reach the northern edge of Bayside Park, across Airport Boulevard (after about 6:00 p.m.).



Summer Solstice - June 21, 9:00 AM



Summer Solstice - June 21, 12:00 PM



Summer Solstice - June 21, 3:00 PM

LEGEND
- Project Site Boundary
- Proposed Project
- Existing/Current Shadow
- Net New Shadow by Project
- Rooftop Solar Collectors
- Public Park
- San Francisco Bay Trail
- 1499 Old Bayshore (Planned)
- 1499 Old Bayshore Shadow

SOURCE: PreVision Design, 2023

1200-1340 Old Bayshore Highway EIR

Figure 4.1-17
Shading Diagrams on Summer Solstice (June 21)

On the spring and fall equinoxes (March 21 and September 21;[14] see **Figure 4.1-18**) at 9:00 a.m., Project shadow would extend west-northwestward, likewise reaching parking lots and the Hyatt Regency Hotel across Old Bayshore Highway; it would also fall on about half of Easton Creek. Shadow would recede eastward through the morning and, by 12:00 noon, would cover much of the Project site, including most of Easton Creek, as well as parts of the proposed Bay Trail extension. Project shadow would also cover the southern portion of the parking lot at the One Bay Plaza office building to the north. Shadows would advance eastward during the afternoon, and by 3:00 p.m. would cover much of the Bay Trail, the northwestern sliver of the enhanced natural area, and a small area of San Francisco Bay. However, much of Easton Creek would be sunlit. Later in the afternoon, Project shadow would continue to cover much of the Bay Trail extension and almost the entirety of the enhanced natural area (by about 6:00 p.m.) but would reach only the trees along the northern fringe of Bayside Park (by about 7:00 p.m.).

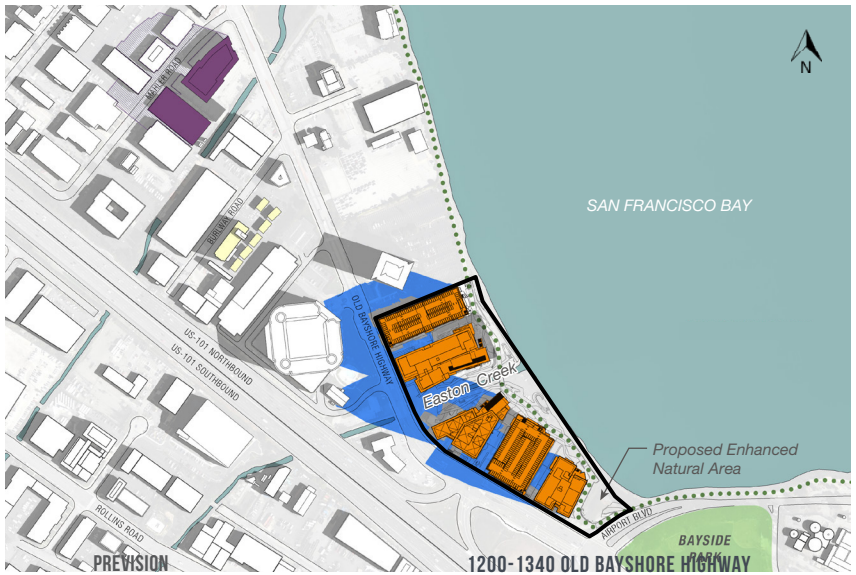
On the winter solstice (December 21; see **Figure 4.1-19**) at 9:00 a.m., Project shadow would extend northwestward across Old Bayshore Highway, covering much of the Project site and reaching the Hyatt Regency Hotel and adjacent parking garage and lots, One Bay Plaza building and its parking lot, and the southernmost edge of the parking area at 851 Burlway Road. Shadow would recede eastward through the morning and, by 12:00 noon, would cover much of the Project site, including most of Easton Creek and the proposed Bay Trail extension. Project shadow would also cover the southern portion of the parking lot at the One Bay Plaza office building to the north. Shadows would advance eastward during the afternoon, and by 3:00 p.m. would cover almost all of the Bay Trail and a would extend in fingers up to about 600 feet in San Francisco Bay; the southeast parking area of One Bay Plaza would also be shaded. About one third of Easton Creek would be sunlit. Project shadow would start to fall on the enhanced natural area at 3:00 p.m., but would cover only about one-third of this area by sunset and would not reach Bayside Park.

Effects on Open Spaces and Area of Substantial Pedestrian Activity

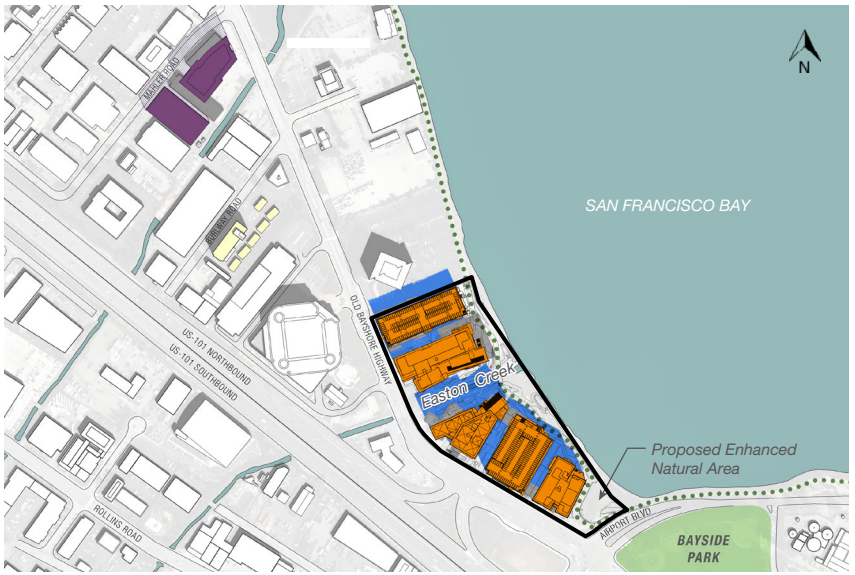
Bayside Park is the nearest public park, but due to its location southeast of the Project site, it would not be shaded by the proposed Project until early evening, and only in late spring and early summer, as described above. The Bay Trail is also considered a public amenity, and it would be extended through the Project site as part of the proposed Project. As described above, Project shadow would fall on the proposed Bay Trail extension through the Project site during much of the afternoon, year-round. However, inasmuch as this portion of the trail does not exist under current conditions, and therefore there would be no Bay Trail extension if not for the proposed Project, this shading is not considered an adverse effect on existing conditions.

Project shadow would likewise fall on the new outdoor publicly accessible outdoor amenity spaces between the proposed buildings. While these spaces would be most affected by shadow cast by the Project, this would likewise not be considered an adverse effect on existing conditions, as these amenities are not currently present.

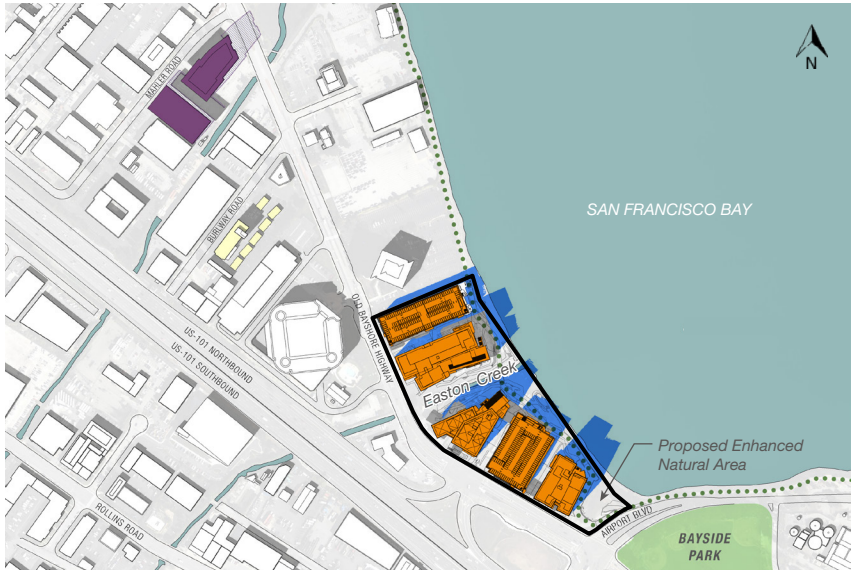
[14] Shadows are similar, although not identical on the spring and fall equinoxes. However, the differences are relatively small enough such that the effects would be substantially the same.



Vernal/Autumnal Equinox - March 21 and September 21, 9:00 AM



Vernal/Autumnal Equinox - March 21 and September 21, 12:00 PM

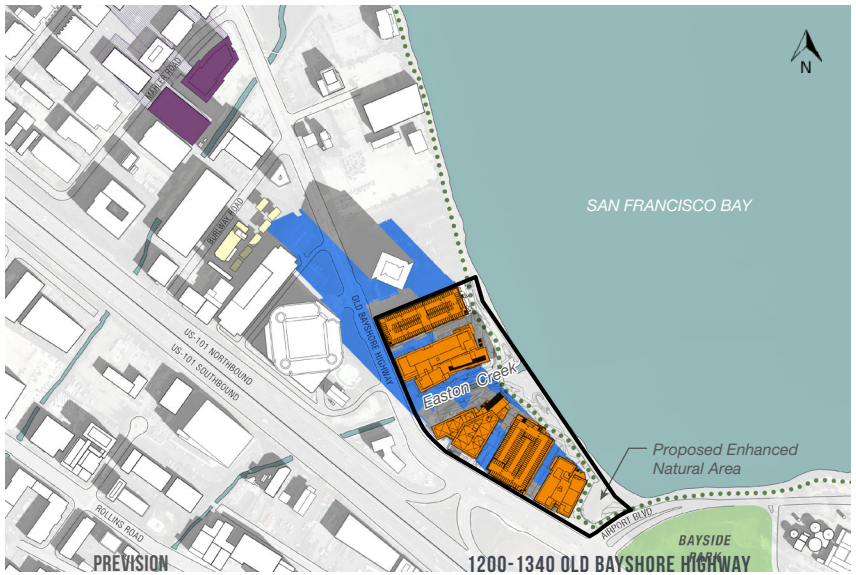


Vernal/Autumnal Equinox - March 21 and September 21, 3:00 PM

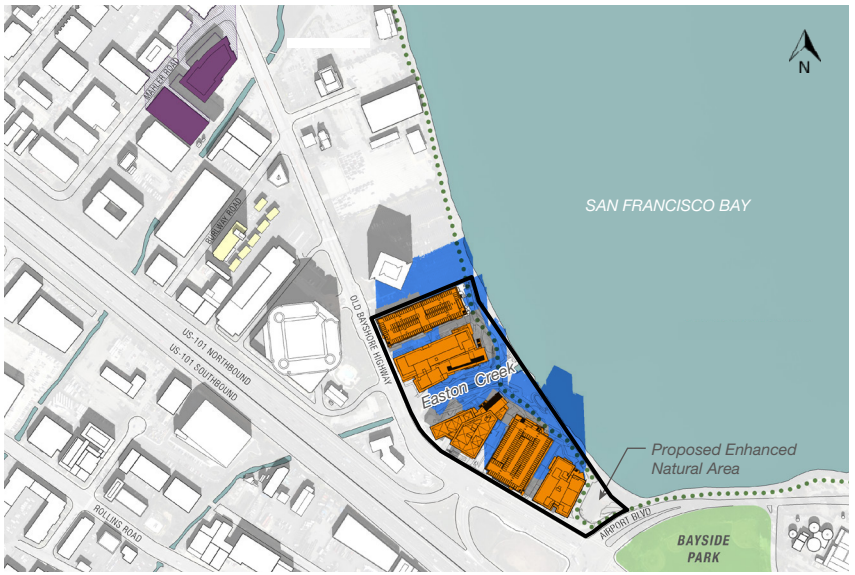
LEGEND
- Project Site Boundary
- Proposed Project
- Existing/Current Shadow
- Net New Shadow by Project
- Rooftop Solar Collectors
- Public Park
- San Francisco Bay Trail
- 1499 Old Bayshore (Planned)
- 1499 Old Bayshore Shadow

SOURCE: PreVision Design, 2023

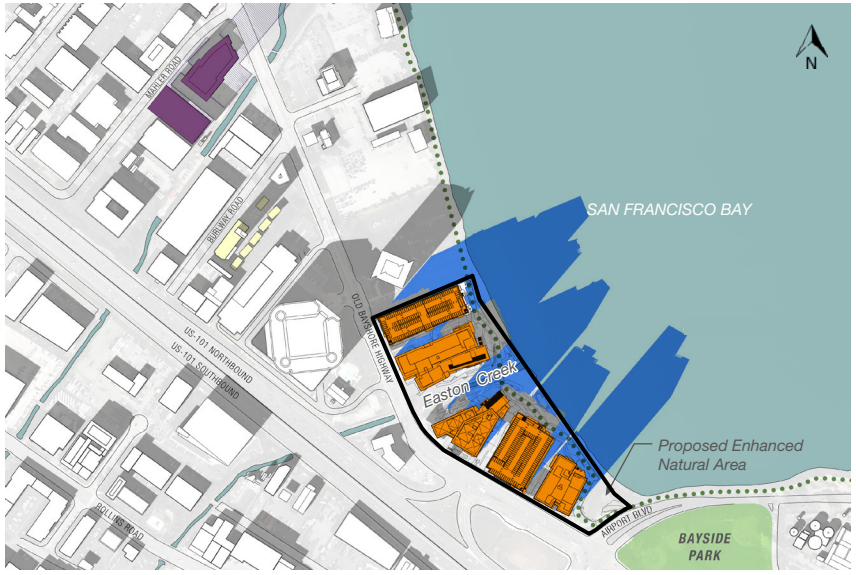
Figure 4.1-18
Shading Diagrams on Vernal/Autumnal Equinox
(March 21 and September 21)



Winter Solstice - December 21, 9:00 AM



Winter Solstice - December 21, 12:00 PM



Winter Solstice - December 21, 3:00 PM

LEGEND
- Project Site Boundary
- Proposed Project
- Existing/Current Shadow
- Net New Shadow by Project
- Rooftop Solar Collectors
- Public Park
- San Francisco Bay Trail
- 1499 Old Bayshore (Planned)
- 1499 Old Bayshore Shadow

SOURCE: PreVision Design, 2023

Figure 4.1-19
Shading Diagrams on Winter Solstice (December 21)

Cumulative Effects

Figures 4.1-17 through 4.19 show shadows that would be cast by both the Project and anticipated cumulative development in the Project vicinity. As shown in these figures, the only cumulative project in the vicinity would be the 1499 Old Bayshore Highway project (8-story laboratory/office building and 7-level parking garage), about 1,200 feet north-northwest of the Project site. However, neither this nor any other cumulative projects are close enough to the Project site such that they would cast shadow that would combine with shadow from the proposed Project to cause further shading of the same open spaces. Therefore, there would be no cumulative shadow effect.

4.1.4 References

California Department of Transportation (Caltrans), 2023. California State Scenic Highways. Available: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed January 10, 2023.

City of Burlingame, 2019a. *Burlingame General Plan*. Adopted on January 7, 2019. Available: https://www.burlingame.org/departments/planning/general_plan_update.php.

City of Burlingame, 2019b. *Burlingame General Plan, Final Environmental Impact Report*. State Clearinghouse (SCH) Number 2017082018. Certified January 2019. Available: https://www.burlingame.org/departments/planning/general_plan_update.php.

Rowan Williams Davies & Irwin (RWDI), 2022. *Peninsula Crossing, Burlingame, CA, Pedestrian Wind Assessment*. July 19, 2022.

San Francisco Bay Conservation and Development Commission (BCDC), 1965. *San Francisco Bay Plan* (as amended through 2019). Available: https://www.bcdc.ca.gov/pdf/bayplan/bayplan.pdf.

4.2 Air Quality

This section describes the existing ambient air quality in and around the Project site. The section presents the regulatory framework for air quality management and analyzes the potential for the proposed Project to affect existing air quality conditions, both regionally and locally, including impacts from emissions generated on a temporary basis from construction activities as well as those generated over the long term from operation of the proposed Project. The analysis determines whether those emissions are significant under applicable air quality standards and identifies feasible mitigation measures for significant adverse impacts.

The analysis included in this section was developed based an air quality and greenhouse gas technical report (Ramboll, 2023) prepared in support of the Project (refer to **Appendix AQ-GHG)**, a review of *Burlingame General Plan* and Project-specific information and assumptions, and guidance from the Bay Area Air Quality Management District's (BAAQMD) *California Environmental Quality Act (CEQA) Air Quality Guidelines* (BAAQMD 2017).

4.2.1 Environmental Setting

Air quality is a function of both the rate and location of pollutant emissions under the influence of meteorological conditions and topographic features that influence pollutant movement and dispersal. Atmospheric conditions such as wind speed, wind direction, atmospheric stability, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants, which affects air quality.

The Project site covers approximately 12 acres within the City of Burlingame in San Mateo County. It is located within the San Francisco Bay Area Air Basin (SFBAAB), under the jurisdiction of the BAAQMD.

The air quality in the SFBAAB is influenced by natural factors such as topography, meteorology, climate, and the presence of existing air pollution sources and ambient conditions. Annual temperatures in the project area average in the mid-50s (degrees Fahrenheit), ranging from the low 40s on winter mornings to the mid-70s during summer afternoons. Daily and seasonal oscillations of temperature are small because of the moderating effects of the nearby San Francisco Bay. In contrast to the steady temperature regime, rainfall is highly variable and confined almost exclusively to the "rainy" period from November through April. Precipitation varies widely from year to year as shifts in the annual storm track of a few hundred miles can mean the difference between a very wet year and drought conditions.

Atmospheric conditions such as wind speed and direction, and variable air temperatures interact with the physical features of the landscape to influence the movement and dispersal of air pollutants, regionally. The Project site is within the Peninsula climatological subregion. Marine air traveling through the Golden Gate is a dominant weather factor affecting dispersal of air pollutants within the region.

Criteria Air Pollutants

The U.S. Environmental Protection Agency (U.S. EPA) has identified criteria pollutants that are a threat to public health and welfare. These pollutants are called "criteria" air pollutants because standards have been established for each of them to meet specific public health and welfare criteria. The following criteria air pollutants are a concern in the SFBAAB.

Ozone

Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Ozone is not emitted directly into the atmosphere but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO_x), including nitrogen dioxide (NO_2), and the presence of sunlight. ROG and NO_x are known as precursor compounds for ozone. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately three hours.

Ozone is a regional air pollutant because it is not emitted directly by sources but is formed downwind of sources of ROG and NO_x under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer, and fall, when the long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone. Exposure to elevated ozone concentrations can cause eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases, such as asthma, bronchitis, and emphysema.

Nitrogen Oxides

Nitrogen Dioxide (NO_2) is one of a group of highly reactive gases known as oxides of nitrogen or nitrogen oxides (NO_x). Other nitrogen oxides include nitrous acid and nitric acid. NO_2 is used as the indicator for the larger group of nitrogen oxides.

NO_2 is formed in the air from the burning of fuel in cars, trucks and buses, power plants, and off-road equipment. Breathing air with a high concentration of NO_2 can irritate airways in the human respiratory system. Such exposures over short periods can aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms, hospital admissions and visits to emergency rooms. Longer exposures to elevated concentrations of NO_2 may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. People with asthma, as well as children and the elderly are generally at greater risk for the health effects of NO_2.

NO_2 along with other NO_x reacts with other chemicals in the air to form both particulate matter and ozone. Both of these are also harmful when inhaled due to effects on the respiratory system.

Particulate Matter

Respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$) represent fractions of particulate matter that can be inhaled into air passages and the lungs and can cause adverse health effects. Particulate matter in the atmosphere results from many kinds of dust- and fume-producing

industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as demolition and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain absorbed gases (e.g., chlorides or ammonium) that may be injurious to health. Particulates can also damage materials and reduce visibility.

Other Criteria Pollutants

Carbon monoxide (CO) is a non-reactive pollutant that is a product of incomplete combustion and is mostly associated with motor vehicle traffic. High CO concentrations develop primarily during winter when periods of light winds combine with the formation of ground level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia.

Sulfur dioxide (SO_2) is produced through combustion of sulfur or sulfur-containing fuels such as coal. SO_2 is also a precursor to the formation of atmospheric sulfate and particulate matter (PM_{10} and $PM_{2.5}$) and contributes to potential atmospheric sulfuric acid formation that could precipitate downwind as acid rain.

Lead has a range of adverse neurotoxin health effects and was formerly released into the atmosphere primarily via leaded gasoline. The phase-out of leaded gasoline has resulted in decreasing levels of atmospheric lead.

Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of ozone are referred to and regulated as reactive organic gases (ROGs). ROG in itself is not a criteria air pollutant, but is a precursor the ozone, a criteria air pollutant. Sources of ROGs include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint. The primary health effects of ROGs result from the formation of ozone and its related health effects.

Toxic Air Contaminants

Toxic air contaminants (TACs) are airborne substances that are capable of causing short-term (acute) and/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 nearly 200 compounds, including Diesel Particulate Matter (DPM) emissions from diesel-fueled engines (CARB, 2022a).

Air Quality Index

The U.S. EPA developed the Air Quality Index (AQI) scale to make the public health impacts of air pollution concentrations easily understandable. The AQI, much like an air quality "thermometer," translates daily air pollution concentrations into a number on a scale between 0 and 500. The numbers in the scale are divided into six color-coded ranges, with numbers 0–300 as outlined below:

- **Green (0-50)** indicates "good" air quality. No health impacts are expected when air quality is in the green range.
- **Yellow (51-100)** indicates air quality is "moderate." Unusually sensitive people should consider limited prolonged outdoor exertion.
- **Orange (101–150)** indicates air quality is "unhealthy for sensitive groups." Active children and adults, and people with respiratory disease, such as asthma, should limit outdoor exertion.
- **Red (151–200)** indicates air quality is "unhealthy." Active children and adults, and people with respiratory disease, such as asthma should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.
- **Purple (201–300)** indicates air quality is "very unhealthy." Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit outdoor exertion.

The AQI numbers refer to specific amounts of pollution in the air and are based on the federal air quality standards for ozone, CO, NO_2, SO_2, PM_{10}, and $PM_{2.5}$. In most cases, the federal standard for these air pollutants corresponds to the number 100 on the AQI chart. If the concentration of any of these pollutants rises above its respective standard, it can be unhealthy for the public. In determining the air quality forecast, local air districts use the anticipated concentration measurements for each of the major pollutants, converts them into AQI numbers, and determines the highest AQI for each zone in a district. Readings below 100 on the AQI scale would not typically affect the health of the general public (although readings in the moderate range of 50 to 100 may affect people who are unusually sensitive to air pollution). Levels above 300 would be considered hazardous, but rarely occur in the United States, and readings above 200 have not occurred in the SFBAAB in decades, with the exception of the October 2017 and November 2018 wildfires north of San Francisco and the August/September 2020 complex wildfires that occurred throughout the SFBAAB (BAAQMD, 2019).

Wildfires appear to be occurring with increasing frequency in California and the Bay Area as climate changes (since 2000, 18 of the state's 20 largest wildfires and 18 of the state's 20 most destructive fires on record have occurred (Cal Fire, 2022a; Cal Fire, 2022b). As a result of these fires in Bay Area counties (Napa and Sonoma) and counties north and east of the Bay Area (e.g., Butte, Lassen, Plumas, and Shasta), the AQI in the Bay Area reached the "very unhealthy" and "hazardous" designations, ranging from values of 201 to above 350. During those periods, the air district issued "Spare the Air" alerts and recommended that individuals stay inside with windows closed and refrain from significant outdoor activity.

AQI statistics over recent years indicate that air quality in the SFBAAB is predominantly in the "Good" or "Moderate" categories, and healthy on most days for most people. Historical air district data indicate that the air basin experienced air quality in the red level (unhealthy) on 18 days between 2020 and 2022. As shown in **Table 4.2-1**, the air basin had a total of 44 red-level or orange-level (unhealthy or unhealthy for sensitive groups) days between 2020 and 2022. A number of these days are attributable to the increasing frequency of wildfires. This table also shows that the air basin experienced only one purple level (very unhealthy) day in between 2020 and 2022.

TABLE 4.2-1
AIR QUALITY INDEX STATISTICS FOR THE SAN FRANCISCO BAY AREA AIR BASIN

	Number of Days by Year		
AQI Statistics for Air Basin	**2020**	**2021**	**2022**
Unhealthy for Sensitive Groups (Orange)	34	9	1
Unhealthy (Red)	17	1	0
Very Unhealthy (Purple)	1	0	0

SOURCE: BAAQMD, 2023

Odors

Although offensive odors from stationary sources rarely cause any physical harm, they remain unpleasant and can lead to public distress, generating complaints by residents to local governments. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors. The CEQA Guidelines recommend considering odor impacts for any new odor sources proposed near existing receptors, and for any new sensitive receptors located near existing odor sources. BAAQMD provides examples of odor sources, which include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. Generally, increasing the distance between the receptor and the odor source would mitigate odor impacts.

Sensitive Receptors

Air quality does not affect every individual in the population in the same way, and some groups are more sensitive to adverse health effects than others. More sensitive population groups include the elderly and the young; those with respiratory disease, such as asthma and chronic obstructive pulmonary disease; and those with other environmental or occupational health exposures (e.g., indoor air quality) that affect cardiovascular or respiratory diseases. BAAQMD defines sensitive receptors as children, adults, and seniors occupying or residing in residential dwellings, schools, childcare centers, hospitals, and senior-care facilities. Workers are not considered sensitive receptors because they have other legal protections; specifically, employers must follow regulations set forth by the Occupation Safety and Health Administration (OSHA) to ensure the health and well-being of employees.

There are no residential or daycare/school receptors with 1,000 feet of the Project site boundary. BAAQMD describes this 1,000-foot distance as an appropriate zone of influence for assessment

of health risk and hazard impacts. Beyond 1,000 feet, the contributions from projects would be expected to be minimal. There is one recreational receptor (Bayside Park), approximately 130 feet southeast of the Project site.

Existing Air Quality

Ambient air quality measurements from air monitoring stations maintained by BAAQMD help to determine the level of air quality in the local area. There are several active air monitoring stations located within the SFBAAB. The closest station to the Project site is the Redwood City air monitoring station, approximately 12 miles southeast of the Project site. **Table 4.2-2** shows a 3-year (2019 through 2021) summary of available pollutants (ozone, NO_2, and $PM_{2.5)}$, monitored at the air monitoring station. The table also compares monitored data to the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS).

TABLE 4.2-2
SUMMARY OF AMBIENT AIR QUALITY MONITORING DATA - REDWOOD CITY STATION

Pollutant Standards	2019	2020	2021
Ozone			
Maximum 1-hour concentration (ppm)	0.083	0.098	0.085
Maximum 8-hour concentration (ppm)	**0.077**	**0.077**	0.063
Number of days standard exceeded[a]			
CAAQS 1-hour (>0.07 ppm)	0	1	0
NAAQS 8-hour (>0.07 ppm)	2	1	0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration (ppm)	0.055	0.046	0.041
Number of days standard exceeded[a]			
NAAQS 1-hour (>0.100 ppm)	0	0	0
CAAQS 1-hour (>0.18 ppm)	0	0	0
Particulate Matter ($PM_{2.5}$)[b]			
Maximum 24-hour concentration (µg/m^3)	29.5	**124.1**	30.1
Annual average concentration (µg/m^3)[e]	*	9.8	6.1
Number of days standard exceeded[a]			
NAAQS 24-hour (>150 µg/m^3)[f]	0	**9**	0
CAAQS 24-hour (>50 µg/m^3)[f]	*	*	*

NOTES:

CAAQS = California ambient air quality standards. NAAQS = national ambient air quality standards. Values in **bold** font indicate an exceedance.

* Insufficient data to determine a value

[a] An exceedance is not necessarily a violation. It should be noted that the federal ozone 1-hour standard has been revoked by EPA.
[b] Measurements usually are collected every 6 days.
[c] National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.
[d] State statistics are based on local conditions data, except in the South Coast Air Basin, for which statistics are based on standard conditions data. In addition, state statistics are based on California-approved samplers.
[e] State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.
[f] Mathematical estimate of how many days concentrations would have been measured as higher than the level of the standard had each day been monitored.

SOURCES: CARB Top 4 Summary and EPA Monitor Value Reports (CARB 2022b)

4.2.2 Regulatory Framework

Federal

Clean Air Act and National Ambient Air Quality Standards

The federal Clean Air Act (CAA) requires the U.S. EPA to establish national ambient air quality standards to protect public health and the environment. The U.S. EPA has set NAAQS for several criteria air pollutants: ozone, NO_2, SO_2, CO, PM (PM_{10} and $PM_{2.5}$), and lead. The U.S. EPA classifies geographic areas as either attainment or non-attainment for each criteria air pollutant, based on whether the NAAQS have been achieved. Air districts in areas that are designated non-attainment must prepare regional air quality plans, discussed in further detail below, to be included in the overall State Implementation Plan. Areas that have a "maintenance" designation have been non-attainment for a certain criteria pollutant but have been re-designated as attainment. **Table 4.2-3** summarizes the current NAAQS and CAAQS and indicates the principal sources for each of these pollutants.

State

California Clean Air Act

Although the Federal Clean Air Act established national ambient air quality standards, individual states retained the option to adopt more stringent standards and to include other pollution sources. California had already established its own air quality standards when federal standards were established, and because of the unique meteorological conditions in California, there is considerable diversity between the state and national ambient air quality standards, as shown in Table 4.2-3. California ambient standards are at least as protective as national ambient standards and are often more stringent.

In 1988, California passed the California Clean Air Act (California Health and Safety Code sections 39600 et seq.), which, like its federal counterpart, required the designation of areas as in attainment or in non-attainment, but based these designations on state ambient air quality standards rather than the federal standards. As indicated in Table 4.2-3, the SFBAAB is designated as "non-attainment" for state ozone, PM_{10}, and $PM_{2.5}$ standards, and is designated as "attainment" for the other pollutants.

Title 24 (Building Energy Efficiency Standards)

Title 24 of the California Code of Regulations is the means by which California regulates energy consumption. The Title 24 Building Energy Efficiency Standards apply to energy consumed for heating, cooling, ventilation, water heating, and lighting in new residential and nonresidential buildings. The Title 24 standards, first adopted by the California Energy Commission in 1978, are updated periodically to incorporate new energy efficiency technologies and methods. The current standards became effective on January 1, 2023.

TABLE 4.2-3
STATE AND FEDERAL AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS FOR THE SAN FRANCISCO BAY AREA AIR BASIN

Pollutant	Averaging Time	California (CAAQS[a])		Federal (NAAQS[b])	
		Standard	Attainment Status	Standard	Attainment Status
Ozone	1-hour	0.09 ppm	**N**	NA	See Note c
	8-hour	0.070 ppm	**N**	0.070 ppm[d]	**N**/Marginal
Carbon Monoxide (CO)	1-hour	20 ppm	A	35 ppm	A
	8-hour	9 ppm	A	9 ppm	A
Nitrogen Dioxide (NO_2)	1-hour	0.18 ppm	A	0.100 ppm	U
	Annual	0.030 ppm	N/A	0.053 ppm	A
Sulfur Dioxide (SO_2)	1-hour	0.25 ppm	A	0.075 ppm	A
	24-hour	0.04 ppm	A	0.14 ppm	A
	Annual	N/A	N/A	0.03 ppm	A
Particulate Matter (PM_{10})	24-hour	50 µg/m^3	**N**	150 µg/m^3	U
	Annual[e]	20 µg/m^3 [f]	**N**	NA	NA
Fine Particulate Matter ($PM_{2.5}$)	24-hour	NA	N/A	35 µg/m^3	**N**
	Annual	12 µg/m^3	**N**	12 µg/m^3	U/A
Sulfates	24-hour	25 µg/m^3	A	N/A	N/A
Lead	30-day	1.5 µg/m^3	A	N/A	N/A
	Cal. Quarter	N/A	N/A	1.5 µg/m^3	A
	Rolling 3-month average	N/A	N/A	0.15	U
Hydrogen Sulfide	1-hour	0.03 ppm	U	NA	NA
Visibility-Reducing Particles	8-hour	See Note g	U	NA	NA

NOTES:

A = Attainment; N = Non-attainment; U = Unclassified; N/A = Not Applicable, no applicable standard; ppm = parts per million; µg/m3 = micrograms per cubic meter.

[a] CAAQS = California ambient air quality standards (California). CAAQS for ozone, CO (except Lake Tahoe), SO_2 (1-hour and 24-hour), NO_2, PM, and visibility-reducing particles are values that are not to be exceeded. All other state standards shown are values not to be equaled or exceeded.

[b] NAAQS = national ambient air quality standards. NAAQS, other than ozone and particulates, and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The 8-hour ozone standard is attained when the 3-year average of the fourth highest daily concentration is 0.08 ppm 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 the standard. The 24-hour $PM_{2.5}$ standard is attained when the 3-year average of the 98th percentile is less than the standard.

[c] The U.S. Environmental Protection Agency (EPA) revoked the national 1-hour ozone standard on June 15, 2005.

[d] This Federal 8-hour ozone standard was approved by U.S. EPA in October 2015 and became effective on December 28, 2015.

[e] State standard = annual geometric mean; national standard = annual arithmetic mean.

[f] In June 2002, CARB established new annual standards for $PM_{2.5}$ and PM_{10}.

[g] Statewide visibility-reducing particle 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.

SOURCES: BAAQMD, Standards and Attainment Status, 2017, http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status, Accessed December 2022.

U.S. EPA National Ambient Air Quality Standards, 2016. Available online at https://www.epa.gov/criteria-air-pollutants/naaqs-table. Accessed December 2022.

California Green Buildings Standards Code (CALGreen)

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24) was adopted as part of the California Building Standards Code (Title 24 California Code of Regulations). The 2022 California Green Building Standards Code (24 California Code of Regulations, Part 11), also known as the CALGreen Code, contains mandatory requirements for new residential and nonresidential buildings (including buildings for retail, office, public schools and hospitals) throughout California. The development of the CALGreen Code is intended to reduce energy and water consumption, reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impacts during and after construction. The 2022 update became effective on January 1, 2023.

The CALGreen Code provides standards for bicycle parking, carpool/vanpool/electric vehicle spaces, light and glare reduction, grading and paving, energy efficient appliances, renewable energy, graywater systems, water efficient plumbing fixtures, recycling and recycled materials, pollutant controls (including moisture control and indoor air quality), acoustical controls, storm water management, building design, insulation, flooring, and framing, among others.

Regional and Local Regulations

Bay Area Air Quality Management District

BAAQMD is the regional agency with jurisdiction over the nine-county region located in the SFBAAB. The Association of Bay Area Governments (ABAG), Metropolitan Transportation Commission (MTC), county transportation agencies, cities and counties, and various non-governmental organizations also participate 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. BAAQMD is responsible for attaining and/or maintaining air quality in the region within federal and State air quality standards. Specifically, BAAQMD has the responsibility to monitor ambient air pollutant levels throughout the region and to develop and implement strategies to attain the applicable federal and State standards.

BAAQMD does not have authority to regulate emissions from motor vehicles. Specific rules and regulations adopted by BAAQMD limit the emissions that can be generated by various stationary sources, and identify specific pollution reduction measures that must be implemented in association with various activities. These rules regulate not only emissions of the six criteria air pollutants, but also TAC emissions sources. Stationary sources are regulated through BAAQMD’s permitting process and standards of operation. Through this permitting process, including an annual permit review, BAAQMD monitors the generation of stationary emissions and uses this information in developing its air quality plans. Any sources of stationary emissions constructed as part of the project would be subject to the BAAQMD Rules and Regulations. Both federal and State ozone plans rely heavily upon stationary source control measures set forth in BAAQMD’s Rules and Regulations.

Per its Policy and Procedure Manual, BAAQMD requires implementation of Best Available Control Technology for Toxics and would deny an *Authority to Construct* or a *Permit to Operate* for any new or modified source of TACs that exceeds a cancer risk of 10 in one million or a chronic or acute hazard index of 1.0. The permitting process under BAAQMD Regulation 2 Rule 5 requires a Health Risk Screening Analysis, the results of which are posted on the District's website. These permitting requirements are developed by BAAQMD to ensure that the health risks of stationary sources are below applicable standards.

BAAQMD has also identified a series of Best Management Practices for the control of fugitive dust generated during construction activities. These measures, which focus on reducing dust generated by excavation, material movement and movement of off-road equipment on unpaved surfaces are considered sufficient by BAAQMD to reduce dust-related impacts to a less than significant level (BAAQMD, 2017a).

Bay Area Air Quality Planning Relative to State and Federal Standards

For State air quality planning purposes, the SFBAAB is classified as a serious non-attainment area for the 1-hour ozone standard. The "serious" classification triggers various plan submittal requirements and transportation performance standards. One such requirement is that BAAQMD update the Clean Air Plan every three years to reflect progress in meeting the air quality standards and incorporate new information regarding the feasibility of control measures and new emission inventory data (Sections 40924 and 40925 of the California Health and Safety Code). The Bay Area's record of progress in implementing previous measures must also be reviewed. The plans for the air basin are prepared with the cooperation of the MTC and ABAG.

In April 2017, the air district adopted the *2017 Clean Air Plan* whose primary goals are to protect public health and to protect the climate (BAAQMD, 2017c). The plan includes a wide range of proposed control measures to reduce combustion-related activities, decrease fossil fuel combustion, improve energy efficiency, and decrease emissions of potent GHGs. The *2017 Clean Air Plan* updates the *Bay Area 2010 Clean Air Plan* and complies with State air quality planning requirements as codified in the California Health and Safety Code (although the 2017 plan was delayed beyond the 3-year update requirement of the code). The SFBAAB is designated non-attainment for both the 1- and 8-hour State ozone standards. In addition, emissions of ozone precursors in the air basin contribute to air quality problems in neighboring air basins. Under these circumstances, State law requires the Clean Air Plan to include all feasible measures to reduce emissions of ozone precursors and to reduce the transport of ozone precursors to neighboring air basins.

The *2017 Clean Air Plan* contains 85 measures to address reduction of several pollutants: ozone precursors, particulate matter, air toxics, and GHGs. Other measures focus on a single type of pollutant, potent GHGs such as methane and black carbon that consists of harmful fine particles that affect public health. These control strategies are grouped into the following categories:

- Stationary Source Measures;
- Transportation Control Measures;

- Energy Control Measures;
- Building Control Measures;
- Agricultural Control Measures;
- Natural and Working Lands Control Measures;
- Waste Management Control Measures;
- Water Control Measures; and
- Super GHG Control Measures.

Under the California Clean Air Act, BAAQMD is required to develop an air quality attainment plan for criteria pollutants that are designated as non-attainment within the air basin. Several project components may be subject to BAAQMD rules and regulations governing criteria pollutants, TACs, and odorous compounds, even though permits may not be required. Stationary sources, such as generators, are required to have permits from BAAQMD before constructing, changing, or operating the source. If the project is subject to BAAQMD permit requirements, the sources would need to comply with BAAQMD Regulation 2 and proceed through the two-stage Authority to Construct and Permit to Operate process.

Local

City of Burlingame General Plan

The *Burlingame General Plan* includes goals and policies that address the health and welfare of City residents by promoting development projects that are in compliance with air quality standards and regulations with efforts to improve overall air quality. The following General Plan goal and policies are relevant to air quality:

Chapter IX. Healthy People and Healthy Places

Goal HP-3: Reduce exposure of residents and employees of local businesses to harmful air pollutants.

Policy HP-3.1: Regional Air Quality Standards. Support regional policies and efforts to improve air quality, and participate in regional planning efforts with the Bay Area Air Quality Management District to meet or exceed air quality standards.

Policy HP-3.2: Local Air Quality Standards. Work with local businesses, industries, and developers to reduce the impact of stationary and mobile sources of pollution. Ensure that new development does not create cumulative net increases in air pollution and require Transportation Demand Management Techniques (TDM) when air quality impacts are unavoidable.

Policy HP-3.3: Indoor Air Quality Standards. Require that developers mitigate impacts on indoor air quality for new residential and commercial developments, particularly along higher-density corridors, near industrial uses, and along the freeway and rail line, such as in North Burlingame, along Rollins Road, and in Downtown. Potential mitigation strategies include installing air filters (MERV 13 or higher), building sound walls, and planting vegetation and trees as pollution buffers.

Policy HP-3.4: Air Pollution Reduction. *Support* regional efforts to improve air quality, reduce auto use, expand infrastructure for alternative transportation, and reduce traffic congestion. Focus efforts to reduce truck idling to two minutes or fewer in industrial and warehouse districts along Rollins Road and the Inner Bayshore.

Policy HP-3.7: Proximity to Sensitive Locations. Avoid locating stationary and mobile sources of air pollution near sensitive uses such as residences, schools, childcare facilities, healthcare facilities, and senior living facilities. Where adjacencies exist, include site planning and building features that reduce potential conflicts and impacts.

Policy HP-3.10: Truck Routes. Ensure projects that generate truck traffic and existing truck routes avoid sensitive land uses such as residences, schools, day care centers, senior facilities, and residences.

Policy HP-3.11: Dust Abatement. Require dust abatement actions for all new construction and redevelopment projects.

City of Burlingame Municipal Code

The City of Burlingame 2020 Reach Codes are relevant for projects that were submitted prior to January 1, 2023. The Reach Code consists of additional, local amendments to the CALGreen code, which impose City requirements that go beyond the State's requirements for energy efficiency and green building standards. The 2020 Reach Codes required new developments to use electric appliances for heating, cooling, and cooking (with some exceptions including single family homes); and install electric vehicle (EV) infrastructure and solar power.

The City of Burlingame 2022 Reach Code was adopted in November 2022, and began implementation on January 1, 2023. The 2022 Reach Code requires all new residential and commercial construction to be all-electric and install EV infrastructure. On January 17, 2023 the City adopted an ordinance that amended Chapter 18.30 of the Municipal Code that allows for an exemption from the 2022 Reach Code for projects for which a planning or building permit application was deemed complete prior to January 1, 2023 and allows for future developers to apply for an exception to certain aspects of the City's new Reach Codes if the developer demonstrates that those additional requirements would make the building of the project infeasible, as determined by the City Building Official. The proposed Project application was deemed complete prior to January 1, 2023 and thus is subject to the 2020 Reach Code provisions.

4.2.3 Impacts and Mitigation Measures

Significance Criteria

The proposed Project would result in a significant impact to air quality if it would:

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

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;

c) Expose sensitive receptors to substantial pollutant concentrations; or

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

Approach to Analysis

The following approaches and methodologies are adapted from the Air Quality and Greenhouse Gas Technical Report prepared for the Project, and is incorporated here by reference (see Appendix AQ-GHG).

Construction Emissions

Emissions from the construction of the proposed Project would be generated primarily from heavy duty equipment which includes equipment such as excavators, backhoes, front-end loaders, cranes, drill rigs, dozers, forklifts, pavers and rollers, in addition to off-site, on-road vehicle travel. Construction activities associated with the proposed Project include demolition of eight existing buildings, site clearing, excavation and grading, building construction, and/or hardscape and landscape materials installation. As described in Chapter 3, *Project Description*, the Project is proposed to be constructed in three overlapping phases over a 3½-year duration.

The air quality analysis assumes the Project construction would occur within a 5-calendar year scenario.[1] Construction emissions were modeled for each phase, then summarized in total emissions for each calendar year of construction and converted from tons per year to pounds per day using the estimated construction duration. Criteria air pollutant and TAC emissions from equipment and on-road vehicle exhaust were estimated using California Emission Estimator Model version 2022.1.0 (CalEEMod), an emissions estimation/evaluation model that was developed in collaboration with the air quality management districts of California. CalEEMod separates the construction process into multiple phases to account for various construction scenarios, including demolition, site preparation, grading, building, architectural coating, and paving. Assumptions regarding construction phasing and equipment use were based on information received from the Project applicant. A complete list of the construction equipment for each phase, construction phase duration assumptions, and changes to modeling default values used in this analysis is included in Appendix AQ-GHG of this Draft EIR.

Operations and Maintenance Emissions

Mass average daily and annual mobile and area source emissions were estimated using the CalEEMod (version 2022.1.0) emissions model. CalEEMod quantifies emissions from operational activities based on the project land use types and user-defined inputs for project location, operational year, and climate zone. Refer to Section 4.3 of Appendix AQ-GHG for project-specific adjustments made to default CalEEMod values for Project operation.

The Project would generate operational emissions from a variety of sources, including stationary sources (diesel emergency generators); area sources (natural gas combustion for life science uses

[1] Please note that Ramboll's assessment of Project criteria air pollutants in Appendix AQ-GHG assumed the 3½-year Project construction duration would occur within a five calendar-year window, with construction occurring during a portion of calendar Years 1 and 5, and construction occurring through the entirety of calendar Years 2 through 4.

and for the café/restaurants use[2]; consumer products; architectural coatings; and landscape equipment); and from mobile sources (daily automobile and truck trips).

Stationary sources were calculated for the potential emissions from eight emergency diesel generators. The emergency generators are assumed to be powered by diesel fuel, and that the generators rated equal to or more than 1,000 horsepower would be equipped with Tier 4 engines, per BAAQMD's best available control technology (BACT) requirements. The emergency generators are assumed to operate up to 50 hours per year for routine testing and maintenance purposes, consistent with the maximum allowed testing time from CARB's Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines. Project operational emissions of criteria pollutants from vehicle, stationary, and area sources are summed to determine total operational emission.

Area-source and energy emissions were calculated using the CalEEMod model based on the type and size of land uses associated with the proposed Project. Other area sources are consumer products, architectural coatings, and landscaping equipment. San Mateo County-specific consumer product emission rate data were used in the CalEEMod model to estimate daily ROG emissions.

Mobile-source emissions would result from vehicle trips (auto and truck) associated with the proposed Project and were also calculated using the CalEEMod model based on the number of Project vehicle trips. Daily trips generated by the Project at full build-out were assigned to the general office land use.[3] Daily trips generated by each phase of the Project were obtained by scaling the full build-out trips by the size of the proposed land uses.

Because interim operation of earlier phases would occur during construction of later phases, the operational analysis accounts for any overlapping construction emissions that would occur simultaneously with these initial phases of operations. Estimated emissions were compared to both the average daily and maximum annual thresholds presented under *Thresholds of Significance*, below.

Thresholds of Significance for Criteria Air Pollutants and Fugitive Dust

BAAQMD's *CEQA Air Quality Guidelines* (BAAQMD 2017) presented in **Table 4.2-4**, below, were used as the thresholds for the significance of criteria air pollutants. These thresholds of significance are based on a calendar-year basis, although construction emissions are assessed on a rolling 12-month period.

2 Natural gas service would be extended to the proposed office/life science buildings and capped for potential future lab use and for the café/restaurant uses. To conservatively estimate Project operational emissions in this analysis, it is assumed that natural gas would be used to serve these Project uses.

3 Daily vehicle trips associated with office land use are higher than that of life science, and as a result, reported mobile emissions are considered conservative.

TABLE 4.2-4
BAAQMD AIR QUALITY THRESHOLDS OF SIGNIFICANCE – CRITERIA AIR POLLUTANTS

Pollutant	Construction Emissions (lbs per day)	Maximum Annual Operational Emissions (tons per year)
NOx	54	10
ROG	54	10
PM_{10}	82	15
$PM_{2.5}$	54	10
Fugitive Dust	Construction Dust Ordinance or other best management practices	

SOURCE: BAAQMD, 2017

The thresholds of significance for criteria air pollutants are based on substantial evidence presented in Appendix D of the 2017 BAAQMD *CEQA Air Quality Guidelines* and BAAQMD's 2009 *Revised Draft Options and Justification Report* concerning CEQA thresholds. These threshold levels represent emissions below which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants that could result in increased health effects.

Odors

Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, and schools, warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, work sites, and commercial areas. This analysis evaluates whether the proposed Project would create objectionable odors that would affect a substantial number of people (e.g., by introducing new land uses that are typically associated with odor complaints).

Health Risk Assessment

The Project would result in a short-term increase of TAC emissions over the construction period. The main TAC of concern for the proposed Project is diesel exhaust, identified by the CARB as a TAC with potential cancer and chronic non-cancer effects. As DPM is the TAC emitted in the largest quantity, it is used as a surrogate for other TACs within diesel exhaust. The operation of Project-associated off-road construction equipment and on-road diesel-fueled heavy-duty vehicles would emit DPM.

A Health Risk Assessment (HRA) was conducted to evaluate the health risk impacts of DPM emissions generated by construction equipment and vehicles associated with the Project on existing sensitive receptors located in the vicinity of the project alignment and construction areas. The HRA evaluated the inhalation cancer and chronic non-cancer effects of inhaling DPM.

The HRA was conducted using guidelines from BAAQMD, the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA), and the CARB's Approved Risk Assessment Health Values. Refer to Appendix AQ-GHG for more specific detail on the parameters and assumptions used for the HRA.

As described in Section 4.2.1, *Environmental Setting*, BAAQMD describes a 1,000-foot distance as an appropriate zone of influence for assessment of health risk and hazard impacts. There are no sensitive receptors within 1,000 feet of the Project site boundary except for one recreational receptor (Bayside Park). Accordingly, this receptor was modeled for the HRA. Two cancer exposure scenarios were evaluated to identify the most conservative project-level excess lifetime cancer risk. Scenario 1 begins at the start of Project construction and includes overlapping Project construction and interim Project operational emissions. Scenario 2 begins at the start of Project full build-out operations.

Cumulative Criteria Air Pollutant Impacts

By definition, regional air pollution is largely a cumulative impact in that no single project is sufficient in size, by itself, to cause non-attainment of air quality standards. The contribution of a project's air emissions to regional air quality impacts is, by its nature, a cumulative effect. Emissions from past, present, and reasonably foreseeable future projects in the vicinity also have or will contribute to adverse regional air quality impacts on a cumulative basis. No single project by itself would be sufficient in size to result in non-attainment of ambient air quality standards in the SFBAAB. Instead, a project's individual emissions contribute to existing cumulative air quality conditions. As described above, the project-level thresholds for criteria air pollutants are based on levels by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants. Therefore, if a project's emissions are below the project-level thresholds, the project would not result in a considerable contribution to cumulative regional air quality impacts.

Cumulative Health Risk Impacts

Nearby sources of TAC, as well as project-related activities including construction and operation, could contribute to a cumulative health risk for sensitive receptors within 1,000 feet of the Project site. BAAQMD's inventory of stationary sources health risks and the distance multiplier approach were used to estimate excess impacts from existing stationary sources at the maximum impacted sensitive receptor. Geographic information system (GIS) data available from BAAQMD were used to estimate impacts due to nearby railway and roadways. Cumulative excess lifetime cancer risk was evaluated for the same two scenarios as that which was conducted for the Project health risk analysis, above.

Impact Analysis and Mitigation Measures

Impact AIR-1: During Project construction, the proposed Project would result in a cumulatively considerable net increase of criteria pollutants or their precursors for which the project region is non-attainment under an applicable federal or state ambient air quality standard (NOx, ROG, PM_{10}, and $PM_{2.5}$). (*Less than Significant with Mitigation*)

Construction of the proposed Project has the potential to create temporary air quality impacts through emissions of criteria air pollutants, primarily associated with the use of heavy-duty construction equipment, construction workers' vehicle trips, and truck hauling trips. In addition, fugitive ROG emissions would be emitted during construction, predominantly from application of

architectural coatings. There would not be a substantial ROG off-gassing emissions associated with asphalt paving anticipated for the Project because proposed parking would be contained within parking garages, and thus, asphalted areas would be limited to internal paved roadways.

Table 4.2-5 presents the total emissions generated from the Project construction without the implementation of emission reduction measures.[4] As shown in the Table 4.2-5, NO_X emissions in Year 1 (primarily from exhaust from operation of heavy-duty haul trucks), and ROG emissions in Year 5 (primarily from application of architectural coatings), would exceed the BAAQMD's construction threshold of 54 pounds per day for each pollutant. Thus, unmitigated Project impacts would be potentially significant for ROG and NO_X emissions during construction. To address ROG and NO_X emissions that would exceed significance thresholds during construction of the proposed Project as well as to address emissions of fugitive dust, Mitigation Measures AIR-1b to AIR-1e are identified and would be applied during all Project construction phases.

TABLE 4.2-5
UNMITIGATED AVERAGE DAILY EMISSIONS FOR PROJECT CONSTRUCTION (IN LBS/DAY)

Year[b]	Average Daily Emissions (lbs/day)[a]			
	ROG	NOx	PM_{10}	$PM_{2.5}$
Construction Year 1 (limited construction)	2.2	**71**	0.6	0.6
Construction Year 2	2.7	14	0.2	0.2
Construction Year 3	17	26	0.3	0.2
Construction Year 4	12	13	0.2	0.2
Construction Year 5 (limited construction)	**176**	9	0.0	0.0
BAAQMD Threshold	*54*	*54*	*82*	*54*
Exceed Threshold?	**Yes**	**Yes**	No	No

NOTES:

Bolded numerical values during the year are display of exceedance. If the total exceeds a threshold, then the exceedance is identified by shading and a bolded "**Yes**" response.

For each calendar construction year, annual emissions are divided over the number of construction days for the given year, to determine the average daily emissions.

[a] Note that totals may not match sums of intermediate values presented in this table or Appendix AQ-GHG tables due to rounding.
[b] Calendar years of construction analysis. Project construction would occur during a portion of Construction Years 1 and 5, and the entirety of Construction Years 2 through 4.

SOURCE: Ramboll and CalEEMod Output, 2023. See Appendix AQ-GHG.

Additionally, BAAQMD's approach to analysis of construction-related particulate emissions impacts (other than exhaust PM) is to emphasize implementation of effective and comprehensive dust control measures rather than detailed quantification of emissions. BAAQMD considers construction-related fugitive dust impacts of projects to be less than significant if a suite of recommended dust-control measures is implemented. Therefore, to mitigate the potential for

[4] Please note that Ramboll's assessment of Project criteria air pollutants in Appendix AQ-GHG assumed the 3½-year Project construction duration would occur within a five calendar-year window, with construction occurring during a portion of calendar Years 1 and 5, and construction occurring through the entirety of calendar Years 2 through 4. Accordingly, five calendar years of emissions are reported in this and subsequent tables.

significant construction-related fugitive dust impacts, Mitigation Measure AIR-1a is identified to reduce construction-related fugitive dust impacts to less than significant levels.

Mitigation Measure AIR-1a: Construction Emissions Minimization.

During Project construction, the construction contractor shall comply with the BAAQMD's current basic control measures for reducing construction emissions of fugitive PM_{10} and $PM_{2.5}$. The construction contractor shall comply with the following:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material offsite shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure AIR-1b: Off-Road Equipment Tiers.

All construction equipment above 50 horsepower shall either be powered by electricity, or meet or exceed either EPA or CARB Tier 4 Final off-road emission standards if they are powered by diesel.

Mitigation Measure AIR-1c: Haul Truck Tiers.

During Project construction, on-road haul trucks shall be equipped with 2010 or newer model year engines.

Mitigation Measure AIR-1d: Exterior Paint.

The exteriors of the life science/office buildings will not be painted; rather, the exteriors shall entirely consist of glass, concrete or coated materials painted at the time of fabrication at an offsite facility.

Mitigation Measure AIR-1e: Interior Paint.

During Project construction and operation, the Project applicant shall use super-compliant architectural coatings during construction, and during operations that occur concurrent with construction for all buildings, which shall have volatile organic compound (VOC) content that meet South Coast Air Quality Management District (SCAQMD) Rule 1113 Architectural Coatings as revised on February 5, 2016.

Table 4.2-6 shows the total emissions generated from the construction of the project with the implementation of emission reduction measurements. With the applied mitigation measures above during construction, emissions of ROG and NO_x would be reduced to below BAAQMD thresholds. Therefore, this impact would be less than significant with mitigation.

Significance after Mitigation: Less than Significant

TABLE 4.2-6
MITIGATED AVERAGE DAILY EMISSIONS FOR PROJECT CONSTRUCTION (IN LBS/DAY)

Year[b]	Average Daily Emissions (lbs/day)[a]			
	ROG	NOx	PM_{10}	$PM_{2.5}$
Construction Year 1 (limited construction)	2.0	49	0.6	0.6
Construction Year 2	2.7	14	0.2	0.2
Construction Year 3	6	26	0.3	0.2
Construction Year 4	3	13	0.2	0.2
Construction Year 5 (limited construction)	28	9.2	0.0	0.0
BAAQMD Threshold	*54*	*54*	*82*	*54*
Exceed Threshold?	No	No	No	No

NOTES:

For each calendar construction year, annual emissions are divided over the number of construction days for the given year, to determine the average daily emissions.

[a] Note that totals may not match sums of intermediate values presented in this table or Appendix AQ-GHG tables due to rounding.
[b] Calendar years of construction analysis. Project construction would occur during a portion of Construction Years 1 and 5, and the entirety of Construction Years 2 through 4.

SOURCE: Ramboll, 2023. See Appendix AQ-GHG.

Impact AIR-2: During Project operations (including Project construction phases that would overlap with Project operations), the proposed Project would result in a cumulatively considerable net increase of criteria pollutants or their precursors for which the project region is non-attainment under an applicable federal or state ambient air quality standard (NOx, ROG, PM_{10}, and $PM_{2.5}$). (*Less than Significant with Mitigation*)

Operation of the proposed Project has the potential to create air quality impacts, primarily associated with mobile, area, stationary, and energy sources. Motor vehicle traffic would include daily vehicle trips, estimated in the transportation analysis. Area sources include landscaping equipment, the off-gassing associated with reapplication of architectural coatings as part of building maintenance, and the use consumer products (e.g., solvents, cleaning supplies, cosmetics, toiletries) during operations. Stationary sources would consist of the buildings and parking structures emergency diesel generators. The proposed emergency generators are required to comply with the BAAQMD's regulatory requirement to use BACT for emergency backup engines greater than or equal to 1,000 horsepower. Energy sources include natural gas combustion associated with natural gas use that is assumed to be used in the proposed life science uses and for the café/restaurants use. Each of these sources was taken into account in calculating the proposed Project's long-term operational emissions.

Table 4.2-7 shows the total emissions generated from the operation of the Project (in pounds per day, and tons per year, respectively) without the implementation of emission reduction measurements. It should be noted that there are a number of existing land uses at the Project site that currently generate air quality emissions, and which would be displaced by the Project. The reported emissions in Table 4.2-7 do not discount the emissions associated with those existing land uses, and as such, the reported Project emission estimates are considered conservative.

As discussed above under *Approach to Analysis*, because interim operation of earlier phases would occur during construction of later phases, the operational analysis accounts for any overlapping construction emissions that would occur simultaneously with these initial phases of operation. As shown in Table 4.2-7, Project operational emissions would be above the average daily and maximum annual threshold of significance for ROG in Operational Year 2: Interim Project Operations (with overlapping construction), and Operational Year 3: First Year of Full Project Buildout Operations (no overlapping construction). NO_x, PM_{10} and $PM_{2.5}$ emissions would remain below thresholds of significance for both average daily and maximum annual emissions. Thus, unmitigated impacts would be potentially significant for ROG emissions.

Because interim Project operations would occur in parallel with later Project construction phases, the mitigation measures related to construction identified in Impact AIR-1 would apply: Mitigation Measure AIR-1a through AIR-1e. In addition, mitigation is identified to address emissions that would occur during operation of the proposed Project.

> **Mitigation:** Implement Mitigation Measure AIR-1a, AIR-1b, AIR-1c, AIR-1d, and AIR-1e.
>
> **Mitigation Measure AIR-2: Zero-Emission Landscaping Equipment.**
>
> During Project operation, zero-emission landscaping equipment shall be used over conventional gasoline-fueled counterparts. The requirement for zero-emission landscaping equipment shall be included in the Project's landscaping maintenance agreement.

TABLE 4.2-7
UNMITIGATED AVERAGE DAILY EMISSIONS (IN LBS/DAY) AND MAXIMUM ANNUAL EMISSIONS (IN TONS/YEAR) FOR INTERIM PROJECT OPERATIONS (INCLUDING OVERLAPPING CONSTRUCTION), AND FULL PROJECT BUILDOUT OPERATIONS

Year[d]	Average Daily Emissions (lbs/day)[a,c]			
	ROG	**NOx**	**PM_{10}**	**$PM_{2.5}$**
Operational Year 1: Interim Project Operations (with Overlapping Construction)[e]	32	21	1.9	1.0
Operational Year 2: Interim Project Operations (with Overlapping Construction)[f]	**72**	31	4.8	2.3
Operational Year 3: First Year of Full Project Buildout Operations (no Overlapping Construction)	**64**	32	5.1	2.5
BAAQMD Threshold	*54*	*54*	*82*	*54*
Exceed Threshold?	**Yes**	No	No	No
Year[d]	**Maximum Annual Emissions (tons/year)[b,c]**			
	ROG	**NOx**	**PM_{10}**	**$PM_{2.5}$**
Operational Year 1: Interim Project Operations (with Overlapping Construction)[e]	5.9	3.8	0.4	0.2
Operational Year 2: Interim Project Operations (with Overlapping Construction)[f]	**13.2**	5.6	0.9	0.4
Operational Year 3: First Year of Full Project Buildout Operations	**11.8**	5.9	0.9	0.5
BAAQMD Threshold	*10*	*10*	*15*	*10*
Exceed Threshold?	**Yes**	No	No	No

NOTES:

Bolded numerical values during the year are display of exceedance. If the total exceeds a threshold, then the exceedance is identified by shading and a **bolded** "Yes" response.

For each construction year, annual emissions are divided over the number of construction days for the given year, to determine the average daily emissions.

[a] To obtain interim average daily construction emissions, annual total construction emissions are divided by 365 days.
[b] The annual interim and buildout emissions were calculated based on the construction schedule for each phase.
[c.] Note that totals may not match sums of intermediate values presented in this table or Appendix AQ-GHG tables due to rounding.
[d] Calendar years of operational analysis.
[e] Includes first full year of Project Phase 1 operations, interim Phase 2 operations, and Phase 3 construction.
[f] Includes second full year of Project Phase 1 operations; first full year of Phase 2 operations, interim Phase 3 operations, and limited Phase 3 construction.

SOURCE: Ramboll, 2023. See Appendix AQ-GHG.

Table 4.2-8 summarizes Project operational emissions with implementation of mitigation measures to reduce the Project's impacts. As shown, with incorporation of identified mitigation measures, Project operational ROG emissions would reduce to levels below the significance thresholds in both average daily and maximum annual emissions. Therefore, the residual impact of Project emissions during operation at buildout is considered less than significant with mitigation.

Significance after Mitigation: Less than Significant

TABLE 4.2-8
MITIGATED AVERAGE DAILY EMISSIONS (IN LBS/DAY) AND MAXIMUM ANNUAL EMISSIONS (IN TONS/YEAR) FOR INTERIM PROJECT OPERATIONS (INCLUDING OVERLAPPING CONSTRUCTION), AND FULL PROJECT BUILDOUT OPERATIONS

Year[d]	Average Daily Emissions (lbs/day)[a,c]			
	ROG	NOx	PM_{10}	$PM_{2.5}$
Operational Year 1: Interim Project Operations (with Overlapping Construction)[e]	22	21	1.9	1.0
Operational Year 2: Interim Project Operations (with Overlapping Construction)[f]	50	30	4.7	2.2
Operational Year 3: First Year of Full Project Buildout Operations (no Overlapping Construction)	52	32	5.1	2.3
BAAQMD Threshold	*54*	*54*	*82*	*54*
Exceed Threshold?	No	No	No	No
Year[d]	**Maximum Annual Emissions (tons/year)[b,c]**			
	ROG	**NOx**	**PM_{10}**	**$PM_{2.5}$**
Operational Year 1: Interim Project Operations (with Overlapping Construction)[e]	3.9	3.8	0.34	0.17
Operational Year 2: Interim Project Operations (with Overlapping Construction)[f]	9.2	5.5	0.86	0.40
Operational Year 3: First Year of Full Project Buildout Operations (no Overlapping Construction)	9.5	5.8	0.93	0.43
BAAQMD Threshold	*10*	*10*	*15*	*10*
Exceed Threshold?	No	No	No	No

NOTES: For each construction year, annual emissions are divided over the number of construction days for the given year, to determine the average daily emissions.

[a] To obtain interim average daily construction emissions, annual total construction emissions are divided by 365 days.
[b] The annual interim and buildout emissions were calculated based on the construction schedule for each phase.
[c] Note that totals may not match sums of intermediate values presented in this table or Appendix AQ-GHG tables due to rounding.
[d] Calendar years of operational analysis.
[e] Includes first full year of Project Phase 1 operations, interim Phase 2 operations, and Phase 3 construction.
[f] Includes second full year of Project Phase 1 operations; first full year of Phase 2 operations, interim Phase 3 operations, and limited Phase 3 construction.

SOURCE: Ramboll and CalEEMod Output, 2023. See Appendix AQ-GHG.

Impact AIR-3: Implementation of the proposed Project would not result in health risk impacts from exposure of sensitive receptors to substantial pollutant concentrations of diesel particulate matter emissions. (*Less than Significant*)

Site preparation activities, such as demolition, excavation, grading, and other ground-disturbing construction activity, would affect localized air quality during the construction phases of the proposed Project. Short-term emissions from construction equipment during these site preparation activities would include directly emitted PM ($PM_{2.5}$ and PM_{10}) and TACs such as DPM. Additionally, the long-term operational emissions from the Project's mobile and stationary sources, as described in Impact AIR-2, would include particulate matter, TACs, and some compounds or variations of ROGs. The generation of these short- and long-term emissions could expose sensitive receptors to substantial pollutant concentrations of TACs, resulting in a localized

health risk. Therefore, an HRA was conducted for the proposed Project to determine the health risk of Project construction and operations to offsite receptors. As described in the *Approach to Analysis*, consistent with BAAQMD guidance, a 1,000-foot distance was used as an appropriate zone of influence for assessment of health risk. One off-site receptor is located within 1,000 feet of the Project site boundary - Bayside Park, located approximately 130 feet southeast of the Project site.

Table 4.2-9 presents the summary of the estimated excess cancer risk from emissions and $PM_{2.5}$ exposure at this off-site receptor. As described in the *Approach to Analysis*, two cancer exposure scenarios were evaluated. Scenario 1 begins at the start of Project construction and includes overlapping Project construction and interim Project operational emissions. Scenario 2 begins at the start of full Project build-out operations. The exposure parameters were based on the OEHHA 2015 guidelines for this receptor.

TABLE 4.2-9
SUMMARY OF PROJECT-LEVEL HEALTH RISK IMPACTS AT MAXIMALLY EXPOSED OFF-SITE RECREATIONAL SENSITIVE RECEPTOR

Source	Excess Lifetime Cancer Risk[1] (in a million)	Chronic HI[1]	Annual average $PM_{2.5}$ ($\mu g/m^3$)
Scenario 1: Project Construction and Interim Project Operations	1.5	0.0010	0.070
Scenario 2: Full Project Buildout Operations Only	0.36	3.2E-04	0.0016
BAAQMD Significance Threshold	*10*	*1*	*0.3*
Exceed Threshold?	No	No	No

NOTES: HI – hazard index µg – microgram m^3 - cubic meter

[1] Excess lifetime cancer risk and chronic HI from construction sources represent the incremental increase in activity expected as a result of the Project.

SOURCE: Ramboll, fables, figures and CalEEMod Output, 2023. See Appendix AQ-GHG.

The HRA conducted for this analysis determined that impacts associated with excess cancer risk and $PM_{2.5}$ exposure at this offsite receptor would not exceed BAAQMD significance thresholds and, therefore, the impact associated with the Project's potential to expose sensitive receptors to substantial pollutant concentrations would be less than significant.

Mitigation: None required.

Impact AIR-4: Implementation of the proposed Project would not result in emissions (such as those leading to odors) that would affect a substantial number of people. (*Less than Significant)*

Odors during Project construction could be emitted from diesel exhaust, asphalt paving, and architectural coatings. However, construction activities near existing receptors would be temporary and would not result in nuisance odors that would violate BAAQMD Regulation 7. During operation, odors could emanate from vehicle exhaust, intermittent use of the backup

generator during emergencies and maintenance testing, and the reapplication of architectural coatings. However, the Project's odor impacts would be limited to circulation routes, on-site parking/staging areas, and areas immediately adjacent to recently painted structures on the Project site. Although such brief exhaust- and paint-related odors may be considered adverse, they would not affect a substantial number of people. For these reasons the Project is not anticipated to result in substantial or long-term odors, and the impact would be less than significant.

Mitigation: None required.

Impact AIR-5: Implementation of the Project could conflict with or obstruct implementation of the applicable air quality plan. (*Less than Significant with Mitigation*)

As discussed in Section 4.2.2, *Regulatory Framework*, the most recently adopted air quality plan for the San Francisco Bay Area Air Basin is the 2017 Clean Air Plan. In determining consistency with the Clean Air Plan, this analysis considers whether the Project would (1) support the primary goals of the Clean Air Plan, (2) include applicable control measures from the Clean Air Plan, and (3) avoid disrupting or hindering implementation of control measures identified in the Clean Air Plan. The 2017 Clean Air Plan contains 85 measures, some of which address the reduction of emissions, including GHGs.

Table 4.2-10 identifies 20 Clean Air Plan control measures that are potentially applicable to the proposed Project. This table identifies each control strategy and correlates it to specific elements of the proposed Project, or explains why the strategy does or does not apply to the proposed Project. As shown in Table 4.2-10, without the implementation of certain mitigation identified in the EIR, the Project would not include all applicable control measures from the 2017 Clean Air Plan, and consequently, this impact would be potentially significant. However, with the implementation of the mitigation measures identified in this EIR, in conjunction with proposed Project design features and TDM plan, and compliance with existing regulations, the proposed Project would include applicable control strategies contained in the 2017 Clean Air Plan for the basin, and the impact would be less than significant with mitigation.

In addition to the measures listed in Table 4.2-10, transportation control measures that are identified in the Clean Air Plan are implemented by Project that would comply with both the City of Burlingame's TDM Ordinance and the City/County Association of Governments of San Mateo County (C/CAG) TDM program. As seen in Table 4.2-10, implementation of the proposed TDM plan and additional TDM measures, which require additional mobile source control measures through promoting use of clean fuel-efficient and zero emission vehicles, would ensure the Project includes relevant transportation control measures specified in the Clean Air Plan, further ensures consistency with the plan and reducing this impact to less than significant with mitigation.

Mitigation: Implement Mitigation Measure AIR-1b.

Significance after Mitigation: Less than Significant

TABLE 4.2-10
PROJECT CONSISTENCY WITH APPLICABLE CONTROL MEASURES OF THE 2017 CLEAN AIR PLAN

Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Consistency of Proposed Project with Measure
TR1 – Clean Air Teleworking Initiative	The primary objective of the TR1 measure is to increase the number of employees who telework in the Bay Area, especially on Spare the Air days, by providing outreach and assistance to employees and employers.	This strategy is directed at BAAQMD to support telecommuting, which is an employer-specific option and not universally implementable for all business types. The Project TDM Plan provides for designating a transportation manager for each tenant to provide transportation-related information to the business's employees; this may include participation in the BAAQMD Spare the Air program, and providing Spare the Air notices to employees to discourage driving alone to work.	Yes, with Project TDM Plan
TR2 – Trip Reduction Programs	TR2 includes a mandatory and voluntary trip reduction program. The regional Commuter Benefits Program, resulting from SB1339, and similar local programs in jurisdictions with ordinances that require employers to offer pre-tax transit benefits to their employees are mandatory programs. Voluntary programs include outreach to employers to encourage them to implement strategies that encourage their employees to use alternatives to driving alone.	The project applicant would implement the proposed TDM Plan with a goal of achieving sustainable land use development and reducing drive-alone vehicle trips generated by the proposed Project. Future tenants would be responsible for managing their individual TDM programs, including any mandatory or voluntary programs that would provide financial or other incentives tailored to their individual employee base.	Yes, with Project TDM Plan
TR3 – Local and Regional Bus Service	TR3 measure strives to improve existing transit service on the region's core transit systems, and include new bus rapid transit lines in Burlingame and the surrounding area.	The Project would upgrade the Commute.org Burlingame Bayside shuttle by including the Project applicant's funding commitment for this upgrade for the life of the Project and as necessary to maintain 15-minute headways or better during the weekday peak commute periods; and, by adding two stop locations along the Project frontage.	Yes
TR4 – Local and Regional Rail Service	TR4 strives to improve rail service by sustaining and expanding existing services and by providing funds to maintain rail-cars, stations, and other rail capital assets. Specific projects for implementation include BART extensions and Caltrain electrification	Two Caltrain stations and one BART/Caltrain intermodal station are located near the Project site. The Project's proposed upgrade of Commute.org Burlingame Bayside shuttle would improve connection to the Millbrae Caltrain/BART intermodal station.	Yes
TR5 – Transit Efficiency and Use	TR5 will improve transit efficiency and make transit more convenient for riders through continued operation of 511 Transit, full implementation of Clipper® fare payment system and the Transit Hub Signage Program.	As discussed above, the Project would upgrade the Commute.org Burlingame Bayside shuttle by including the Project applicant's funding commitment for this upgrade for the life of the Project and as necessary to maintain 15-minute headways or better during the weekday peak commute periods; and, by adding two stop locations along the Project frontage. This would both improve efficiency of this transit option and make this service more convenient for Project employees who would use it.	Yes

TABLE 4.2-10 (CONTINUED)
PROJECT CONSISTENCY WITH APPLICABLE CONTROL MEASURES OF THE 2017 CLEAN AIR PLAN

Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Consistency of Proposed Project with Measure
TR7 – Safe Routes to Schools and Safe Routes to Transit	TR7 will facilitate safe routes to schools and transit by providing funds and working with transportation agencies, local governments, schools, and communities to implement safe access for pedestrians and cyclists. Likely projects will include implementation of youth outreach and educational programs to encourage walking and cycling, the construction of bicycle facilities and improvements to pedestrian facilities.	Please see discussion under TR9, Bicycle and Pedestrian Access and Facilities, below.	Yes
TR8 - Ridesharing	TR8 promotes ridesharing services and incentives through the implementation of the 511 Regional Rideshare Program, as well as local rideshare programs implemented by Congestion Management Agencies. These activities will include marketing rideshare services, operating a rideshare information call center and website, and provide vanpool support services. In addition, this measure includes provisions for encouraging car sharing programs.	As part of the Transportation Manager and Commute Marketing Program, each tenant's transportation manager would be responsible for providing commute program assistance to employees, and serving as the primary point of contact for employees who wish to commute using an alternative; working with local agencies as needed, such as 511 Rideshare.	Yes, with Project TDM Plan
TR9 – Bicycle and Pedestrian Access and Facilities	The bicycle component of TR9 strives to expand bicycle facilities serving employment sites, educational and cultural facilities, residential areas, shopping districts, and other activity centers. Typical improvements include bike lanes, routes, paths, and bicycle parking facilities. The bicycle component also includes a bike share pilot project that was developed to assess the feasibility of bicycle sharing as a first- and last-mile transit option. The pedestrian component of this measure is intended to improve pedestrian facilities and encourage walking by funding projects that improve pedestrian access to transit, employment sites, and major activity centers. Improvements may include sidewalks/paths, benches, reduced street width and intersection turning radii, crosswalks with activated signals, curb extensions/bulbs, buffers between sidewalks and traffic lanes, and street trees.	There are a number of proposed bicycle and pedestrian improvements proposed under the Project. The Project would provide a striped bike lane across the full length of the Project site along Old Bayshore Highway, consisting 7-foot Class II buffered bike lane with a 2-foot buffer and 5-feet of travel space. There are also Project-proposed bicycle-specific treatments at the Broadway/ Old Bayshore Highway Boulevard intersection, to ensure connection to the Bayside Crossing bicycle/ pedestrian bridge that crosses the U.S. 101 freeway. The Project would also extend the Bay Trail through the length of the Project site, and provide a Class I shared-use path for exclusive use by cyclists and pedestrians. In addition, new sidewalks ranging from 6 feet to 11 feet in width would be developed on the Project site frontage on Old Bayshore Highway and on Airport Boulevard, and new signalized crosswalks are proposed across the Project's northern most driveway and main driveway. Please also see discussion under TR13, below with respect to proposed bicycle parking, and shower facilities. The Project also proposes cycle centers within each building that would provide bicycle storage, including long-term space for 527 long-term bicycles, and 264 bike lockers; and shower facilities. Short-term bike space for 120 bicycles would also be provided on the Project site.	Yes, with Project TDM Plan;

TABLE 4.2-10 (CONTINUED)
PROJECT CONSISTENCY WITH APPLICABLE CONTROL MEASURES OF THE 2017 CLEAN AIR PLAN

Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Consistency of Proposed Project with Measure
TR10 – Land Use Strategies	This measure supports land use patterns that reduce VMT and associated emissions and exposure to TACs, especially within infill locations and impacted communities.	The Project provides for a higher job density compared to the national job density average. This higher job density would result in shorter and fewer trips by single-occupancy vehicles. This takes into account the presence of on-site complimentary land uses and amenities that would support reduced vehicle trips.	Yes
TR13 - Parking Policies	This control measure outlines how the Air District, in cooperation with regional agency partners, will 1) take actions at the regional level to implement parking policies that will benefit air quality, and 2) encourage and support local agency parking policies to reduce motor vehicle travel and promote focused growth.	Please see discussion of Project-proposed bicycle parking and amenity improvements under TR-9, above, that would encourage use of alternate travel besides by motor vehicle. Please also see discussion of electric vehicle charging station stalls at the Project site under TR14, below, the use of which would benefit air quality.	Yes
TR14 – Cars and Light Trucks	This control measures summarizes actions by the Air District, local businesses, city and county governments, and state and federal agencies to expand the use of Zero Emission Vehicles and Plug-in Electric passenger vehicles and light-duty trucks within the Bay Area.	The Project will support the electric vehicle network installing 353 electric vehicle charging stations, in compliance with the City of Burlingame's Reach Codes.	Yes
TR15 – Public Outreach and Education	TR15 includes activities to encourage Bay Area residents to make choices that benefit air quality. This measure includes various public outreach campaigns to educate the public about the health effects of air pollution and the air quality benefits of reducing motor-vehicle trips and choosing transportation modes that reduce motor vehicle emissions. The measure includes outreach and education regarding electric vehicles, smart driving, carpooling, vanpooling, taking public transit, biking, walking, and telecommuting.	The Project TDM Plan provides for designating a transportation manager for each tenant to provide information on and market the use of non-auto modes. This would include: • Provide commute program assistance to employees, and serve as the primary point of contact for employees who wish to commute using an alternative. • Work with local agencies as needed, such as Caltrain, SamTrans, 511 Rideshare, the BAAQMD, and Commute.org. • Catalogue all existing incentives that encourage employees to utilize alternative transportation programs. • Conduct annual employee surveys and providing reports to the City of Burlingame that include commute patterns, mode splits, and TDM program success (process includes yearly surveying of employees, tabulation of data and provision of results in report format). • Evaluate survey results for alternative transportation potential and changes to the current program, and update the program as needed.	Yes

TABLE 4.2-10 (CONTINUED)
PROJECT CONSISTENCY WITH APPLICABLE CONTROL MEASURES OF THE 2017 CLEAN AIR PLAN

Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Consistency of Proposed Project with Measure
TR22 – Construction, Freight and Farming Equipment	TR22 directs BAAQMD to work to reduce emissions from off-road equipment used in the construction, freight handling and farming industries by pursuing the following strategies: 1) offering financial incentives between 2017 and 2030 to retrofit engines with diesel particulate filters or upgrade to equipment with electric or Tier IV off-road engines; 2) work with CARB the CEC and others to develop more fuel-efficient off-road engines and drive trains; and 3) work with local communities to encourage use of renewable electricity and fuels.	Under Mitigation Measure AIR-1b above, the Project applicant or its contractors would meet final Tier 4 standards for all construction equipment greater than 50 horsepower.	Yes, with implementation of EIR Mitigation Measure AIR-1b
EN1 – Decarbonize Electricity Production	EN1 focuses on lowering carbon emissions by switching the fuel sources used in electricity generation. The measure would promote and expedite a transition away from fossil fuels used in electricity generation (i.e., natural gas) to a greater reliance on renewable energy sources (e.g., wind, solar). In addition, this measure would promote an increase in cogeneration, which results in useful heat in addition to electricity generation from a single fuel source.	The Project proposes to procure energy from Peninsula Clean Energy, which is at least 50 percent renewable.	Yes
BL1 – Green Buildings	BL1 seeks to increase energy efficiency and the use of onsite renewable energy—as well as decarbonize existing end uses—for all types of existing and future buildings. The measure includes policy assistance, incentives, diffusion of public information, and targeted engagement and facilitation of partnerships in order to increase energy efficiency and onsite renewable energy in the buildings sector	The project applicant is targeting for the proposed buildings to be LEED Gold Standard. The buildings would also comply with the City of Burlingame 2020 Reach Codes, which prohibits natural gas for heating and cooling.	Yes
BL2 – Decarbonize Buildings	BL2 seeks to reduce greenhouse gas emissions, criteria pollutants and TACs by limiting the installation of space- and water-heating systems and appliances powered by fossil fuels. This measure is to be implemented by developing model policies for local governments that support low- and zero-carbon technologies as well as potentially developing a rule limiting the sale of natural-gas furnaces and water heaters	As indicated under BL1, above, the buildings would comply with the City of Burlingame 2020 Reach Codes, which prohibits natural gas for heating and cooling. Additionally, as indicated under EN1, above, the Project would procure electricity from Peninsula Clean Energy, which is at least 50percent renewable.	Yes
BL4 – Urban Heat Island	This control measure aims to reduce the “urban heat island” phenomenon by increasing the application of “cool roofing” and “cool paving” technologies, as well as increasing the prevalence of urban forests and vegetation, through voluntary approaches and educational outreach.	As discussed in the EIR Project Description, a total of approximately 237,600 square feet of landscaped area and open space would be provided under the Project, which would be a net increase over existing conditions and serve to reduce urban heat island effects.	Yes

TABLE 4.2-10 (CONTINUED)
PROJECT CONSISTENCY WITH APPLICABLE CONTROL MEASURES OF THE 2017 CLEAN AIR PLAN

Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Consistency of Proposed Project with Measure
NW2 – Urban Tree Planting	NW2 promotes the planting of trees in urbanized settings to take advantage of the myriad benefits provided by these trees, including: shading to reduce both the "urban heat island" phenomenon and the need for space cooling, and the absorption of ambient criteria air pollutants as well as carbon dioxide.	As indicated above, a total of approximately 237,600 square feet of landscaped area and open space would be provided under the Project. 62 existing trees that would be removed on the Project site under the Project would be replaced by approximately 230 new trees.	Yes
WA3 – Green Waste Diversion; and WA4 – Recycling and Waste Reduction	WA3 seeks to reduce the total amount of green waste being disposed in landfills by supporting the diversion of green waste to other uses, while WA4 seeks to reduce greenhouse gas emissions by diverting recyclables and other materials from landfill.	The proposed Project would comply with California's Green Building Standard Codes as well as the City of Burlingame's Zero Waste (Climate Action Plan [CAP] Measure 18) diversion goals. Each building will include loading docks with centralized roll-off collection containers for recycling and compost.	Yes
WR2 – Support Water Conservation	WR2 seeks to promote water conservation, including reduced water consumption and increased onsite water recycling, in residential, commercial and industrial buildings for the purpose of reducing greenhouse gas emissions.	The Project's planting design would meet the requirements of Chapter 18.17 (Water Conservation in Landscape) of the Municipal Code and California Code of Regulations Title 23, Division 2, Chapter 2.7 Model Water-Efficient Landscape Ordinance. Drip irrigation would be provided for all planting areas, and purple pipe installed for irrigation with non-potable water when it is available.	Yes

SOURCE: BAAQMD, Clean Air Plan, Spare the Air, Cool the Climate, 2017c, Fehr & Peers, Transportation Impact Analysis (see Appendix TR),; City of Burlingame Climate Action Plan Consistency Checklist for New Development (see Appendix AQ-GHG).

Cumulative Impacts

Impact C-AIR-1: The Project in combination with past, present, and reasonably foreseeable future development in the project area could result in a cumulatively considerable net increase of criteria pollutants or their precursors for which the project region is non-attainment under an applicable federal or state ambient air quality standard (NOx, ROG, PM_{10}, and $PM_{2.5}$). (*Less than Significant with Mitigation*)

The contribution of a project's individual air emissions to regional air quality impacts is, by its nature, a cumulative effect. Emissions from past, present, and reasonably foreseeable future projects in the region also have or will contribute to adverse regional air quality impacts on a cumulative basis, resulting in a potentially significant cumulative air quality impact. No single project by itself would be sufficient in size to result in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality conditions (BAAQMD 2017). As described in the Approach to Analysis section above, the project-level thresholds for criteria air pollutants are based on levels by which new sources are not anticipated to contribute to

an air quality violation or result in a considerable net increase in criteria air pollutants. The SFBAAB is a nonattainment area for both the federal and state ozone standards; therefore, a cumulative air quality impact already exists. Additional emissions of ozone precursors NO_X or ROG over threshold amounts would further degrade air quality related to ozone. Impact AIR-1 and AIR -2 evaluate whether the Project's contribution to these significant impacts would be considerable and concludes that the impacts would be less than significant with mitigation.

As discussed above, implementation of Mitigation Measures AIR-1a through AIR-1e and Mitigation Measures AIR-2 would reduce the severity of this impact and, as a result, these measures would reduce the Project's contribution to the cumulative impact to a less-than-significant level for the same reasons described in Impacts AIR-1 and AIR-2. Therefore, the Project's emissions of criteria air pollutants would not be cumulatively considerable, and this cumulative impact would be less than significant with mitigation.

> **Mitigation:** Implement Mitigation Measure AIR-1a, Mitigation Measure AIR-1b, Mitigation Measure AIR-1c, Mitigation Measure AIR-1d, and Mitigation Measure AIR-2.
>
> **Significance after Mitigation:** Less than Significant

Impact C-AIR-2: The Project, in combination with past, present, and reasonably foreseeable future development in the project area, would not contribute considerably to cumulative health risk impacts to sensitive receptors. (*Less than Significant*)

BAAQMD has identified a distance of 1,000 feet as an appropriate zone of influence for assessing health risk impacts, and specifies that cumulative sources represent the combined total risk values of each individual source within the 1,000-foot evaluation zone. As explained in Section 4.2.1, *Environmental Setting*, there are no residential or daycare facilities within the 1,000-foot zone of influence of the Project site; however, Bayside Park is located approximately 130 feet southeast of the Project site. In addition, the cumulative health risk impact analysis takes into consideration of existing nearby sources of DPM and $PM_{2.5}$ emissions, which include permitted stationary sources, major streets, highways, railways, and roadways.

Similar to Impact AIR-4, the cumulative health risk assessment describes the following two scenarios: Scenario 1 begins at the start of Project construction and includes overlapping Project construction and interim Project operational emissions, and Scenario 2 begins at the start of full Project build-out operations. **Table 4.2-11**, and **Table 4.2-12** presents the sum of the health risk impacts including cancer risk, non-cancer chronic hazard index, and annual average $PM_{2.5}$ concentration compared to their respective BAAQMD cumulative thresholds for Scenario 1 and Scenario 2, respectively.

The cumulative cancer risk, chronic HI are all below the BAAQMD's thresholds of significance. At the maximally exposed recreational receptor in both exposure scenarios, the annual average $PM_{2.5}$ concentrations would exceed the cumulative threshold and would be considered a significant cumulative impact. This cumulative impact is an existing condition for the recreational receptor.

TABLE 4.2-11
SCENARIO 1: CUMULATIVE HEALTH RISK IMPACTS AT MAXIMALLY EXPOSED OFF-SITE RECREATIONAL SENSITIVE RECEPTOR

Source	Lifetime Excess Cancer Risk[1] (in one million)	Noncancer Chronic HI[1]	$PM_{2.5}$ Concentration[1] (µg/m3)
Existing Stationary Sources	6.0	0.032	0.0042
Highway[2]	46	--	0.89
Major Streets[2]	0.13	--	0.0032
Railways[2]	16	--	0.031
Existing Total	68	0.032	0.93
Project Construction and Interim Project Operation	1.5	0.0010	0.070
Total	**70**	**0.033**	**1.0**
Exceeds Threshold?	NO	NO	**YES**
Threshold	*100*	*10*	*0.8*

NOTES:

Bolded numerical values are totals for the receptor of a given risk. If the total exceeds a threshold, then the exceedance is identified by shading and a **bolded** "Yes" response.

HI - hazard index m^3 - cubic meter MEIR - maximum exposed individual receptor µg - microgram

* Note that totals may not match sums of intermediate values presented in this table or Appendix AQ-GHG tables due to rounding

1 If the cell is marked with "--", no risk was calculated. For roadways, the chronic HI is not calculated in the BAAQMD screening tool.

2 Cancer risk and $PM_{2.5}$ concentration values were determined using BAAQMD screening tools and are based on the maximum impact of a raster cell located on the MEIR

SOURCE: Ramboll and CalEEMod Output, 2023. See Appendix AQ-GHG.

TABLE 4.2-12
SCENARIO 2: CUMULATIVE HEALTH RISK IMPACTS AT MAXIMALLY EXPOSED OFF-SITE RECREATIONAL SENSITIVE RECEPTOR

Source	Lifetime Excess Cancer Risk[1] (in one million)	Noncancer Chronic HI[1]	$PM_{2.5}$ Concentration[1] (µg/m3)
Existing Stationary Sources	6.0	0.032	0.0042
Highway[2]	46	--	0.89
Major Streets[2]	0.13	--	0.0032
Railways[2]	16	--	0.031
Existing Total	68	0.032	0.93
Full Project Buildout Operations	0.36	3.2E-04	0.0016
Total	**68**	**0.033**	**0.9**
Exceeds Threshold?	NO	NO	**YES**
Threshold	100	10	0.8

NOTES:

Bolded numerical values are totals per receptor of a given risk. If the total exceeds a threshold, then the exceedance is identified by shading and a **bolded** "Yes" response.

HI - hazard index m^3 - cubic meter MEIR - maximum exposed individual receptor µg - microgram

* Note that totals may not match sums of intermediate values presented in this table or Appendix AQ-GHG tables due to rounding.

1 If the cell is marked with "--", no risk was calculated. For roadways, the chronic HI is not calculated in the BAAQMD screening tool.

2 Cancer risk and PM2.5 concentration values were determined using BAAQMD screening tools and are based on the maximum impact of a raster cell located on the MEIR.

SOURCE: Ramboll and CalEEMod Output, 2023. See Appendix AQ-GHG.

The primary contributor to the cumulative $PM_{2.5}$ concentration at the recreational receptor is background $PM_{2.5}$ emitted from vehicles due to the receptor's proximity to the nearest highway (U.S. 101). Since the Project's impacts are all below individual project-level thresholds, the Project's contribution to the cumulative impact would not be cumulatively considerable. Additionally, BAAQMD provides generalized risk estimates and estimated $PM_{2.5}$ concentrations for the existing mobile sources, which represents a screening-level analysis based on the historical traffic volumes and EMFAC 2014. CARB has since updated the model to EMFAC 2021, which results in lower mobile emissions compared to EMFAC 2014. Therefore, the identified $PM_{2.5}$ concentrations from highways, major roadways, and railways based on EMFAC 2014 are conservative. Furthermore, recreational users would only be exposed to the mobile-generated $PM_{2.5}$ concentrations for limited hours on any given day and would be less affected by health risk impacts of nearby roadways and highways compared to a residential receptor, for which the BAAQMD's cumulative health risk thresholds were derived. This reinforces that the Project would not result in a cumulatively considerable contribution to the significant impact that may affect the recreational receptors. Therefore, the Project's contribution to cumulative health risk impacts on sensitive receptors, would be less than significant.

Mitigation: None required.

4.2.4 References

Bay Area Air Quality Management District (BAAQMD). 2017a. CEQA Air Quality Guidelines, Updated May 2017, http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, Accessed December 2022.

BAAQMD. 2017b. Standards and Attainment Status, http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status. Accessed December 2022.

BAAQMD. 2017c. Final 2017 Clean Air Plan, https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf. Adopted April 19, 2017

BAAQMD. 2019. Reading the Air Quality Index, https://www.sparetheair.org/understanding-air-quality/reading-the-air-quality-index. Accessed January 2023.

BAAQMD. 2023. Current Air Quality, https://www.baaqmd.gov/about-air-quality/current-air-quality. Accessed January 2023.

California Air Resources Board (CARB). 2022a. CARB Identified Toxic Air Contaminants. Available online: https://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants. Accessed December 2022.

CARB. 2022b. Top 4 Summary Site. Available online: https://www.arb.ca.gov/adam/topfour/topfour1.php. Accessed December 2022.

California Energy Commission (CEC). 2022. 2022 Building Energy Efficiency Standards. Available online: https://www.energy.ca.gov/programs-and-topics/programs/building-

energy-efficiency-standards/2022-building-energy-efficiency#:~:text=The%20California%20Energy%20Commission%20(CEC,adopted%20the%202022%20Energy%20Code. Accessed January 2023.

Cal Fire, 2022a. Top 20 Largest California Wildfires. Available online: https://www.fire.ca.gov/media/4jandlhh/top20_acres.pdf. Accessed January 2023.

Cal Fire, 2022b. Top 20 Most Destructive California Wildfires. Available online: https://www.fire.ca.gov/media/t1rdhizr/top20_destruction.pdf. Accessed January 2023.

Ramboll, 2023. *Peninsula Crossing: Air Quality and Greenhouse Gas Technical Report, 1200-1340 Old Bayshore Highway, Burlingame, California*. February 3, 2023.

U.S. Environmental Protection Agency (U.S. EPA), 2016. National Ambient Air Quality Standards, Available online at https://www.epa.gov/criteria-air-pollutants/naaqs-table. Accessed December 2022.

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4.3 Biological Resources

This section evaluates the potential for the Project to result in substantial adverse effects on biological resources. Below, the Environmental Setting portion of this section includes descriptions of existing conditions relevant to biological resources. Further below, existing regulations, plans, and policies relevant to biological resources associated with implementation of the Project are provided in the Regulatory Setting section. Finally, the impact discussion evaluates potential impacts to biological resources that could result from implementation of the Project in the context of existing conditions. The Project site, and immediate surroundings are referred to in this section as the "study area."

The primary sources of information referenced in this section included the following:

- *Old Bayshore Highway Project Biological Resources Report* prepared by H.T. Harvey & Associates (2022); refer to **Appendix BIO**.
- *1300 Old Bayshore Highway SFO@Technology Center Project Initial Study/Mitigated Negative Declaration* prepared by Environmental Science Associates for the City of Burlingame (2020).
- *Burlingame General Plan* (2019)
- Historic and current aerial imagery available on Google Earth
- Biological resource databases including the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (CDFW, 2022), California Native Plant Society (CNPS) Rare Plant Inventory, and a U.S. Fish and Wildlife (USFWS) Information for Planning and Consultation Official Species List (USFWS, 2022a).

4.3.1 Environmental Setting

Land Cover/Habitat Types and Associated Wildlife

The Project study area is located in the Burlingame Bayfront area in the City of Burlingame, on land that was historically tidal marsh lands that were filled in the 1950s and 1960s. Past and ongoing development and other human activities have altered natural vegetative patterns or otherwise limited large expanses of most natural communities along the shore of the Bay, including within the study area. The study area is predominantly developed, including existing commercial buildings, surrounding pavement, and associated landscaping. Approximately 11.54 acres of the 12-acre Project site are developed. Additional land cover/habitat types identified within the Project site are tidal salt marsh (0.18 acre), open water/tidal aquatic (0.20 acre), and ruderal grassland/levee slope (0.11 acre). Land cover and habitat types occurring within the Project site are depicted in **Figure 4.3-1** and described below, along with wildlife species typically associated with each community.

2022\D2022002271.00 - 1200 -1340 Bayshore Hwy Project\05 Graphics-GIS-Modeling-USE AZURE\Illustrator

SOURCE: H.T. Harvey & Associates

1200-1340 Old Bayshore Highway EIR

Figure 4.3-1
Existing Biotic Habitats Map

Developed

Developed areas comprise the most dominant land cover type in the study area. This land cover type includes all buildings, paved walkways and parking areas, and any portions of the Bay Trail that intersect the study area. The developed land cover also includes areas that have been planted with landscaping and are maintained on an ongoing basis. Landscaping on the Project site consists of ornamental trees, shrubs, and groundcovers that are typical of commercial developments in the area. The developed habitat also includes the unpaved, but heavily disturbed areas around the muted tidal salt marsh in the very southern portion of the Project site. Small patches of ruderal vegetation consisting of non-native grasses and forbs such as wild oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), black mustard (*Brassica nigra*), milk thistle (*Silybum marianum*), and Italian thistle (*Carduus pycnocephalus*) are present in this area.

Developed/landscaped area provides little to no habitat opportunity for special-status plant species; however, such areas can intermittently support native and non-native wildlife species that are tolerant of human activities, such as striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), house mouse (*Mus musculus*), Norway rat (*Rattus norvegicus*), black rat (*Rattus rattus*), feral domestic cat (*Felils catus*), and common bird species. Bird species such as the American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), Anna's hummingbird (*Calypte anna*) and others that are tolerant of human activity could use mature trees for nesting. Birds such as the black phoebe (*Sayornis nigricans*), barn swallow (*Hirundo rustica*), cliff swallow (*Petrochelidon pyrrhonota*), house finch (*Haemorhous mexicanus*), and mourning dove (*Zenaida macroura*) could potentially nest on buildings on the Project site.

In addition, marginally suitable roosting habitat for crevice-roosting bats such as the pallid bat (*Antrozous pallidus*), Yuma myotis (*Myotis yumanensis*), and Mexican free-tailed bat (*Tadarida brasiliensis*) is present on the buildings and trees on the Project site. Likewise, several trees provide potentially suitable habitat for the foliage-roosting hoary bat (*Lasiurus cinereus*). Although a majority of the trees in the study area are small, several larger trees are present that could provide roosting habitat in crevices, cavities and foliage for these bat species. Likewise, several of the buildings appeared to have potentially suitable features (e.g., exterior crevices) that could support crevice-roosting bats.

Tidal Salt Marsh

Tidal marsh habitat occurs above intertidal sand and mudflats and below upland vegetation communities not subject to tidal action. Within the Project site, tidal marsh occurs above the tidal mud flat on either side of the Easton Creek channel and along the narrow muted tidal inlet at the south end of the Project site. Tidal marsh habitat adjacent to the Bay provides foraging, cover, nesting, and roosting opportunities for several bird species.

The plant species composition of the tidal salt marshes within the study area is dominated by pickleweed (*Salicornia pacifica*) and other halophytic vegetation. The tidal marsh along Easton Creek is also dominated by pickleweed, but with a greater co-dominance of other wetland species including smooth cordgrass (*Spartina alterniflora*) and Russian thistle (*Salsola soda*). The tidal

salt marsh in the southern portion of the study area contains a small area lacking vegetation in the center of the channel where water is likely to pond longer during the highest tides. The area surrounding this mudflat is dominated by pickleweed and marsh jaumea (*Jaumea carnosa*). Vegetation transitions into Algerian sea lavender (*Limonium ramosissimum*) and salt grass (*Distichlis spicata*) at the eastern portion of the wetland as it approaches the Bay, before transitioning back to pickleweed-dominated tidal salt marsh closer to the Bay (H.T. Harvey & Associates, 2022).

Due to the very limited extent of salt marsh on the Project site and its lack of connectivity to more expansive salt marsh, special-status species endemic to San Francisco Bay salt marshes, including the federal endangered and California endangered and fully protected Ridgway's rail (*Rallus obsoletus obsoletus*) and salt marsh harvest mouse (*Reithrodontomys raviventris*), are not expected to occur on the Project site. Neither is this habitat sufficiently extensive, dense, or tall enough to provide suitable nesting habitat for the saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*), Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*), or Alameda song sparrow (*Melospiza melodia pusillula*), all state species of special concern; these species would occur on the Project site only as occasional non-breeding dispersants (H.T. Harvey & Associates, 2022). Similarly, common birds and small mammals may forage and disperse in this habitat.

Open Water / Tidal Aquatic

Shallow bay and channel habitats occur in permanently flooded portions of the Bay. The habitat type in this area consists of Easton Creek, which partially bisects the Project site (at the east end of the Project site, Easton Creek is contained in a concrete culvert), and drains to the Bay. The earthen Easton Creek channel is engineered, but fully tidal, with no tidal gates or other restrictions to flow. Open water/tidal aquatic habitat is also present in San Francisco Bay adjacent to the Project site.

Open water/tidal aquatic habitat supports a diversity of invertebrates and is thus a productive foraging area for a number of fish and bird species. Some of these fish may occur in Easton Creek as well as the Bay, though due to its narrow and shallow nature, Easton Creek is expected to support relatively low abundance and diversity of fish. No high-quality breeding or nursery habitat for any fish is present on or immediately adjacent to the Project site (H.T. Harvey & Associates, 2022). Common waterbirds that forage for fish and marine invertebrates in Bay waters adjacent to the Project site may enter Easton Creek; however, due to its narrow and shallow nature, waterbird abundance and diversity on the Project site is expected to be low. In addition, due to the limited extent of mudflat and intertidal habitat immediately adjacent to the Project site, numbers of gulls and shorebirds using these intertidal areas adjacent to, and especially on, the Project site are expected to be low. Marine mammals are not expected to enter Easton Creek.

Ruderal

Ruderal vegetation is the dominant habitat present along the banks of Easton Creek. This vegetation includes coyote brush (*Baccharis pilularis*), firethorn (*Pyracantha angustifolia*), Chilean sea fig (*Carpobrotus chilensis*), black mustard, and ruderal grass species such as wild oats (*Avena fatua*) and ripgut brome (H.T. Harvey & Associates, 2022).

Due to the very limited extent of ruderal levee slope on the Project site, no distinctive animal communities (such as grassland-associated species) are associated with this habitat type. California ground squirrels (*Otospermophilus beecheyi*) occur along the upper banks of Easton Creek, and bird species associated with the surrounding developed and landscaped areas forage, roost, and may nest on the ruderal levee slopes in low numbers (H.T. Harvey & Associates, 2022).

Wetlands and Other Waters

Waters of the U.S. that occur on and adjacent to the Project site include San Francisco Bay and Easton Creek, and their associated tidal wetlands, as well as the tidal salt marsh in the southern portion of the Project site. These aquatic features are also waters of the state, which may also extend jurisdiction to the top of the banks of Easton Creek.

Wildlife Movement Corridors

Wildlife movement corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or by areas of human disturbance or urban development. The Easton Creek corridor likely facilitates minor urban wildlife movement through the City of Burlingame for species such as striped skunk, opossum, and raccoon when the water level is low. Migratory birds travel along the edge of San Francisco Bay and may seek terrestrial roosting or foraging sites; however, the Project site offers minimal habitat for these activities and migrating birds would be expected to bypass the site in favor of nearby higher quality habitat (e.g., Anza Lagoon, Coyote Point Recreation Area). The eastern shoreline of the Project site also allows for wildlife movement within the Project vicinity between the limits of local urban development and the Bay. Terrestrial species will move throughout the narrow band of rocky shoreline, beach, and tidal mudflats, and resident and migratory birds regularly traverse habitat along the shoreline and adjacent Bay.

Special-Status Species

The term *special-status species* refers to plant and wildlife species that are considered sufficiently rare that they require special consideration and/or protection and should be, or currently are, listed as rare, threatened, or endangered by the federal and/or state governments. Such species are legally protected under the federal and/or state Endangered Species Acts or other regulations or are species that are considered sufficiently rare by the regulatory and scientific community to qualify for protection. The term *special-status species* includes the following:

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (FESA) (Code of Federal Regulations Title 50, Section 17.12 [listed plants] and Section 17.11 [listed animals] and various notices in the *Federal Register* [FR] [proposed species]);
- Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (California Code of Regulations Title 14, Section 670.5);

- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code [CFGC] Section 1900 et seq.);
- Species designated by CDFW as California Species of Special Concern (SSC);[1]
- Animals fully protected under the CFGC (Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]);[2]
- Species that meet the definitions of rare and endangered under CEQA. CEQA Section 15380 provides that a plant or animal species may be treated as "rare or endangered" even if not on one of the official lists (CEQA Guidelines Section 15380); and
- Plants considered by CDFW and the California Native Plant Society (CNPS) to be "rare, threatened or endangered in California" (California Rare Plant Rank 1A, 1B, and 2).

A list of special-status plant and wildlife species that may occur in the housing opportunity sites within the study area was created by reviewing the resources cited at the beginning of this chapter. The CNDDB (CDFW, 2022) and CNPS Rare Plant Inventory (CNPS, 2022) were queried based on a search of the San Mateo, San Francisco South, Hunter's Point, and Montara Mountain 7.5-minute U.S. Geological Survey quadrangles. An *Official List of Federal Endangered and Threatened Species that Occur in or May Be Affected by the Project* was obtained from the USFWS (2022a) (refer to Appendix BIO, *Plant and Wildlife Species Lists for the Project Site and Vicinity*, for database reports). The results of these queries and a review the resources cited at the beginning of this chapter formed the basis for analysis the potential for special-status species to occur in the study area. Each species was determined to have a low, moderate, or high potential for occurrence in the study area based on occurrence records, species' range, and current site conditions. Species with a moderate or high potential for occurrence are discussed.

Because the Project site and surrounding environs are mostly developed, no special-status plants were found to have a moderate to high potential to occur within the Project site. Special-status and otherwise protected wildlife species that have a moderate to high potential to occur in the study area include Green sturgeon – Southern distinct population segment (DPS) (*Acipenser medirostris pop. 1*), Pacific herring (*Clupea pallasii*), Steelhead – central California coast DPS (*Oncorhynchus mykiss irideus*) nesting birds and roosting bats (**Table BIO** in **Appendix BIO**).

Sensitive Natural Communities

Within the Project site, one sensitive natural community, "northern coastal salt marsh", is present. Northern coastal salt marsh is present along Easton Creek and in the remnant tidal channel at the south end of the Project site. Northern coastal salt marsh is characterized by Holland (1986) as occurring along sheltered inland margins of bays, often co-dominated by pickleweed, cordgrass, and sometimes saltgrass. The tidal salt marsh on the project site, along Easton Creek and in the

[1] A California SSC is one that: has been extirpated from the state; meets the state definition of threatened or endangered but has not been formally listed; is undergoing or has experienced serious population declines or range restrictions that put it at risk of becoming threatened or endangered; and/or has naturally small populations susceptible to high risk from any factor that could lead to declines that would qualify it for threatened or endangered status.

[2] The *fully protected* classification was California's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. The designation can be found in the CFGC.

southern wetland, is dominated by pickleweed, cordgrass, and saltgrass in various areas and therefore represents northern coastal salt marsh (H.T. Harvey & Associates, 2022). Impacts to this sensitive natural community is discussed further under Impact BIO-2.

Critical Habitat

USFWS can designate critical habitat for terrestrial species that have been listed as threatened or endangered. *Critical habitat* is defined in FESA Section 3(5)(A) as those lands (or waters) within a listed species' current range that contain the physical or biological features that are considered essential to its conservation. The study area is not within any designated critical habitat (USFWS, 2022b). However, aquatic portions of the Project site (i.e., Easton Creek) are within critical habitat established by the National Marine Fisheries Service (NMFS) for Central California Coast steelhead (*Oncorhynchus mykiss*) and green sturgeon (*Acipenser medirostris*).

4.3.2 Regulatory Framework

Federal

The FESA, Clean Water Act Section 404, and Migratory Bird Treaty Act (MBTA) are the primary federal planning, treatment, and review mechanisms for biological resources in the study area. Each is summarized below.

Endangered Species Act

The USFWS and NMFS are the designated federal agencies responsible for administering the FESA. The FESA defines species as "endangered" and "threatened" and provides regulatory protection for any species thus designated. FESA Section 9 prohibits the "take" of species listed by USFWS as threatened or endangered. As defined in the FESA, *taking* means "… to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in such conduct." Recognizing that take cannot always be avoided, FESA Section 10(a) includes provisions for takings that are incidental to, but not the purpose of, otherwise lawful activities.

FESA Section 7(a)(2) requires all federal agencies, including USFWS, to evaluate projects authorized, funded, or carried out by federal agencies with respect to any species proposed for listing or already listed as endangered or threatened and the species' critical habitat, if any is proposed or designated. Federal agencies must undertake programs for the conservation of endangered and threatened species and are prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its "critical habitat."

As defined in the FESA, "individuals, organizations, states, local governments, and other non-federal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a federal permit, license, or other authorization, or involve federal funding."

Project Applicability: The federally threatened Central California Coast steelhead and southern green sturgeon, and the federal candidate longfin smelt (*Spirinchus thaleichthys*), occur in Bay waters and are expected to occur at least occasionally in the portion of the Bay adjacent to the

Project site. Although these species could enter the lower reach of Easton Creek during high tide, they likely do so very infrequently, if at all, due to the absence of high-quality habitat, the narrow and shallow nature of the creek, and the absence of suitable habitat upstream from the Project site. San Francisco Bay and Easton Creek are located within designated critical habitat for steelhead and green sturgeon.

Federal Regulation of Wetlands and Other Waters

The federal government defines and regulates other waters, including wetlands, in CWA Section 404. Wetlands are "areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR Section 328.3(c) and 40 CFR 230.3). Under normal circumstances, the federal definition of wetlands requires the presence of three identification parameters: wetland hydrology, hydric soils, and hydrophytic vegetation.

The regulations and policies of various federal agencies (e.g., USACE, the U.S. EPA, and USFWS) mandate that the filling of wetlands be avoided unless it can be demonstrated that there is no practicable alternative to filling. USACE has primary federal responsibility for administering regulations that concern waters and wetlands in the study area under the statutory authority of the Rivers and Harbors Appropriation Act (Sections 9 and 10) and the CWA (Section 404).

Pursuant to Section 10 of the Rivers and Harbors Appropriation Act of 1899 (33 USC Section 403), USACE regulates the construction of structures in, over, or under, excavation of material from, or deposition of material into navigable waters. In tidal areas, the limit of navigable water under Section 10 is the elevation of the mean high-water mark; in nontidal waters, it is the ordinary high-water mark. Larger streams, rivers, lakes, bays, and oceans are examples of navigable waters regulated under Rivers and Harbors Appropriation Act Section 10. The act prohibits the unauthorized obstruction or alteration of any navigable water (33 USC Section 403). Navigable waters under the act are those "subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce" (33 CFR Section 329.4). Typical activities requiring Section 10 permits are construction of piers, wharves, bulkheads, marinas, ramps, floats, intake structures, cable or pipeline crossings, and dredging and excavation.

Federal CWA Section 404 (33 USC 1251 et seq. [1972]) prohibits the discharge of dredged or fill material into waters of the United States, including wetlands, without a permit from USACE. The agency's jurisdiction in tidal waters under Section 404 extends to the high-tide line or high-tide mark, simply indicating a point on the shore where water reaches a peak height at some point each year.

The CWA prohibits the discharge of any pollutant without a permit. Implicit in the act's definition of pollutant is the inclusion of dredged or fill material regulated by Section 404 (33 USC Section 1362). The discharge of dredged or fill material typically means adding into waters of the United States materials such as concrete, dirt, rock, pilings, or side-cast material for the purpose of replacing an aquatic area with dry land or raising the elevation of an aquatic area.

Activities typically regulated under Section 404 include the use of construction equipment such as bulldozers, and the leveling or grading of sites where jurisdictional waters occur.

Project Applicability: The delineation of regulated habitats (H. T. Harvey & Associates, 2022) identified waters of the U.S. on and adjacent to the Project site. Easton Creek and San Francisco Bay, as well as narrow areas of tidal wetlands along these features, are considered waters of the U.S. In addition, a small area of tidal salt marsh connected to the Bay is present in the southeastern part of the Project site.

Migratory Bird Treaty Act

The MBTA (16 USC Section 703 et seq. [1989]) is the domestic law that affirms and implements a commitment by the United States to four international conventions (with Canada, Mexico, Japan, and Russia) for the protection of a shared migratory bird resource. Unless and except as permitted by regulations, the MBTA encompasses whole birds, parts of birds, and bird nests and eggs. The FESA defines take as "…harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species." Harm may include significant habitat modification where it actually kills or injures a listed species through impairment of essential behavior (e.g., nesting or reproduction). This would include the protection of nests for all species that are on the List of Migratory Birds, most recently updated in the Federal Register (50 CFR 10.13) in 2013.

Project Applicability: All native bird species occurring in the study area are protected by the MBTA.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Act of 1976 (U.S. Code Title 16, Sections 1801−1884 [16 USC 1804–1884]), as amended in 1996 and reauthorized in 2007, is intended to protect fisheries resources and fishing activities within 200 miles of shore. Conservation and management of U.S. fisheries, development of domestic fisheries, and phasing out of foreign fishing activities are the main objectives of the Magnuson-Stevens Act. The Magnuson-Stevens Act provided NMFS with legislative authority to regulate U.S. fisheries in the area between 3 and 200 miles offshore and established eight regional fishery management councils that manage the harvest of the fish and shellfish resources in these waters.

The Magnuson-Stevens Act defines essential fish habitat (EFH) as those waters and substrate that support fish spawning, breeding, feeding, or maturation. The Magnuson-Stevens Act requires that NMFS, the regional fishery management councils, and federal agencies taking an action that may affect managed fish species covered under the Magnuson-Stevens Act identify EFH and protect important marine and anadromous fish habitat.

The regional fishery management councils, with assistance from NMFS, are required to develop and implement Fishery Management Plans. These plans delineate EFH and management goals for all managed fish species, including some fish species that are not protected under the Magnuson-Stevens Act. Federal agency actions that fund, permit, or carry out activities that may adversely affect EFH are required under Magnuson-Stevens Act Section 305(b), in conjunction with

required Section 7 consultation under FESA, to consult with NMFS regarding potential adverse effects of their actions on EFH and to respond in writing to NMFS's recommendations.

Project Applicability: Intertidal habitats within Easton Creek on the Project site up to the elevation of mean higher high water are considered to be EFH for a number of species that are federally managed under one or more FMPs. FMP-managed fish species may occasionally enter Easton Creek to forage during high tide, but due to the very narrow and shallow nature of the creek and the low quality of fish habitat upstream from the Project site, nursery habitat for these species is not present in Easton Creek, and FMP-managed fish are expected to make limited use of the creek.

State

In addition to CEQA, the primary state planning, treatment, and review mechanisms for biological resources in the vicinity of the Project site are the CESA, Clean Water Act Section 401, and CFGC Sections 1600–1603, 3503, 3503.5, and 3511. Each is summarized below.

California Endangered Species Act

The CESA closely parallels the conditions of the FESA; however, it is administered by CDFW. CESA prohibits the take of plant and animal species that the California Fish and Game Commission has designated as either threatened or endangered in California. "Take" in the context of this regulation means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill a listed species (CFGC Section 86). The take prohibitions also apply to candidates for listing under CESA. However, Section 2081 of the act allows the department to issue permits for the minor and incidental take of species by an individual or permitted activity listed under the act. Unlike FESA, species that are candidates for state listing are granted the same protections as listed species under CESA.

In accordance with the requirements of CESA, an agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species could be present in the vicinity of the Project site. The agency also must determine whether the project could have a potentially significant impact on such species. In addition, the department encourages informal consultation on any project that could affect a candidate species.

Project Applicability: The only species listed under CESA that have any potential to occur in or close to the Project site are the endangered California Ridgway's rail and California least tern, and the threatened longfin smelt. California Ridgway's rail could possibly occur on the Bay shoreline adjacent to the site and potentially in Easton Creek as a very infrequent and brief dispersant, California least tern may forage in adjacent Bay waters but not on the site itself, and longfin smelt may occasionally occur in lower Easton Creek but more likely occurs only in adjacent Bay waters.

State Regulation of Wetlands and Other Waters

California's authority for regulating activities in wetlands and waters in the vicinity of the Project site resides primarily with the State Water Resources Control Board (State Water Board). The

State Water Board, acting through the RWQCB, must certify that a proposed USACE permit action meets state water quality objectives (CWA Section 401). Any condition of water quality certification is then incorporated into the USACE Section 404 permit authorized for the project.

The State Water Board and the Regional Water Quality Control Boards also have jurisdiction over waters of the state under the Porter-Cologne Water Quality Control Act. The State Water Board and San Francisco Bay Regional Water Quality Control Board evaluate proposed actions for consistency with the Regional Water Quality Control Board's Water Quality Control Plan for the San Francisco Bay Basin and authorize impacts to waters of the state by issuing waste discharge requirements or, in some cases, a waiver of Waste Discharge Requirements.

Project Applicability: All areas considered waters of the U.S., as described above, are also waters of the State. Waters of the State may additionally extend landward to the tops of the banks along Easton Creek. The ruderal levee slope along the creek's banks may be considered a "buffer" of waters of the State by the RWQCB.

California Fish and Game Code Sections 1600–1603

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports fish or wildlife resources are subject to the regulatory authority of CDFW under CFGC Sections 1600–1603. Under the CFGC, a *stream* is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Included are watercourses with surface or subsurface flows that support or have supported riparian vegetation. CDFW jurisdiction in altered or artificial waterways is based on the value of those waterways to fish and wildlife. A public or private party must notify CDFW of any proposed activity that may modify a river, stream, or lake. If CDFW determines that the proposed activities may adversely affect fish and wildlife resources therein, a Lake and Streambed Alteration Agreement (LSAA) permit is required. The LSAA sets reasonable conditions necessary to protect fish and wildlife and must comply with CEQA. The applicant may then proceed with the activity in accordance with the final LSAA. CDFW has maintained a "no net loss" policy regarding potential impacts and has required replacement of lost habitats.

Project Applicability: CDFW jurisdiction under Section 1602 of the California Fish and Game Code would extend up to the top of bank of Easton Creek on the Project site.

California Fish and Game Code Sections 3503, 3503.5, and 3513

Under CFGC Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the code or any regulation made pursuant thereto. CFGC Section 3503.5 prohibits take, possession, or destruction of any birds in the orders Falconiformes (hawks) or Strigiformes (owls), or of their nests and eggs. Migratory non-game birds are protected under Section 3800, whereas other specified birds are protected under section 3505. CFGC Section 3513 adopts the federal definition of migratory bird take, which is defined by the U.S. Department of the Interior under provisions of the MBTA. In addition, CDFW has issued an advisory that affirms that California law prohibits incidental take of migratory birds (CDFW, 2018).

Project Applicability: Most native bird, mammal, and other species that could occur in the study area are protected by the California Fish and Game Code Sections 3503, 3503.5, and 3513.

Local

Bay Conservation and Development Commission Regulations

The San Francisco Bay Conservation and Development Commission (BCDC) is authorized by the McAteer-Petris Act to analyze, plan, and regulate San Francisco Bay and its shoreline. BCDC implements the San Francisco Bay Plan and has jurisdiction over all areas of San Francisco Bay that are subject to tidal action, including subtidal areas, intertidal areas, and tidal marsh areas that are between mean high tide and 5 feet above mean sea level. BCDC regulates fill, extraction of materials, and substantial change in use of land, water, and structures in San Francisco Bay and development within 100 feet of the Bay shoreline. Any fill, excavation of material, or substantial change in use within BCDC jurisdiction requires a permit from BCDC.

Project Applicability: Along the majority of the Bay shoreline, where the land is bordered by the open waters of the Bay to the east and vegetated marsh is absent, BCDC's Bay jurisdiction is defined by the mean high water (MHW) elevation, which is 6.21 feet NAVD88[3]. Along the tidal channel of Easton Creek, where narrow bands of tidal salt marsh are present, BCDC's Bay jurisdiction is defined as MHW plus the upper extent of marsh vegetation. The BCDC Bay shoreline boundary extends along the edge of the tidal salt marsh in the southern portion of the Project site occupying this swale, and extends and additional 75 feet to the edge of Bayshore Highway, where this tidal channel previously extended prior to partial filling of the swale in 2016. Work within BCDC's Bay jurisdiction and within the 100-foot shoreline band will require a permit from BCDC.

City of Burlingame Tree Protection Policies and Ordinances

The City of Burlingame Municipal Code protects street trees (Chapter 11.04) and private trees (Chapter 11.06) meeting certain criteria. A street tree is defined as any woody perennial plant having a single main axis or stem commonly achieving ten feet or more in height and growing within the City right-of-way. A protected private tree includes: 1) any tree with a circumference of 48 inches or more when measured 54 inches above natural grade; 2) a tree or stand of trees so designated by the city council based upon findings that it is unique and of importance to the public due to its unusual appearance, location, historical significance or other factor; or 3) a stand of trees in which the director has determined each tree is dependent upon the others for survival.

Requirements regarding removal of, or work significantly affecting, protected trees are described in the City of Burlingame Municipal Code, Section 11.06.060 and include notices and permits required for removal or work significantly affecting protected trees. Requirements regarding tree replacement of removed protected trees are further described in the City of Burlingame Municipal Code, Section 11.06.090. Avoidance and minimization measures for trees to be preserved would include implementation of tree protection zones (i.e., protecting trees that are intended to remain

[3] North American Vertical Datum of 1988.

on the site from incidental project disturbance) and development of a tree protection plan by a certified arborist. In addition, the project proponent would be required to comply with the City of Burlingame Municipal Code and submit permit applications for removal or damage of all trees covered by the ordinance. Any City street trees, or private protected ordinance-sized trees to be removed may require replacement with newly planted trees according to the discretion of Parks and Recreation Department. The City's tree ordinance requires that the tree replacement at a ratio of 1:1 include a 24-inch box size single stem landscape tree(s) (no fruit or nut trees), which may be planted anywhere on the Project site.

City of Burlingame General Plan

The City of Burlingame General Plan, *Envision Burlingame*, is the guiding document for the city's physical development. It includes detailed goals, policies and implementation programs that convey a long-term vision and guide local decision-making to achieve that vision. The General Plan includes the following goals and policies that are applicable to biological resources that could be present within the Project site.

Chapter IV. Community Character

Goal CC-1: Incorporate sustainable practices in all development decisions.

Policy CC-1.14: Bird-friendly Design. For projects in the Bayfront area, incorporate into the development review process design measures that promote bird safety as a means of minimizing adverse effects on native and migratory birds.

Goal CC-2: Ensure that public and private trees are beautiful, healthy, and safe, and that they remain an integral feature of the community.

Policy CC-2.5: Development Review. Preserve protected, historical, and other significant trees as part of the development review process through the following measures:

- Limit the adverse effect on the health and longevity of protected or other significant trees through appropriate design measures and construction practices.
- Encourage the preservation of native oak trees.
- Require appropriate tree replacement when tree preservation is not feasible.
- As a condition of new development, require, where appropriate, the planting and maintenance of both street trees and trees on private property.
- Protect trees during construction projects.
- Manage infrastructure to ensure that the placement and maintenance of street trees, streetlights, signs, and other infrastructure assets are integrated.
- Where urban development occurs adjacent to natural plant communities (e.g., oak woodland, riparian forest), ensure landscape plantings incorporate native tree species.
- Limit the number of new curb cuts for development projects to provide adequate space for protection of tree roots and for planting of new trees.

Chapter IX. Healthy People and Healthy Places

Goal HP-5: Protect, maintain, and improve biological resources in Burlingame, including hillside habitats, trees and plants, shoreline areas, and creeks.

Policy HP-5.2: Migratory Birds. Identify and protect habitats that contribute to the healthy propagation of migratory birds, including trees and natural corridors that serve as stopovers and nesting places. Avoid construction activities that involve tree removal between March and June unless a bird survey has been conducted to determine that the tree is unused during breeding season by avian species protected under California Fish and Game Codes 3503, 3503.5 and 3511.

Policy HP-5.5: Protection and Expansion of Tree Resources. Continue to preserve and protect valuable native trees, and introduce species that contribute to the urban forest, but allow for the gradual replacement of trees for on-going natural renewal. Consider replacement with native species. Use zoning and building requirements to ensure that existing trees are integrated into new developments.

Policy HP-5.6: Tree Preservation Ordinance. Continue to adhere to the Burlingame Tree Preservation Ordinance (Burlingame Municipal Code Title 11); ensure the preservation of protected trees as designated by the ordinance, and continue to be acknowledged by the Arbor Day Foundation as a Tree City USA.

Policy HP-5.7: Urban Forest Management Plan. Continue to update and use the Burlingame Urban Forest Management Plan, which integrates the environmental, economic, political, historical and social values for the community, for guidance on best management practices related to tree planting, removal, and maintenance, including onsite protection of extant trees and street trees during projects.

Policy HP-5.12: Wetlands. Preserve permanent, year-round wetland habitat and associated species in compliance with the federal "no net loss" policy. Where jurisdiction allows, establish buffer zones at the edge of wetland habitats, and restrict development in these zones. If development occurs adjacent to a wetlands area, ensure a qualified biologist has conducted a wetlands delineation in accordance with federal and State guidelines.

Policy HP-5.14: Compliance with Environmental Laws. Ensure that all projects affecting resources of regional concern satisfy regional, State, and federal laws.

4.3.3 Impacts and Mitigation Measures

Significance Criteria

The proposed Project would result in a significant impact to biological resources if it would:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS;

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

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Criteria Not Analyzed

Based on the Project site location, there would no impact related to the following topics for the reasons described below:

- ***Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan*:** There are no adopted or approved local, regional, or state habitat conservation plans applicable to the Project site; therefore, there would be no Project impact related to this significance threshold, and this topic will not be evaluated further in this section.

Approach to Analysis

The impact analysis is based on the resources, references, and data collection methods identified at the beginning of this section. The analysis addresses potential direct and indirect impacts from construction or operation of the Project, defined as follows:

- *Direct impacts* are those that could occur at the same time and place as project construction, such as the removal of habitat as a result of ground disturbance.
- *Indirect impacts* are those that could occur either at a later time or at a distance from the Project site, but that are reasonably foreseeable, such as the loss of an aquatic species as a result of upstream effects on water quality or quantity. Indirect impacts are often associated with project operation but can also occur during construction.

Direct and indirect impacts to biological resources may vary in duration; they may be temporary, short term, or long term.

The analysis considers the potential impacts of the Project's implementation on special-status species, sensitive natural communities, wetlands, and wildlife corridors, using the significance criteria listed above. Mitigation measures are identified, as necessary, to reduce impacts to less-than-significant levels.

Impact Analysis

Impact BIO-1: Implementation of the proposed Project would not have a substantial adverse effect, either directly, indirectly, or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS (special-status fish, nesting birds, special-status roosting bats). (*Less than Significant with Mitigation*)

Special-Status Plants

As discussed in the Setting, the great majority (over 90 percent) of the Project site is developed or landscaped. Ruderal habitat is limited and patchy and while tidal marsh vegetation occurs within the Easton Creek corridor and remnant tidal channel on the Project site, it is limited in size and disconnected from larger, natural tidal marsh systems which might introduce rare plant species into the area.

All special-status plant species with potential to occur in the Project vicinity were determined to have a low potential to occur or determined to be absent from the Project site, generally due to the lack of suitable supportive habitat and documented local occurrences. Hence, construction and operation of the proposed Project would have no impact on special-status plants.

Mitigation: None required.

Special-Status Fish Species, Designated Critical Habitat, and Essential Fish Habitat

Construction

As discussed in Chapter 3, *Project Description*, the Project includes certain shoreline improvements to address future sea level rise and flooding. This includes installation of sheet piles for the sea wall along both sides of Easton Creek and along the bay shoreline of the Project site. Sheet piles would be driven entirely outside of aquatic habitats, so sound pressure levels would not be high enough as to cause injury or mortality of fish. Additionally, it is expected that these sheet piles would be driven using a vibratory hammer, which would further reduce sound levels produced by pile driving. As a result, installation of these features would not result in significant impacts to special-status fish species.

Also discussed in Chapter 3, the Project would replace two existing outfalls on Easton Creek with new outfalls. Short-term impacts to special-status fishes, if present, could occur from this outfall replacement. Outfall replacement has the potential to result in fish stranding if fish are trapped in excavated areas or within coffer dams around work areas; negative impacts to water quality in the creek and Bay waters at the mouth of the creek due to mobilization of sediments or contaminants (e.g., leaks from construction equipment) during construction; and loss of a very limited area of fish habitat. Thus, EFH and designated critical habitat for Central California Coast steelhead and southern green sturgeon would be impacted, and there is some potential (albeit very low) for individual special-status fish to be impacted.

Since outfall replacement work would require dewatering during construction, benthic macroinvertebrates and other marine organisms that are prey for fish might be killed or their abundance reduced. However, the effect on prey species resulting from dewatering would be

temporary because these construction activities would be short-lived, and the area to be dewatered would be very limited relative to amount of available prey in the surrounding bay waters. Thus, the loss of aquatic prey species because of dewatering and in-water work activities is not expected to adversely affect special-status fish. Further, these prey species are expected to recolonize impact areas once the Project is complete.

Although critical habitat and EFH that would be impacted by outfall replacement represents a minute fraction of available habitat in the Bay, the impact on special-status fish, critical habitat, and EFH would be significant in the absence of mitigation, due to the importance of critical habitat to steelhead and green sturgeon, and EFH to the ecology of the San Francisco Bay.

As discussed in Section 4.9, *Hydrology and Water Quality*, Impact HYD-1, construction of the Project would be required to apply for coverage under the State General Construction Permit (GCP) to comply with federal National Pollutant Discharge Elimination System (NPDES) regulations. A site-specific SWPPP would be developed and implemented as part of the Project in accordance with the NPDES CGP, to minimize water impacts during demolition and construction, including all work related to the stormwater outfalls. Construction BMPs to protect water quality would be reviewed and coordinated with the RWQCB, as necessary, for implementation during work and may include but are not limited to storm water runoff quality control measures, litter control, construction fencing and erosion control, and other measures. Compliance with these permits and plans would protect water quality, and therefore, critical habitat for fish and EFH.

In addition to compliance with the NPDES CGP, implementation of Mitigation Measures BIO-1a, BIO-1b, and BIO-1c would minimize any adverse effects on special-status fish and their habitats.

Mitigation Measure BIO-1a: Worker Environmental Awareness Training.

Personnel involved in outfall replacement and bridge construction over Easton Creek shall be trained by a qualified biologist (experienced in construction monitoring, as approved by the City/Agency) in the importance of the marine environment to special-status fish and other aquatic animals, and the environmental protection measures put in place to prevent impacts to these species, their habitats, and EFH. The training shall include, at a minimum, the following:

- A review of the special-status fish and other aquatic animals, and sensitive habitats that could be found in or downstream from work areas.
- Measures to avoid and minimize adverse effects to special-status fish and other aquatic animals, their habitats, and EFH.
- A review of all conditions and requirements of environmental permits, reports, and plans (e.g., USACE permits).

Mitigation Measure BIO-1b: Seasonal In-Water Restrictions.

In-water work for outfall replacement shall be conducted between June 1 through November 30, based on the standard work windows for steelhead and Pacific herring. If completion of in-water work within this period is not feasible due to scheduling issues, new timing guidelines shall be established and approved by NMFS and CDFW prior to initiation of in-water work.

Mitigation Measure BIO-1c: Fish Exclusion at Dewatering Sites.

Prior to outfall replacement, Construction contractor shall install cofferdams to dewater the work areas. Cofferdams must be constructed with materials to effectively dewater the work area (e.g., inflatable rubber dams, sheet piles, or other materials). If inflatable rubber cofferdams are used, they must be installed at low tide when the work area is fully drained. If sheet pile cofferdams or other materials are used, the two sidewalls of the cofferdam must be placed first, followed by the final wall of the cofferdam on the downslope side (closest to the Easton Creek centerline). The final wall must be placed at low tide to minimize the amount and depth of water present within the cofferdam. Just before the final wall is installed, if water is present within the coffer dam, qualified biologists may use nets (with a maximum mesh size of 9.5 millimeters) to exclude fish from the construction area. At low tide, qualified biologists shall walk from the upper edge of the work area to the lower edge of the work area with a seine stretched across any wetted portion of the work area to encourage fish to move out of the construction area through the gap where the final wall would be installed. When the lower end of the construction area is reached, a block net would be installed in that gap to prevent fish from moving back into the cofferdam. This procedure shall be repeated until no fish remain in the dewatered area. The final sheet pile must then be installed. Upon completion of in-water work activities, coffer dams shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.

Significance after Mitigation: Implementation Mitigation Measures BIO-1a, BIO-1b, and BIO-1c would reduce construction-related impacts by training outfall replacement construction crews about sensitive biological resources in the work area and the permit requirements and mitigation measures in place to protect such resources; restricting in-water work to between June 1 through November 30 to protect special-status fish; and by installing cofferdams around, and removing fish from, in-water construction to temporarily exclude and protect fish from project construction. Therefore, implementation of Mitigation Measures BIO-1a, BIO-1b, and BIO-1c would reduce potential for impacts to special-status fish to a less than significant level.

Operational Impacts

Operational activities associated with the proposed Project are unlikely to directly impact special-status fish since these species are not expected to enter Easton Creek except in low numbers and at high tides, if at all.

As discussed in Section 4.9, *Hydrology and Water Quality*, pollutants in stormwater runoff from urban development would have the potential to negatively affect water quality. Stormwater runoff from the types of urban uses proposed under the Project is regulated under the Municipal Regional Stormwater NPDES Permit (MRP). The Project applicant would be required to demonstrate compliance with MRP requirements. The San Francisco Bay RWQCB has incorporated requirements in the MRP to protect water quality. This MRP requires that all projects implement BMPs and incorporate Low Impact Development practices into the design to prevent stormwater runoff pollution prior to discharge.

Proposed buildings, parking structures, and the bridge over Easton Creek would result in shading on the Project site and vicinity, including Easton Creek and/or the Bay, during the day as

influenced by seasonal variations. Shading of the of Easton Creek, discussed under Impact BIO-2, below, is not expected to result in a substantial adverse effect on biological resources.

Given the factors discussed above, with compliance with NPDES regional permit requirements, the impact of operation of the proposed Project on special-status fish species, designated critical and essential fish habitat would be less than significant.

Mitigation: None required.

Birds Protected by the MBTA

Construction Impacts

Construction within the study area could result in direct or indirect impacts to birds protected by the MBTA. Migratory and resident bird species could forage and/or nest in the trees and ornamental landscaping on the Project site, and in shrubs along the eastern shoreline within and surrounding the Project site. Impacts during the non-breeding season generally are not considered significant, primarily because of the birds' mobility and ability to access other comparable foraging habitat in the region. However, direct impacts to birds could result from the removal of trees and vegetation and/or demolition of buildings while an active bird nest is present. In addition, earth moving, operation of heavy equipment, and increased human presence could result in indirect impacts caused by noise, vibration, and visual disturbance. These conditions could indirectly result in nest failure (disturbance, avoidance, or abandonment that leads to unsuccessful reproduction), or could cause flight behavior that would expose an adult or its young to predators. These activities could cause birds that have established a nest before the start of construction to change their behavior or even abandon an active nest, putting their eggs and nestlings at risk for mortality. Generally, nest failure would be a violation of CFGC Sections 3503–3513, a potentially significant impact.

Although compliance with existing state and federal regulations would prevent impacts to nesting birds, implementation of Mitigation Measure BIO-1d, would ensure that the Project would not have a significant impact on nesting birds, as described below.

Mitigation Measure BIO-1d: Nesting Bird Protection Measures.

Nesting birds and their nests shall be protected during construction by use of the following measures:

- The construction contractor shall conduct initial vegetation removal, tree trimming and removal, ground disturbance, and demolition of existing buildings outside the bird nesting season (February 1 to August 31).
- If vegetation removal, tree trimming and removal, ground disturbance, and demolition of existing buildings during the nesting season cannot be fully avoided, a qualified wildlife biologist (as determined by CDFW)[4] shall conduct pre-construction nesting surveys during the bird nesting season seven (7) or fewer days prior to the

[4] CDFW defines credentials of a "qualified biologist" within permits or authorizations issued for a project. Typical qualifications include a minimum of five years of academic training and professional experience in biological sciences and related resource management activities, and a minimum of two years of experience conducting surveys for each species that may be present within in the vicinity of the Project site.

start of such activities or after any construction breaks of 14 days or more. Surveys shall be performed for the Project site, vehicle and equipment staging areas, and suitable habitat within 250 feet in order to locate any active passerine (songbird) nests and within 500 feet of these individual sites to locate any active raptor (birds of prey) nests.

1. If active nests are located during the pre-construction nesting bird survey, the qualified wildlife biologist shall evaluate if the schedule of construction activities could affect the active nests and the following measures shall be implemented based on their determination:

    a. If construction is not likely to affect the active nest, construction may proceed without restriction; however, a qualified biologist shall regularly monitor the nest at a frequency determined appropriate for the surrounding construction activity to confirm there is no adverse effect. Spot-check monitoring frequency would be determined on a nest-by-nest basis considering the particular construction activity, duration, proximity to the nest, sensitivity of the species to disturbance, and physical barriers that may screen activity from the nest. The qualified biologist may revise his/her determination at any time during the nesting season in coordination with the City of Burlingame.

    b. If it is determined that construction may affect the active nest, the qualified biologist shall establish a no-disturbance buffer around the nest(s) and all project work shall halt within the buffer until a qualified biologist determines the nest is no longer in use. Typically, these buffer distances are 250 feet for passerines and 500 feet for raptors; however, the buffers may be adjusted due to the pre-construction disturbance level and/or if an obstruction, such as a building, is within line-of-sight between the nest and construction.

    c. Modifying nest buffer distances, allowing certain construction activities within the buffer, and/or modifying construction methods in proximity to active nests shall be done at the discretion of the qualified biologist and in coordination with the City of Burlingame, who would notify CDFW.

    d. Any work that must occur within established no-disturbance buffers around active nests shall be monitored by a qualified biologist. If adverse effects in response to project work within the buffer are observed and could compromise the nest, work within the no-disturbance buffer(s) shall halt until the nest occupants have fledged.

2. Any birds that begin nesting within the Project site and survey buffers amid construction activities shall be assumed to be habituated to construction-related or similar noise and disturbance levels and no work exclusion zones shall be established around active nests in these cases; however, should these nesting birds begin to show disturbance associated with construction activities that could result in nest failure, no-disturbance buffers shall be established as determined by the qualified wildlife biologist.

Significance after Mitigation: Implementation Mitigation Measure BIO-1d would reduce construction-related impacts by limiting construction and tree removal to the non--nesting season or by conducting pre-construction surveys for nesting birds and establishing no-disturbance buffers around any active nests until birds have fledged and are able to leave the tree to be removed or the construction area; and reporting findings to

the City prior to initiation of tree removal or construction. Therefore, implementation of Mitigation Measure BIO-1d would reduce potential for impacts to nesting birds to a less than significant level.

Operational Impacts

Operational activities associated with the proposed Project are unlikely to impact nesting birds due to the baseline level of human disturbance already occurring in and around the Project site. Birds nesting on the Project site post-construction are assumed to be habituated to such disturbance. Therefore, operational impacts would be less than significant.

Mitigation: None required.

Special-Status and Otherwise Protected Bats

Project construction during daytime hours could result in impacts to roosting bats if present in the study area. As described in Section 4.3.1, *Environmental Setting*, marginally suitable roosting habitat for crevice-roosting bats such as the pallid bat, a CDFW species of special concern, Yuma myotis, and Mexican free-tailed bat is present on the buildings and trees on the Project site. In addition, mature trees provide potentially suitable habitat for the foliage-roosting hoary bat. Bat maternity roosts are roosts occupied by pregnant females or females with non-flying young. Non-breeding roosts are day roosts without pregnant females or non-flying young. Destruction of an occupied, non-breeding bat roost, resulting in the death of bats; disturbance that causes the loss of a maternity colony of bats (resulting in the death of young); or destruction of hibernacula[5,6] are prohibited under the CFGC. Construction activities could result in direct impacts to roosting bats if they were disturbed, killed, or injured by removal or trimming of a tree or removal of a building in which they were roosting. If roosting bats are present, construction noise could result in indirect impacts due to disturbance, avoidance, or abandonment of roosts. If tree removal were to occur during periods of winter torpor[7] or maternity roosting, any bats present would likely not survive the disturbance (Tuttle, 1991). This would be a potentially significant impact. Mitigation Measure BIO-1e would reduce this potential impact to a less than significant level.

Mitigation Measure BIO-1e: Avoidance and Minimization Measures for Bats.

A qualified biologist (as defined by CDFW) who is experienced with bat surveying techniques (including auditory sampling methods), behavior, roosting habitat, and identification of local bat species shall be consulted prior to initiation of construction activities to conduct a pre-construction habitat assessment of the Project site to characterize potential bat habitat and identify potentially active roost sites. No further action is required should the pre-construction habitat assessment not identify bat habitat or signs of potentially active bat roosts within the Project site (e.g., guano, urine staining, dead bats, etc.).

The following measures shall be implemented should potential roosting habitat or potentially active bat roosts be identified during the habitat assessment in buildings to be

5 Hibernaculum refers to the winter quarters of a hibernating animal.

6 Hibernacula generally are not formed by bat species in the Bay Area due to sufficiently high temperatures year-round.

7 Torpor refers to a state of decreased physiological activity with reduced body temperature and metabolic rate.

demolished or relocated, or in trees adjacent to construction activities that could be trimmed or removed within the study area:

1. In areas identified as potential roosting habitat during the habitat assessment, initial building demolition, relocation, and any tree work (trimming or removal) shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15. These periods avoid the bat maternity roosting season and period of winter torpor.

2. If construction occurs during the roosting season, the qualified biologist shall conduct pre-construction surveys of potential bat roost sites identified during the initial habitat assessment no more than 14 days prior to building demolition or relocation, or any tree trimming or removal.

3. If active bat roosts or evidence of roosting is identified during pre-construction surveys for building demolition or tree work, the qualified biologist shall determine, if possible, the type of roost and species. A no-disturbance buffer shall be established around roost sites until the start of the seasonal windows identified above, or the qualified biologist determines roost sites are no longer active. The size of the no-disturbance buffer would be determined by the qualified biologist and would depend on the species present, roost type, existing screening around the roost site (such as dense vegetation or a building), as well as the type of construction activity that would occur around the roost site.

4. Buildings and trees with potential bat roosting habitat or active roosts shall be disturbed only under clear weather conditions when precipitation is not forecast for three days and when daytime temperatures are at least 50 degrees Fahrenheit.

5. The demolition of buildings containing or suspected to contain potential bat roosting habitat or active bat roosts shall be done under the supervision of the qualified biologist during daytime. When appropriate, buildings shall be partially dismantled to significantly change the roost conditions, causing bats to abandon and not return to the roost, likely in the evening and after bats have emerged from the roost to forage. Under no circumstances shall active maternity roosts be disturbed until the roost disbands at the completion of the maternity roosting season or otherwise becomes inactive, as determined by the qualified biologist.

6. Trimming or removal of existing trees with potential bat roosting habitat or active (non-maternity or hibernation) bat roost sites shall follow a two-step removal process (which shall occur during the time of year when bats are active, according to a) above.

    a. On the first day and under supervision of the qualified biologist, tree branches and limbs not containing cavities or fissures in which bats could roost shall be cut using chainsaws or other handheld equipment.

    b. On the following day and under the supervision of the qualified biologist, the remainder of the tree may be trimmed or removed, either using chainsaws or other equipment (e.g., excavator or backhoe).

    c. All felled trees shall remain on the ground for at least 24 hours prior to chipping, off-site removal, or other processing to allow any bats to escape, or be inspected once felled by the qualified biologist to ensure no bats remain within the tree and/or branches.

Significance after Mitigation: Implementation of Mitigation Measure BIO-1e would reduce construction-related impacts by requiring pre-construction surveys to identify active bat roosts; establishment of protective buffers until roosts are no longer in use; and, limiting the removal of trees or structures with potential bat roosting habitat to the time of year when bats are active to avoid disturbing bats during the maternity roosting season or months of winter torpor. Therefore, implementation of this mitigation measure would reduce potential impacts to roosting bats to less than significant.

Operational Impacts

Operational activities associated with the proposed project are unlikely to indirectly impact roosting bats due to the baseline level of human disturbance already occurring in and around the Project site. Bats roosting in these areas post-construction are assumed to be habituated to such disturbance and therefore, operational impacts would be less than significant.

Mitigation: None required.

Impact BIO-2: Implementation of the proposed Project would not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or have a substantial adverse effect an on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS. (*Less than Significant with Mitigation*)

As shown in **Figure 4.3-2**, the great majority of the Project site that would be impacted by development proposed under Project would be previously disturbed and developed areas. A single sensitive natural community occurs on the Project site: narrow fringes of northern coastal salt marsh occur on the edges of Easton Creek and within the remnant tidal channel in the south portion of the Project site. As described below, certain limited Project construction and/or development would impact this area.

Because this sensitive natural community is contiguous with federal and state jurisdictional wetlands and other waters on the Project site, these two CEQA topics are analyzed concurrently in the following discussion.

Construction Impacts

As discussed in Section 4.3.2, *Regulatory Setting*, San Francisco Bay is considered a navigable water of the United States and is therefore considered jurisdictional waters of the U.S. regulated by the USACE under Section 404 of the CWA up to the high tide line, and under Section 10 of the Rivers and Harbors Act up to the mean high water mark. These waters are also regulated by the RWQCB as Waters of the State and by BCDC, which has jurisdiction over all areas of San Francisco Bay that are subject to tidal action, as well as a 100-foot shoreline band. The waters of Easton Creek and the remnant tidal channel at the south end of the Project site, as well as the tidal marsh present within these features – which is also a sensitive natural community known as "northern coastal salt marsh" – are likely to be considered potential jurisdictional other waters and wetlands and are regulated by the USACE, RWQCB, and BCDC.

SOURCE: H.T. Harvey & Associates

1200-1340 Old Bayshore Highway EIR

Figure 4.3-2
Impacts Map

As part of the Project, a pedestrian bridge would be constructed over Easton Creek supported by abutments placed above the top of bank along Easton Creek; therefore, construction would occur in non-sensitive areas outside of these wetland/aquatic habitats. As a result, no direct impacts, permanent or temporary, to wetlands or other waters, or the northern coastal salt marsh sensitive natural community would result from construction of the proposed bridge.

The only Project activities that would occur within aquatic and wetland habitats consist of the replacement of the existing stormwater outfalls. That activity would require some excavation of existing material from the banks of Easton Creek, removal of the existing outfall pipes, and installation of new materials and any necessary erosion protection. Outfall replacement would result in impacts (mostly permanent) to approximately 0.001 acre of tidal salt marsh and 0.006 acre of open water/tidal aquatic habitat (H.T. Harvey & Associates, 2022). Construction-related impacts to tidal salt marsh and open water/aquatic habitats, are considered significant (in the absence of mitigation) due to the loss of such sensitive habitats that has occurred regionally and the proportionately high ecological value of wetland and aquatic habitats.

In addition, general construction activities on the Project site could result in impacts on water quality, which could degrade sensitive habitats. However, as described in Impact BIO-1, above, construction of the Project would be required to comply with the NPDES GCP to minimize water impacts during demolition and construction. Construction BMPs to protect water quality would be reviewed and coordinated with the RWQCB, as necessary, for implementation during work to ensure water quality would be protected until the Project site is stabilized.

Operational Impacts

The proposed pedestrian bridge that would be constructed over Easton Creek is expected to shade 0.010 acre of tidal salt marsh and 0.007 acre of open water/aquatic habitat. The effects of this shading would depend on the height of the bridge and the materials used to construct the bridge; for example, bridge decking that allows light penetration would reduce the effects of shading on vegetation below. Nevertheless, it is possible that vegetation in 0.010 acre of tidal salt marsh and 0.005 acre of ruderal levee slope could be lost due to shading (shading of 0.007 acre of open water is not expected to result in a substantial adverse effect on vegetation or other biological resources) (H.T. Harvey & Associates, 2022).

Shading from buildings constructed on either side of Easton Creek, and north of the wetland in the southern part of the site, could have a minor effect on vegetation in wetlands. The buildings on either side of Easton Creek are proposed to be 214 feet, 6 inches from average curb to top of the roof mechanical screen. Although the lower one to two floors may be as close as approximately 50 feet from the top of the creek's banks, the taller portions are expected to be approximately 60 feet or more from the banks. Being situated on the northwest and southeast sides of the creek, these buildings will cast a shadow over the creek at times. However, the setbacks between the buildings and the creek, and the eastern and western exposure of the creek to the sun (without shading from buildings), are expected to minimize any adverse effects of shading from buildings on wetlands along Easton Creek.

The building that would be constructed on the north side of the wetland in the southern part of the site would measure 210 feet, 6 inches from average curb to top of the roof mechanical screen, would provide some shading of the wetland during the summer when the sun is more northerly in the sky. However, the wetland would be open to the sky to the east, south, and west, and is expected to receive enough light that shading from the buildings would not result in substantial adverse effects on wetland vegetation.

In addition, construction could result in impacts to water quality, which would degrade these sensitive habitats. As described under Impact BIO-1, Mitigation Measures BIO-1a and BIO-2 would reduce such water-quality impacts to less-than-significant levels. As discussed in Impact BIO-1, above, pollutants in stormwater runoff from urban development would have the potential to negatively affect water quality. Stormwater runoff from the types of urban uses proposed under the Project is regulated under MRP. The Project applicant would be required to demonstrate compliance with MRP requirements to protect water quality.

Compliance with the NPDES CGP, the RWQCB MRP, and implementation of Mitigation Measures BIO-2a and BIO-2b would reduce construction and operational impacts to state or federally protected wetlands and sensitive natural communities (i.e., northern coastal salt marsh) to a less than significant level.

Mitigation Measure BIO-2a: In-Situ Restoration of Temporary Impacts.

Although much of the impact on tidal salt marsh and open water/tidal aquatic habitat in Easton Creek resulting from outfall replacement will be permanent, some of the impacts may be temporary, occurring only during removal of the existing outfalls and installation of new ones. All temporarily impacted areas (i.e., areas where new hardened material will not be placed) will be restored by the Project applicant or designee following construction by restoring topography and soils to pre-project conditions. The sparse pickleweed habitat along Easton Creek is likely to become recolonized easily without the need for seeding and planting, as long as the existing hydrology and topography are restored following temporary impacts.

Mitigation Measure BIO-2b: Compensatory Mitigation for Permanent Impacts.

The Project applicant will provide compensatory mitigation for permanent loss of tidal salt marsh and open water/tidal aquatic habitat resulting from direct fill from outfall replacement, and for potential loss of tidal salt marsh from shading from bridges. The Project applicant will provide new wetland or aquatic habitat of the same type that was impacted to offset this impact, either through the creation, enhancement, or restoration of wetlands in an appropriate location or via the purchase of mitigation credits in a USACE, BCDC, and/or RWQCB-approved wetland mitigation bank. The purchase of such credits at a 1:1 ratio, on an acreage basis, or as specified by any state or federal permitting agencies, shall serve as full mitigation for impacts to these wetland features. If project-specific creation, enhancement, or restoration of wetland habitat is implemented, habitat will be restored or created at a minimum ratio of 1:1 (compensation: impact) on an acreage basis, or as otherwise required by any state or federal permitting agencies. USACE, BCDC, and/or RWQCB approvals may be required to authorize permanent impacts to this feature.

If compensatory mitigation is not provided by purchasing mitigation credits from a USACE- or RWQCB-approved wetland mitigation back, then, the Project applicant will provide compensation by creating, enhancing, or restoring wetland habitat so as to achieve the 1:1 ratio somewhere in San Mateo County, or as otherwise required by any state or federal permitting agencies. A qualified biologist shall develop a "Wetland Mitigation and Monitoring Plan" describing the mitigation, which will contain the following components (or as otherwise modified by regulatory agency permitting conditions):

- Summary of habitat impacts and proposed mitigation ratios
- Goal of the restoration to achieve no net loss of habitat functions and values
- Location of mitigation site(s) and description of existing site conditions
- Mitigation design:
  - Existing and proposed site hydrology
  - Grading plan if appropriate, including bank stabilization or other site stabilization features
  - Soil amendments and other site preparation elements as appropriate
  - Planting plan
  - Irrigation and maintenance plan
  - Remedial measures and adaptive management
- Monitoring plan (including performance criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule). Success criteria will include quantifiable measurements of wetland vegetation type (e.g., dominance by natives) and extent appropriate for the restoration location, and provision of ecological functions and values equal to or exceeding those in the wetland habitat affected. At a minimum, success criteria will include following:
  - At Year 5 post-mitigation, at least 75 percent of the mitigation site for tidal salt marsh will be dominated by native hydrophytic vegetation.

The Wetland Mitigation and Monitoring Plan must be approved by the City of Burlingame prior to the wetland impacts, and implementation of the Plan must begin within one year after the discharge of fill into or construction of a bridge over tidal salt marsh or open water/tidal aquatic habitat.

Significance after Mitigation: Implementation of Mitigation Measures BIO-2a and BIO-2b would reduce temporary impacts to tidal salt marsh and open water/tidal aquatic habitat by requiring in-situ restoration of topography and soils to pre-project conditions, which will allow tidal marsh vegetation to be passively recruited; and reduce permanent impacts to tidal salt marsh and open water/tidal aquatic habitat by providing new wetland or aquatic habitat of the same type that was impacted through the creation, enhancement, or restoration of wetlands or via the purchase of mitigation credits, and by implementing a Wetland Mitigation and Monitoring Plan, including success criteria. Therefore, implementation of these mitigation measures would reduce potential impacts to less than significant.

Impact BIO-3: Implementation of the proposed Project would not interfere substantially with the movement of a 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. (*Less than Significant*)

Nursery sites used by nesting birds and bat maternity colonies could be impacted by construction of the proposed Project. These potential impacts are discussed under Impact BIO-1.

Given the developed condition of the Project site and its immediate surroundings, the Project site does not provide valuable movement pathways for non-flying wildlife, such as raccoon, striped skunk, and opossum, which likely move through the Project site opportunistically. Such movement would not constitute use of a wildlife movement corridor since the Project site does not link habitat patches, nor does it provide valuable or unique dispersal habitat in the context of its location. However, the Project site is located within the Pacific Flyway along the western shoreline of San Francisco Bay, which is a significant migratory corridor for birds. This potential impact to birds is discussed below.

Construction Impacts

Currently, the Project site provides minimal opportunity for migratory birds to find resting or foraging habitat during migration. Migrating birds may find these opportunities within Easton Creek in the Project site, or along the Bay shoreline adjacent to the Project site; however, these habitats are very limited and the number of individuals using them is expected to be low. While temporary construction-related impacts to these species' movements through the Project site could occur, construction of the proposed Project will ultimately provide more foraging and resting habitat for migrating birds due to an increase in trees and landscaping; therefore, construction-related impacts to wildlife movement would be less than significant.

Mitigation: None required.

Operational Impacts

As mentioned above, the Project site is located within the Pacific Flyway along the western shoreline of San Francisco Bay. Although specific migratory corridors near the Project site are unknown, it can be assumed that numerous birds pass overhead or in the project vicinity during their spring and fall migrations. Existing buildings on the Project site range between one and three stories tall (approximately 15 to 60 feet high). Existing buildings in the vicinity of the Project site range between two and nine stories tall (the tallest being the 7-story Kahala Tower, 9-story Hyatt Regency Hotel and 9-story One Bay Plaza), and approximately 16 to 120 feet height. The heights of the Project's buildings are planned to be up to 11 stories tall (the tallest being 214 feet, 6 inches from average curb to top of the roof mechanical screen).

For new buildings, reflective building façades that are generally located in a clear flight path from water features, such as San Francisco Bay, can create hazards for birds. The portion of buildings most likely to sustain bird strikes extends from ground level to 60 feet above the ground surface (San Francisco Planning Department, 2011). The proposed Project would result in a net increase the amount of building glass exterior surfaces in the built environment. Daytime collisions with glass occur most often when birds fail to recognize window glass because it reflects the sky,

clouds, and vegetation in the absence of protective window treatments (e.g., frit) or because the glass is transparent (e.g., in the case of skywalks, or glass corners in buildings). Other potential feature-related hazards new development can pose to birds include glass courtyards, transparent building corners, or freestanding glass walls on rooftops or balconies.

Many bird collisions are also induced by artificial night lighting, particularly from large buildings, which can be especially problematic for migrating songbirds because many are nocturnal migrants (Ogden, 1996). Research suggests that fatal bird collisions increase as light emissions increase (Verheijen, 1981). Local birds can become attracted to lights, causing them to collide with lights or illuminated structures. Migrating birds can become disoriented by lights, causing them to change their flight direction. Additionally, depending on the location, direction, and intensity of exterior lighting for buildings, parking lots, and pathways, lighting from the proposed Project could potentially spill into adjacent natural areas such as San Francisco Bay and Easton Creek. If lighting were to increase in these areas, animals using these locations may be subject to increased predation, decreased habitat availability, or behavioral changes.

Direct effects on migratory and resident birds moving through an area could include death or injury if birds collide with lighted structures or with glass during the daytime or nighttime. Indirect effects on migratory birds could include delayed arrival at breeding or wintering grounds, and reduced energy stores necessary for migration, winter survival, or subsequent reproduction (Gauthreaux and Belser, 2006). Because of the location of the proposed Project is in proximity to San Francisco Bay, the impact of the proposed Project on movement corridors for native wildlife could be potentially significant in terms of building collisions, if adequate bird safe design features were not included in the Project. Increased lighting associated with the proposed Project is not expected to be a significant impact because the Project site is located in a generally urban industrial setting and surrounded by other light sources that contribute to ambient light levels at night. In addition, the Project will comply with City of Burlingame Municipal Code 18.16.030, which will prohibit light spillage in the Bay (see also Section 4.1, *Aesthetics* for additional detail on potential lighting impacts). Because Easton Creek within the Project site is of marginal quality and likely supports relatively the movements of low numbers of urban-adapted wildlife species, of which none are of conservation concern, incremental increases in ambient light on Easton Creek would not constitute a significant impact to biological resources.

As described in Chapter 3, *Project Description*, under *Bird Safe Design*, the Project would include a number of building architectural and landscaping features with respect to bird safe design to reduce the potential for bird strikes. Several key bird safe design criteria related to the exterior buildings surfaces include: use of glazing of 15 percent reflectivity or lower; use of opaque materials limiting any non-bird-friendly glazing to no more than 10 percent within the bird collision zone (0 to 60 feet); and use of fritted dots patterns on glazing of a size/design consistent with the American Bird Conservancy (ABC) threat factor rating system. Notable bird safe design criteria related to the landscaping include: use of minimal landscaping inside buildings near glass and in front of heavily glazed facades around the ground level building perimeters; and restricting landscaping on upper level-terraces and roof decks to low-growing or shrub species with minimal visibility through perimeter facades. With respect to night lighting, the Project would be required to comply with Burlingame Municipal Code 18.16.030 to prevent light spillage beyond the Project

site. In addition, as demonstrated by the Project's proposed photometric plan, the Project design would use higher light levels in the area adjacent to Old Bayshore Highway and decrease light levels closer to the Bay.

Incorporating these bird-safe design elements into the Project design would reduce the operational impacts to migrating birds to a less than significant level, with no mitigation required.

Mitigation: None required.

Impact BIO-4: Implementation of the proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (*Less than Significant*)

The proposed Project would require removal of 62 existing trees within the Project site to accommodate the proposed redevelopment of the site. As described in Chapter 3, *Project Description*, the Project also plans to plant 230 new trees in the Project site.

Some of the existing trees to be removed may meet the definition of "protected" trees under the City of Burlingame Tree Ordinance. Per the Tree Ordinance, permits from the City's planning and building department and payment of a fee are required for the removal of any trees that meet the definition of "protected" tree, as defined in Section 4.3.2, above. Any City street trees, or private protected ordinance-sized trees to be removed may require replacement with newly planted trees according to the discretion of City's Parks and Recreation Department at a ratio of 1:1.

In accordance with the provisions of the City of Burlingame tree protection ordinance, the Project will comply with standard City of Burlingame tree removal permit conditions and replace trees that are removed in accordance with these tree removal policies. Such compliance will reduce any potential impacts due to conflicts with the City's tree preservation ordinance to a less than significant level.

Mitigation: None required.

Cumulative Impacts

This analysis evaluates whether the impacts of the proposed Project, together with the impacts of cumulative development, would

1) have a cumulatively considerable impact on special-status species, wetlands, or other waters of the United States; or

2) on other biological resources protected by federal, state, or local regulations or policies (based on the significance criteria and thresholds presented earlier).

This analysis then considers whether the incremental contribution of the proposed Project to this cumulative impact would be considerable. Both conditions must apply for a Project's cumulative effects to be significant.

The geographic scope of potential cumulative impacts to biological resources encompasses the Project site and biologically linked areas such as the greater San Francisco Bay. Past projects in this context—including the development of civic facilities, residences, commercial and industrial areas, and infrastructure—have already caused substantial adverse cumulative changes to biological resources in the study area. This includes the engineering of Easton Creek to allow urban development over and around this waterway, and the loss of the riparian corridors and floodplains to urban encroachment.

The cumulative projects considered in this EIR are summarized in Section 4.0.4, under *Cumulative Impact Analysis*. There are three cumulative commercial or residential development projects located within one-half mile of the Project site, which are smaller in scale and lower in building height than the proposed Project. None of these cumulative projects have the potential to impact Easton Creek and its associated marsh. The majority of cumulative projects in the city are located east of Bayshore Highway and only one is located on open water that drains to the Bay (Anza Lagoon), approximately 1 mile from the Proposed project.

Because, as discussed in Impact BIO-3 and Impact BIO-4, potential impacts of the proposed Project to interfere with movement of a native resident or migratory fish or wildlife species, and to conflict with local policies or ordinances protecting biological resources, would be less than significant, they would not contribute impacts that are cumulatively considerable when combined with cumulative projects.

The potential for cumulatively considerable impacts associated with nesting birds, special-status and otherwise protected bats, and jurisdictional wetlands and other waters are analyzed below.

Impact C-BIO-1: Implementation of the proposed Project, in combination with past, present, and reasonably foreseeable future development, would not have a substantial adverse effect, either directly, indirectly, or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS (special-status fish, nesting birds, special-status roosting bats). (*Less than Significant with Mitigation*)

Special-Status Fish

As discussed in Impact BIO-1, potential construction impacts of the proposed Project on special-status fish (i.e., steelhead) are limited to impacts from construction activity in Easton Creek. Impacts to special-status fish during construction would be reduced to less than significant with compliance with the NPDES CGP, and with implementation of Mitigation Measures BIO-1a through BIO-1c, which would require conducting worker environmental awareness program; limiting all in-water work to the specific seasonal windows; and installation of a coffer dam to limit the potential for fish stranding. With these mitigation measures, potential Project construction impacts to special-status fish species would be minor and short-term. Cumulative projects in the region that occur within potential special-status fish habitat and EFH, potentially

including flood control, shoreline repairs, or riparian enhancement projects, would be required to implement similar measures to protect special-status fish. With implementation of these measures, the Project, in combination with cumulative projects, would not cause or contribute to a cumulatively considerable impact to special-status fish and impacts would be less than significant.

As discussed in Impact BIO-1, with compliance with the Municipal Regional Stormwater NPDES Permit (MRP) to protect water quality, operational impacts related to the proposed Project to special-status fish would be less than significant; therefore, they would not cause or contribute to a cumulatively considerable impact to this biological resource, and impacts would be less than significant.

Birds Protected by the MBTA and Special-Status and Protected Bats

As discussed in Impact BIO-1impacts to birds protected by the MBTA and special-status and otherwise protected bats would be reduced to less than significant by implementing Mitigation Measures BIO-1d and BIO-1e, which require avoidance during the nesting bird season or conducting a pre-construction nesting surveys for birds and bat habitat and roosts. With these mitigation measures, potential construction impacts to birds protected by the MBTA and bats would be less than significant. Cumulative projects in the region that occur within special-status and protected birds and bats would be required to implement similar measures to protect these biological resources. With implementation of these measures, the Project, in combination with cumulative projects, would not cause or contribute to a cumulatively considerable impact to special-status and protected birds and bats and impacts would be less than significant.

As discussed in Impact BIO-1, operational impacts related to the proposed Project to special-status birds and bats would be less than significant; therefore, they would not cause or contribute to a cumulatively considerable impact to this biological resource, and impacts would be less than significant.

Impact C-BIO-2: Implementation of the proposed Project, in combination with past, present, and reasonably foreseeable future development, would not have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means; would and would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS. (*Less than Significant with Mitigation*)

As discussed in Impact BIO-2, impacts to wetlands and other waters and the northern coastal salt marsh sensitive natural community would be reduced to less than significant with compliance with the NPDES GCP to and with implementation of Mitigation Measures BIO-1a, which would require conducting worker environmental awareness program. In addition, Mitigation Measures BIO-2a would require in-situ restoration of temporary impacts, and Mitigation Measure BIO-2b would require compensatory mitigation for permanent impacts. and implementation of a monitoring plan. Lastly, compliance with MRP requirements would ensure protection of water

quality during project operation. With these measures, potential construction and operational impacts to wetlands and other waters, and the northern coastal salt marsh sensitive natural community would be less than significant. Cumulative projects in the region that could potentially impact wetlands and other waters would be required to implement similar measures to protect these biological resources. With implementation of these measures, the Project, in combination with cumulative projects, would not cause or contribute to a cumulatively considerable impact to wetlands and other waters and impacts would be less than significant.

Conclusion

When considered within the existing condition of biological resources in the Project site and the greater Bay Area in the context of past, present, and reasonably foreseeable similar projects, the proposed project would add only a very minor, incremental contribution to impacts to birds protected by the MBTA, special-status and other protected bat species, wetlands, and other waters. The proposed Project's contribution would not be cumulatively considerable. Therefore, in combination with past, present, and reasonably foreseeable future projects, the proposed project's cumulative effects on biological resources would be less than significant with the following mitigation measures incorporated:

> **Mitigation:** Implement Mitigation Measure BIO-1a, BIO-1b, BIO-1c, BIO-1d, BIO-1e, BIO-2a, and BIO-2b.
>
> **Significance after Mitigation:** Less than Significant.

4.3.4 References

California Department of Fish and Wildlife (CDFW), 2022. California Natural Diversity Database (CNDDB) printout for U.S. Geological Survey 7.5-minute topographic quadrangles: Benicia, Walnut Creek, Vine Hill, Honker Bay, Briones Valley, Clayton, Oakland East, Las Trampas Ridge, and Diablo, 2021. Accessed October 20, 2022.

CDFW, *CDFW and California Attorney General Xavier Becerra Advisory Affirming California's Protections for Migratory Birds*, November 29, 2018, https://nrm.dfg.ca.gov/.

California Native Plant Society (CNPS), 2022. CNPS Rare Plant Program, Online Inventory of Rare and Endangered Plants of California (online editions, v9-01 1.0). Available online: https://www.rareplants.cnps.org/. Accessed October 20, 2022.

City of Burlingame, 2019. *Burlingame General Plan: Envision Burlingame*. Adopted January 2019.

Environmental Science Associates (ESA), 2020. 1300 Old Bayshore Highway SFO@Technology Center Initial Study/Mitigated Negative Declaration. February 2020.

Gauthreaux, S. A., and C. G. Belser, Effects of Artificial Night Lighting on Migrating Birds, in *Ecological Consequences of Night Lighting, eds. C. Rich and T. Longcore*, Covelo, CA: Island Press, 2006.

H.T. Harvey & Associates, 2022. 1200-1340 Old Bayshore Highway Project Biological Resources Report. July 22, 2022.

Holland, R. F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*, California Department of Fish and Game.

Ogden, L. E., *Collision Course: The Hazards of Lighted Structures and Windows to Migrating Birds, Special Report for the World Wildlife Fund Canada and the Fatal Light Awareness Program*, September 1996. Available at https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1002&context=flap.San Francisco Planning Department, *Standards for Bird-Safe Buildings*, adopted July 14, 2011.

Tuttle, M., 1991. How North America Bats Are at Their Most Vulnerable during Hibernation and Migration, *BATS Magazine* 9(3), fall 1991, https://sj-admin.s3-us-west-2.amazonaws.com/1991_0000_Tuttle_HowNorthAmericanBats.pdf, accessed April 28, 2021.

U.S. Fish and Wildlife Service (USFWS), 2022a. *Official List of Federal Endangered and Threatened Species that Occur in or May Be Affected by the Project*. Accessed December 22, 2022.

U.S. Fish and Wildlife Service (USFWS), 2022b. ECOS Environmental Conservation Online System Critical Habitat Mapper, 2010. Available at https://ecos.fws.gov/ecp/report/table/critical-habitat.html. Accessed December 14, 2022.

Verheijen, F. J., Bird Kills at Lighted Man-Made Structures: Not on Nights Close to a Full Moon, *American Birds* 35(3):251–254, 1981.

4.4 Cultural Resources, including Tribal Cultural Resources

This section assesses the potential for the Project to impact cultural resources, including historic architectural resources, historic-era and pre-contact archaeological resources, and human remains; and impacts to tribal cultural resources. The section includes the physical and regulatory setting, the criteria used to evaluate the significance of potential impacts, the methods used in evaluating these impacts, and the results of the impact assessment.

The information and analysis in this section is based on a review of the Project; applicable local policies and regulations; a records search conducted at the records search conducted by FirstCarbon Solutions at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) in February, 2022; the *Historic Built Environment Assessment* (Historic Resource Evaluation) prepared by South Environmental in support of the Project in April 2022; and the Department of Parks and Recreation (DPR) 523 form sets prepared by ESA in 2017 for five of the existing buildings on the Project site (1288, 1290, 1300-1308, 1310 and 1338-1340 Old Bayshore Highway). The 2022 Historic Resource Evaluation, the 2017 DPR 523 forms, and the 2022 Historic Resources Technical Memo are included as **Appendix CUL**.

In response to the Notice of Preparation of a Draft EIR for the Project, the City received scoping comments from the Native American Heritage Commission (NAHC) that recommended, pursuant to Public Resources Code (PRC) Section 21080.3 (Assembly Bill [AB] 52), that the City conduct consultation with tribes that are culturally affiliated with the Project site. The NAHC also recommended that the City conduct a cultural resources records search of CHRIS and that an archaeological inventory survey report be prepared along with a search of the NAHC's Sacred Lands File (SLF). As discussed further, below, the City has conducted Native American outreach and consultation efforts in accordance with the requirements of AB 52.

In this document, the term *indigenous*, rather than *prehistoric*, is used as a synonym for Native American-related (except when quoting), and *pre-contact* is used as a chronological adjective to refer to the period prior to Euroamerican arrival in the area. Indigenous and pre-contact are often, but not always, synonymous, since the former refers to a cultural affiliation and the latter chronological.

4.4.1 Environmental Setting

This section provides an overview of the ethnographic, pre-contact archaeological, and historic setting of the Project site.

Archaeological Setting

Categorizing the pre-contact period into broad cultural stages allows researchers to describe a broad range of archaeological resources with similar cultural patterns and components during a given time frame, thereby creating a regional chronology. Archaeologists developed individual cultural chronological sequences tailored to the archaeology and material culture of each

subregion of California. Each of these sequences is based principally on the presence of distinctive cultural traits and stratigraphic separation of deposits. Milliken et al. provide a framework for the interpretation of the San Francisco Bay Area (2007). The authors divided human history in California into three periods: the *Early Period*, the *Middle Period*, and the *Late Period*. In many parts of California four periods are defined; the fourth being the *Paleoindian Period* (11500–8000 B.C.), characterized by big-game hunters occupying broad geographic areas. Evidence of human habitation during the Paleoindian Period has not yet been discovered in the San Francisco Bay Area. Economic patterns, stylistic aspects, and regional phases further subdivide cultural periods into shorter phases. This scheme uses economic and technological types, socio-politics, trade networks, population density, and variations of artifact types to differentiate between cultural periods.

Ethnographic Setting

A compilation of ethnohistorical, historical, and archeological data indicates that the San Francisco peninsula was inhabited by a cultural group known as the Ohlone before the arrival of Europeans (Milliken, 1995). Levy describes the language group spoken by the Ohlone (often referred to as "Costanoan" in the literature) (Levy, 1978). This term is originally derived from a Spanish word designating the coastal peoples of Central California. Today Costanoan is used as a linguistic term that refers to a larger language family that included distinct sociopolitical groups that spoke at least eight languages of the Penutian language group. The Ohlone once occupied a large territory from San Francisco Bay in the north to the Big Sur and Salinas Rivers in the south. The Ohlone in the area, including the Project site, spoke Ramaytush, a term that was later adopted as an ethnonym for the Ohlone people who spoke this dialect. During the Mission Period (1770 to 1835), native populations, especially along the California coast, were brought—usually by force—to the missions by the Spanish missionaries to provide labor. Following the secularization of the missions by the Mexican government in the 1830s, most Native Americans gradually left the missions and established rancherias in the surrounding areas (Levy, 1978). After European contact, Ohlone life ways were severely disrupted by missionization, disease, and displacement. Today the Ohlone still have a strong presence in the San Francisco Bay Area and are very interested in their historic and pre-contact past.

Historic Setting

The Burlingame shoreline area was historically marsh and tidal lands. This stretch of shoreline was filled in over the course of the 1950s and 1960s, and industrial and commercial development occurred over the following decades spurred by its proximity to the San Francisco International Airport (SFO). An aerial photo from 1946 shows the area as part of the San Francisco Bay, with no development north or east of Old Bayshore Highway. By 1954, some of the tidelands in the vicinity had been filled. A 1956 aerial photo shows that a section of the tidelands had been filled in approximately from modern-day Anza Boulevard at Old Bayshore Freeway on the east to Millbrae Avenue on the west. The area was originally intended to be a mix of uses, but shifted more towards hotels and other uses that catered to the growing air traffic at SFO.

Native American Contact

In accordance with the requirements of AB 52, the City staff conducted Native American outreach and consultation efforts. On December 2, 2022, the City sent tribal outreach letters to the eight Native American representatives from six tribes that were identified by the NAHC as tribal representatives that may have information on the Project site.

No tribes responded to the City's tribal consultation efforts to request consultation within 30 days, and no responses have been received as of the publication date of this Draft EIR.

4.4.2 Regulatory Framework

Federal

Under federal law, historical and archaeological resources are considered through the National Historic Preservation Act (NHPA) of 1966, as amended (54 U.S.C. 306108), and its implementing regulations. Before an "undertaking" (e.g., federal funding or issuance of a federal permit) is implemented, Section 106 of the NHPA requires federal agencies to consider the effects of the undertaking on historic properties (i.e., properties listed in or eligible for listing on the National Register) and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on any undertaking that would adversely affect properties eligible for listing in the National Register. Under the NHPA, a property is considered significant if it meets the National Register listing Criteria A through D, at 36 Code of Federal Regulations 60.4, as follows:

> The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and that:
>
> a) Are associated with events that have made a significant contribution to the broad patterns of our history, or
>
> b) Are associated with the lives of persons significant in our past, or
>
> c) Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
>
> d) Have yielded, or may be likely to yield, information important in prehistory or history.

For a resource to be eligible for listing on the National Register, it must also retain enough integrity to be recognizable as a historic property and to convey its significance. Resources that are less than 50 years old are generally not considered eligible for listing on the National Register.

Federal review of the effects of undertakings on significant cultural resources is carried out under Section 106 of the NHPA and is often referred to as "Section 106 review." This process is the responsibility of the federal lead agency and occurs when an undertaking involves federal funding or a federal approval action. Section 106 review typically involves a four-step procedure, which is

described in detail in the implementing regulations of the NHPA (36 Code of Federal Regulations 800):

- Define the Area of Potential Effects in which an undertaking could directly or indirectly affect historic properties;
- Identify historic properties in consultation with the State Historic Preservation Office and interested parties;
- Assess the significance of effects of the undertaking on historic properties; and
- Consult with the State Historic Preservation Officer, other agencies, and interested parties to develop an agreement that addresses the treatment of historic properties and notify the Advisory Council on Historic Preservation and proceed with the project according to the conditions of the agreement.

There are no federal laws or regulations specifically related to tribal cultural resources.

State

The State of California implements the NHPA of 1966, as amended, through its statewide comprehensive cultural resource surveys and preservation programs. The California Office of Historic Preservation, as an office of the California Department of Parks and Recreation, implements the policies of the preservation act on a statewide level. The Office of Historic Preservation also maintains the California Historical Resources Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the state's jurisdiction.

CEQA and the California Register of Historical Resources

The California Register is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1[a]). Certain resources are determined by the statute to be automatically included in the California Register, including those formally determined eligible for or listed in the National Register (PRC 5024.1[d][1]). These resources are termed "historical resources."

Based on Section 15064.5(a) of the CEQA Guidelines, historical resources include, but are not limited to, any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant or that is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Generally, a resource is considered by a lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register (PRC Section 5024.1), or qualifies as a "unique historical resource" (PRC Section 21083.2).

To be eligible for listing on the California Register, a cultural resource must meet one or more of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

For a resource to be eligible for listing on the California Register, it must also retain enough integrity of location, design, setting, materials, workmanship, feeling, and association to be recognizable as a historical resource and to convey its significance. Resources that are less than 50 years old are generally not considered eligible for listing on the California Register.

Impact assessment under CEQA considers only historically significant cultural resources; that is, resources that meet CEQA criteria for eligibility to the California Register (historical resources) or qualify as unique archaeological resources, as detailed below. Impacts on resources that do not meet these criteria are not considered in impact assessment under CEQA. Similarly, for projects with federal involvement, only resources that meet the criteria of eligibility for the National Register receive further consideration in impact analysis.

CEQA considers archaeological resources as an intrinsic part of the physical environment and thus requires that, for any project, the potential of the project to adversely affect archaeological resources be analyzed (CEQA Section 21083.2). For a project that may have an adverse effect on a significant archaeological resource, CEQA requires preparation of an environmental impact report (CEQA Section 21083.2 and CEQA Guidelines Section 15065). CEQA recognizes two different categories of significant archaeological resources: "unique" archaeological resource (CEQA Section 21083.2) and an archaeological resource that qualifies as a "historical resource" under CEQA (CEQA Section 21084.1 and CEQA Guidelines Section 15064.5).

Health and Safety Code, Sections 7052 and 7050.5

Section 7052 of the Health and Safety Code states that the disturbance of Native American cemeteries is a felony. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the NAHC.

Public Resources Code Sections 21074, 21080, 21083 (Assembly Bill 52)

In September 2014, the California Legislature enacted AB 52, which added provisions to the PRC regarding the evaluation of impacts on tribal cultural resources under CEQA, and consultation requirements with California Native American tribes. In particular, AB 52 requires lead agencies to analyze project impacts on tribal cultural resources (PRC Sections 21074 and 21083.09). The law defines tribal cultural resources in a new section, PRC Section 21074. AB 52 also requires

lead agencies to engage in additional consultation procedures with respect to California Native American tribes (PRC Sections 21080.3.1, 21080.3.2, and 21082.3).

PRC Section 21084.3 addresses mitigation for tribal cultural resources impacts as follows:

a) Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.

b) If the lead agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process provided in Section 21080.3.2, the following are examples of mitigation measures that, if feasible, may be considered to avoid or minimize the significant adverse impacts:

    1. Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

    2. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

        - Protecting the cultural character and integrity of the resource.
        - Protecting the traditional use of the resource.
        - Protecting the confidentiality of the resource.

    3. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

    4. Protecting the resource.

Local

City of Burlingame General Plan

The City of Burlingame General Plan, *Envision Burlingame*, is the guiding document for the city's physical development. It includes detailed goals, policies and implementation programs that convey a long-term vision and guide local decision-making to achieve that vision. The General Plan Chapter IV, Community Character, provides goals and policies for historic preservation.

Chapter IV. Community Character

Goal CC-3: Protect the character and quality of Burlingame's historical buildings, tree groves, open spaces, neighborhoods, and districts.

Policy CC-3.2: Historic Evaluation Approaches. Evaluate options for identifying potential historic resources, both to allow property owners to utilize historic preservation incentives and as a consideration in development review.

Policy CC-3.3: Historic Preservation Standards and Guidelines. When a structure is deemed to have historic significance, use the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating,*

Restoring, and Reconstructing Historic Buildings when evaluating development applications and City projects, or development applications that may affect scenic views or the historic context of nearby historic resources.

Policy CC-3.4: Flexible Land Use Standards. Maintain flexible land use standards to allow the adaptive reuse of identified historical buildings with a variety of economically viable uses while minimizing impacts to the historical value and character of sites and structures.

Policy CC-3.6: State Historic Building Code. Promote the use of the State Historic Building Code to facilitate the reuse and conversion of historical buildings to alternative uses.

Policy CC-3.10: Demolition of Historical Resources. Prohibit the demolition of officially designated historical resources unless one of the following findings can be made:

- The rehabilitation and reuse of the resource is not structurally or economically feasible.
- The demolition is necessary to protect the health, safety, and welfare of the public.
- The public benefits of demolition outweigh the loss of the historical resource.

City of Burlingame Historic Preservation Ordinance

The goal of the City's Historic Preservation Ordinance (Chapter 25.35 of the Burlingame City Municipal Code) is to implement the policies in the General Plan and Chapter 6.0-Historic Preservation of the Burlingame Downtown Specific Plan.

City of Burlingame Historic Architectural and Places Resources Register

The City's Historic Preservation Ordinance (Chapter 25.35.040) requires the City to create and maintain a "register of historic architectural resources and historic places" (City of Burlingame, 2022). To be eligible for the Historic Architectural and Places Resources Register (Register) a property must meet one or more the following criterion:

1. Buildings, structures, or places that are important key focal or pivotal points in the visual quality or character of an area, neighborhood, or survey district.
2. Structures that help retain the characteristics of the town with respect to the immediate surroundings.
3. Structures that contribute to the unique urban quality of a downtown, for properties located within the Downtown Specific Plan.
4. Structures contributing to the architectural continuity of the street.
5. Structures that are identified with an event or person who significantly contributed to the culture and/or development of the City, State, or nation.
6. Structures that represent an architectural type or period and/or represent the design work of known architects, draftsmen, or builders whose efforts have significantly influenced the heritage of the City, State, or nation.
7. Structures that illustrate the development of California locally and regionally.

8. Buildings retaining the original integrity of and/or illustrating a given period.
9. Structures unique in design or detail, such as, but not limited to, materials, windows, landscaping, plaster finishes, and architectural innovation.
10. Structures that are at least 50 years old or properties that have achieved significance within the past 50 years, at the time the determination is made, if they are of exceptional importance.
11. Places that have been visited by a person or persons important to City, State, national, or international history or prehistory.

4.4.3 Cultural Resources Identified within the Study Area

Identification of Known Cultural Resources

FirstCarbon Solutions completed a records search at the NWIC of the CHRIS on February 17, 2022. The review included the Project site and a 0.5-mile buffer. Previous surveys, studies, and site records were accessed. Records were also reviewed in the Built Environment Resources Directory (BERD) for San Mateo County, which was last updated in September 2022 and contains information about places of recognized historical significance including those evaluated for listing on the National Register, the California Register, the California Inventory of Historical Resources, California Historical Landmarks, and California Points of Historical Interest. The purpose of the records search was to (1) determine whether known cultural resources have been recorded within the Project vicinity; (2) assess the likelihood for unrecorded cultural resources to be present based on historical references and the distribution of nearby sites; and (3) develop a context for the identification and preliminary evaluation of cultural resources.

NWIC records indicate that 20 previous technical studies have been performed within the records search area. However, none of these studies intersect portions of the Project site. The records search also indicated that no cultural resources have been recorded in the Project site, and 31 cultural resources have been previously recorded within the 0.5-mile buffer.

Potential for Unknown Buried Cultural Resources

As part of an archaeological sensitivity analysis, ESA reviewed historic maps and aerial photography, geology and soils maps for the proposed Project site. This analysis found that the Project site and the vicinity has historically experienced heavy urban development, including residential and commercial subdivisions and infrastructure to accommodate a growing population and escalating settlement patterns. In general, the Project site was underwater until the 1950s when fill was added to expand the shoreline. Between the mid-1950s and late-1960s, the buildings within the Project site were constructed and the majority of the Project site was either paved or built over.

As discussed in Section 4.6, *Geology and Soils*, based on preliminary geotechnical field investigations performed, the surficial geology within the Project site is composed entirely of artificial fill with Holocene-age Bay Mud below, and underlain by native alluvial Holocene-age deposits. Given this context, the distance to previously recorded archaeological resources, and evidence of previous disturbance of the Project site based on the presence of modern fill, the

Project site's sensitivity for pre-contact archaeological resources and historic-era archaeological resources is low.

Architectural Analysis

The Project site includes eight historic-age buildings. All of the buildings have been evaluated for eligibility as historical resources under the National Register of Historic Places, California Register of Historical Resources, and City of Burlingame Historic Architectural Resources Inventory criteria. ESA evaluated five of the buildings in 2017.On December 11, 2022, ESA conducted a field check of those five buildings evaluated in 2017 and determined that the buildings are still present and that the conditions of those buildings had not substantially changed. South Environmental evaluated the other three buildings at the Project site in 2022. ESA reviewed this report and concurred with the findings. **Table 4.4-1** below summarizes the results of the evaluations for the eight historic-age buildings on the Project site followed by a brief description of each building that has been taken from their respective evaluations. Appendix CUL includes the South Environmental report as well as the DPR523 forms prepared by ESA, which include the full technical analysis of each building.

TABLE 4.4-1
HISTORIC STATUS OF EXISTING BUILDINGS

Address	APN	Name of Resource / Year Constructed	Status	Source:
1300-1308 Old Bayshore Highway	026-113-480	Hyatt Music Theater, Hyatt Cinema / 1964	Ineligible	ESA, 2017
1310 Old Bayshore Highway	026-113-330	1965	Ineligible	ESA, 2017
1338-1340 Old Bayshore Highway	026-113-470	1968	Ineligible	ESA, 2017
1290 Old Bayshore Highway	026-142-110	1961	Ineligible	ESA, 2017
1288 Old Bayshore Highway	026-142-070	Ca. 1954	Ineligible	ESA, 2017
1240 Old Bayshore Highway	026-142-160	California Trucking Association / 1965	Ineligible	South Environmental, 2022
1250 Old Bayshore Highway	026-142-150	Chez Bon Restaurant / 1966	Ineligible	South Environmental, 2022
1250 Old Bayshore Highway	0026-142-140	Ramada Inn / 1966	Ineligible	South Environmental, 2022

SOURCES: South Environmental, *Historic Built Environment Assessment for the 1200-1340 Old Bayshore Highway Project, City of Burlingame, California*, 2022. ESA, DPR523 for 1288 Old Bayshore Highway, 2017.

1300-1308 Old Bayshore Highway

The subject property is a two-story commercial building on a T-shaped lot that is bounded by Old Bayshore Highway on the southwest, Easton Creek on the southeast, and the shoreline on the northeast. It is occupied by a former theater building, the Hyatt Music Theater. The building is an example of a Midcentury Modern-style theater building with distinctive "Googie" (i.e., futuristic,

inspired by the Space Age) design elements. The building has a rectangular floor plan, is clad in smooth and pebble-dash stucco, and terminates in a flat roof with a distinctive tent shaped roof form in the center. There are small, landscaped areas on all four sides of the building, with more mature plantings located on the southwest and northwest sides. A landscaped median strip leads from the driveways on Old Bayshore Highway to the primary (southwest) façade of the building. The building is surrounded on all sides by paved parking lots.

The Hyatt Music Theater was constructed in 1964 as part of a complex of commercial and office buildings related to the Hyatt House Hotel located directly across Old Bayshore Highway. This building was evaluated by ESA in 2017 and recommended ineligible for listing on the National and California registers because it did not meet the eligibility criteria for either the National or California registers ESA re-examined in the building in 2022 using the City's criteria for local eligibility for listing on the City of Burlingame's Historic Architectural and Places Resources Register and was recommended ineligible as well (please see Appendix CUL which includes the full technical analysis).

1310 Old Bayshore Highway

The subject property is a one- and two-story commercial building on a rectangular lot that is bounded by Old Bayshore Highway on the southwest and paved parking lots and driveways on all other sides. This building is an example of a Midcentury Modern-style commercial building. The building is U-shaped in plan, is clad in both smooth and pebble-dash stucco, and terminates in a flat roof. Landscaped areas are located around the building's perimeter. A freestanding billboard-style sign on two metal posts is located near the center of the primary (southwest) façade.

This building was constructed in 1965, also as part of the Hyatt House Hotel complex. The building functioned as a commercial building with a restaurant and office space. This building was evaluated by ESA in 2017 and recommended ineligible for listing on the National and California registers because it did not meet the eligibility criteria for either the National or California registers. ESA re-examined the building in 2022 using the City's criteria for local eligibility for listing on the City of Burlingame's Historic Architectural and Places Resources Register and was recommended ineligible as well (please see Appendix CUL which includes the full technical analysis).

1338-1340 Bayshore Highway

The subject property is a one- and two-story commercial building on an L-shaped lot that is bounded by Old Bayshore Highway on the southwest and the shoreline on the northeast. This building is an example of a Midcentury Modern-style commercial building. The building is rectangular in plan, clad in brick, and terminates in a combination of flat roofs and sawtooth roof forms clad in wood shingles. Landscaped areas with mature plantings are located on the southwest, southeast, and northeast façades.

It was constructed in 1968 as part of the executive offices for the Hyatt Corporation. This building was evaluated by ESA in 2017 and recommended ineligible for listing on the National and California registers. It was re-examined in 2022 using the City's criteria for local eligibility

for listing on the City of Burlingame's Historic Architectural and Places Resources Register and was recommended ineligible as well (please see Appendix CUL which includes the full technical analysis).

1290 Old Bayshore Highway

The subject property is a two-story office building on a roughly triangular lot that is bounded by Old Bayshore Highway on the southwest, Easton Creek on the northwest, and adjacent parcels on the east. This building is an example of a Midcentury Modern-style commercial building. The lot is occupied by a mid-size, multi-tenant office building that features an irregular-shaped plan, is clad in stucco and brick, and terminates in a flat roof with deep eaves. Hardscaping and landscaped areas with mature trees and plantings are located around the building's perimeter.

This building was constructed in 1961 by developers David and George Keyston following the completion of their office building directly across the street at 1299 Old Bayshore Highway. This building was evaluated by ESA in 2017 and recommended ineligible for listing on the National and California registers because it did not meet the eligibility criteria for either the National or California registers. ESA re-examined the building in 2022 using the City's criteria for local eligibility for listing on the City of Burlingame's Historic Architectural and Places Resources Register and was recommended ineligible as well (please see Appendix CUL which includes the full technical analysis).

1288 Old Bayshore Highway

The subject property is a one-story commercial building that fronts Old Bayshore Highway near the intersection of Broadway and US 101. The building is a modest example of a Midcentury Modern-style commercial building that has been altered. The wood-frame building is rectangular in plan, is clad in stucco and brick, and terminates in a roof with flat and shed roof forms. A planter is located along the south façade along Old Bayshore Highway, and the building is surrounded by a paved parking lot. A V-shaped, billboard-style sign is raised above the building on three posts.

The building was built circa 1954, and served initially as a veterinary clinic, and subsequently by several other commercial businesses. This building was evaluated by ESA in 2017 and recommended ineligible for listing on the National and California registers because it did not meet the eligibility criteria for either the National or California registers. ESA re-examined the building in 2022 using the City's criteria for local eligibility for listing on the City of Burlingame's Historic Architectural and Places Resources Register and was recommended ineligible as well (please see Appendix CUL which includes the full technical analysis).

1240 Old Bayshore Highway

The subject property is a three-story commercial building. It was designed in the Corporate International style of architecture and features a flat roof, a rectangular footprint, metal sash windows set in bay divided by pilasters, and boxed awnings. The building is clad with a mixture of smooth stucco and aggregate paneling.

It was constructed in 1965 to serve as offices for the California Trucking Association (CTA) and has housed a variety of businesses since it was vacated by CTA (South Environmental, 2022). This building was evaluated by South Environmental in 2022 and recommended ineligible for listing on the National and California registers as well as at the local level using all of the relevant criteria for listing on the City of Burlingame's Historic Architectural and Places Resources Register (South Environmental, 2022) (please see Appendix CUL which includes the full technical analysis).

1250 Old Bayshore Highway

The subject property at 1250 Old Bayshore Highway includes two buildings; a three-story hotel and a one-story restaurant. The hotel building is L-shaped, clad in stucco and capped by a flat roof with a curved cornice. The main entrance is covered by a porte cochère and includes contemporary glazed automatic sliding doors. All windows are aluminum sash. The restaurant building has a nearly square footprint, is capped by a combination roof (flat and steeply pitched flared), and has an arcade created by the flared roof that is supported by fluted columns. The windows are metal sash.

Both were constructed in 1966 by the Ramada Inn motel chain, which was established in 1960 (South Environmental, 2022). This building was evaluated by South Environmental in 2022 and recommended ineligible for listing on the National and California registers as well as at the local level using all of the relevant criteria for listing on the City of Burlingame's Historic Architectural and Places Resources Register (South Environmental, 2022) (please see Appendix CUL which includes the full technical analysis).

4.4.4 Impacts and Mitigation Measures

This section analyzes impacts related to cultural resources for the proposed Project. It describes the methods used to determine the impacts of the proposed Project and lists the criteria used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany the discussion of each identified significant impact.

Significance Criteria

The proposed Project would impact to have a significant impact to cultural resources, including tribal cultural resources if it would:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Public Resources Code §15064.5;

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Public Resources Code §15064.5;

c) Disturb any human remains, including those interred outside of formal cemeteries; or

d) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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:

1) Listed or eligible for listing in the California Register, or in a local register of historical resources as defined in PRC Section 5020.1(k); or

2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

Approach to Analysis

To evaluate the Project's potential impacts on significant cultural resources, including tribal cultural resources, a cultural resources characterization and evaluation of the Project site was undertaken. This included a literature review, a Native American outreach effort, geoarchaeological review, architectural site visit, and architectural history documentation and evaluation of the eight historic-age building on the Project site. The purpose of these analyses was to identify any cultural resources that may be present within the Project site and to determine if these resources would be significantly impacted by the proposed Project.

Potential impacts on historical resources are assessed by identifying any activities (either during construction or operation) that could affect resources that have been identified as historical resources for the purposes of CEQA. Once a resource has been identified, it then must be determined whether the proposed Project would "cause a substantial adverse change in the significance" of the resource, as described above. As such, per CEQA Guidelines Section 15064.5(b)(2), the following analysis considers the potential for the proposed Project to materially impair the significance of a historical resource by causing direct or indirect changes to the physical characteristics of the resource that convey its historical significance. Mitigation for impacts on historical resources may involve avoidance of alterations to or demolition of the resource; revision of a project to minimize the effect; or, where avoidance or minimization is not feasible, documentation of the resource. However, documentation may not reduce impacts on a historical resource to a less-than-significant level.

Impacts on cultural resources, including tribal cultural resources, could result from Project-related ground-disturbing activities, including demolition, excavation, grading, trenching, vegetation clearance, the operation of heavy equipment, or other surface and sub-surface disturbance that could damage or destroy surficial or architectural resources, buried archaeological resources, including pre-contact and historic materials or human burials.

Impact Analysis

Impact CUL-1: The Project would not cause a substantial adverse change in the significance of a historical resource. (*No Impact*)

The following analysis focuses on architectural resources. Archaeological resources, including those that have the potential to be historical resources according to *CEQA Guidelines* Section 15064.5, are addressed under Impact CUL-2.

As established in Section 4.4.3, *Cultural Resources Identified within the Study Area*, above, there are no eligible historical resources on the Project site. All eight historic-age buildings on the Project site were evaluated as potential historical resources using the National Register of Historic Places, California Register of Historical Resources, and City of Burlingame Historic Architectural Resources Inventory criteria by qualified professionals and found ineligible because they did not meet the eligibility criteria for either the National or California registers. The Project would completely demolish all of the buildings on the Project site; however, since none are eligible as historical resources there would be no impact and no mitigation measures are required.

Mitigation: None required.

Impact CUL-2: The Project may cause a substantial adverse change in the significance of an archaeological resource pursuant to Public Resources Code Section 15064.5. (*Less than Significant Impact with Mitigation*)

According to the geoarchaeological review, the Project site has low sensitivity for buried archaeological resources based on the geology, soils, and history of the Project site. However, there exists the possibility that buried archaeological resources may be encountered during ground disturbing activities.

In the event that unknown archaeological resources are discovered during ground-disturbing activities required for Project construction, significant impacts could occur. With the implementation of Mitigation Measure CUL-2a, which requires a cultural resources awareness training be completed for all Project personnel involved in ground-disturbance, and Mitigation Measures CUL-2b, which governs procedures in the event of inadvertent discovery of archaeological materials, impacts to any newly-discovered archaeological resources would be mitigated to a less than significant level.

Mitigation Measure CUL-2a: Cultural Resources Awareness Training.

Before any ground-disturbing and/or construction activities, an archaeologist meeting or under the supervision of an archaeologist meeting the Secretary of the Interior Standards for Archeology shall conduct a training program for all construction and field personnel involved in ground disturbance. If a Native American tribe has expressed interest in the Project via tribal consultation, they will be invited to participate in the training program. On-site personnel shall attend a mandatory pre-Project training that shall outline the general archaeological sensitivity of the area and the procedures to follow in the event an

archaeological resource and/or human remains are inadvertently discovered. A training program shall be established for new Project personnel before they begin Project work.

Mitigation Measure CUL-2b: Inadvertent Discovery of Cultural Resources.

If pre-contact or historic-era archaeological resources are encountered during Project implementation, all construction activities within 100 feet shall halt, and a qualified archaeologist, defined as an archaeologist meeting the U.S. Secretary of the Interior's Professional Qualification Standards for Archeology, shall inspect the find within 24 hours of discovery and notify the City of their initial assessment. Pre-contact archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include building or structure footings and walls, and deposits of metal, glass, and/or ceramic refuse.

If the City determines, based on recommendations from a qualified archaeologist and a Native American representative (if the resource is pre-contact), that the resource may qualify as a historical resource or unique archaeological resource (as defined in CEQA Guidelines Section 15064.5) or a tribal cultural resource (as defined in PRC Section 21080.3), the resource shall be avoided, if feasible. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement.

If avoidance is not feasible, the City shall consult with appropriate Native American tribes (if the resource is pre-contact), and other appropriate interested parties to determine treatment measures to avoid, minimize, or mitigate any potential impacts to the resource pursuant to PRC Section 21083.2, and CEQA Guidelines Section 15126.4. This shall include documentation of the resource and may include data recovery (according to PRC Section 21083.2), if deemed appropriate, or other actions such as treating the resource with culturally appropriate dignity and protecting the cultural character and integrity of the resource (according to PRC Section 21084.3).

Significance after Mitigation: Less than Significant. The implementation of Mitigation Measures CUL-2a and CUL-2b would reduce the impact to a less-than-significant level because if any cultural resources are identified during Project construction, these measures establish a plan to evaluate the resource for eligibility and, if necessary, prepare a treatment plan to minimize impacts to the resource.

Impact CUL-3: The Project may disturb human remains, including those interred outside of designated cemeteries. (*Less than Significant Impact with Mitigation*)

As described above, there is no indication that the Project site has been used for human burial purposes in the recent or distant past. However, in the event that human remains are discovered, including those interred outside of formal cemeteries, the human remains could be inadvertently damaged, which would be a significant impact for the purposes of CEQA. Implementation of

Mitigation Measure CUL-3 would ensure that any human remains encountered are appropriately addressed, thus reducing any potential impacts to a less-than-significant level.

> **Mitigation Measure CUL-3: Inadvertent Discovery of Human Remains.**
>
> In the event of discovery or recognition of any human remains during construction activities, such activities within 100 feet of the find shall cease until the appropriate County Coroner has been contacted to determine that no investigation of the cause of death is required. The Native American Heritage Commission (NAHC) will be contacted within 24 hours if it is determined that the remains are Native American. The NAHC will then identify the person or persons it believes to be the most likely descendant from the deceased Native American, who in turn would make recommendations to the lead agency for the appropriate means of treating the human remains and any grave goods.
>
> **Significance after Mitigation:** Less than Significant. The specific state law/regulations regarding proper handling of previously unknown human remains encountered during construction are specified above and the Project will comply with the state law to avoid significant impacts on human remains. In conjunction with the training and inadvertent discovery of cultural resources protocols identified in in Mitigation Measures CUL-2a and CUL-2b, the potential impact to unknown human remains is less than significant.

Impact CUL-4: The Project may cause a substantial adverse change to tribal cultural resources, as defined in Public Resources Code Section 20174. (*Less than Significant Impact with Mitigation*)

The results of the records search found that there are no known pre-contact cultural resources within the Project site.

As detailed in Section 4.4.3, *Regulatory Framework* above, there are federal, state, and local regulations in place to protect tribal cultural resources, including archaeological resources and human remains. CEQA requires lead agencies to determine, prior to approval, if a project would have a significant impact on historical resources, tribal cultural resources, or unique archaeological resources and requires the lead agency to make provisions for the inadvertent discovery of historical resources or unique archaeological resources during construction, including tribal cultural resources.

No known tribal cultural resources listed or determined eligible for listing in the California Register, or included in a local register of historical resources as defined in PRC Section 5020.1(k), pursuant to PRC Section 21074 (a)(1), would be impacted by the proposed Project. As a result, the City did not determine any resource that could potentially be impacted by the proposed Project to be a tribal cultural resource significant pursuant to criteria set forth in PRC Section 5024.1(c). Therefore, the proposed Project is not anticipated to impact any such resources.

However, if any previously unrecorded archaeological resources were identified during ground-disturbing construction activities and were found to qualify as a tribal cultural resource pursuant to PRC Section 21074(a)(1) (determined to be eligible for listing in the California Register or in a

local register of historical resources), any impacts of the proposed Project on the resource could be potentially significant. Any such potentially significant impacts would be reduced to a less-than-significant level by implementing Mitigation Measures CUL-2a, CUL-2b, and CUL-3 as prescribed below.

> **Mitigation:** Implement Mitigation Measure CUL-2a, Mitigation Measure CUL-2b, and Mitigation Measure 2c.
>
> **Significance after Mitigation:** Implementation of Mitigation Measures CUL-2a, CUL-2b, and CUL-3 would establish protocols to identify, evaluate, and address any potential impacts to previously unknown tribal cultural resources, and establishes appropriate protocol to protect cultural resources and human remains if they are inadvertently discovered during construction activities. With implementation of these measures, any potential impacts to tribal cultural resources would be reduced to a less than significant level.

Cumulative Impacts

This section presents an analysis of the cumulative effects of the Project in combination with other past, present, and reasonably foreseeable future development that could cause cumulatively significant impacts. Significant cumulative impacts related to cultural resources could occur if the incremental impacts of the Project combined with the impacts of cumulative development identified in Section 4.0.2, *Cumulative Impacts*, would result in a significant cumulative impact and if the Project's contribution would be considerable.

Impact C-CUL-1: The Project, when combined with other past, present, or reasonably foreseeable projects, would not result in a significant cumulative impact to historical resources or tribal cultural resources. (*Less than Significant*)

As described above, the Project would result in no impact to architectural historical resources. Since no architectural historical resources would be impacted by the proposed Project, there would be no potential for the proposed Project to contribute to cumulative impacts to architectural historical resources within the City of Burlingame in conjunction with other projects.

> **Mitigation:** None required.

Impact C-CUL-2: The Project, when combined with other past, present, or reasonably foreseeable projects, would not result in a significant cumulative impact to archaeological resources, human remains, or tribal cultural resources. (*Less than Significant with Mitigation*)

The geographic scope for cumulative effects on archaeological resources, human remains, and tribal cultural resources includes the immediate vicinity of locations where the Project could cause disturbance to the same resources that could be impacted as the Project. Similar to the Project, cumulative projects in the vicinity could have a significant impact on previously undiscovered

archaeological resources, including human remains, and tribal cultural resources, during ground-disturbing activities. The potential impacts of the Project when considered together with similar impacts from other probable future projects in the vicinity could result in a significant cumulative impact on buried archaeological resources, human remains, or tribal cultural resources. However, implementation of Mitigation Measures CUL-2a, CUL-2b, and CUL-3 would require that work halt in the vicinity of a find until it is evaluated by a Secretary of the Interior-qualified archaeologist, and in the case of human remains the County Coroner. In addition, cumulative projects undergoing CEQA review would have similar types of inadvertent discovery measures. Therefore, with implementation of Mitigation Measures CUL-2a, CUL-2b, and CUL-3, the Project's contribution to cumulative impacts to archaeological resources, human remains, and tribal cultural resources would not be considerable, and the impact would be less than significant with mitigation.

Mitigation: Implement Mitigation Measure CUL-2a, Mitigation Measure CUL-2b, and Mitigation Measure 2c.

Significance after Mitigation: Less than Significant.

4.4.5 References

City of Burlingame, Historic Preservation Ordinance – Chapter 25.35.040, 2022.

Levy, Richard, "Costanoan," In *California*, edited by Robert F. Heizer, pp. 485-495, Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C., 1978.

Milliken, Randall, *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769-1810*, Ballena Press, Menlo Park, CA, 1995.

Milliken, Randall, Richard T. Fitzgerald, Mark G. Hylkema, Randy Groza, Tom Origer, David G. Bieling, Alan Leventhal, Randy S. Wiberg, Andrew Gottsfield, Donna Gillette, Viviana Bellifemine, Eric Strother, Robert Cartier, and David A. Fredrickson, "Punctuated Cultural Change in the San Francisco Bay Area", In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 99-124, AltaMira Press, Lanham, MD, 2007.

South Environmental, *Historic Built Environment Assessment for the 1200-1340 Old Bayshore Highway Project, City of Burlingame, California*, 2002.

USDA (U.S. Department of Agriculture), *Natural Resources Conservation Service Web Soil Survey, Version 3.1,* http://websoilsurvey.sc.egov.usda.gov/app/WebSoilSurvey.aspx, November 29, 2022.

4.5 Energy

Section 21100(b) of the California Public Resources Code (PRC) directs all State Agencies, Boards, and Commissions to assess the environmental impacts of projects for which they are a Lead Agency under CEQA to determine whether a project could result in significant effect on the environment, including effects from the wasteful, inefficient, and unnecessary consumption of energy, and to identify mitigation measures to minimize any such significant effects.

This section discusses the existing energy-related profiles of the state and the Project site. The current regulatory and policy frameworks that govern the production and consumption of energy resources and aim to increase energy efficiency while reducing reliance on fossil fuels are also described. The construction and operation of the Project is then assessed for its potential to result in significant energy impacts based on the California energy profile (i.e., mix of energy resources and consumption characteristics), the regional energy production and transmission profile of Pacific Gas & Electric Company (PG&E; the regional purveyor of natural gas and electricity throughout the Bay Area and much of central and northern California) as well as the local energy profile of the Project site, and the section examines the proposed Project's energy usage characteristics to determine whether the Project could result in any significant energy-related environmental impacts during its construction or operation activities. The analysis identifies feasible mitigation measures for significant adverse impacts, if needed. The section also includes an analysis of cumulative energy impacts.

4.5.1 Environmental Setting

State Setting

Energy Profile

Total energy usage in California was 6,923 trillion British Thermal Units (Btu) in 2020, which equates to an average of 175 million Btu per capita. These figures place California 2nd among the nation's 50 states in total energy use and 48th in per capita consumption. Of California's total energy usage, the breakdown by sector is roughly 34 percent transportation, 24 percent industrial, 20 percent commercial, and 22 percent residential. Electricity and natural gas in California are primarily consumed by stationary users such as residences and commercial and industrial facilities, whereas petroleum-based fuel consumption is generally accounted for by transportation-related energy use (EIA, 2022a).

California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation sources. Approximately 70 percent of the electrical power needed to meet California's demand is produced in the state; the balance, approximately 30 percent, is imported from the Pacific Northwest and the Southwest. In 2021, California's in-state electricity generation was derived from natural gas (50 percent); large hydroelectric resources (6 percent); nuclear sources (9 percent); renewable resources that include geothermal, biomass, small hydroelectric resources, wind, and solar (35 percent); coal (less than 1 percent); and petroleum coke/waste heat (less than 1 percent) (CEC, 2022a).

Electricity

In 2021, total system electric generation for California was 277,764 gigawatt-hours (GWh), up 1.9 percent from 2020's total generation of 272,576 GWh. Electricity from non-CO_2 emitting electric generation categories (i.e., nuclear, large hydroelectric, and renewable generation) accounted for 49 percent of total in-state generation for 2021, compared to 51 percent in 2020. However, California's in-state generation increased by 1.7 percent (3,215 GWh) to 194,127 GWh. In-state hydroelectric generation was substantially reduced, some 32 percent lower than 2020 generation levels (about 6,848 GWh lower) (CEC, 2022a).

In recent years, electricity demand has been relatively flat as energy efficiency programs have resulted in end-use energy savings and as customers install behind-the-meter solar photovoltaic (PV) systems that directly displace utility-supplied generation. In 2018 (the most recent year for which this specific data are available), behind-the-meter solar generation[1] was estimated to be 13,582 GWh, a 20 percent increase from 2017. The strong growth in solar PV has had a measurable impact on utility-served load and, consequently, on total system electric generation (CEC, 2022a).

Increasingly, electricity is used in multiple transportation modes, including light-duty vehicles, transit buses, and light and heavy rail. In California, its use is forecast to emerge in battery-electric medium-duty trucks, battery-electric buses, catenary-electric port drayage trucks, and high-speed rail. The California Energy Commission (CEC) forecasts the statewide electricity demand for the transportation sector will increase from a 2017 level of 2,000 GWh annually to between approximately 12,000 and 18,000 GWh per year by 2030, depending on technology development and market penetration of the various vehicle types (CEC, 2018).

Natural Gas

Californians consumed about 11,923 million therms of natural gas in 2021, which is equal to 1,192,270,564 million Btu (MMBtu) (CEC, 2022b). The natural gas market is evolving and service options expanding, but its use falls mainly into the following four sectors: residential, commercial, industrial, and electric power generation. In addition, natural gas is a viable alternative to petroleum fuels for use in cars, trucks, and buses. Nearly 45 percent of the natural gas burned in California is used for electricity generation, and most of the remainder is consumed in the residential (21 percent), industrial (25 percent), and commercial (9 percent) sectors. California depends on out-of-state imports for nearly 90 percent of its natural gas supply (CEC, 2022c).

Transportation Fuels

The energy consumed by the transportation sector accounts for roughly 34 percent of California's total energy consumption (EIA, 2022b). Gasoline and diesel, both derived from petroleum (also known as crude oil), are the two most common fuels used for vehicular travel. According to the U.S. Energy Information Administration, the state relies on petroleum-based fuels for 98 percent of its transportation needs (EIA, 2021). Gasoline accounted for about 59 percent of California's

[1] Behind-the-meter solar generation refers to on-site solar generation facilities that are designed for a single building or facility. Since the power is generated and used on-site, it is not connected to the regional power grid, and thus referred to as "behind the meter."

total transportation sector energy consumption, 60 percent of California's total transportation sector petroleum consumption, and 6 percent of total U.S. energy transportation sector consumption (EIA, 2021). California is the largest consumer of gasoline in the U.S. Approximately 29 percent of California's crude oil is obtained from within the state, about 15 percent comes from Alaska, and the remaining 56 percent comes from foreign lands (CEC, 2022g).

In 2021, gasoline sales in California amounted to approximately 11.7 billion gallons, and diesel fuel sales amounted to approximately 1.6 billion gallons (CEC, 2022h). The CEC forecasts demand for gasoline in California will range from 12.1 billion to 12.6 billion gallons in 2030, with most of the demand generated by light-duty vehicles. While the models show an increase in light-duty vehicles along population and income growth over the forecast horizon, total gasoline consumption is expected to decline, primarily due to increasing fuel economy (stemming from federal and state regulations) and gasoline displacement from the increasing market penetration of zero emission vehicles (ZEVs). For diesel, demand is forecast to increase modestly by 2030, following the growth of California's economy, but would be tempered by an increase in fleet fuel economy and market penetration of alternative fuels, most prominently by natural gas in the medium- and heavy-duty vehicle sectors (CEC, 2018).

California has about 4 percent of the nation's total crude oil reserves, and it is the seventh-largest crude oil producer among the states. (EIA, 2022d). Crude oil is moved from area to area within California through a network of pipelines that carry it from both onshore and offshore oil wells to the refineries that are in the San Francisco Bay Area, the Los Angeles area, and the Central Valley. Currently, 14 petroleum refineries operate in California, with a crude oil capacity of approximately 1.75 million barrels per day (CEC, 2021).

Other transportation fuel sources used in California include alternative fuels, such as methanol and denatured ethanol (alcohol mixtures that contain no less than 70 percent alcohol), natural gas (compressed or liquefied), liquefied petroleum gas, hydrogen, and fuels derived from biological materials (i.e., biogas).

Regional Setting

Electricity and Natural Gas

The nine-county Bay Area, including the Project site, is served by PG&E, an investor-owned utility company that provides electricity and natural gas supplies and services throughout a 70,000-square-mile service area that extends from Eureka in the north, to Bakersfield in the south, and from the Pacific Ocean on the west to the Sierra Nevada on the east. Operating characteristics of PG&E's electricity and natural gas supply and distribution systems are provided below.

Electric Utility Operations

PG&E provides "bundled" services (i.e., electricity generation, transmission, and distribution services) to most of the six million customers in its service territory, including residential, commercial, industrial, and agricultural consumers. Customers also can obtain unbundled electricity that is transmitted and distributed by PG&E, but is generated and provided by alternative providers such as Electric Service Providers registered with California Public Utilities

Commission (CPUC) that are non-utility entities that offer electric service to customers within the service territory of an electric utility; or municipalities, or community choice aggregators as allowed under Assembly Bill 117 (2002), as well as from self-generation distributed resources, such as rooftop solar installations. In San Mateo County alone, electricity consumption in 2021 was 4,157 GWh (CEC, 2022e).

In recent years, PG&E has continued to make improvements to its electric transmission and distribution systems to accommodate the integration of new renewable energy resources, distributed generation resources, and energy storage facilities, and to help create a platform for the development of new Smart Grid technologies that help with load balancing and ensuring reliable electricity delivery to end customers. In December 2014, the CPUC issued Decision D.14-12-079 that permits the California investor-owned electric utilities to own electric vehicle (EV) retail charging equipment in their respective service territories to help meet the state's goal of reducing greenhouse gas (GHG) emissions by promoting cleaner transportation. On February 9, 2015, PG&E filed an application to request that the CPUC approve their proposal to develop, maintain, and operate an EV-charging infrastructure in its service territory. In 2016, the CPUC established a three-year electric vehicle (EV) program of $130 million to deploy up to 7,500 charging stations. Further deployment of light duty EV infrastructure was considered and approved in a second phase of the program with a total PG&E budget of over $236 million per CPUC Decision D.18-05-040 (EPIC, 2018).

Electricity Transmission

Transmission lines are high voltage power lines that transmit electricity between electric substations. PG&E owns approximately 19,200 circuit miles of interconnected transmission lines operating at voltages ranging from 60 kilovolts (kV) to 500 kV. PG&E also operates approximately 92 electric transmission substations with a capacity of approximately 64,700 megavolt amperes (MVA). PG&E's electric transmission system is interconnected with electric power systems in the Western Electricity Coordinating Council, which includes many western states, Alberta and British Columbia, and parts of Mexico (Reuters, 2020).

PG&E periodically upgrades substations and reconductors transmission lines to improve maintenance and system flexibility, reliability, and safety, and undertakes various new transmission projects to upgrade and expand the capacity of its transmission system to secure access to renewable generation resources and replace aging or obsolete equipment and improve system reliability (PG&E, 2022a).

Electricity Distribution

Distribution power lines are lower voltage power lines that transmit electricity from electric substations to end user, such as residential and other land use developments. PG&E's electricity distribution network consists of approximately 107,200 circuit miles of distribution lines (of which approximately 20 percent are underground and approximately 80 percent are overhead), approximately 19,200 circuit miles of high voltage electric transmission lines, 59 transmission switching substations, and 605 distribution substations, with a capacity of approximately 31,800 MVA (PG&E, 2019).

These distribution substations serve as the central hubs for PG&E's electric distribution network. Emanating from each substation are primary and secondary distribution lines connected to local transformers and switching equipment that link distribution lines and provide delivery to end-users. In some cases, PG&E sells electricity from its distribution facilities to entities, such as municipal and other utilities, that resell the electricity. PG&E also operates electric distribution control center facilities in Concord, Rocklin, and Fresno, California (PG&E, 2019).

Natural Gas Operations

PG&E provides natural gas transmission services to "core" customers and to "non-core" customers (i.e., industrial, large commercial, and natural gas-fired electric generation facilities) that are connected to its gas system in its service territory. Core customers can purchase natural gas procurement service (i.e., natural gas supply) from either PG&E or non-utility third-party gas procurement service providers (referred to as core transport agents). When core customers purchase gas supply from a core transport agent, PG&E still provides gas delivery, metering, and billing services to those customers. When PG&E provides both transmission and procurement services, PG&E refers to the combined service as "bundled" natural gas service. Currently, more than 96 percent of core customers, representing nearly 85 percent of the annual core market demand, receive bundled natural gas service from PG&E (PG&E, 2022b).

PG&E does not provide procurement service to non-core customers, who must purchase their gas supplies from third-party suppliers. PG&E offers backbone gas transmission, gas delivery (local transmission and distribution), and gas storage services as separate and distinct services to its non-core customers. Access to PG&E's backbone gas transmission system is available for all natural gas marketers and shippers, as well as non-core customers. PG&E also delivers gas to off-system customers (i.e., outside of PG&E's service territory) and to third-party natural gas storage customers. In 2021, total consumption of natural gas in San Mateo County was 205.14 million therms, or 20,509,000 MMBtu (CEC, 2022b).

Natural Gas Supplies

PG&E receives natural gas from all the major natural gas basins in western North America, including basins in western Canada, the Rocky Mountains, and the southwestern United States. PG&E also is supplied by natural gas fields in California. PG&E purchases natural gas to serve its core customers directly from producers and marketers in both Canada and the United States. The contract lengths and natural gas sources of PG&E's portfolio of natural gas purchase contracts have fluctuated generally based on market conditions. PG&E provides approximately 970 billion cubic feet of natural gas per year to its customers (PG&E, 2023).

Natural Gas System Assets

PG&E owns and operates an integrated natural gas transmission, storage, and distribution system that includes most of northern and central California. PG&E's natural gas system consists of approximately 42,800 miles of distribution pipelines, over 6,400 miles of backbone and local transmission pipelines, and various storage facilities. PG&E owns and operates eight natural gas compressor stations on its backbone transmission system and one small station on its local transmission system that are used to move gas through PG&E's pipelines. PG&E's backbone

transmission system is used to transport gas from PG&E's interconnection with interstate pipelines, other local distribution companies, and California gas fields to PG&E's local transmission and distribution systems.

Transportation Fuels

Gasoline and diesel fuel are by far the largest transportation fuels used by volume in San Francisco Bay Area. The total estimated 2021 sales of gasoline in San Mateo County was 269 million gallons and the total estimated 2021 sales of diesel fuel in San Mateo County was 16 million gallons (CEC, 2022h).

Other transportation fuel sources used in California include alternative fuels, such as methanol and denatured ethanol (alcohol mixtures that contain no less than 70 percent alcohol), natural gas (compressed or liquefied), liquefied petroleum gas (LPG), hydrogen, and fuels derived from biological materials (i.e., biomass).

Local Setting

Electricity and natural gas consumption is provided to the City of Burlingame by PG&E. According to the City of Burlingame 2030 Climate Action Plan Update (2030 CAP), Appendix A, approximately 220,193,089 kilowatt-hours (kWh) of electricity were consumed in 2015 in Burlingame (City of Burlingame, 2019a). In 2015, total consumption of natural gas in Burlingame was 12,210,816 therms (City of Burlingame, 2019a).

Gasoline and diesel are the primary transportation fuels used in Burlingame. Regular unleaded gasoline is used primarily to fuel passenger cars and small trucks. Diesel fuel is used primarily in large trucks and construction equipment. The 2030 CAP estimated that 10,497,995 gallons of gasoline and 1,025,929 gallons of diesel were consumed in 2015 in Burlingame (City of Burlingame, 2019a).

The Project site currently is occupied by eight buildings, totaling approximately 247,466 square feet, constructed between the late 1950s through mid-1970s and include several one- to three-story commercial buildings and a former movie theater. These buildings are presently occupied by several businesses, including professional offices, hotel, an ambulance service, and restaurants. The Project site is currently served by public utilities, including but not limited to, water distribution, electricity, and natural gas. These existing uses generate a demand for energy resources, including electricity and natural gas, as well as transportation fuels.

4.5.2 Regulatory Framework

Federal

Federal policies and regulations set broad energy efficiency standards and incentives for consumer products, automobile and fuel efficiency, etc. Such requirements, as those listed below, tend to be applicable to the manufacturing sector and are not directly applicable to the Project. Nonetheless they are listed here for informational purposes.

National Energy Conservation Policy Act

The National Energy Conservation Policy Act (NECPA) serves as the underlying authority for federal energy management goals and requirements. Signed into law in 1978, it has been regularly updated and amended by subsequent laws and regulations. This act is the foundation of most federal energy requirements. NECPA established energy-efficiency standards for consumer products and includes a residential program for low-income weatherization assistance, grants and loan guarantees for energy conservation in schools and hospitals, and energy-efficiency standards for new construction. Initiatives in these areas continue today.

National Energy Policy Act of 2005

The National Energy Policy Act of 2005 sets equipment energy efficiency standards and seeks to reduce reliance on nonrenewable 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 are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

Executive Order 13423 (Strengthening Federal Environmental, Energy, and Transportation Management), signed in 2007, strengthens the key energy management goals for the federal government and sets more challenging goals than the National Energy Policy Act of 2005. The energy reduction and environmental performance requirements of Executive Order 13423 were expanded upon in Executive Order 13514 (Federal Leadership in Environmental, Energy, and Economic Performance), and signed in 2009.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 sets federal energy management requirements in several areas, including energy reduction goals for federal buildings, facility management and benchmarking, performance and standards for new buildings and major renovations, high-performance buildings, energy savings performance contracts, metering, energy-efficient product procurement, and reduction in petroleum use, including by setting automobile efficiency standards, and increase in alternative fuel use. This act also amends portions of the NECPA.

Corporate Average Fuel Economy (I) Standards

Established by the U.S. Congress in 1975, the I standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and United States Environmental Protection Agency (U.S. EPA) jointly administer the I standards. The U.S. Congress has specified that I standards must be set at the "maximum feasible level" with consideration given to: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.[2]

[2] For more information on the Corporate Average Fuel Economy standards, refer to https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy.

State

Warren-Alquist Act

The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The act established a state policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures.

California Energy Action Plan

California's *2008 Energy Action Plan Update* updates the *2005 Energy Action Plan II,* which is the state's principal energy planning and policy document. The plan maintains the goals of the original *Energy Action Plan*, 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 to promote energy efficiency, demand response (i.e., reducing customer energy usage during peak periods to address power system reliability and support the best use of energy infrastructure), and use of renewable power sources. To the extent that these strategies are unable to satisfy increasing energy and capacity needs, the plan supports clean and efficient fossil-fuel fired generation.

State of California Integrated Energy Policy

In 2002, the Legislature passed Senate Bill (SB) 1389, which required the CEC to develop an integrated energy plan biannually for electricity, natural gas, and transportation fuels, for the California Energy Report. SB 1389 requires the CEC to prepare a biennial Integrated Energy Policy Report (IEPR) that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code Section 25301[a]). The IEPR has replaced the Energy Action Plan as the chief program intended to provide a comprehensive statewide energy strategy to guide energy investments, energy-related regulatory efforts and GHG reduction measures.

The most recent update to the IEPR (2018) examines how California's energy system must be transformed to meet the state's 2030 GHG reduction goal, including implementation of SB 350 (De Leon, Chapter 547, Statues of 2015) to double the energy efficiency of existing buildings and SB 100's target of achieving 60 percent renewables in the electricity supply by 2030. The report also covers policies and trends in integrated resource planning, distributed energy resources, transportation electrification, barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the California Energy Demand Preliminary Forecast, the preliminary transportation energy demand forecast, renewable gas (in response to Senate Bill 1383), the natural gas outlook, and solutions to increase resiliency in the electricity sector. The key strategies identified in the most recent, 2022 IEPR Update, are summarized below (CEC, 2022f).

Title 24 – California Energy Efficiency Standards

The Energy Efficiency Standards for residential and nonresidential buildings specified in Title 24, Part 6 of the California Code of Regulations were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated approximately every three years to allow for consideration and possible incorporation of new energy-efficiency technologies and methods. The current standards became effective on January 1, 2023.

California Green Building Standards Code (CALGreen, or Title 24 Part 11)

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards (CALGreen) Code. CALGreen is intended to encourage more sustainable and environmentally friendly building practices, require low-pollution emitting substances that cause less harm to the environment, conserve natural resources, and promote the use of energy-efficient materials and equipment. Since 2011, the CALGreen Code is mandatory for all new residential and non-residential buildings constructed in the state. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code was most recently updated in 2022, and new measures took effect on January 1, 2023.

Renewables Portfolio Standard (RPS)

The State of California adopted standards to increase the percentage that retail sellers of electricity, including investor-owned utilities and community choice aggregators, must provide from renewable resources. The standards are referred to as the RPS. Qualifying renewables under the RPS include bioenergy such as biogas and biomass, small hydroelectric facilities (30 MW or less), wind, solar, and geothermal energy. The CPUC and the CEC jointly implement the RPS program. The CPUC's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy (CPUC, 2023).

Executive Orders S-14-08 and S-21-09

In November 2008, Governor Schwarzenegger signed Executive Order S-14-08, which expanded the state's RPS to 33 percent renewable power by 2020. In September 2009, Governor Schwarzenegger continued California's commitment to the RPS by signing Executive Order S-21-09, which directed the California Air Resources Board (CARB) under its AB 32 authority to enact regulations to help the state meet its RPS goal of 33 percent renewable energy by 2020.

SB 350 – Clean Energy and Pollution Reduction Act of 2015

SB 350, known as the Clean Energy and Pollution Reduction Act of 2015, was enacted on October 7, 2015, and provides a new set of objectives in clean energy, clean air, and pollution reduction by 2030. The objectives include the following:

- To increase from 33 percent to 50 percent by December 31, 2030, the procurement of the state's electricity from renewable sources.

- To double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, establishing that 100 percent of all electricity in California must be obtained from renewable and zero-carbon energy resources by December 31, 2045. SB 100 also creates new standards for the RPS goals that were established by SB 350 in 2015. Specifically, the bill increases required energy from renewable sources for both investor-owned utilities and publicly-owned utilities from 50 percent to 60 percent by 2030. Incrementally, these energy providers must also have a renewable energy supply of 33 percent by 2020, 44 percent by 2024, and 52 percent by 2027. The updated RPS goals are considered achievable, since many California energy providers are already meeting or exceeding the RPS goals established by SB 350.

On the same day that SB 100 was signed, Governor Brown signed Executive Order B-55-18 with a new statewide goal to achieve carbon neutrality (zero-net GHG emissions) by 2045 and to maintain net negative emissions thereafter.

Appliance Efficiency Regulations, California Code of Regulations Title 20

California's Appliance Efficiency Regulations (20 CCR Part 160-1608) contain standards for both federally regulated appliances and non-federally regulated appliances. The regulations are updated regularly to allow consideration of new energy efficiency technologies and methods. The current regulations were adopted by the CEC on November 18, 2009. The standards outlined in the regulations apply to appliances that are sold or offered for sale in California. More than 23 different categories of appliances are regulated, including refrigerators, freezers, water heaters, washing machines, dryers, air conditioners, pool equipment, and plumbing fittings.

Transportation Energy

AB 1007 (Pavley)-Alternative Fuel Standards

Assembly Bill 1007 (Pavley, Chapter 371, Statutes of 2005) required the CEC to prepare a state plan to increase the use of alternative fuels in California (State Alternative Fuels Plan). The CEC prepared the State Alternative Fuels Plan in partnership with the CARB and in consultation with other state, federal, and local agencies. The final State Alternative Fuels Plan, published in December 2007, attempts to achieve an 80 percent reduction in GHG emissions associated with personal modes of transportation, even as California's population increases.

California Assembly Bill 1493 (AB 1493, Pavley)

In response to the transportation sector accounting for more than half of California's carbon dioxide (CO_2) emissions, AB 1493 (commonly referred to as CARB's Pavley regulations), enacted on July 22, 2002, requires CARB to set GHG emission standards for new passenger vehicles, light duty trucks, and other vehicles manufactured in and after 2009 whose primary use is non-commercial personal transportation. Phase I of the legislation established standards for model years 2009 through 2016 and Phase II established standards for model years 2017 through 2025 (CARB,

2017; U.S. EPA, 2012). Refer to Section 4.7, *Greenhouse Gas Emissions*, of this EIR for additional details regarding this regulation.

Low Carbon Fuel Standard

The Low Carbon Fuel Standard (LCFS), established in 2007 through Executive Order S-1-07 and administered by CARB, requires producers of petroleum-based fuels to reduce the carbon intensity of their products that started with a 0.25 percent reduction in 2011, and culminated in a 10 percent total reduction in 2020. In September 2018, CARB extended the LCFS program to 2030, making significant changes to the design and implementation of the program, including a doubling of the carbon intensity reduction to 20 percent by 2030.

Petroleum importers, refiners, and wholesalers can either develop their own low carbon fuel products or buy LCFS credits from other companies that develop and sell low carbon alternative fuels, such as biofuels, electricity, natural gas, and hydrogen.

Executive Order B-16-12 – 2025 Goal for Zero Emission Vehicles

In March 2012, Governor Brown issued an executive order establishing a goal of 1.5 million ZEVs on California roads by 2025. In addition to the ZEV goal, Executive Order B-16-12 stipulated that by 2015 all major cities in California will have adequate infrastructure and be 'zero-emission vehicle ready' so that by 2020 the state will have established adequate infrastructure to support 1 million ZEVs; and that by 2050, virtually all personal transportation in the state will be based on ZEVs, and GHG emissions from the transportation sector will be reduced by 80 percent below 1990 levels.

CARB's Advanced Clean Car Program

The Advanced Clean Cars emissions-control program was approved by CARB in 2012 and is closely associated with the Pavley regulations (CARB, 2017). The program requires a greater number of zero-emission vehicle models for years 2015 through 2025 to control smog, soot, and GHG emissions. This program includes the Low-Emissions Vehicle regulations to reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles; and the ZEV regulations to require manufactures to produce an increasing number of pure ZEV's (meaning battery and fuel cell electric vehicles) with the provision to produce plug-in hybrid electric vehicles (PHEV) between 2018 and 2025.

CARB's Mobile Source Strategy

The Mobile Source Strategy (2016) includes an expansion of the Advanced Clean Cars program (which further increases the stringency of GHG emissions for all light-duty vehicles, and 4.2 million zero-emission and plug-in hybrid light-duty vehicles by 2030). It also calls for more stringent GHG requirements for light-duty vehicles beyond 2025 as well as GHG reductions from medium-duty and heavy-duty vehicles and increased deployment of zero-emission trucks primarily for classes 3 through 7 "last mile" delivery trucks in California. Statewide, the Mobile Source Strategy would result in a 45 percent reduction in GHG emissions, and a 50 percent reduction in the consumption of petroleum-based fuels. CARB's Mobile Source Strategy includes measures to reduce total light-duty vehicle miles travelled (VMT) by 15 percent compared to business-as-usual in 2050.

Executive Order B-48-18

On January 26, 2018, Governor Brown issued an executive order establishing a goal of 5 million ZEVs on California roads by 2030 and to spur the installation and construction of 250,000 plug-in electric vehicle chargers, including 10,000 direct current fast chargers, and 200 hydrogen refueling stations by 2025.

Local

City of Burlingame General Plan

The City of Burlingame adopted the *Burlingame General Plan* in 2019 (City of Burlingame, 2019a). Goals and policies identified in the City's General Plan that related to energy use and conservation within the City the following:

Chapter IV. Community Character

Goal CC-1: Incorporate sustainable practices in all development decisions

Policy CC-1.6: Water Conservation. Promote water conservation by encouraging and incentivizing property owners to incorporate drought-tolerant landscaping, "smart" irrigation systems, water-efficient appliances, and recycled water systems. Continue to enforce the water-efficiency landscaping ordinance. Encourage recycling and reuse of graywater in new buildings.

Policy CC-1.7: Solar Energy. Incentivize solar panel installation on existing buildings and new developments.

Policy CC-1.9: Green Building Practice and Standards. Support the use of sustainable building elements such as green roofs, cisterns, and permeable pavement, continue to enforce the California Green Building Standards Code (CALGreen), periodically revisit the minimum standards required for permit approval, and adopt zero-netenergy building goals for municipal buildings.

Policy CC-1.13: Electric Vehicle Network. Support the electric vehicle network by incentivizing use of electric vehicles and installations of charging stations.

Chapter VI. Mobility

Policy M-8.1: Electric Vehicle Infrastructure. Identify electric vehicle charging priority locations and opportunities to integrate emerging technology into public parking infrastructure to encourage and expand the use of zero-emissions vehicles.

Policy M-8.2: Vehicle Trip Reduction. Support vehicle trip reduction strategies, including building safer and more inviting active transportation networks, supporting connections to high frequency and regional transit, implementing TDM programs, and integrating land use and transportation decisions.

Policy HP-2.4: Electric Vehicles. Prepare an Electric Vehicle Strategic Plan to support and expand Burlingame's electric vehicle network and public charging stations. Establish parking standards that prioritize electric vehicle spaces. Require new residential developments to install or be pre-wired for electric vehicle charging stations.

Chapter VII. Infrastructure

Policy IF-2.12: Recycled Water. Increase the use of recycled water as available, cost effective, and safe. This may include allowed use of graywater systems consistent with health and building codes.

Policy IF-5.3: Municipal Waste Reduction. Reduce municipal waste generation by continuing to employ a wide range of simple and innovative techniques, such as electronic communications, to reduce paper usage and buying products with less packaging and in bulk.

Policy IF-5.5: Construction Waste Recycling. Require demolition, remodeling, and major new development projects include salvaging or recycling asphalt and concrete and all other nonhazardous construction and demolition materials to the maximum extent practicable.

Chapter IX. Healthy People and Healthy Places

Policy HP-2.6: Renewable Energy. Maintain a policy of using 100% renewable energy for the City's municipal accounts. Encourage residents and businesses to opt up to 100% renewable purchase for additional community-wide greenhouse gas reductions. Encourage and support opportunities for developing local solar power projects.

Policy HP-2.11: Innovative Technologies. Encourage the advancement of emerging technologies and innovations around energy, waste, water, and transportation. Support local green technology businesses. Explore demonstration project opportunities.

Policy HP-2.12: Green Businesses. Attract green technology businesses to Burlingame. Focus outreach on established and new green technology businesses along Rollins Road. Encourage existing businesses to integrate green practices by offering an annual green business award, workshops, and informational materials.

Policy HP-2.13: Composting. Expand composting services to multi-family and residential buildings and commercial buildings.

Policy HP-2.14: Zero Waste. Encourage the South Bayside Waste Management Authority (SBWMA) to explore and consider rare plans that support zero waste goals. Identify opportunities to support and implement zero waste goals and strategies for the City and community.

Policy HP-2.16: Electrification of Yard and Garden Equipment. Support the transition of yard and garden equipment from gasoline to electric fuel sources.

Please see also Section 4.7, *Greenhouse Gas Emissions* for a list of City General Plan goals and policies related to greenhouse gas emissions that overlap with energy conservation.

City of Burlingame Municipal Code

The City of Burlingame 2020 Reach Codes are relevant for projects that were submitted prior to January 1, 2023. The Reach Code consists of additional, local amendments to the CALGreen code, which impose City requirements that go beyond the State's requirements for energy efficiency and green building standards. The 2020 Reach Codes required new developments to use electric appliances for heating, cooling, and cooking (with some exceptions including single family homes); and install electric vehicle (EV) infrastructure and solar power.

The City of Burlingame 2022 Reach Code was adopted in November 2022, and began implementation on January 1, 2023. The 2022 Reach Code requires all new residential and commercial construction to be all-electric and install EV infrastructure. On January 17, 2023 the City adopted an ordinance that amended Chapter 18.30 of the Municipal Code that allows for an exemption from the 2022 Reach Code for projects for which a complete planning or building permit application was deemed complete prior to January 1, 2023; and allows for future developers to apply for an exception to certain aspects of the City's new Reach Codes if the developer demonstrates that those additional requirements would make the building of the project infeasible, as determined by the City Building Official. The proposed Project application was deemed complete prior to January 1, 2023 and thus, is subject to the 2020 Reach Code provisions.

4.5.3 Impacts and Mitigation Measures

Significance Criteria

The proposed Project would result in a significant impact to energy resources if it would:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Approach to Analysis

This impact analysis evaluates the potential for the proposed Project to result in the wasteful use of energy or wasteful use of energy resources during project construction and operation, consistent with Public Resources Code 21100(b)(3). The impact analysis is based on Section 15126.2(b) and Appendix F of the State CEQA Guidelines. The analysis provides construction and operational energy use estimates for the proposed Project. This information is used to determine whether this energy use would be considered wasteful, inefficient, or unnecessary, taking into account available energy supplies and existing use patterns, the project's energy efficiency features, and compliance with applicable standards and policies aimed to reduce energy consumption, including the state's Title 24 Energy Efficiency Standards. Energy quantification details supporting the Project estimates presented in this section are based on the energy use assumptions and GHG emission estimates for the GHG emissions assessment presented in Section 4.7, *Greenhouse Gas Emissions*. The construction and operation of the Project are also assessed for consistency with City of Burlingame 2030 CAP provisions that are designed to conserve and reduce energy consumption.

Impact Analysis

Due to the combined effects of the construction of the proposed Project and related improvements associated with energy use, the Project components are considered together in construction energy use impact analysis presented below. Similarly, where applicable, the operation of the proposed Project and related improvements are considered together in the operational energy use impact analysis presented herein.

Impact ENE-1: Implementation of the Project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. (*Less than Significant*)

Construction Energy Use

Construction of the proposed Project would result in the consumption of energy in the form of transportation fuels (i.e., gasoline and diesel fuel) from a variety of sources, including off-road construction equipment and on-road worker, vendor, and hauling vehicles. The level of energy consumption would fluctuate depending on the type of construction activities underway during any particular time period. Energy use would be higher during the period of construction involving the initial site clearance and earth-moving/grading, where the largest and most powerful equipment would be required to excavate, lift, and transport large volumes of soil and demolished materials (such as concrete slabs and asphalt) from the site. Gasoline and diesel fuel would be the primary energy source for vehicles driven by construction crews and to power the large trucks used to deliver and remove construction equipment, materials, and debris. Electricity would be used to transport (pump) water to the site, and to power automated hand tools and smaller types of construction machinery such as compressors for painting applications.

Based on the Project's estimated equipment use and construction duration, the construction of the Project is estimated to result in the consumption of an average of approximately 150,743 gallons of diesel fuel per year, and an average of approximately 84,859 gallons of gasoline per year, over the Project's approximate 3.5-year construction period (Ramboll, 2023).

Operational Energy Use

Project operations would require long-term consumption of energy in the form of electricity, natural gas, gasoline, and diesel fuel. The electricity, natural gas, and water usage that would be required for operation of the Project have been estimated based on specific building area estimates and CalEEMod[3] default factors for water use. Natural gas service would be used for lab use and for the café/restaurant use.[4] It is proposed that Project buildings would utilize electricity for all other uses, including but not limited to space heating/cooling and domestic water heating.

Potable water use for under the Project would require new water distribution infrastructure, to be installed on the Project site and connect to existing City water lines along the project frontage in Old Bayshore Highway. As discussed in Chapter 3, *Project Description*, the Project would reduce water use through use of low-flow plumbing fixtures, drip irrigation for all planting areas, and the use of drought tolerant landscaping that would require limited irrigation once established.[5]

[3] California Emissions Estimator Model (CalEEMod) is a statewide modeling software for estimating land use emissions from project-specific modeling inputs including land use type, square footage, and documented energy demand rates.

[4] Natural gas service would be extended to the proposed office/life science buildings and capped for potential future lab use and for the café/restaurant uses. To conservatively estimate Project operational emissions in this analysis, it is assumed that natural gas would be used to serve these Project uses.

[5] As discussed in Chapter 3, although recycled water is not currently available at the Project site, the proposed Project's non-potable irrigation water would be metered separate from the Project buildings, and all ground-level landscaping would be plumbed for future recycled water use when the City brings recycled water to the area.

Mobile source fuel use associated with operation of the Project was estimated based on vehicle miles travelled (VMT). The VMT data were used to estimate electricity, natural gas, diesel fuel, and gasoline consumption volumes for Project buildout conditions based on vehicle fleet-average fuel estimated using the EMFAC2021 emissions inventory model (Ramboll, 2023**)**. Operational consumption of electricity and natural gas was conservatively estimated in the California Emissions Estimator Model (CalEEMod 2022.1.0) under full buildout operations. The Project proposes to install 340 electric vehicle charging stations in the North and South Parking Structures, and consequently, there would also be an increase in electricity use associated with charging of employee and visitor electric vehicles at the Project site. However, electricity use associated with these mobile sources would also be dispersed throughout the city of Burlingame and beyond, as long-term charging of employee vehicles would also expected to occur at the vehicle owners' residences. The operational electrical demand for the Project is inclusive of the percentage of vehicle trips generated in electric vehicles charged both on-site and off-site.

The annual energy use requirements estimated for buildout operations of the Project relative to existing conditions are summarized in **Table 4.5-1** by energy use type. As discussed in Section 4.5.1, *Environmental Setting*, there are a number of existing land uses at the Project site that currently generate a demand for energy resources, and which would be displaced by the Project. The Project energy use presented in Table 4.5-1 does not discount the existing energy use associated with those land uses, and as such, the reported Project energy uses estimates are considered conservative.

TABLE 4.5-1
SUMMARY OF PROJECT OPERATIONAL ENERGY CONSUMPTION (ANNUAL)

Energy Use Type	Energy Consumption
Electricity (MWh/year)	
Total Electricity Generation/Use	35,466
Total Water Use	444
Total Wastewater Treatment	132
Natural Gas (MMBtu/year)	
Total Natural Gas Use	34,282
Diesel (gallons/year)	
Total Diesel Use	165,738
Gasoline (gallons/year)	
Total Gasoline Use	1,149,280

NOTES:
Project energy consumption for building electricity, and building natural gas were estimated using CalEEMod® 2022.1.0.
Project buildout water consumption from Water Supply Assessment prepared by EKI for the Project in support of this EIR.
Abbreviations: MMBTU - million British Thermal Units; MWh - megawatt-hour
SOURCE: Ramboll, 2023; ESA, 2023

While as discussed above, the Project proposes to procure energy from Peninsula Clean Energy, as a conservative approach in calculating Project electricity demand in this analysis, it is assumed that electricity serving the Project site would be sourced from PG&E.

Analysis of Factors Identified in CEQA Guidelines Appendix F

Appendix F of the CEQA Guidelines identifies factors relating to whether a project would result in the wasteful, inefficient, or unnecessary consumption of fuel or energy, and conversely whether the project would fail to incorporate renewable energy or energy efficiency measures into building design, equipment use, transportation, or other project features. The Appendix F factors are addressed below and used as guidance to evaluate the energy impact of the Project relative to the identified significance criteria.

Appendix F.II.C.1: Energy Requirements and Energy Use Efficiencies

CEQA Guidelines Appendix F, Section II.C.1, states that environmental impacts related to energy may include:

> *The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate the energy intensiveness of materials may be discussed.*

The energy inventories prepared for this evaluation include electricity and natural gas, and fuels used for construction and operation of the proposed Project. The estimated energy use levels are summarized above for the construction-phase energy use for the Project and in Table 4.5-1 for Project operations. For the effects of the Project on the local and regional energy supplies and on the need for additional capacity, refer to the Appendix F.II.C.2 discussion, below.

In addition to direct construction- and operation-related energy consumption, indirect energy use would be involved to produce electricity, refine fuels, and make the materials and components used in construction, including the energy used for extraction of raw materials, manufacturing, and transportation. Energy intensiveness of electricity generation, fuel refining, and materials, also referred to as the energy "lifecycle," is not addressed in this analysis because the California Natural Resources Agency (CNRA) has indicated that lifecycle analyses are not required under CEQA (CNRA, 2009).[6]

Nonetheless, recycling reduces indirect energy consumption associated with making materials and components, and reduces the energy used for extraction of raw materials, manufacturing, and transportation. California has a statewide goal of 75 percent waste diversion. Construction activities that would be associated with the Project would be required to divert at least 75 percent of construction waste from landfill and incineration, with a target to exceed 85 percent. Further,

[6] The CNRA explained in the context of GHG emissions, that: (1) there exists no standard regulatory definition for lifecycle, and (2) even if a standard definition for lifecycle existed, the term might be interpreted to refer to emissions beyond those that could be considered 'indirect effects' as defined by CEQA Guidelines, and therefore, beyond what an EIR is required to estimate and mitigate (CNRA, 2009). This reasoning was reaffirmed in Section 15126.2(b) of the November 2018 CEQA Guidelines, which cautions that the analysis of energy impacts is subject to the rule of reason and must focus on energy demand caused by the project, signaling that a full "lifecycle" analysis that would account for energy used in building materials and consumer projects will generally not be required (CNRA, 2018).

the construction of the Project would comply with the requirements of the CALGreen mandatory measures. These recycling efforts would reduce the effects of the Project's indirect energy use. As explained in Section 4.15, *Utilities and Service Systems*, operation of the Project would comply with the state goal by implementing waste diversion policies and infrastructure. The Project would provide recycling containers to be located within public areas, and implement a waste diversion and recycling program within the life science/office buildings to divert all non-hazardous related waste that can be safely recycled or composted.

Appendix F.II.C.2: Local and Regional Energy Supplies

CEQA Guidelines Appendix F, Section II.C.2, states that environmental impacts related to energy may include:

> *The effects of the project on local and regional energy supplies and on requirements for additional capacity.*

As discussed above, the Project would result in the consumption of electricity, natural gas, gasoline, and diesel associated with mobile vehicle sources, emergency generator operations, and construction activities. PG&E electric and gas lines in the vicinity would continue to serve the Project site. In addition, as discussed under *Approach*, above, although not reflected in the energy use calculations in Table, 4.5-1, electricity is proposed to be procured from Peninsula Clean Energy. These entities have established contracts and commitments to ensure there is adequate electricity generation and natural gas capacity to meet its current and future energy loads.

Electricity

Annual average electricity consumption that would be required for the construction period would be substantially less than estimated annual electricity consumption for Project operations. Therefore, this discussion focuses on electricity demand that would occur during Project operations. To put the Project's operational electricity requirements in context, as discussed in Section 4.5.1, *Environmental Setting*, in 2021 the total generated electricity for California was 277,764 GWh of electricity, of which consumers in San Mateo County used 4,157 GWh. The CEC estimates that state-wide electricity demand will increase to 339,160 GWh in 2030 based on an average annual mid-energy demand growth rate of 1.27 percent (CEC, 2018). As shown in Table 4.5-1, the anticipated Project operational energy consumption for electrical usage is approximately 35,466 MWh/year. This represents 0.013 percent of the total 2021 state-wide electricity usage and 0.853 percent of San Mateo County electricity usage.

Based on a comparison to the state-wide and San Mateo County annual energy demand and the projected demand growth rate, the Project-related electricity consumption would not cause adverse effects on local and regional energy supplies or require additional generation capacity beyond the state-wide planned increase to accommodate projected energy demand growth. Measure 5 of the City's 2030 CAP directs the City to adopt a Commercial Green Building Ordinance requiring new commercial construction (greater than 10,000 sq. ft.), such as the proposed Project, to meet a minimum Leadership in Energy and Environmental Design (LEED™) standard. This would be implemented by the City through the State's CalGreen building policy. The City has not yet adopted a Commercial Green Building Ordinance requiring LEED™ standards. Regardless, the

design of the Project buildings is targeted to meet the LEED™ Gold standard, which would include bicycle facilities, EV chargers, heat island reduction, rainwater management, all-electric & energy-efficient HVAC systems, enhanced commissioning, building product disclosures, enhanced indoor air quality, low-emitting materials, and indoor water use reduction, among others.

The transition toward electric power sources for on-road vehicles, including the installation of additional electric vehicle charging stations, would result in an increase in the calculated total electricity usage, as reflected in Table 4.5-1, above; however, the majority of the associated increased electricity use associated with mobile sources would not be expected to occur at the Project site, but would be dispersed throughout the greater Bay Area, and would not significantly impact overall electricity supply or infrastructure. While charging stations are proposed in the North and South Parking Structures, the bulk of long-term charging is expected to occur at the owners' residences.

Natural Gas

There would be no natural gas consumption associated with Project construction activities. As indicated in Table 4.5-1, the annual operational natural gas consumption is estimated to be 34,282 MMBtu/year, if it is conservatively assumed that natural gas would serve the proposed Project in a traditional manner. In comparison, as discussed in Section 4.5.1, *Environmental Setting*, the state-wide natural gas consumption in 2021 was 1,192,271,000 MMBtu and San Mateo County natural gas demand was 20,509,000 MMBtu in 2021. The natural gas consumption would account for approximately 0.003 percent of the 2021 statewide annual consumption and approximately 0.167 percent of the 2021 San Mateo County-wide consumption. It is projected that California natural gas demand will decrease at an annual rate of 1.1 percent to 2026 due to continued implementation of renewable generation projects and the penetration of energy efficient products in the state. After 2026, California natural gas demand is projected to increase due to population growth and associated demand (CEC, 2015).

An assessment of the available capacity of the existing natural gas transmission line that serves in the vicinity would be required to ensure that the existing PG&E facilities would be adequate to serve the increased demand. The proposed buildings would comply with the City of Burlingame 2020 Reach Code, which prohibits natural gas for heating and cooling. Rather, the Project would use electrically-powered space heating/cooling and domestic water heating.

Transportation Fuels

Regarding Project-related fuel consumption, it is estimated that off-road construction equipment and on-road vehicles would consume an annual average of approximately 150,743 gallons of diesel fuel per year and on-road worker vehicles would consume an annual average of approximately 84,859 gallons per year of gasoline during the construction phases of the proposed Project. During Project operation, it is estimated that the consumption of diesel fuel due to the Project would be approximately 165,738 gallons per year and the consumption of gasoline would be approximately 1,149,280 gallons per year (see Table 4.5-1). The Project's annual average diesel use amounts for Project construction and operation are equivalent to approximately 0.942 percent and approximately 1.036 percent, respectively, of the diesel fuel sold in San Mateo County, and the gasoline use amounts for construction and operations are equivalent to approximately 0.032 percent and

approximately 0.427 percent, respectively, of the total gasoline fuel sold in San Mateo County (see "Transportation Fuels" in Section 4.5.1, Environmental Setting).

The overall energy use requirements would not be substantial relative to the total sales of transportation fuels in San Mateo County. In addition, implementation of Mitigation Measure AIR-2a: Construction Emissions Minimization, would help avoid wasteful or inefficient use of energy during construction by requiring that equipment be well maintained, and requiring that idling be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes in accordance with the Title 13, Section 2485, of the California Code of Regulations.

The Project would not require additional power generation plants, natural gas transmission facilities, or fuel refineries to be constructed. Through use of renewable energy, energy efficiency standards, and electric vehicle charging infrastructure, the Project would minimize impacts on the local and regional energy supply.

Appendix F.II.C.3: Peak and Base Period Demands

CEQA Guidelines Appendix F, Section II.C.3, states that environmental impacts related to energy may include:

> *The effects of the project on peak and base period demands for electricity and other forms of energy.*

Peak period electrical demand is the short period of time during which electrical power is needed when electricity is in highest demand. Base period electrical load is the minimum amount of electrical demand needed over a 24-hour time period. Wasteful, inefficient, or unnecessary consumption or use of energy during the peak period of electrical demand has greater potential to cause adverse environmental effects compared to during the base period because of the higher demand during the peak period. The Project would not have a substantial impact on the peak and base period demands for electricity or other forms of energy. The Project's base energy consumption compared to regional and statewide energy consumption is discussed above. Further details and reasoning on the peak demand are described below.

In 2021, California's peak grid demand was 43,982 MW, while PG&E reached a maximum demand of 20,118 MW (Cal ISO, 2022). In comparison, the Project's maximum demand is expected to be approximately 4.04 MW, which would be served by direct-feed PG&E electricity or by Peninsula Clean Energy. This estimate conservatively excludes the benefits of LEED™ and improvements in demand response due to future updates to the Title 24 energy standards. Overall, the Project peak demand represents approximately 0.02 percent of PG&E's peak demand, it would have a relatively minor effect on PG&E's system-wide peak demands.

Appendix F.II.C.5: Energy Resources

CEQA Guidelines Appendix F, Section II.C.5, states that environmental impacts related to energy may include:

> *The effects of the project on energy resources.*

The Project's energy use, including electricity, natural gas, gasoline, and diesel consumption, would primarily be associated with construction activities, vehicle travel, PUC operations, and emergency generator testing and maintenance. Total energy use requirements are described above for construction activities and shown in Table 4.5-1 for the change from existing conditions to Project operations. Refer to the Appendix F.II.C.2 and F.II.C.3 discussions, above, for the effects that the Project would have on energy resources. The Project's use of energy would not have a substantial adverse effect on statewide or regional energy resources relative to wasteful, inefficient, or unnecessary use of energy.

Appendix F.II.C.6: Transportation Energy Use

CEQA Guidelines Appendix F, Section II.C.6, states that environmental impacts related to energy may include:

> *The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.*

Transportation energy use requirements in terms of gasoline and diesel quantities for construction and operation of the Project are presented above and in Table 4.5-1. The quantification of VMT associated with Project operations, which is used to quantify the total operational transportation-related energy use requirements, is discussed in detail under *Operational Energy Use*, above.

In addition, as discussed above, implementation of Mitigation Measure AIR-2a: Construction Emissions Minimization, would help avoid wasteful or inefficient use of energy during construction by requiring that equipment be well maintained, and requiring that idling be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes in accordance with the CCR Title 13, Section 2485. The Project would promote public transit linkages and use of alternative modes of transportation by upgrading the Commute.org Burlingame Bayside shuttle and other Transportation Demand Management programs as well as bicycle and pedestrian access to and through the site. In general, vehicle trip-generating developments near public transit facilities result in reduced energy use by projects compared to projects not in the vicinity of such facilities. According to the California Air Pollution Control Officers Association (CAPCOA, 2010), "[l]ocating a project with high density near transit will facilitate the use of transit by people traveling to or from the Project site. The use of transit results in a mode shift and therefore reduced VMT."

Impact Conclusion Summary

Based on the above analysis, the Project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of fuel or energy.

Mitigation: None required.

Impact ENE-2: Implementation of the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. (*Less than Significant*)

All aspects of the proposed Project (including, but not limited to, procurement of electricity from Peninsula Clean Energy, provision of EV charging stations at the Project site, use of drought tolerant landscaping, and TDM plan to reduce vehicle trips) that are designed to conserve and reduce energy consumption would be implemented. In addition, the Project would address recommended measures of the 2030 CAP, which has goals similar to the statewide target of achieving 80 percent below 1990 emission levels by 2050 (City of Burlingame, 2019b). Measure 12 of the 2030 CAP has voluntary energy efficiency improvements that are above and beyond State requirements. The construction period of the Project would implement Measure 10 of the 2030 CAP's Construction Best Management Practices of Bay Area Air Quality Management District's Best Practices for Construction.

The Project would be required to comply with the California Green Building Standards Code (CALGreen) and target LEED™ certification rating of Gold. The proposed Project would not conflict with the City's policy related to renewable energy or energy efficiency. The Project's impact would be less than significant.

Mitigation: None required.

Cumulative Impacts

Impact C-ENE-1: The Project, combined with cumulative development in the Project site vicinity and citywide, would not result in significant cumulative energy impacts. (*Less than Significant*)

Geographic Context

The geographic scope of potential cumulative effects with respect to energy resources includes PG&E's natural gas transmission system that would serve the Project, PG&E's electrical grid that could serve the Project, the area from which transportation fuels would be provided (for this EIR, publicly available fuel sources in the vicinity of the Project site), and the cumulative projects discussed in Section 4.0.

Cumulative Impact and Project Contribution

Given the City of Burlingame's implementation of energy reduction measures within its 2030 CAP that would serve to improve efficiency of existing buildings, require new buildings to comply with the CALGreen Code and the voluntary Tier 1 and Tier 2 standards for the 2019 Title 24 Building Standards, the Project would not contribute to a significant cumulative impact related to the use of large amounts of fuel or energy in a wasteful or inefficient manner and the cumulative impact would be less than significant.

Given the relatively small percentage of the Project's other fuel and energy uses compared to existing fuel and energy use in the region, the Project's less-than-significant incremental impacts

related to the use of other forms of fuel or energy in a wasteful or inefficient manner would not be expected to combine with the incremental impacts of other projects to cause an adverse cumulative impact. The operational electricity requirements of the Project would not be cumulatively considerable and the estimated consumption rates would not be substantial compared to the 2020 citywide consumption.

Project-related transportation fuel demand could overlap with the transportation needs (including fuel needs) of previously approved past projects, as well as other present or future projects that would occur during the Project's construction and operation. However, there is no apparent significant cumulative condition to which the Project could contribute. In addition, implementation of Mitigation Measure AIR-2a: Construction Emissions Minimization, would help avoid wasteful or inefficient use of energy during construction by requiring that equipment be well maintained, and requiring that idling be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes. Vehicle use associated with operations of the Project would be reduced due to implementation of 2030 CAP's TDM program, which would include reductions in transportation and associated energy usage. Therefore, the Project's incremental impact associated with its energy use would be less than significant.

Cumulative projects could require increased peak and base energy demands and, therefore, could cause or contribute to adverse cumulative conditions. However, the cumulative projects would be subject to the same applicable federal, state, and local energy efficiency requirements (e.g., the State's Title 24 requirements) that would be required of the Project, which would result in efficient energy use during their construction and operation. Adverse Project-related impacts to electricity demand would be negligible and would not significantly impact peak or base power demands during construction, operation, or maintenance. Accordingly, the Project's incremental contribution to cumulative peak and base demands would not be cumulatively considerable.

Conclusion

Based on the above analysis, the Project would not involve wasteful, inefficient, or unnecessary consumption of fuel or energy and would not make a cumulatively considerable contribution to a cumulative impact on energy resources. The project's cumulative impact would be less than significant.

Mitigation: None required.

4.5.4 References

City of Burlingame, 2019b. 2030 Climate Action Plan (CAP) Update. August 28, 2019. https://cms6.revize.com/revize/burlingamecity/document_center/Sustainability/CAP/Climate%20Action%20Plan_FINAL.pdf. Accessed December 23, 2022.

City of Burlingame, 2019a. 2030 Climate Action Plan (CAP) Update Appendix A. August 28, 2019. https://cms6.revize.com/revize/burlingamecity/document_center/Sustainability/CAP/BurlingameCAP_Appendices_FINAL_20190829.pdf. Accessed December 23, 2022.

California Air Pollution Control Officers Association (CAPCOA), 2010. Quantifying Greenhouse Gas Mitigation Measures. August. http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf. Accessed January 18, 2023.

California Air Resources Board (CARB), 2017. Clean Car Standards—Pavley, Assembly Bill 1493, last reviewed January 11, 2017. http://www.arb.ca.gov/cc/ccms/ccms.htm. Accessed January 18, 2023.

California Energy Commission (CEC), 2015. Draft Staff Report: 2015 Natural Gas Outlook. November 3, 2017. http://docketpublic.energy.ca.gov/PublicDocuments/15-IEPR-03/TN206501_20151103T100153_Draft_Staff_Report_2015_Natural_Gas_Outlook.pdf. Accessed December 23, 2019.

CEC, 2018. Revised Transportation Energy Demand Forecast 2018-2030. 17-IEPR-05. https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=17-IEPR-05. February 2018; docketed April 19, 2018. Accessed January 18, 2023.

CEC, 2021. California's Oil Refineries. https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/californias-oil-refineries#:~:text=California%20Oil%20Refinery%20Locations%20and%20Capacities%20%20,%20%20160%2C000%20%2010%20more%20rows%20. Accessed January 18, 2023. CEC, 2022a. 2021 Total System Electric Generation, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2021-total-system-electric-generation. Accessed December 23, 2022.

CEC, 2022b. Gas Consumption by County. http://www.ecdms.energy.ca.gov/gasbycounty.aspx. Accessed December 23, 2022.

CEC, 2022c. Supply and Demand of Natural Gas in California. https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california. Accessed December 23, 2022.

CEC, 2022e. Electricity Consumption by County. http://www.ecdms.energy.ca.gov/elecbycounty.aspx. Accessed December 23, 2022.

CEC, 2022f. 2022 Integrated Energy Policy Report Update. https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2018-integrated-energy-policy-report-update. Accessed December 23, 2022.

CEC, 2022g. Oil Supply Sources to California Refineries, Available at: https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/oil-supply-sources-california-refineries. Accessed December 23, 2022.

CEC, 2022h. 2021 California Annual Retail Fuel Outlet Annual Reporting (CEC-A15) Results, Energy Assessments Division, December 23, 2022.

Cal ISO (California Independent System Operator), 2022. 2021-2022 Transmission Plan, Board Approved March 17, 2022. http://www.caiso.com/InitiativeDocuments/ISOBoard Approved-2021-2022TransmissionPlan.pdf. Accessed January 18, 2023.

California Public Utilities Commission (CPUC), 2023. Renewables Portfolio Standard. https://rps.cpuc.ca.gov/login/?next=/. Accessed January 18, 2023.

The EPIC Energy Blog (EPIC), 2018. Update on Electric Vehicle CPUC Decision and Other Related Legislation, Legislative Update. Posted on June 2018. https://epicenergyblog.com/2018/06/01/update-on-electric-vehicle-cpuc-decision-and-other-related-legislation/. Accessed January 18, 2023.

U.S. Energy Information Administration (EIA), 2021. Transportation Sector Energy Consumption Estimates 2020. https://www.eia.gov/state/seds/sep_sum/html/pdf/sum_btu_tra.pdf. Accessed January 18, 2023.

EIA, 2022a. California State Profile and Energy Estimates, updated December 15, 2022. http://www.eia.gov/state/data.cfm?sid=CA#ConsumptionExpenditures. Accessed January 18, 2023.

EIA, 2022b. California Energy Consumption by End-Use Sector, 2020. Last Updated: March 17, 2022. https://www.eia.gov/state/?sid=CA#tabs-2. Accessed January 18, 2023.

EIA, 2022d. California State Profile and Energy Estimates, Profile Analysis. https://www.eia.gov/state/analysis.php?sid=CA. Last updated March 17, 2022. Accessed January 18, 2023.

Pacific Gas & Electric (PG&E), 2019. PG&E Overview, http://www.pgecorp.com/corp_responsibility/reports/2018/bu01_pge_overview.html. Accessed January 18, 2023.

PG&E, 2022a. Corporate Sustainability Report 2022. https://www.pgecorp.com/corp_responsibility/reports/2022/?WT.mc_id=Vanity_crsr. Accessed January 18, 2023.

PG&E, 2022b. 2021 Joint Annual Report to Shareholders, filed with the Securities and Exchange Commission on February 10, 2022.

PG&E, 2023. Learn about the PG&E Natural Gas System, https://www.pge.com/en_US/safety/how-the-system-works/natural-gas-system-overview/natural-gas-system-overview.page. Accessed January 18, 2023.

Ramboll, 2023. *Peninsula Crossing: Air Quality and Greenhouse Gas Technical Report.* February 2, 2023.

Reuters, 2020. Profile: Pacific Gas and Electric Co. (PCG_pa.A). Accessed February 5, 2020.

United States Environmental Protection Agency (U.S. EPA), 2012. EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017 through 2025 Cars and Light Trucks. August 2012. https://nepis.epa.gov/Exe/ZyPDF.cgi/P100EZ7C.PDF?Dockey=P100EZ7C.PDF. Accessed January 18, 2023.

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4.6 Geology and Soils

This section describes and evaluates the potential for construction and operation of the proposed Project to result in significant impacts related to geology, soils, and paleontological resources. The analysis is based on review of available reports and maps of the Project site and vicinity, including site-specific investigations, relevant regulations, and a discussion of the methodology and thresholds used to determine whether the proposed Project would result in significant impacts. This section analyzes the potential for both Project-level and cumulative environmental impacts.

4.6.1 Environmental Setting

The Project site lies within the geologically complex Coast Ranges Geomorphic Province[1] in the City of Burlingame. The tectonics of the San Andreas Fault and other major faults in the western part of California have played a major role in the geologic history of the area, driven by the interaction of the Pacific and North American Tectonic Plates. The region is marked by northwest-trending elongated ranges and narrow valleys that roughly parallel the coast and the San Andreas Fault Zone. Geologic materials are mostly composed of marine sedimentary deposits, metamorphic rocks, and volcanic rocks. The Project site is within the peninsula segment of the Santa Cruz Mountain, adjacent to the San Francisco Bay waterfront.

Local Geology

Based on preliminary geotechnical field investigations performed by Cornerstone Earth Group (Cornerstone, 2021), the Project site is underlain by approximately 8.5 to 12.5 feet of undocumented (artificial) fill. The fill is highly variable and consists of sandy lean clay, clayey sands with gravel, organic material, and debris; a substantial amount of concrete debris was encountered during the geotechnical field investigation. The fill is underlain by approximately 8.5 to 13.5 feet of highly compressible Bay Mud. The depth to the bottom of the Bay Mud varies from approximately 18 to 23.5 feet below ground surface (bgs). Below the Bay Mud, subsurface explorations encountered native alluvial deposits consisting of stiff to very stiff lean clays and medium dense to very dense sands with variable amounts of silt, clay, and gravel to the maximum depth of approximately 107 feet bgs.

Geologic mapping by Wagner et al. (1991) and Brabb et al. (1998) also indicate that the surficial deposits underling the Project site are entirely artificial fill. Additionally, as stated above, native alluvial deposits were encountered below the Bay Mud deposits. The preliminary geotechnical investigation does not correlate these deposits to specific deposits on a geologic map. Mapping by Brabb et al. suggests that these deposits correlate to Holocene-age basin deposits (Brabb et al., 1998).

[1] A geomorphic province is a regional area that possesses similar bedrock, structure, history, and age.

Soils

Expansive Soil

Expansive soils are soils that possess a "shrink-swell" characteristic, also referred to as linear extensibility. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying; the volume change is reported as a percent change for the whole soil. Changes in soil moisture can result from rainfall, landscape irrigation, utility leakage, roof drainage, and/or perched groundwater.[2] This cyclical change in soil volume is measured using the coefficient of linear extensibility (COLE) (NRCS, 2017). The Natural Resources Conservation Service (NRCS) relies on linear extensibility measurements to determine the shrink-swell potential of soils. If the linear extensibility percent is more than 3 percent (COLE=0.03), shrinking and swelling may cause damage to buildings, roads, and other structures (NRCS, 2017). Structural damage may occur incrementally over a long period of time, usually as a result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils.

There is no linear extensibility data available for the Project site through the NRCS Web Soil Survey (NRCS, 2022). However, according the preliminary geotechnical investigation, the artificial fills underlying the Project site have a moderate expansion potential (Cornerstone, 2021).

Soil Erosion

Erosion is the wearing-away of soil and rock by processes such as mechanical or chemical weathering, mass wasting, and the action of waves, wind, and underground water. Excessive soil erosion can eventually lead to damage of building foundations and roadways. In general, areas that are most susceptible to erosion are those that would be exposed during the construction phase when earthwork activities disturb soils and require stockpiling. Typically, the soil erosion potential is reduced once the soil is graded and covered with concrete, structures, asphalt, or landscaping. However, changes in drainage patterns can also cause areas to be susceptible to the effects of erosion.

Geologic and Seismic Hazards

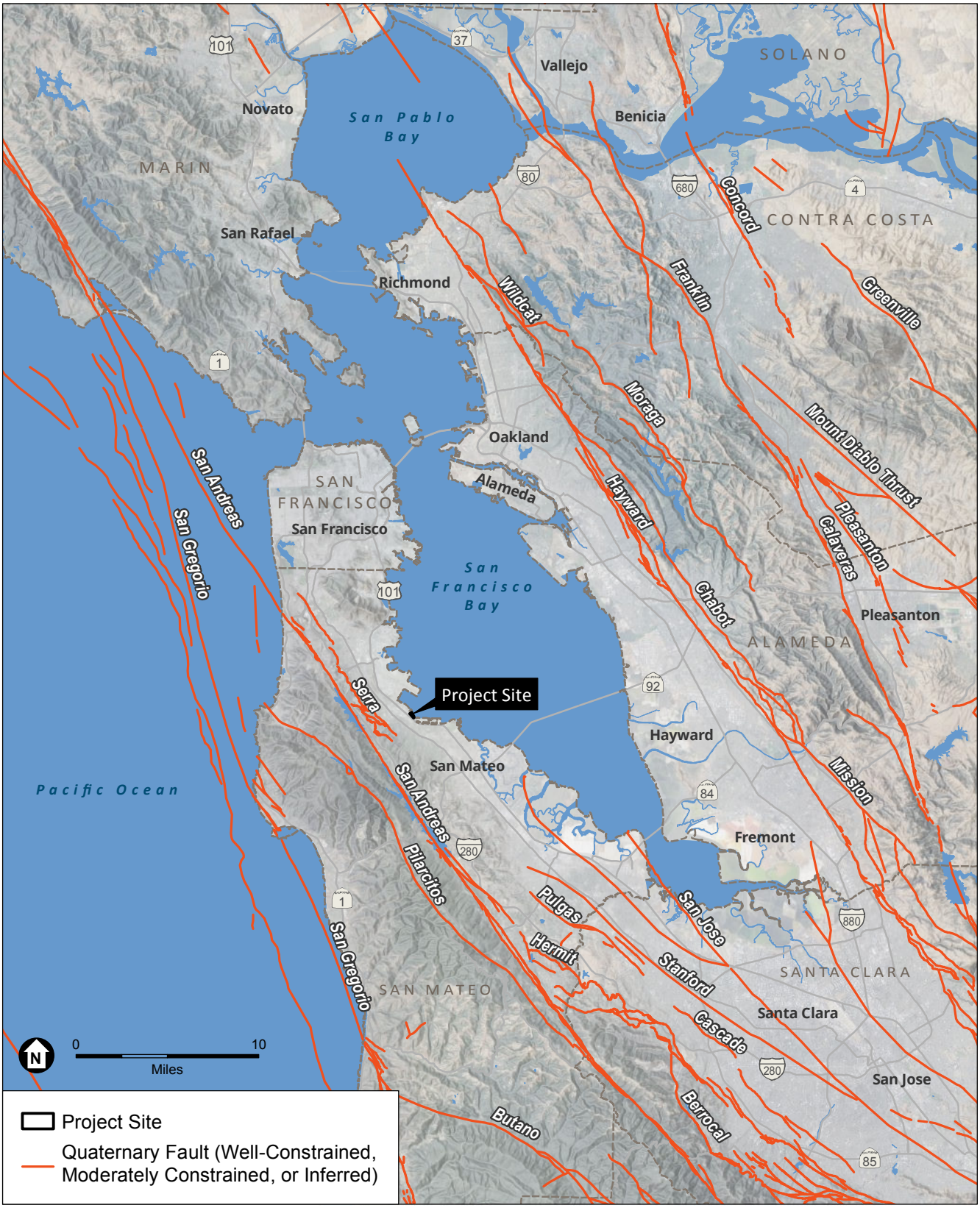
Faulting

The Project site lies within a region that contains active and potentially active faults, as illustrated in **Figure 4.6-1**. Based on a review of the California Earthquake Hazards Zone Application (EQ Zapp)[3]of available earthquake hazard zone data, there are there are no Holocene-active[4] faults within the City. The nearest Holocene-active faults are the Peninsula Section of the San Andreas

[2] Perched groundwater is a local saturated zone above the water table that typically exists above an impervious layer (such as clay) of limited extent.

[3] EQ Zapp is an interactive map available on the California Geological Survey (CGS) website at https://www.conservation.ca.gov/cgs/geohazards/eq-zapp. EQ Zapp provides mapping of earthquake hazard zone data, including earthquake faults, liquefaction, and earthquake-induced landslide zones.

[4] Holocene-active faults show evidence of displacement within the Holocene Epoch, or the last 11,700 years are considered active (CGS, 2008).



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SOURCE: CGS, 2010; ESA 2022

1200-1340 Old Bayshore Highway EIR

Figure 4.6-1
Regional Faults

fault zone (approximately 2.6 miles southwest of the Project site) and the Southern Hayward Section of the Hayward fault zone (approximately 15.8 miles northeast of the Project site) (Cornerstone, 2021; CGS, 2022). The pre-Holocene[5] Serra fault zone is approximately 1.3 miles southwest of the Project site (Cornerstone, 2021).

Surface Fault Rupture

The State Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) prohibits the development of structures for human occupancy across active fault traces. Under this Act, the California Geological Survey (CGS) has established "Zones of Required Investigation" on either side of an active fault that delimits areas susceptible to surface fault rupture. The zones are referred to as Earthquake Fault Zones (EFZs) and are shown on official maps published by the CGS. Surface rupture occurs when the ground surface is broken due to a fault movement during an earthquake; typically, these types of hazards occur within 50 feet of an active fault. As discussed above, there are no Holocene-active faults within the City, and therefore, there are no EFZs within the City (CGS, 2022).

Seismic Ground Shaking

Ground shaking occurs due to a seismic event and can cause extensive damage to life and property and may affect areas hundreds of miles away from the earthquake's epicenter. The extent of the damage varies by event and is determined by several factors, including (but not limited to) magnitude and depth of the earthquake, distance from epicenter, duration and intensity of the shaking, underlying soil and rock types, and integrity of structures.

The entire San Francisco Bay Area, including the City, could be subject to strong groundshaking as a result of significant earthquakes within the San Andreas and/or Hayward fault zones. The 2014 Working Group on California Earthquake Probabilities (WGCEP)[6] concluded that there is a 72 percent probability that a magnitude (M_W) 6.7 earthquake or higher could occur in the San Francisco Bay Area over the next 30 years (Field et al., 2015).

Liquefaction and Lateral Spreading

Liquefaction is a phenomenon in which unconsolidated, water saturated sediments become unstable due to the effects of strong seismic shaking. During an earthquake, these sediments can behave like a liquid, potentially causing severe damage to overlying structures. Lateral spreading is a variety of minor landslide that occurs when unconsolidated liquefiable material breaks and spreads due to the effects of gravity, usually down gentle slopes. Liquefaction-induced lateral spreading is defined as the finite, lateral displacement of gently sloping ground as a result of pore-pressure buildup or liquefaction in a shallow underlying deposit during an earthquake. The occurrence of this phenomenon is dependent on many complex factors, including the intensity and duration of ground shaking, particle-size distribution, and density of the soil.

5 Pre-Holocene faults have not shown evidence of displacement in the last 11,700 years (CGS, 2008).

6 Also referred to as WGCEP 2014, this is a working group comprised of seismologists from the U.S. Geological Survey (USGS), CGS, Southern California Earthquake Center (SCEC), and California Earthquake Authority (CEA).

The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of structure slabs due to sand boiling, and buckling of deep foundations due to ground settlement. Dynamic settlement (i.e., pronounced consolidation and settlement from seismic shaking) may also occur in loose, dry sands above the water table, resulting in settlement of and possible damage to overlying structures. In general, a relatively high potential for liquefaction exists in loose, sandy soils that are within 50 feet of the ground surface and are saturated (below the groundwater table). Lateral spreading can move blocks of soil, placing strain on buried pipelines that can lead to leaks or pipe failure.

According to the EQ Zapp, the City is almost entirely within an established liquefaction zone (CGS 2022). Preliminary liquefaction analysis by Cornerstone indicates that there is a potential for liquefaction of localized sand layers within the undocumented fill at the Project site in the event of a substantial seismic event. Cornerstone also notes that due to the variability of the undocumented fill, there may be a higher potential for liquefaction in different areas of the Project site. Additionally, liquefaction within the undocumented fill could contribute to lateral spreading.

Landslides

Landslides are one of the various types of downslope movements in which rock, soil, and other debris are displaced due to the effects of gravity. The potential for material to detach and move down slope depends on multiple factors including the type of material, water content, and steepness of terrain. Generally, earthquake-induced landslides occur within deposits of a moderate to high landslide potential when ground shaking triggers slope failures during or as a result of a nearby earthquake.

The urbanized, developed areas of the City such as Project site vicinity have a very low landslide potential due to the relatively flat topography and lack of slopes and hills. According to the EQ Zapp, the Project vicinity is not within any established earthquake-induced landslide zones (CGS, 2022). Additionally, there are no historic landslides mapped in the Project area (Wagner et al., 1991; Brabb et al., 1998).

Paleontological Resources

Paleontological resources are the mineralized (fossilized) remains of prehistoric plants and animals, including body fossils, such as bones, bark or wood, and shell, as well as trace fossils, such as shell, leaf, skin, or feather impressions, footprints, burrows, or other evidence of an organism’s life or activity. These resources are located within sedimentary rocks or alluvium and are considered to be nonrenewable.

In its “Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources,” the Society of Vertebrate Paleontology (SVP) defines four categories of paleontological potential for rock units: high, low, undetermined, and no potential: High Potential, rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant

paleontological resources; Low Potential, rock units that are poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule; Undetermined Potential, rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment; and No Potential, rock units like high-grade metamorphic rocks and igneous rocks that will not preserve fossil resources (SVP, 2010).

As discussed above, the surficial geology within the Project site is composed entirely of artificial fill with Holocene-age Bay Mud below, and underlain by native alluvial deposits composed of stiff clays and dense sands with variable amounts of silt, clay, and gravel. The alluvial deposits appear to correlate with Holocene-age basin deposits.

Due to the artificial nature—and the recent age—of the fill underling the Project site, it has no potential to contain significant paleontological resources. As discussed, in general, Holocene-age deposits are considered to have a low potential to contain significant paleontological resources, based on the relatively recent age of the deposits (SVP, 2010); the youngest Holocene-age deposits (i.e., younger than 5,000 radiocarbon years) have a particularly low potential.

A record search of the University of California Museum of Paleontology (UCMP) online fossil locality database suggests that there have been no previously recorded vertebrate fossil localities within Holocene-age sediments in San Mateo County (UCMP, 2022). There are records of over 400 invertebrate, plant, and/or microfossils within recent-age or Holocene-age sediments in San Mateo County, however, there is no indication that these fossil localities are within the Project site or were recovered from Bay Mud deposits (UCMP 2022).

In summary, the artificial fill underlying the Project site has no potential to contain significant paleontological resources and the underlying Bay Mud and alluvial deposits have a low potential.

4.6.2 Regulatory Framework

Federal

Clean Water Act

The federal Clean Water Act (CWA) and subsequent amendments, under the enforcement authority of the U.S. Environmental Protection Agency (USEPA), was enacted “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” The purpose of the CWA is to protect and maintain the quality and integrity of the nation’s waters by requiring states to develop and implement state water plans and policies. The CWA gave the USEPA the authority to implement pollution control programs such as setting wastewater standards for industry. In California, implementation and enforcement of the National Pollutant Discharge Elimination System (NPDES) program is conducted through the California State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs). The CWA also sets water quality standards for surface waters and established the NPDES program to protect water quality through various sections of the CWA, including Sections 401 through 404 and 303(d) that are implemented and regulated by the SWRCB and the

nine RWQCBs. Section 402 of the CWA would apply to the Project because construction at the housing sites would be required to control discharges of pollutants from point sources, as discussed below.

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to protect structures for human occupancy from the hazard of surface faulting. In accordance with the act, the State Geologist has established regulatory zones—called earthquake fault zones—around the surface traces of active faults and has published maps showing these zones. Buildings for human occupancy cannot be constructed across surface traces of faults that are determined to be active. Because many active faults are complex and consist of more than one branch that may experience ground surface rupture, earthquake fault zones extend approximately 200 to 500 feet on either side of the mapped fault trace.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was passed in 1990 following the Loma Prieta earthquake to reduce threats to public health and safety and to minimize property damage caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones, and cities, counties, and other local permitting agencies to regulate certain development projects within these zones. For projects that would locate structures for human occupancy within designated Zones of Required Investigation, the Seismic Hazards Mapping Act requires project applicants to perform a site-specific geotechnical investigation to identify the potential site-specific seismic hazards and corrective measures, as appropriate, prior to receiving building permits. The CGS Guidelines for Evaluating and Mitigating Seismic Hazards (Special Publication 117A) provides guidance for evaluating and mitigating seismic hazards (CGS, 2008).

California Building Code (CBC)

The California Building Code (CBC), which is codified in Title 24 of the California Code of Regulations, Part 2, was promulgated to safeguard the public health, safety, and general welfare by establishing minimum standards related to structural strength, means of egress to facilities (entering and exiting), and general stability of buildings. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction. Title 24 is administered by 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. The provisions of the CBC apply to the construction, alteration, movement, replacement, location, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

The 2022 edition of the CBC is based on the 2021 International Building Code (IBC) published by the International Code Council, which replaced the Uniform Building Code (UBC). The code is updated triennially, and the 2022 edition of the CBC was published by the California Building

Standards Commission on July 1, 2022, and took effect starting January 1, 2023. The 2022 CBC contains California amendments based on the American Society of Civil Engineers (ASCE) Minimum Design Standard ASCE/SEI 7-16, Minimum Design Loads for Buildings and Other Structures, provides requirements for general structural design and includes means for determining earthquake loads as well as other loads (such as wind loads) for inclusion into building codes. Seismic design provisions of the building code generally prescribe minimum lateral forces applied statically to the structure, combined with the gravity forces of the dead and live loads of the structure, which the structure then must be designed to withstand. The prescribed lateral forces are generally smaller than the actual peak forces that would be associated with a major earthquake. Consequently, structures should be able to (1) resist minor earthquakes without damage; (2) resist moderate earthquakes without structural damage but with some nonstructural damage; and (3) resist major earthquakes without collapse, but with some structural as well as nonstructural damage. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake; however, it is reasonable to expect that a structure designed in accordance with the seismic requirements of the CBC should not collapse in a major earthquake.

The earthquake design requirements take into account the occupancy category of the structure, site class, soil classifications, and various seismic coefficients, all of which are used to determine a seismic design category (SDC) for a project. The SDC is a classification system that combines the occupancy categories with the level of expected ground motions at the site; SDC ranges from A (very small seismic vulnerability) to E/F (very high seismic vulnerability and near a major fault). Seismic design specifications are determined according to the SDC in accordance with CBC Chapter 16. CBC Chapter 18 covers the requirements of geotechnical investigations (Section 1803), excavation, grading, and fills (Section 1804), load-bearing of soils (Section 1806), as well as foundations (Section 1808), shallow foundations (Section 1809), and deep foundations (Section 1810). For Seismic Design Categories D, E, and F, Chapter 18 requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading, plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and soil strength loss, and lateral movement or reduction in foundation soil-bearing capacity. It also addresses measures to be considered in structural design, which may include ground stabilization, selecting appropriate foundation type and depths, selecting appropriate structural systems to accommodate anticipated displacements, or any combination of these measures. The potential for liquefaction and soil strength loss must be evaluated for site-specific peak ground acceleration magnitudes and source characteristics consistent with the design earthquake ground motions.

Requirements for geotechnical investigations are included in Appendix J, CBC Section J104, Engineered Grading Requirements. As outlined in Section J104, applications for a grading permit are required to be accompanied by plans, specifications, and supporting data consisting of a soils engineering report and engineering geology report. Additional requirements for subdivisions requiring tentative and final maps and for other specified types of structures are in California Health and Safety Code Sections 17953 to 17955 and in 2013 CBC Section 1802. Testing of samples from subsurface investigations is required, such as from borings or test pits. Studies must be done as needed to evaluate slope stability, soil strength, position and adequacy of load-bearing

soils, the effect of moisture variation on load-bearing capacity, compressibility, liquefaction, differential settlement, and expansiveness.

National Pollutant Discharge Elimination System (NPDES) Construction General Permit

Construction associated with projects that would disturb more than one acre of land surface affecting the quality of stormwater discharges into waters of the U.S. are subject to the *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Order 2022-0057-DWQ, NPDES No. CAS000002). The Construction General Permit regulates discharges of pollutants in stormwater associated with construction activity to waters of the U.S. from construction sites that disturb one acre or more of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface. The permit regulates stormwater discharges associated with construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines.

The Construction General Permit requires that construction sites be assigned a Risk Level of 1 (low), 2 (medium), or 3 (high), based both on the sediment transport risk at the site and the receiving waters risk during periods of soil exposure (e.g., grading and site stabilization). The sediment risk level reflects the relative amount of sediment that could potentially be discharged to receiving water bodies and is based on the nature of the construction activities and the location of the site relative to receiving water bodies. The receiving waters risk level reflects the risk to the receiving waters from the sediment discharge. Depending on the risk level, the construction projects could be subject to the following requirements:

- Effluent standards;
- Good site management "housekeeping;"
- Non-stormwater management;
- Erosion and sediment controls;
- Run-on and runoff controls;
- Inspection, maintenance, and repair; or
- Monitoring and reporting requirements.

The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes specific best management practices (BMPs) designed to prevent sediment and pollutants from contacting stormwater from moving off site into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area. Routine inspection of all BMPs is required under the provisions of the Construction General Permit. In addition, the SWPPP is required to contain a visual monitoring program, a chemical monitoring program for non-visible pollutants, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

The SWPPP must be prepared before the construction begins. The SWPPP must contain a site map(s) that delineates the construction work area, existing and proposed buildings, parcel boundaries, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project area. The SWPPP must list BMPs and the placement of those BMPs that the applicant would use to protect stormwater runoff. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Examples of typical construction BMPs include scheduling or limiting certain activities to dry periods, installing sediment barriers such as silt fence and fiber rolls, and maintaining equipment and vehicles used for construction. Non-stormwater management measures include installing specific discharge controls during certain activities, such as paving operations, vehicle and equipment washing and fueling. The Construction General Permit also sets post-construction standards (i.e., implementation of BMPs to reduce pollutants in stormwater discharges from the site following construction).

In the Project area, the Construction General Permit is implemented and enforced by the San Francisco Bay RWQCB, which administers the stormwater permitting program. Dischargers must electronically submit a notice of intent and permit registration documents to obtain coverage under this Construction General Permit. Dischargers are to notify the San Francisco Bay RWQCB of violations or incidents of non-compliance, and submit annual reports identifying deficiencies in the BMPs and explaining how the deficiencies were corrected. The risk assessment and SWPPP must be prepared by a State Qualified SWPPP Developer, and implementation of the SWPPP must be overseen by a State Qualified SWPPP Practitioner. A legally responsible person, who is legally authorized to sign and certify permit registration documents, is responsible for obtaining coverage under the permit.

Municipal Separate Stormwater System (MS4s)

The San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (MRP; Municipal Separate Storm Sewer System (MS4) Permit NPDES No. CAS612008 and Order No. R2-2022-0018) requires permittees, which includes the City of Burlingame, to reduce pollutants and runoff flows from new development and redevelopment using BMPs to the maximum extent practical. The San Mateo County MRP permittees, which includes the City of Burlingame, prepared the C.3 Regulated Projects Guide (SMCWPPP) as a guide to for use by developers, builders, and project applicants to provide development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification element. The MRP requires specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

City of Burlingame General Plan

The City of Burlingame General Plan, Envision Burlingame, is the guiding document for the city's physical development. It includes detailed goals, policies and implementation programs that convey a long-term vision and guide local decision-making to achieve that vision. The General Plan includes the following goals and policies that are applicable to the Project.

Chapter 8, Community Safety: Seismic and Geologic Hazards

Goal CS-7: Protect people and buildings in Burlingame by reducing the risks associated with geologic and seismic hazards.

Policy CS-7.3: Geologic Review. Create and implement a geologic review procedure that requires geologic reports be prepared as part of the development review process.

City of Burlingame Municipal Code

The City of Burlingame Municipal Code regulates the use and development of land within the City. Title 18 of the Municipal Code is intended promote the public welfare and safety by establishing minimum standards and requirements relating to excavation, grading and fills; to lessen the exposure to or probability of earth slides or flooding; and to establish procedures by which such requirements may be enforced.

Section 18.20.030 requires obtaining a grading permit from the City prior to filling, excavation or grading of a site. Prior to approval the City engineer shall consider a number of factors, including but not limited to, the saturation of fill and unsupported cuts by water, both natural and domestic; run-off of surface waters that produce erosion and silting of drainage ways; subsurface conditions such as rock strata, faults and springs; and the nature and type of soil or rock which, when disturbed by the proposed grading, may create earth movements.

Section 18.08.005 of the Municipal Code adopts the rules, regulations and requirements of the 2019 CBC Volume 1 including Appendix Chapters I and J and State amendments thereto, and 2019 CBC Volume 2.

4.6.3 Impacts and Mitigation Measures

Significance Criteria

The proposed Project would result in a significant impact geology, soils and paleontological resources if it would:

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

   i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42;

   ii) Strong seismic ground shaking;

   iii) Seismic-related ground failure, including liquefaction; or

   iv) Landslides;

b) Result in substantial soil erosion or the loss of topsoil;

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

d) Be located on expansive[7] soil creating substantial direct or indirect risks to life or property;

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater; or

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Criteria Not Analyzed

The Project would have no impact to the following topics based on the Project characteristics, its geographical location, and underlying site conditions. Therefore, these topics are not addressed further in this document for the following reasons:

- ***Risk involving surface fault rupture [criteria a(1)].*** As discussed in Section 4.6.1, *Environmental Setting*, there are no Holocene-active faults within the Project site. As such, there would be no risk of surface fault rupture at the Project site. Therefore, there would be no impact related to this issue, and this topic will not be evaluated further in this section.
- ***Risk involving landslides [criteria a(4)].*** As discussed in Section 4.6.1, *Environmental Setting*, the Project site is in an urbanized and developed area. There would be a very low landslide potential due to the relatively flat topography and lack of slopes and hills. Additionally, the Project site is not within an established earthquake-induced landslide zone. As a result, there would be no impact associated with landslides, and this topic will not be evaluated further in this section.
- ***Have soil incapable of supporting septic tanks or alternative wastewater systems (criteria e).*** As discussed in Chapter 2, *Project Description*, new sanitary sewer infrastructure would be installed at the Project site, with sanitary sewer lines proposed to extend beneath the service roads and connect to existing sanitary sewer collection lines in Old Bayshore Highway. As such, the Project does not propose or require the installation of new septic tanks or other alternative water disposal systems. Therefore, there would be no impact with this issue, and this topic will not be evaluated further in this section.
- ***Destroy a unique paleontological resource or site (criteria f)***. As discussed in Section 4.6.1, *Environmental Setting*, the artificial fill on the Project site has no potential to contain significant paleontological resources, and the underlying Holocene-age deposits are considered to have a low potential to contain significant paleontological resources. Due to the age and nature of the deposits within the Project site, and the proposed excavation depths associated with the Project, there would be no impact to significant paleontological resources, and this topic will not be evaluated further in this section.

[7] The CBC, based on the International Building Code and the now defunct Uniform Building Code, no longer includes a Table 18-1-B. Instead, Section 1803.5.3 of the CBC describes the criteria for analyzing expansive soils.

Approach to Analysis

This environmental analysis of the potential impacts related to geology and soils is based on a review of the results of the review of literature and database research (geologic, seismic, and soils reports and maps), and the Burlingame General Plan (*Envision Burlingame*).

The Project would be regulated by the various laws, regulations, and policies summarized above in Section 4.7.3, *Regulatory Framework*. Compliance by the Project with applicable federal, state, and local laws and regulations is assumed in this analysis and local and state agencies would be expected to continue to enforce applicable requirements to the extent that they do so now. Note that compliance with many of the regulations is a condition of permit approval.

After considering the implementation of the Project described in Chapter 2, *Project Description*, and compliance with the required regulatory requirements, the environmental analysis below identifies if the defined significance thresholds are exceeded and, therefore, a significant impact would occur. For those impacts considered to be significant, mitigation measures are proposed to the extent feasible to reduce the identified impacts.

The structural elements of the Project would undergo appropriate design-level geotechnical evaluations prior to final design and construction. Implementing the regulatory requirements in the CBC and City ordinances and ensuring that all buildings and structures constructed in compliance with the law is the responsibility of the Project engineers and building officials. The geotechnical engineer, as a registered professional with the State of California, is required to comply with the CBC and local codes while applying standard engineering practice and the appropriate standard of care for the particular region in California, which, in the case of the Project, is the City of Burlingame.[8] The California Professional Engineers Act (Building and Professions Code Sections 6700-6799), and the Codes of Professional Conduct, as administered by the California Board of Professional Engineers and Land Surveyors, provides the basis for regulating and enforcing engineering practice in California. The local Building Officials are typically with the local jurisdiction and are responsible for inspections and ensuring CBC compliance prior to approval of the building permit.

Impact Analysis

Impact GEO-1: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. (*Less than Significant*)

There are no Holocene-active faults within the City; however, the San Andreas and Hayward fault zones are in proximity to the Project site and are likely sources for strong seismic ground shaking in the event of an earthquake from either of these fault zones. Due to the proximity to the San Andreas and Hayward fault zones, new development proposed by the Project would be subject to strong seismic ground shaking in the event of an earthquake originating from one of the

[8] A geotechnical engineer (GE) specializes in structural behavior of soil and rocks. GEs conduct soil investigations, determine soil and rock characteristics, provide input to structural engineers, and provide recommendations to address problematic soils.

previously mentioned fault zones. The intensity of such an event would depend on the causative fault and the distance to the epicenter, the magnitude, the duration of shaking, and the nature of the geologic materials on which the Project components would be constructed. Intense groundshaking and high ground accelerations would affect the entire City. The primary and secondary effects of groundshaking and seismically induced ground failures could damage structural foundations, distort or break pipelines, and place people at risk of injury or death. Strong seismic ground shaking has historically caused damage, injury, and loss of life; these hazards could potentially result in damage to Project components, resulting in loss, injury, or death.

As required by California law, any new development would be subject to the seismic design criteria of the California Building Code (CBC) and City building codes, which require that all improvements be constructed to withstand anticipated ground shaking from regional fault sources. Each new development would be required to obtain a site-specific geotechnical report prior to the issuance of individual grading permits; each new development would be required to retain a licensed geotechnical engineer to design new structures to withstand probable seismically induced ground shaking. The CBC standards and City codes require all new development to be designed consistent with a site-specific, design-level geotechnical report, which would be fully compliant with the seismic recommendations of a California-registered professional geotechnical engineer. Adherence to the applicable CBC requirements and City codes would ensure that the Project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. The impact would be less than significant.

Mitigation: None required.

Impact GEO-2: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. (*Less than Significant*)

As discussed in Section 4.6.1, *Environmental Setting*, the deposits underlying the Project site are susceptible to the effects of seismically-induced liquefaction, particularly the localized sand layers within the undocumented fill at the Project site. Project components could be subjected to the damaging effects of liquefaction in the event of an earthquake in the region. Additionally, liquefaction within the undocumented fill could contribute to lateral spreading.

As required by California law, any new development would be subject to the seismic design criteria of the CBC and City building codes, which require that all improvements be constructed to withstand any anticipated seismic-related ground failures, including liquefaction and lateral spreading, due to ground shaking from an earthquake. Each new development would be required to obtain a site-specific geotechnical report prior to the issuance of individual grading permits; each new development would be required to retain a licensed geotechnical engineer to investigate and evaluate each new development site and design new structures to withstand probable seismic-related ground failures, such as liquefaction and lateral spreading. The CBC standards and City

codes require all new development to be designed consistent with a site-specific, design-level geotechnical report, which would be fully compliant with the seismic recommendations of a California-registered professional geotechnical engineer. Liquefaction hazards can generally be addressed through site preparation measures or foundation design measures such as removal and replacement of liquefiable soils, densification of these soils, or specific foundation design recommendations. Implementation of these measures in accordance with building code requirements can effectively reduce the hazard to minimize any potential for substantive damage.

Compliance with all applicable CBC and City Code requirements would ensure that the Project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. Therefore, the impacts would be less than significant.

Mitigation: None required.

Impact GEO-3: The Project would not result in substantial soil erosion or the loss of topsoil. *(Less than Significant*)

Project construction would include ground disturbance activities, such as site clearing, grading, or mass excavation that could contribute to substantial soil erosion or the loss of topsoil. Erosion of exposed soils can occur as a result of the forces of wind or water, and could be worsened during the ground disturbance activities. Any new development that would require the disturbance of one or more acres during construction would be subject to the requirements of the NPDES General Permit for Stormwater Discharge Associated with Construction and Land Disturbance Activities (Construction General Permit), discussed in Section 4.6.2, *Regulatory Framework*. The Construction General Permit requires the preparation and implementation of a SWPPP, which would include BMPs designed to control and reduce soil erosion. The BMPs may include dewatering procedures, storm water runoff quality control measures, watering for dust control, and the construction of silt fences, as needed.

Once constructed and as discussed above in Section 4.6.1, *Regulatory Framework*, the MS4 permit and City codes would require that the design of Projects include recommendations for managing runoff from completed projects to reduce the potential for erosion that could result in ground failures.

Compliance with the independently enforceable existing requirement to control runoff would ensure that impacts related to erosion and soil loss would be less than significant.

Mitigation: None required.

Impact GEO-4: The Project would not require development that would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. (*Less than Significant*)

As discussed above, the Project site could be subject to the potential effects of liquefaction, and relatedly, lateral spreading. Therefore, new development associated with the Project would be susceptible to unstable geologic or soil conditions would be subject to the damaging effects of these hazards.

As previously discussed above in Impacts GEO-1 and GEO-2, all new development would be subject to the requirements of the CBC and City building codes, which would include conducting geotechnical investigations to analyze potential unstable soil conditions at a site. If unstable soil conditions are determined to be present at a given site, the geotechnical report specific to that site would include site-specific design requirements to implement to reduce or avoid adverse effects associated with unstable soils.

Compliance with the CBC and City code requirements, including implementation of recommendations provided in site-specific geotechnical reports would reduce or avoid impacts related to unstable soils to less than significant.

Mitigation: None required.

Impact GEO-5: The Project would not require development that would be located on expansive soil resulting in substantial direct or indirect risks to life or property. (*Less than Significant*)

As discussed in Section 4.6.1, *Environmental Setting*, moderately expansive soils – in particular, the artificial fills- are present underlying the Project site. Analysis of expansive and soils is standard during geotechnical investigations, as the CBC outlines specific soil engineering parameters to identify and address expansive soils. If expansive soils are detected during the geotechnical investigation, further laboratory testing would be required to determine the nature and extent of the affected soils, followed by recommendations to remove or treat the expansive soils.

Compliance with the CBC and City codes requirement to determine the potential for expansive soils would ensure that all problematic soils are identified, and soil engineering requirements are implemented. Soil engineering is used to adjust the existing problematic properties of certain soils so that they are suitable for new developments. Adherence to the requirements of the CBC, City codes, and geotechnical investigation would avoid impacts resulting from potentially expansive soils. Compliance with CBC and City code requirements, including implementation of recommendations provided in site-specific geotechnical reports would reduce or avoid impacts related to expansive soils and impacts would be less than significant.

Mitigation: None required.

Cumulative Impacts

This section presents an analysis of the cumulative effects of the Project in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to geology, soils, and paleontological resources could occur if the incremental impacts of the Project combined with the incremental impacts of one or more cumulative projects.

As discussed above, in Section 4.6.3, *Impacts and Mitigation Measures (Criteria Not Analyzed)*, there would be no impacts associated with surface fault rupture, landslides, soils that can adequately support septic systems, or paleontological resources; therefore, these topics would not contribute to cumulative impacts, and will not be discussed in a cumulative context.

The geographic area affected by the Project and its potential to contribute to cumulative impacts varies based on the environmental resource under consideration. The geographic scope of analysis for cumulative geology and soils impacts encompasses and is limited to the Project site's immediately adjacent area. This is because impacts relative to geology and soils are generally site-specific and depend on the nature and extent of the geologic hazard, and existing and future soil and groundwater conditions. For example, the effect of erosion would tend to be limited to the localized area of a project and could only be cumulative if erosion occurred as the result of two or more adjacent projects that spatially overlapped.

The timeframe during which the Project could contribute to cumulative geology and soils effects includes the construction and operations phases. For the Project, the operations phase is permanent. However, similar to the geographic limitations discussed above, it should be noted that impacts relative to geology and soils are generally time-specific. Geology and soils effects could only be cumulative if two or more geologic hazards occurred at the same time, as well as overlapping at the same location.

Impact C-GEO-1: The Project, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on geology, soils, or paleontological resources. (*Less than Significant*)

As discussed in the Section 4.6.1, *Environmental Setting*, seismically induced groundshaking, liquefaction and lateral spreading, and expansive soils could cause structural damage or pipeline leaks or ruptures. Inadequate design of stormwater control features could result in erosion.

Of the local cumulative development projects discussed in Section 4.0.4, two would have the potential to have construction that would overlap with that of the proposed Project (1499 Old Bayshore Highway and 250/258 Anza Boulevard). However, neither cumulative project is immediately adjacent to the Project site, but rather, located over 2,000 feet away, and thus minimize the potential for contribution to cumulative geologic and soil effects.

State and local building regulations and standards, described in the Section 4.6.2, *Regulatory Setting*, have been established to address seismic and unstable geologic unit and soils conditions. The Project and cumulative projects would be required to comply with applicable provisions of the CBC and City codes. Through compliance with these requirements, the potential for impacts would be reduced. As explained in the *Regulatory Setting*, the purpose of the CBC and City codes is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction; by design, it is intended to reduce the cumulative risks from buildings and structures. Therefore, based on compliance with these requirements, the incremental impacts of the Project combined with impacts of other projects in the area would not cause a significant cumulative impact related to seismically induced groundshaking, liquefaction and lateral spreading, expansive soils, or erosion, and the Project's contribution to cumulative effects would not be cumulatively considerable.

The state Construction General Permit would require each project to prepare and implement a SWPPP. The SWPPPs would describe BMPs to control runoff and prevent erosion for each project. Through compliance with this requirement, the potential for erosion impacts would be reduced. The Construction General Permit has been developed to address cumulative conditions arising from construction throughout the state, and is intended to maintain cumulative effects of projects subject to this requirement below levels that would be considered significant. For example, two adjacent construction sites would be required to implement BMPs to reduce and control the release of sediment and/or other pollutants in any runoff leaving their respective sites. The runoff water from both sites would be required to achieve the same action levels, measured as a maximum amount of sediment or pollutant allowed per unit volume of runoff water. Thus, even if the runoff waters were to combine after leaving the sites, the sediments and/or pollutants in the combined runoff would still be at concentrations (amount of sediment or pollutants per volume of runoff water) below action levels and would not be cumulatively considerable.

Mitigation: None required.

4.6.4 References

Brabb, E.E., R.W. Graymer, and D.L. Jones (Brabb et al.), 1998. Geology of the Onshore Part of San Mateo County, California: A Digital Database. United States Geological Survey. Map. Scale 1:62,500).

California Geological Survey (CGS), 2022. EQ ZAPP: California Earthquake Hazards Zone Application. California Geological Survey. Available online: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed on December 1, 2022.

Cornerstone Earth Group (Cornerstone), 2021. *Design-Level Geotechnical Investigation, Burlingame Bayshore Development, 1200-1340 Old Bayshore Highway, Burlingame, California*. Proposal No. 497-11-1. December 9, 2021.

Field, E. H., Glenn P. Biasi, Peter Bird, Timothy E. Dawson, Karen R. Felzer, David D. Jackson, Kaj M. Johnson, Thomas H. Jordan, Christopher Madden, Andrew J. Michael, Kevin R. Milner, Morgan T. Page, Tom Parsons, Peter M. Powers, Bruce E. Shaw, Wayne R. Thatcher, Ray J. Weldon II, and Yuehua Zeng (Field et al.), 2015. Long-Term Time-Dependent Probabilities for the Third Uniform California Earthquake Rupture Forecast (UCERF3). Bulletin of the Seismological Society of America, Vol. 105, No. 2A. pp. 511-543. April, 2015. doi: 10.1785/0120140093Natural Resources Conservation Service (NRCS), 2017. Title - National Soil Survey Handbook. Part 618 – Soil Properties and Qualities. Section 618.41, Linear Extensibility Percent.

NRCS, 2022. Web Soil Survey. Linear Extensibility rating for the Project site. Natural Resources Conservation Service.

Society of Vertebrate Paleontology (SVP), 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Prepared by: SVP Impact Mitigation Guidelines Revision Committee.

University of California Museum of Paleontology (UCMP), 2021. UC Museum of Paleontology Localities database. Fossil localities within San Mateo County.

Wagner, D.L., E.J. Bortugno, and R.D. McJunkin (Wagner et al.), 1991. Geologic Map of the San Francisco-San Jose Quadrangle, California. California Geological Survey. Map. Scale 1:250,000.

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4.7 Greenhouse Gas Emissions

This section presents an analysis of the potential impacts of the 1200-1340 Old Bayshore Highway Project associated with greenhouse gas (GHG) emissions. For technical information about the analysis assumptions, calculations and model outputs, refer to **Appendix AQ-GHG**, which includes an air quality and greenhouse gas technical report (Ramboll, 2023), and a consistency checklist of the Project with the City of Burlingame's *2030 Climate Action Plan* prepared in support of the Project.

4.7.1 Environmental Setting

Climate Science

"Global warming" and "climate change" are common terms used to describe the increase in the average temperature of the earth's near-surface air and oceans since the mid-20th century. Both natural processes and human actions have been identified as affecting the climate. The Intergovernmental Panel on Climate Change (IPCC) has concluded that variations in natural phenomena such as solar radiation and volcanoes produced most of the warming from pre-industrial times to 1950 and had a small cooling effect afterward.

However, increasing GHG concentrations resulting from human activity since the 19th century, such as fossil fuel combustion, deforestation, and other activities, are believed to be a major factor in climate change. GHGs in the atmosphere naturally trap heat by impeding the exit of solar radiation that has hit the earth and is reflected back into space—a phenomenon referred to as the "greenhouse effect." Some GHGs occur naturally and are necessary for keeping the Earth's surface inhabitable. However, increases in the concentrations of these gases in the atmosphere during the last 100 years have trapped solar radiation and decreased the amount that is reflected back into space, intensifying the natural greenhouse effect and resulting in the increase of global average temperature.

Carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are the principal GHGs. When concentrations of these gases exceed historical concentrations in the atmosphere, the greenhouse effect is intensified. CO_2, methane, and nitrous oxide occur naturally and are also generated through human activity. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas methane results from off-gassing, natural gas leaks from pipelines and industrial processes, and incomplete combustion associated with agricultural practices, landfills, energy providers, and other industrial facilities. Nitrous oxide emissions are also largely attributable to agricultural practices and soil management. CO_2 sinks (i.e., land uses that absorb more carbon than they emit) include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution, and are two of the largest reservoirs of CO_2 through the process of sequestration. Other human-generated GHGs include fluorinated gases such as hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, which have much higher heat-absorption potential than CO_2, and are byproducts of certain industrial processes.

CO_2 is the reference gas for climate change, as it is the GHG emitted in the highest volume. The effect that each of the GHGs have on global warming is the product of the mass of their emissions and their global warming potential (GWP). GWP indicates how much a gas is predicted to contribute to global warming relative to how much warming would be predicted to be caused by the same mass of CO_2. For example, methane and nitrous oxide are substantially more potent GHGs than CO_2, with GWPs of 25 and 298 times that of CO_2 respectively, which has a GWP of 1 (CARB, 2021a).

In emissions inventories, GHG emissions are typically reported as metric tons (MT) of CO_2 equivalent (CO_2e). CO_2e is calculated as the product of the mass emitted of a given GHG and its specific GWP. While methane and nitrous oxide have much higher GWPs than CO_2, CO_2 is emitted in higher quantities and it accounts for the majority of GHG emissions in CO_2e, both from commercial developments and human activity in general.

Effects of Global Climate Change

Potential global warming impacts in California may include, but are not limited to, loss in snowpack, sea level rise, more extreme heat days per year, an increase in high ground-level ozone days, larger forest fires, and increased drought in some parts of the state. Secondary effects are likely to include the displacement of thousands of coastal businesses and residences (as a result of sea level rise), impacts on agriculture, changes in disease vectors, and changes in habitat and biodiversity. As the California Air Resources Board (CARB) *Climate Change Scoping Plan* noted, the legislature, in enacting Assembly Bill (AB) 32 – the Global Warming Solutions Act, found that global warming would cause detrimental effects to some of the state's largest industries, including agriculture, winemaking, tourism, skiing, commercial and recreational fishing, forestry, and the adequacy of electrical power generation (CARB, 2008). The *Climate Change Scoping Plan* states, "*The impacts of global warming are already being felt in California. The Sierra snowpack, an important source of water supply for the state, has shrunk 10 percent in the last 100 years. It is expected to continue to decrease by as much as 25 percent by 2050. World-wide changes are causing sea levels to rise – about 8 inches of increase has been recorded at the Golden Gate Bridge over the past 100 years – threatening low coastal areas with inundation and serious damage from storms.*" AB 32 is discussed further below in Section 4.7.2, *Regulatory Framework*.

Ecosystem and Biodiversity Impacts

Climate change is expected to have effects on diverse types of ecosystems. As temperatures and precipitation change, seasonal shifts in vegetation will occur; this could affect the distribution of associated flora and fauna species. The IPCC states that "a large fraction of both terrestrial and freshwater species faces increased extinction risk under projected climate change during and beyond the 21st century, especially as climate change interacts with other stressors, such as habitat modifications, over exploitation, and invasive species" (IPCC, 2014a).

Human Health Impacts

Climate change will likely increase the risk of vector-borne infectious diseases, particularly those found in tropical areas and spread by insects such as malaria, dengue fever, and encephalitis. Cholera which is associated with algal blooms, could also increase. While these health effects would largely affect tropical areas in other parts of the world, effects would also be felt in California. Warming of the atmosphere would be expected to increase smog and particulate pollution, which could adversely affect individuals with heart and respiratory problems, such as asthma. Extreme heat events would also be expected to occur with more frequency and could adversely affect the elderly, children, and the homeless. Finally, the water supply impacts and seasonal temperature variations expected as a result of climate change could affect the viability of existing agricultural operations, making the food supply more vulnerable (USGCRP, 2016).

Emissions Inventories

U.S. GHG Emissions

In 2020, the United States emitted about 5,981.4 million metric tons (MMT) of CO2e. Of the major sectors nationwide, transportation accounts for the highest volume of GHG emissions (approximately 27 percent), followed by electricity (approximately 25 percent), industry (approximately 24 percent), agriculture (approximately 11 percent), commercial buildings (approximately 7 percent), and residential buildings (approximately 6 percent). Between 1990 and 2020, total U.S. GHG emissions have decrease by 7.3 percent, from a high of 15.7 percent above 1990 levels in 2007 (U.S. EPA, 2022).

State of California GHG Emissions

CARB compiles GHG inventories for the State. Based on the 2020 GHG inventory data (i.e., the latest year for which data are available from CARB), emissions from GHG-emitting activities statewide were 369.2 MMT CO2e (CARB, 2022a). Between 1990 and 2020, the population of California grew by approximately 10 million, from 29.8 to 39.6 million (California Department of Finance, 2021). This represents an increase of approximately 33 percent from 1990 population levels. In addition, the California economy, measured as gross State product, grew from $773 billion in 1990 to $3.01 trillion in 2020, representing an increase of approximately 289 percent (just under three times the 1990 gross State product) in today's dollars (California Department of Finance, 2022).

Despite the population and economic growth, CARB's 2020 statewide GHG inventory indicated that California's net GHG emissions in 2020 were below the 2020 GHG limit of 431 MMT CO2e, codified in the California Health and Safety Code Division 25.2, also known as the California Global Warming Solutions Act (AB 32). **Table 4.7-1** identifies and quantifies statewide anthropogenic GHG emissions and sinks (e.g., carbon sequestration due to forest growth) in 1990 and 2020. As shown in the table, the transportation sector is the largest contributor to statewide GHG emissions at approximately 38 percent in 2020.

TABLE 4.7-1
CALIFORNIA GHG EMISSIONS INVENTORY FOR YEARS 1990 AND 2020

Category	Total 1990 Emissions Using GWP from IPCC's SAR ($MMTCO_2e$)	Percent of Total 1990 Emissions	Total 2020 Emissions Using GWP from IPCC's AR4 ($MMTCO_2e$)	Percent of Total 2020 Emissions
Transportation	150.7	35%	139.9	38%
Electric Power	110.6	26%	59.8	16%
Commercial & Residential Fuel Use	44.1	10%	52.7	14%
Industrial	103.0	24%	85.3	23%
Non-Specified	1.3	<1%	—[a]	—
Agriculture/Forestry	23.6	6%	31.6	9%
Forestry Sinks	-6.7	-2%	—[b]	—
Net Total (IPCC SAR)	**426.6**	**100%**[d]	**—**	**—**
Net Total (IPCC AR4)[c]	**431**	**100%**[d]	**369.2**	**100%**[d]

NOTES:

AR4 = Fourth Assessment Report; GWP = global warming potential; IPCC = Intergovernmental Panel on Climate Change; $MMTCO_2e$ = million metric tons of carbon dioxide equivalents; SAR = Second Assessment Report

[a] Non-specified category is not specifically called out in the 2020 emissions inventory.
[b] Revised methods under development (not reported for 2020).
[c] CARB revised the State's 1990-level GHG emissions using GWPs from the IPCC AR4.
[d] Total of individual percentages may not add up to 100% due to rounding

SOURCES: CARB, 2007; CARB, 2022c.

Bay Area GHG Emissions

As stated in the *2017 Clean Air Plan,* in 2015, GHG emissions in the Bay Area were approximately 85 MMT CO2e per year. Based on the 2015 data, Bay Area emissions from the transportation sector represented the largest source of GHG emissions at 41 percent, followed by the stationary industrial sources at 26 percent, electricity generation and co-generation at 14 percent, and fuel use (primarily natural gas) by buildings at 10 percent. The remaining emissions are composed of fluorinated gas emissions and emissions from solid waste and agriculture. Of the total transportation emissions in 2015, on-road sources accounted for approximately 87 percent, while off-road sources accounted for the remainder (BAAQMD, 2017a).

City of Burlingame GHG Emissions

In August 2019, the City of Burlingame published its *2030 Climate Action Plan Update* (2030 CAP), which included its community-wide inventory of 2015 GHG emissions. According to this 2015 inventory, the City of Burlingame generated 242,489 MT CO2e in 2015, excluding emissions from large industrial sources. Of these emissions, the largest contribution is associated with the transportation sector, which accounts for approximately 53 percent of the City's GHG emissions. Following the transportation sector, the next largest source is the commercial/industrial energy sector (approximately 28 percent), followed by the residential energy sector (approximately 16 percent) and the solid waste sector (approximately 3 percent). Water, wastewater, and city-owned stationary sources each account for less than one percent of the City's community-wide

GHG emissions. In addition to the sources discussed above, the City's community-wide GHG inventory also quantified emissions from large industrial sources, which generated approximately 31,967 MT CO2e in 2015 (City of Burlingame, 2019).

4.7.2 Regulatory Framework

Federal

Clean Air Act and U.S. Environmental Protection Agency "Endangerment" and "Cause or Contribute" Findings

In 2007, the U.S. Supreme Court held that the U.S. Environmental Protection Agency (EPA), the federal agency responsible for implementing the Clean Air Act (CAA), must consider regulation of motor vehicle GHG emissions. In *Massachusetts v. Environmental Protection Agency et al.*, twelve states and cities, including California, together with several environmental organizations sued to require EPA to regulate GHGs as pollutants under the CAA (127 S. Ct. 1438 [2007]). The Supreme Court ruled that GHGs fit within the CAA's definition of a pollutant and EPA had the authority to regulate GHGs.

On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under CAA Section 202(a):

- **Endangerment Finding:** The current and projected concentrations of the six key GHGs—CO_2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

These findings did not, by themselves, impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles.

Vehicle Emissions Standards

In 1975, Congress enacted the Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, EPA and the National Highway Traffic Safety Administration (NHTSA) are responsible for establishing additional vehicle standards. In August 2012, standards were adopted for model years 2017 through 2025 for passenger cars and light-duty trucks.

In August 2018, EPA and the NHTSA proposed maintaining the 2020 corporate average fuel economy (CAFE) and CO_2 standards for model years 2021 through 2026. The estimated CAFE and CO_2 standards for model year 2020 are 43.7 miles per gallon (mpg) and 204 grams of CO_2 per mile for passenger cars and 31.3 mpg and 284 grams of CO_2 per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. In September 2019, EPA finalized the Safer Affordable Fuel-Efficient Vehicles

Rule Part One: One National Program and announced its decision to withdraw the Clean Air Act preemption waiver granted to the State of California in 2013 (EPA and NHTSA, 2019).

State

California has promulgated a series of executive orders, laws, and regulations aimed at reducing both the level of GHGs in the atmosphere and emissions of GHGs within the State. The major components of California's climate protection initiative are reviewed below.

Executive Order S-3-05

Executive Order (EO) S-3-05 set forth the following targets for progressively reducing statewide GHG emissions (Office of the Governor of California, 2005):

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The executive order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the executive order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The first CAT Report to the Governor and the Legislature in 2006 contained recommendations and strategies to help meet the targets in EO S-3-05. The most recent 2020 State Agency Greenhouse Gas Reduction Report Card documents the effectiveness of measures to reduce GHG emissions in California and GHG emissions from state agencies' operations (CalEPA 2020). This report card documents reductions of 76 $MMTCO_2e$ that occurred in 2019. In 2016, GHG emissions were 429 $MMTCO_2e$,[1] showing that California reached its 2020 emissions target (431 $MMTCO_2e$) four years early, and emissions are continuing to decline.

Assembly Bill 32 and the Climate Change Scoping Plan

In 2006, the California Legislature adopted AB 32 (Health and Safety Code Division 25.5), also known as the California Global Warming Solutions Act of 2006, with a focus on reducing GHG emissions in California to 1990 levels by 2020. This act defines GHGs as CO_2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. The California Global Warming Solutions Act assigned CARB the primary responsibility for reducing GHG emissions, by adopting rules and regulations directing state actions that would achieve GHG emissions reductions equivalent to 1990 statewide levels by 2020.

[1] According to the 2016 GHG Inventory. Available: https://ww3.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_sum_2000-18.pdf, accessed December 2021.

CARB approved the initial AB 32 Scoping Plan in 2008 (CARB, 2008). It approved the *First Update to the Climate Change Scoping Plan* (2014 Scoping Plan) in May 2014 and built upon the 2008 Scoping Plan with new strategies and recommendations (CARB, 2014). The CARB then approved the 2017 Climate Change Scoping Plan (2017 Scoping Plan Update) in December 2017, which outlined the proposed framework of action for achieving the 2030 GHG target of 40 percent reduction in GHG emissions relative to 1990 levels (CARB, 2017).

The 2022 Scoping Plan, adopted by CARB in December 2022, expands on prior Scoping Plans and responds to more recent legislation by outlining a technologically feasible, cost-effective, and equity-focused path to achieve the state's climate target of reducing anthropogenic emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045 or earlier (CARB 2022b). The 2022 Scoping Plan outlines the strategies the state will implement to achieve carbon neutrality by reducing GHGs to meet the anthropogenic target and by expanding actions to capture and store carbon through the state's natural and working lands and using a variety of mechanical approaches. The major element of the 2022 Scoping plan is the decarbonization of every sector of the economy. This requires rapidly moving to zero-emission transportation for cars, buses, trains, and trucks; phasing out the use of fossil gas for heating; clamping down on chemicals and refrigerants; providing communities with sustainable options such as walking, biking, and public transit to reduce reliance on cars; continuing to build out solar arrays, wind turbine capacity, and other resources to provide clean, renewable energy to displace fossil-fuel fired electrical generation; scaling up new options such as renewable hydrogen for hard-to-electrify end uses and biomethane where needed. (CARB, 2022b).

The 2022 Scoping Plan approaches decarbonization from two perspectives: (1) managing a phasedown of existing energy sources and technology and (2) ramping up, developing, and deploying alternative clean energy sources and technology over time (CARB 2022a). Key actions to support success of the 2022 Scoping Plan are addressed for the transportation sector, the clean electricity grid, sustainable manufacturing and buildings, CO2 removal and capture, short-lived climate pollutants, and natural and working lands.

A summary of the GHG emissions reductions and removals required to achieve carbon neutrality and meet the 20 $MMTCO_2$ removal and capture target in 2030 and the 100 $MMTCO_2$ removal and capture target in 2045 is provided in **Table 4.7-2**, *GHG Emissions and Removals Required to Achieve Carbon Neutrality*.

The 2022 Scoping Plan also discusses the role of local governments in meeting the state's GHG reductions goals because local governments have jurisdiction and land use authority related to community-scale planning and permitting processes, local codes and actions, outreach and education programs, and municipal operations. Furthermore, local governments make critical decisions on how and when to deploy transportation infrastructure and can choose to support transit, walking, bicycling, and neighborhoods that allow people to transition away from cars; they can adopt building ordinances that exceed statewide building code requirements; and they play a critical role in facilitating the rollout of zero emission vehicle (ZEV) infrastructure. The 2022 Scoping Plan encourages local governments to take ambitious, coordinated climate action at the community scale; action that is consistent with and supportive of the state's climate goals (CARB 2022a).

TABLE 4.7-2
GHG EMISSIONS AND REMOVALS REQUIRED TO ACHIEVE CARBON NEUTRALITY[a]

2022 Scoping Plan Update	2030 ($MMTCO_2e$)	2045 ($MMTCO_2e$)
GHG Emissions		
AB 32 Inventory Sector Emissions	233	72
Net Natural and Working Lands (NWL) GHG Emissions Across All Landscapes (annual average from 2025-2045)	7	7
Carbon Capture and Sequestration (CCS); Avoided GHG Emissions from Industry and Electric Sectors	(13)	(25)
Carbon Dioxide Removal (CDR) including natural and working lands carbon sequestration,[b] Direct Air Capture and Bioenergy with CCS (BECCS)	(7)	(75)
Net Emissions (GHG Emissions + CDR)	226	(3)

NOTES:

[a] Modeled estimates from the Scoping Plan Scenario indicate the relative quantity of emissions and removals to achieve carbon neutrality and meet carbon removal and capture targets. These estimates are not intended to imply precision, as the required policies are yet to be implemented and all models have some uncertainty in their forecasts

[b] For the purpose of quantifying how to achieve the governor's 20 MMT and 100 $MMTCO_2$ removal and capture target, CARB included 1.5 $MMTCO_2e$ sequestration from NWL, which is the sequestration from urban forests. This is included as CO_2 removal because it is this sequestration that CARB can consider as having some permanence. Permanence is necessary for incorporating NWL into carbon neutrality. The net NWL emissions of 7 $MMTCO_2e$ includes all emissions and sinks from all NWL landscapes, which is inclusive of the 1.5 $MMTCO_2e$ sequestration CARB will develop an accounting framework to accommodate NWL carbon stocks.

SOURCE: CARB 2022a.

Cap-and-Trade Program

The Climate Change Scoping Plan identifies a cap-and-trade program as a key strategy that CARB will employ to help California meet its GHG emissions reduction targets for 2020 and 2030, and to ultimately achieve an 80 percent reduction from 1990 levels by 2050. Pursuant to its authority under AB 32, CARB has designed and adopted the California Cap-and-Trade Program to reduce GHG emissions from major sources (deemed "covered entities") by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32's emissions reduction mandate of returning to 1990 levels of emissions by 2020 (17 CCR Sections 95800–96023).

The Cap-and-Trade Program establishes an overall limit for GHG emissions from capped sectors (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 $MTCO_2e$ per year) and declines over time, and facilities subject to the cap may trade permits to emit GHGs. The statewide cap for GHG emissions from the capped sectors commenced in 2013 and declines over time, achieving GHG emissions reductions throughout the program's duration (17 CCR Sections 95811 and 9512). On July 17, 2017, the California Legislature enacted AB 398, extending the Cap-and-Trade Program through 2030.

Executive Order S-1-07

EO S-1-07 proclaims that the transportation sector is California's main source of GHG emissions, generating more than 40 percent of statewide emissions. It established a goal to reduce the carbon intensity of transportation fuels sold in California by at least 10 percent by 2020. This order also directed CARB to determine whether the Low Carbon Fuel Standard could be adopted as a discrete early-action measure, as part of the effort to meet AB 32 mandates.

Senate Bill 97 (Dutton)

SB 97, enacted in 2007, directed the Governor's Office of Planning and Research (OPR) to develop CEQA guidelines "for the mitigation of GHG emissions or the effects of GHG emissions." In December 2009, OPR adopted amendments to the CEQA Guidelines Appendix G Environmental Checklist. These amendments created a new resource section for GHG emissions and suggested criteria that may be used to establish significance of GHG emissions (California Code of Regulations Title 14, Section 15064.4 [14 CCR Section 15064.4]). However, neither a quantitative threshold of significance nor any specific mitigation measures is included. As amended, the CEQA Guidelines require a lead agency to make a good-faith effort, based on scientific and factual data to the extent possible, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. The CEQA Guidelines give discretion to the lead agency to choose whether to: (1) quantify GHG emissions resulting from a project; and/or (2) rely on a qualitative analysis or performance-based standards. Furthermore, the CEQA Guidelines identify three factors to be considered in the evaluation of the significance of GHG emissions:

(1) The extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting.

(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

The administrative record for the CEQA Guidelines amendments also clarifies "that the effects of greenhouse gas emissions are cumulative and should be analyzed in the context of California Environmental Quality Act's requirements for cumulative impact analysis" (OPR, 2008).

Senate Bill 375

The Legislature enacted SB 375 in 2008. SB 375 provides for a planning process to coordinate land use planning and regional transportation plans (RTPs) to help California meet the GHG emissions reductions established in AB 32. SB 375 requires RTPs prepared by metropolitan planning organizations (MPOs) to incorporate a sustainable communities strategy (SCS) in their RTPs that demonstrates how the region would achieve GHG emission reduction targets set by CARB. Under SB 375, CARB is required, in consultation with the state's MPOs, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. The proposed reduction targets explicitly exclude emission reductions expected from the AB 1493 and Low Carbon Fuel Standard regulations, discussed further below.

Executive Order B-30-15

In 2015, EO B-30-15 promulgated the following targets and measures (Office of the Governor of California, 2015):

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.

- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

Senate Bill 32 and Assembly Bill 197

In 2016, the California Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197. SB 32 and AB 197 amended Health and Safety Code Division 25.5, and established a new climate pollution reduction target of 40 percent below 1990 levels by 2030, with provisions included to ensure that the benefits of state climate policies reach into vulnerable communities.

Executive Order B-55-18

EO B-55-18 was signed by Governor Edmund G. Brown Jr. on September 10, 2018 (Office of the Governor of California, 2018). The order establishes an additional statewide policy to achieve carbon neutrality by 2045 and maintain net negative emissions thereafter. As per EO B-55-18, CARB is directed to work with relevant state agencies to develop a framework for implementation and accounting that tracks progress toward this goal and to ensure future Climate Change Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

Senate Bill 905, Carbon Capture Removal, Utilization, and Storage Program

The Legislature enacted SB 905 on September 16, 2022. SB 905 requires CARB to establish the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate carbon capture, utilization, and sequestration (CCUS) and carbon dioxide removal (CDR) project and technology. On or before January 1, 2025, CARB must adopt regulations creating a unified permitting application for approval of CCUS and CDR projects which would expedite the permitting process and other authorizations for the construction and operation of these projects.

Assembly Bill 1279, The California Climate Crisis Act

The Legislature enacted AB 1279 on September 16, 2022. AB 1279 establishes the policy of the State to achieve net zero greenhouse gas emissions, carbon neutrality, as soon as possible, but no later than 2045 and achieve and maintain net negative greenhouse gas emissions thereafter. Additionally, AB 1279 ensures that by 2045 Statewide anthropogenic greenhouse gas emissions are reduced at least 85 percent below 1990 levels. SB 1279 also requires CARB to ensure that the Scoping Plan identifies and recommends measures to achieve carbon neutrality, and to identify and implement policies and strategies for carbon dioxide removal solutions and carbon capture, utilization, and storage technologies. It also requires CARB to submit an annual report.

Transportation Sector

In response to the transportation sector accounting for a large percentage of California's CO_2 emissions, AB 1493 (Health and Safety Code Sections 42823 and 43018.5) (also referred to as the *Pavley standards*), was enacted on July 22, 2002, and requires CARB to set GHG emissions standards for passenger vehicles, light-duty trucks, and other vehicles whose primary use is noncommercial personal transportation manufactured in and after 2009. In setting these

standards, CARB must consider cost effectiveness, technological feasibility, economic impacts, and provide maximum flexibility to manufacturers.

CARB is responsible for the coordination and administration of both federal and state air pollution control programs in California. Some of the regulations and measures that CARB has adopted to reduce particulate matter, nitrogen oxides, and other emissions have the co-benefits of reducing GHG emissions.

Energy Sector

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although the standards were not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and non-residential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods. The current Title 24, Part 6 standards (2019 standards; CEC, 2018) were made effective on January 1, 2020.

On August 11, 2021, the CEC adopted the 2022 Energy Code was approved by the California Building Standards Commission (CBSC) for inclusion into the California Building Standards Code. This update to the building code provides crucial steps in the state's progress toward 100 percent clean carbon neutrality by midcentury (CEC, 2022). The 2022 Energy Code builds on California's technology innovations, encouraging energy efficient approaches to encourage building decarbonization, emphasizing in particular on heat pumps for space heating and water heating. This set of Energy Codes also strengthens ventilation standards to improve indoor air quality and extends the benefits of photovoltaic and battery storage systems and other demand flexible technology to work in combinations with heat pumps to enable California buildings to be responsive to climate change. Buildings whose permit applications are applied for on or after January 1, 2023, must comply with the 2022 Energy Code. The Energy Code includes measures that will reduce energy use in single family, multifamily, and nonresidential buildings. These measures will:

1. Affect newly constructed buildings by adding new prescriptive and performance standards for electric heat pumps for space conditioning and water heating, as appropriate for the various climate zones in California;
2. Require photovoltaic (PV) and battery storage systems for newly constructed multifamily and selected nonresidential buildings;
3. Update efficiency measures for lighting, building envelope, HVAC; and
4. Make improvements to reduce the energy loads of certain equipment covered by (i.e., subject to the requirements of) the Energy Code that perform a commercial process that is not related to the occupant needs in the building (such as refrigeration equipment in refrigerated warehouses, or air conditioning for computer equipment in data processing centers).

The California Green Building Standards Code, Part 11, Title 24, California Code of Regulations, known as CALGreen, is the first-in-the-nation mandatory green building standards code. In 2007, CBSC developed green building standards in an effort to meet the goals of California's landmark initiative AB 32. The CALGreen Code is intended to encourage more sustainable and environmentally friendly building practices, require low-pollution-emitting substances that cause less harm to the environment, conserve natural resources, and promote the use of energy-efficient materials and equipment. CALGreen covers a number of fields, with regulations encompassing energy efficiency, water conservation, sustainable building materials, site design, and air quality.

Since 2011, the CALGreen Code has been mandatory for all new residential and non-residential buildings constructed in the state. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code is reviewed and updated on a three-year cycle. The 2019 CALGreen Code included new mandatory measures including EV charging requirements for residential and non-residential buildings (CBSC, 2019). The 2022 CALGreen update that took effect on January 1, 2023 simplifies the code and its application in several ways. It offers new voluntary prerequisites for builders to choose from, such as battery storage system controls and heat pump space, and water heating, to encourage building electrification. While the 2019 CALGreen Code only required provision of EV Capable spaces with no requirement for chargers to be installed at multifamily dwellings, the 2022 CALGreen code mandates chargers (California Energy Codes and Standards, 2022).

The State of California has adopted regulations that establishes the Renewables Portfolio Standard (RPS) to increase the proportion of electricity from renewable sources. On September 10, 2018, Governor Brown signed SB 100, which increased the RPS to require 50 percent renewable resources by December 31, 2026, and 60 percent by December 31, 2030, while requiring retail sellers and local publicly owned electric utilities to meet interim targets of 44 percent of retail sales by December 31, 2024, and 52 percent by December 31, 2027. SB 100 also states that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.

Senate Bill 1020, approved September 16, 2022, revises SB 100, and instead requires that renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to end use customers by December 31, 2035, 95 percent of all retail sales to end users by December 31, 2040, and 100 percent of all retail sales to end users by December 31, 2045, and 100 percent of electricity procured to serve all state agencies by December 31, 2035.

On September 16, 2022, Governor Newsome signed SB 1075 which requires CARB, CEC, California Public Utilities Commission (CPUC), and the California Workforce Development Board to conduct an evaluation on hydrogen by June 1, 2024, including policy recommendations to accelerate the production and use of hydrogen, and specifically green hydrogen, and its role in decarbonizing the electrical and transportation sectors.

Regional

Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD) is the regional government agency that regulates stationary sources of air pollution in the nine San Francisco Bay Area counties. Additionally, BAAQMD regulates GHG emissions through the following plans, programs, and guidelines.

Clean Air Plan

BAAQMD and other air districts prepare clean air plans in accordance with the federal and state Clean Air Acts. On April 19, 2017, the BAAQMD Board of Directors adopted the 2017 *Clean Air Plan: Spare the Air, Cool the Climate*, an update to the 2010 Clean Air Plan (BAAQMD, 2017a). The Clean Air Plan (CAP) is a comprehensive plan that focuses on the closely related goals of protecting public health and protecting the climate. Consistent with the State's GHG reduction targets, the plan lays the groundwork for a long-term effort to reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

BAAQMD Climate Protection Program

BAAQMD established a climate protection program (Program) to reduce pollutants that contribute to global climate change and affect air quality in the San Francisco Bay Area Air Basin. The Program is focused on meeting the 2050 target, as the CAP discussed above is focused on the interim 2030 target. The Program includes measures that promote energy efficiency, reduce VMT, and develop alternative sources of energy, all of which assist in reducing GHG emissions and reducing air pollutants that affect the health of residents. BAAQMD also seeks to support other climate protection programs in the region and to stimulate additional efforts through public education and outreach, technical assistance to local governments and other interested parties, and promotion of collaborative efforts among stakeholders.

BAAQMD CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines were prepared to assist in the evaluation of air quality impacts of projects and plans proposed in the Bay Area. The guidelines also include recommended assessment methodologies for air toxics, odors, and GHG emissions. In June 2010, BAAQMD's Board of Directors adopted CEQA thresholds of significance and an update of the BAAQMD CEQA Guidelines, which included significance thresholds for GHG emissions based on the emission reduction goals for 2020 articulated by the California Legislature in AB 32. The first threshold, 1,100 $MTCO_2e$ per year, is a numeric emissions level below which a project's contribution to global climate change would be less than cumulatively considerable. For larger and mixed-use projects, the guidelines state that emissions would be less than cumulatively significant if the project as a whole would result in an efficiency of 4.6 $MTCO_2e$ per service population or better. Because these thresholds are based on a 2020 GHG target, these thresholds are no longer relevant for current and future projects. BAAQMD is currently working on the SB 32 interim and long-term 2040 GHG reduction targets; however, these are not available at this time.

Under the current BAAQMD Air Quality Guidelines, a local government may prepare a qualified GHG reduction strategy that is consistent with AB 32 goals. If a project is consistent with an adopted qualified GHG reduction strategy and general plan that addresses the project's GHG emissions, it can be presumed that the project will not have significant GHG emissions under CEQA (BAAQMD, 2017b).

Metropolitan Transportation Commission/Association of Bay Area Governments

Sustainable Communities Strategy—Plan Bay Area

Metropolitan Transportation Commission (MTC) is the federally recognized Metropolitan Planning Organization (MPO) for the nine-county Bay Area which has adopted Plan Bay Area which includes the region's Sustainable Communities Strategy, as required under SB 375, and the 2040 Regional Transportation Plan. A central GHG reduction strategy of Plan Bay Area is the concentration of future growth in Priority Development Areas (PDAs) and Transit Priority Areas (TPAs). To be eligible for PDA designation, an area must be within an existing community, near existing or planned fixed transit or served by comparable bus service and planned for more housing. A TPA is an area within 0.5 miles of an existing or planned major transit stop such as a rail transit station, a ferry terminal served by transit, or the intersection of two or more major bus routes (MTC & ABAG, 2013).

On July 26, 2017, MTC adopted *Plan Bay Area 2040*, a focused update that builds upon the growth pattern and strategies developed in the original Plan Bay Area but with updated planning assumptions that incorporate key economic, demographic, and financial trends since the original plan was adopted (MTC & ABAG, 2017).

On October 21, 2021, the MTC and the Executive Board of the ABAG jointly adopted Plan Bay Area 2050 and its related supplemental reports. Plan Bay Area 2050 connects the elements of housing, the economy, transportation and the environment through 35 strategies that will make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges. In the short-term, the plan's Implementation Plan identifies more than 80 specific actions for MTC, ABAG and partner organizations to take over the next five years to make headway on each of the 35 strategies (MTC & ABAG, 2021). It will be several years before the regional transportation model (and therefore county and local transportation models) are updated to reflect Plan Bay Area 2050; the models currently incorporate data from Plan Bay Area 2040.

Local

City of Burlingame General Plan

The City of Burlingame adopted the *Burlingame General Plan* in 2019 (City of Burlingame, 2019a). Many of the goals and policies identified in the City's General Plan are related to GHG emissions reductions within the City, including:

> **Goal M-5:** Implement Transportation Demand Management (TDM) strategies that reduce overall vehicle trips and encourage the use of transportation modes that reduce VMT and greenhouse gas emissions.

M-5.1: TDM Guidelines and Programs. Establish specific TDM guidelines and requirements with the Zoning Code that encourage travel by a variety of modes for both individuals and employees, focusing different strategies in different parts of the community as appropriate to promote sustainability and economic development.

M-5.2: Targeted Outreach. Develop outreach materials for specific neighborhoods in the City that are suitable for increased transit ridership given their proximity to bus stops or train stations as a way to reduce drive-alone automobile trips.

Goal M-8: Achieve air quality, sustainability, and greenhouse gas emission reduction objectives through technology upgrades and improved management of Burlingame's streets.

M-8.1: Electric Vehicle Infrastructure. Identify electric vehicle charging priority locations and opportunities to integrate emerging technology into public parking infrastructure to encourage and expand the use of zero-emissions vehicles.

M-8.2: Vehicle Trip Reduction. Support vehicle trip reduction strategies, including building safer and more inviting active transportation networks, supporting connections to high frequency and regional transit, implementing TDM programs, and integrating land use and transportation decisions.

Goal IF-5: Achieve waste reduction goals in excess of State mandates.

IF-5.11: Preferential Purchasing. Maintain and update a City preferential purchasing policy for products that reduce packaging waste, greenhouse gas emissions, and toxic contaminants, and that are reusable.

Goal HP-2: Achieve greenhouse gas emissions reductions consistent with State goals.

HP-2.2: Community Greenhouse Gas Inventory. Continue the partnership with the San Mateo County RICAPS to prepare annual community-wide greenhouse gas inventories.

HP-2.3: Greenhouse Gas Reduction Targets. Work to achieve greenhouse gas emissions reductions locally that are consistent with the targets established by AB32 (California Global Warming Solutions Act of 2006) and subsequent supporting legislation.

HP-2.4: Electric Vehicles. Prepare an Electric Vehicle Strategic Plan to support and expand Burlingame's electric vehicle network and public charging stations. Establish parking standards that prioritize electric vehicle spaces. Require new residential developments to install or be pre-wired for electric vehicle charging stations.

HP-2.6: Renewable Energy. Maintain a policy of using 100% renewable energy for the City's municipal accounts. Encourage residents and businesses to opt up to 100% renewable purchase for additional community-wide greenhouse gas reductions. Encourage and support opportunities for developing local solar power projects.

HP-2.11: Innovative Technologies. Encourage the advancement of emerging technologies and innovations around energy, waste, water, and transportation. Support local green technology businesses. Explore demonstration project opportunities.

HP-2.12: Green Businesses. Attract green technology businesses to Burlingame. Focus outreach on established and new green technology businesses along Rollins Road. Encourage existing businesses to integrate green practices by offering an annual green business award, workshops, and informational materials.

HP-2.13: Composting. Expand composting services to multi-family and residential buildings and commercial buildings.

HP-2.14: Zero Waste. Encourage the South Bayside Waste Management Authority (SBWMA) to explore and consider rare plans that support zero waste goals. Identify opportunities to support and implement zero waste goals and strategies for the City and community.

HP-2.16: Electrification of Yard and Garden Equipment. Support the transition of yard and garden equipment from gasoline to electric fuel sources.

City of Burlingame Climate Action Plan

The City adopted its 2030 Climate Action Plan (2030 CAP) in 2019 (City of Burlingame, 2019b). The plan builds upon the foundational goals and policies identified in the General Plan, and provides additional analysis, recommendations, and corresponding metrics. In this way, the plan creates a measurable pathway to meeting the City's GHG emissions reduction targets. The 2030 CAP focuses on 20 measures that represent a policy from the Envision Burlingame General Plan or a new policy introduced as a General Plan amendment.

The 2030 CAP is a qualified CAP under CEQA and development projects that are consistent with the land use projections and GHG reduction measures in the CAP are eligible for CEQA streamlining pursuant to CEQA Guidelines Section 15183.5. The City determines project-level consistency with the 2030 CAP via the CAP Implementation Checklist. As described in the 2030 CAP, "*the Implementation Checklist will serve to specify the requirements for individual projects and will be conditioned to ensure incorporation and implementation of CAP measures. The Checklist will ensure that reductions are achieved on a project-by-project basis*" (City of Burlingame, 2019b).

4.7.3 Impacts and Mitigation Measures

Significance Criteria

Would implementation of the Project:

a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs.

CEQA Guidelines Section 15064.4 gives lead agencies the discretion to determine whether to assess GHG emissions quantitatively or qualitatively. The guidelines do not establish a bright-line quantitative threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies, or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), so long as any threshold chosen is supported by substantial evidence (refer to CEQA Guidelines Section 15064.7(c)).

Consistency with a Qualified GHG Reduction Strategy

The analysis presented below relies on a qualitative evaluation of the Project 's compliance with a qualified GHG Reduction Strategy to evaluate impacts. A qualified GHG Reduction Strategy is one that is consistent with the measures and goals in the most recent CARB Scoping Plan to achieve the GHG reduction goals established at the state level. GHG Reduction Strategies with horizon years beyond 2020 are required to consider continuing the downward reduction path set by AB 32 and SB 32 and move toward climate stabilization goals established in Executive Order S-3-05. A qualified GHG Reduction Strategy adopted by a local jurisdiction should include the following elements as described in the State CEQA Guidelines Section 15183.5:

- Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area
- 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;
- Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area;
- 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;
- 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
- Be adopted in a public process following environmental review.

Section 15183.5 of the State CEQA Guidelines allows tiering and streamlining the analysis of GHG emissions by lead agencies to analyze and mitigate the significant effects of GHG emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate plan to reduce GHG emissions. Later project-specific environmental documents may tier from and/or incorporate by reference the existing programmatic review. Compliance with a qualified GHG Reduction Strategy would provide the evidentiary basis for making CEQA findings that development consistent with the GHG Reduction Strategy would result in feasible, measureable, and verifiable GHG reductions consistent with broader State goals and ensure that projects approved under qualified GHG Reduction Strategies would achieve their fair share of GHG emission reductions. Therefore, if a project is located in a community with an adopted qualified GHG Reduction Strategy and is consistent with the Qualified GHG Reduction Strategy, it can be presumed that the project will not have significant GHG emission impacts.

A project must demonstrate its consistency by identifying and implementing all applicable feasible measures and policies from the GHG Reduction Strategy into the project. This approach is consistent with CEQA Guidelines Sections 15064(h)(3) and 15183.5(b), which provides that a "*lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem.*"

The City of Burlingame's 2030 CAP presents the City's comprehensive path to reduce GHG emissions to achieve the for 2020 and 2030, consistent with legislatively adopted GHG reduction targets laid out in AB 32 and SB 32, respectively. Consistent with CEQA Guidelines Section 15183.5, discussed above, the City's CAP represents the City's qualified climate action plan in compliance with CEQA. The City has prepared an Implementation Checklist in order to implement GHG reduction strategies from the 2030 CAP and provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to CEQA.

GHG impacts of the Project are examined by evaluating its consistency with the City's Implementation Checklist, which is consistent with SB 32. The Project site is located within the City of Burlingame and, as discussed in Section 4.10, *Land Use and Planning,* the Project would be consistent with the land use designations included in the City of Burlingame General Plan. Therefore, existing and projected emissions from the Project site are included in the baseline 2015 and projected 2030, 2040, and 2050 emissions inventories. Accordingly, the City's 2030 CAP represents an appropriate qualified GHG Reduction Strategy for the Project for CEQA compliance under section 15183.5. Consequently, and for the purposes of this EIR, a significant impact is identified if the Project is not consistent with the measures identified in the 2030 CAP and included in the Implementation Checklist, and hence to be inconsistent with the 2030 CAP.

Consistency with Plans

According to the second GHG significance criterion, a significant impact would occur if the Project would conflict with applicable regulations, plans, and policies that were adopted to reduce GHG emissions that contribute to global climate change. As discussed in the Section 4.7.2, *Regulatory Framework*, several plans and policies are in place to help the City, the Bay Area and the State reduce GHG emissions consistent with the State's emission reduction targets for 2030 and 2050, including the BAAQMD 2017 Clean Air Plan and the CARB 2022 Scoping Plan Update.

Approach to Analysis

GHG emissions and global climate change represent cumulative impacts from human activities and development projects locally, regionally, statewide, nationally, and worldwide. GHG emissions from all of these sources cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the combination of GHG emissions from past, present, and future projects around the world have contributed and will continue to contribute to global climate change and its associated environmental impacts.

The methodology for the evaluation of GHG impacts follows a qualitative consistency determination of the Project with the City's Implementation Checklist. Therefore, GHG impacts with respect to both GHG significance criteria listed above are addressed together. This evaluation is considered in a cumulative context, a project-specific impact assessment is not required. Pursuant to CEQA Guidelines Section 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG impact may be determined not to be cumulatively considerable if it is consistent with the requirements of the 2030 CAP.

Sustainable Features of the Project

As discussed within Chapter 3, *Project Description,* the Project would include a number of sustainable design features that would reduce direct and indirect GHG emissions that would be generated from construction and operation of the Project. Sustainable design features that would reduce the Project's contribution to climate change include the following:

- The Project buildings would target achieving LEED™ Gold standard;
- The Project buildings would utilize electric space heating/cooling and domestic water heating as opposed to natural gas (in compliance with the City's 2020 Reach Code);
- The tenant cafeterias would be designed with only electricity and no fossil fuels;
- The Project buildings would be designed with glazing that would control interior heat and light transmission to increase energy efficiency;
- The Project would include approximately 237,600 square feet of landscaped areas and open spaces which would reduce impervious surface area compared to existing conditions;
- The Project would implement water conservation features including low-flow plumbing and drip irrigation for a drought-tolerant landscape; and
- The Project would include 340 electric vehicle charging station stalls within the parking structures.

Impact Analysis

Impact GHG-1: Construction and operation of development proposed under the Project would generate GHG emissions, either directly or indirectly, that could conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions of GHGs and lead to a significant impact on the environment. (*Less than Significant with Mitigation*)

The approach to analysis of whether the project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment GHG impacts utilizes a consistency determination with an existing Climate Action Plan. Consequently, both of the CEQA Appendix G questions related to GHG impacts identified above are addressed in a single impact statement.

The Project site is located within the City of Burlingame, and as described above, is a contributor to both baseline and projected citywide emission inventories included in the City's 2030 CAP that form the basis of GHG reduction planning consistent with SB 32. Therefore, the City's 2030 CAP is an appropriate, qualified GHG reduction strategy to streamline the CEQA analysis as allowed by Section 15183.5 of the State CEQA Guidelines. The City requires projects within its jurisdiction to comply with the land use designations in the *Burlingame General Plan* and implement, at minimum, the required CAP measures listed in its Implementation Checklist in order to be considered consistent with the 2030 CAP. Projects that are not consistent with the CAP should prepare a project-specific GHG analysis, including a detailed analysis of project GHG emissions and identification of appropriate mitigation measures.

The Project's consistency with the City's 2030 CAP is detailed in Appendix AQ-GHG**,** which describes if and how the Project would be consistent with the applicable measures included in the City's 2030 CAP Implementation Checklist. As shown in Appendix AQ-GHG, with implementation of the mitigation measures identified below, the Project would be consistent with the measures included in the 2030 CAP Implementation Checklist, and the Project would not conflict with the City's 2030 CAP.

Consistency with Other Plans and Policies

As discussed above, the CARB 2022 Scoping Plan for Achieving Carbon Neutrality, approved in December 2022, expands on prior Scoping Plans and recent legislations, such as AB 1279, by outlining a technologically feasible, cost-effective, and equity-focused path to achieve the State's climate target of reducing anthropogenic GHG emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045 or earlier (CARB 2022b). To achieve carbon neutrality by 2045, the 2022 Scoping Plan contains GHG reductions, technology, and clean energy mandated by statutes, reduction of short-lived climate pollutants, and mechanical carbon dioxide capture and sequestration actions.

Consistency with the CARB 2022 Scoping Plan and the state's legal GHG emissions reduction targets is an appropriate metric by which to determine the significance of the Project. CEQA Guidelines Section 15064.4(b)(3) states that a lead agency "may consider a project's consistency with the state's long-term climate goals or strategies" when determining the significance of a project's impacts. As discussed above, the 2022 Scoping Plan identifies key actions that support decarbonization of the economy. As shown in **Table 4.7-3**, the Project is designed to be consistent with the applicable key actions and support the goals of the 2022 Scoping Plan.

TABLE 4.7-3
CONSISTENCY OF THE PROJECT WITH THE 2022 SCOPING PLAN

2022 Scoping Plan Update Strategies	Project Design Features
Rapidly move to zero-emissions transportation for cars, buses, trains, and trucks.	The Project would support the transition to zero-emissions vehicles, as the Project would include 340 electric vehicle charging station stalls within the parking structures. Therefore, the Project would be consistent with this key decarbonization action.
Phase out the use of fossil-fuel gas for heating.	As discussed in Chapter 3, *Project Description,* the Project buildings would comply with the City of Burlingame 2020 Reach Code, and would utilize all electric heating and cooling. Therefore, the Project would be consistent with this key decarbonization action.
Provide communities with sustainable options such as walking, biking, and public transit to reduce reliance on cars.	As discussed further below, the Project is accessible via the Caltrain/BART Millbrae Intermodal station and is served by several bus routes. Thus, the Project area has been designated as a transit-rich area by the Metropolitan Transportation Commission and discussed within *Plan Bay Area 2050.* The Projects accessibility to transit supports sustainable modes of transportation and the Project would be consistent with this decarbonization action.
Continue to build out solar arrays, wind turbine capacity, and other resources to provide clean, renewable energy to displace fossil-fuel–fired electrical generation.	As discussed in Section 4.5, *Energy,* the Project proposes to procure energy from Peninsula Clean Energy, which is at least 50 percent renewable at their base ECOplus offering.

SOURCE: CARB 2022a.

Consistency of the Project with the Clean Air Plan is discussed under Impact 4.2-1 of Section 4.2, *Air Quality.* The analysis found that the Project would be consistent with the 2017 Clean Air Plan with implementation of Mitigation Measure AIR-2a: Construction Emissions Minimization, Mitigation Measure AIR-2b: Off-Road Equipment Tiers, Mitigation Measure AIR-2c: Haul Truck Tiers, Mitigation Measure AIR-2d: Exterior Paint, Mitigation Measure AIR-2e: Interior Paint, and Mitigation Measure AIR-3a: Zero-Emission Landscaping Equipment.

The Project would also be consistent with *Plan Bay Area 2050,* which includes the Regional Transportation Plan, and was adopted as the Bay Area's Sustainable Communities Strategy pursuant to California Senate Bill 375. *Plan Bay Area 2050* has identified focus areas for future housing and jobs growth within the Bay Area which are classified as "growth geographies." These growth geographies are "geographic areas used to guide where future growth in housing and jobs would be focused under the plan's strategies over the next 30 years. These growth geographies are categorized into four types – priority development areas (PDAs), priority production areas (PPAs), transit-rich areas (TRAs), and high-resource areas (HRAs). The Project site is located within a geographic area that has been categorized as transit-rich and high-resource (MTC, 2021). TRAs are "*areas near rail, ferry or frequent bus service that were not already identified as PDAs. Specifically, these are areas where at least 50% of the area is within 0.5 miles of either an existing rail station or ferry terminal (with bus or rail service), a bus stop with peak service frequency of 15 minutes or less, or a planned rail station or planned ferry terminal (with bus or rail service)*." This designation only includes places that meet a baseline transit service threshold of bus service with peak headways of 30 minutes or better" (MTC & ABAG, 2021).

As described further in Section 4.14, *Transportation*, two Caltrain stations and one BART/Caltrain intermodal station are located near the Project site. The Caltrain/BART Millbrae Intermodal Station is located approximately 2.2 miles from the Project site; the Caltrain Broadway Station located approximately 0.5 miles from the Project site; and the Caltrain Burlingame Station, located approximately 1.7 miles from the Project site. The Peninsula Traffic Congestion Relief Alliance (Commute.org) Burlingame Bayside shuttle provides weekday commute-period shuttle service along the Old Bayshore Highway corridor to and from the Millbrae Caltrain/BART intermodal station. At present, shuttle access to the Project site is provided by an existing stop at 1333 Bayshore Highway. In addition, the Project site is served by San Mateo County Transit District (SamTrans) Line 292 which operates between Hillsdale Mall in San Mateo downtown San Francisco, with a stop approximately 0.1 miles from the site at 1350 Old Bayshore Highway. The Project would also upgrade the Commute.org Burlingame Bayside shuttle by including the Project applicant's funding commitment for this upgrade for the life of the Project and as necessary to maintain 15-minute headways or better during the weekday peak commute periods; and, by adding two stop locations along the Project frontage.

As detailed in Section 4.14, *Transportation,* though the implementation of the Project would result in an increase in vehicle trips to/from the Project site, the location of the Project in a transit priority area with access to a variety of transit options would result in a reduction in VMT. Additionally, The Project's Transportation Demand Management (TDM) plan includes site enhancement strategies, on-site amenities, and programmatic and service strategies that encourage the use of alternative modes of travel. The measures would be monitored to ensure that

they result in compliance with the 20 percent trip reduction target required by the City's TDM ordinance or require the implementation of additional trip reduction measures.

With implementation of the mitigation measures identified below, the Project would not generate GHG emissions, either directly or indirectly, that would lead to a significant impact on the environment or conflict with local, regional, or State-level efforts towards achieving GHG reduction targets for 2030 and 2050. This impact would be *less than significant with mitigation.*

> **Mitigation:** Implement Mitigation Measure AIR-2a; Mitigation Measure AIR-2b; Mitigation Measure AIR-2c; Mitigation Measure AIR-2d; and Mitigation Measure AIR-3a.
>
> **Significance after Mitigation:** Less than Significant.

Cumulative Impacts

Climate change is a cumulative effect of all natural and anthropogenic sources of GHGs accumulated on a global scale. The GHG emissions from an individual project, even a very large development project, would not individually generate sufficient GHG emissions to measurably influence global climate change, and thus the assessment of GHG emissions impacts is inherently cumulative. Consideration of a project's climate change impact, therefore, is essentially an analysis of a project's contribution to a cumulatively significant global impact through its emission of GHGs. While it is possible to examine the quantity of GHGs that would be emitted from individual project sources, it is not currently possible to link these GHGs emitted from a specific source or location to particular global climate changes.

Both BAAQMD and the CAPCOA consider GHG impacts to be exclusively cumulative impacts, in that no single project could, by itself, result in a substantial change in climate (BAAQMD, 2012; CAPCOA, 2008). Therefore, the evaluation of cumulative GHG impacts presented above evaluates whether the Project would make a considerable contribution to cumulative climate change effects.

As such, the analysis completed in Impact GHG-1 considers the potential impacts of Project-related GHG emissions. Implementation of the Project, with the above identified mitigation measures, would not result in a significant impact with respect to GHG emissions. As such, the Project's contribution to the cumulative GHG impact would not be cumulatively considerable.

4.7.4 References

Bay Area Air Quality Management District (BAAQMD), 2012. *California Environmental Quality Act Air Quality Guidelines*, May 2012. Available at http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_Final_May%202012.ashx?la=en. Accessed January 5, 2023.

———, 2017a. *Spare the Air Cool the Climate, A Blueprint for Clean Air and Climate Protection in the Bay Area, Final 2017 Clean Air Plan.* Adopted April 19, 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed January 5, 2023.

———, 2017b. *California Environmental Quality Act Air Quality Guidelines*, 2017. Available at https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed January 5, 2023.

California Air Pollution Control Officers Association (CAPCOA), 2008. *CEQA and Climate Change*. January 2008. Available at http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf. Accessed January 5, 2023.

California Air Resources Board (CARB), 2008. *Climate Change Scoping Plan: A Framework for Change*, 2008. Available at https://ww3.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed January 5, 2023.

———, 2014. *First Update to the Climate Change Scoping Plan: Building on the Framework.* May 2014. Available at https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf. Accessed January 5, 2023.

———, 2017. *California's 2017 Climate Change Scoping Plan.* Available at https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf. Accessed January 5, 2023.

———, 2018. *SB 375 Regional Greenhouse Gas Emissions Reduction Targets*, 2018. Available at https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf. Accessed January 5, 2023.

———, 2021a. *Greenhouse Gas Global Warming Potentials.* Available at https://ww2.arb.ca.gov/ghg-gwps. Accessed January 5, 2023.

———, 2021b. Advanced Clean Cars Program. Available at https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about. Accessed January 5, 2023.

———, 2022a. *2000-2020 GHG Inventory (2022 Edition).* Available at https://ww2.arb.ca.gov/ghg-inventory-data. Accessed January 5, 2023.

———, 2022b. 2022 Scoping Plan For Achieving Carbon Neutrality. November 16. Available at https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf. Accessed January 5, 2023.

———, 2022c. Final Environmental Analysis for the 2022 Scoping Plan for Achieving Carbon Neutrality. Available at https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp-appendix-b-final-environmental-analysis.pdf. Accessed January 5, 2023.

California Building Standards Commission, 2019. 2019 California Green Building Standards Code. July 2019. Available at https://calgreenenergyservices.com/wp/wp-content/uploads/2019_california_green_code.pdf. Accessed January 5, 2023.

California Department of Finance, 2021. *E-4 Historical Population Estimates for Cities, Counties, and the State and E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020*. Available at http://www.dof.ca.gov/Forecasting/Demographics/Estimates/. Accessed January 5, 2023.

California Energy Codes & Standards, 2022. *2022 CALGreen Electric Vehicle Charging Requirements*, 2022. Available at https://localenergycodes.com/download/965/file_path/fieldList/CALGreen%202022%20EV%20Charging%20Requirements.pdf. Accessed January 5, 2023.

California Energy Commission (CEC), 2018. *2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings*, December 2018. Available at https://www.energy.ca.gov/sites/default/files/2021-06/CEC-400-2018-020-CMF_0.pdf. Accessed January 5, 2023.

———, 2022. *2022 Building Energy Efficiency Standards for Residential and Nonresidential Buildings*, August 2022. Available at https://www.energy.ca.gov/sites/default/files/2022-08/CEC-400-2022-010_CMF.pdf. Accessed January 5, 2023.

California Environmental Protection Agency (CalEPA), 2020. 2020 State Agency Greenhouse Gas Reduction Report Card. Available at https://calepa.ca.gov/wp-content/uploads/sites/6/2021/04/2020_CalEPA_Report_Card_ADA.pdf. Accessed January 5, 2023.

City of Burlingame, 2019a. *Burlingame General Plan.* November 2019. Available at https://cms6.revize.com/revize/burlingamecity/document_center/Planning/General%20and%20Specific%20Plans/BurlingameGP_Final_Nov2019_COMPLETE%20DOCUMENT.pdf. Accessed January 5, 2023.

City of Burlingame, 2019b. *City of Burlingame 2030 Climate Action Plan Update.* August 28, 2019. Available at https://cms6.revize.com/revize/burlingamecity/document_center/Sustainability/CAP/Climate%20Action%20Plan_FINAL.pdf#page=33. Accessed January 5, 2023.

Governor's Office of Planning and Research (OPR), 2008. *Technical Advisory—CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review.* June 19, 2008. Available at https://opr.ca.gov/docs/june08-ceqa.pdf. Accessed January 5, 2023.

———, 2015. Executive Order B-30-15. April 29, 2015. Available at https://www.ca.gov/archive/gov39/2015/04/29/news18938/index.html. Accessed January 5, 2023.

Intergovernmental Panel on Climate Change (IPCC), 2014a. *Climate Change 2014: Impacts, Adaptation, and Vulnerability, Summary for Policymakers. Working Group II Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.* pp. 14-15. Available at https://www.ipcc.ch/site/assets/uploads/2018/03/ar5_wgII_spm_en-1.pdf. Accessed January 5, 2023.

MTC, 2021. *Plan Bay Area 2050 Growth Geographies.* January 6, 2021. Updated September 20, 2021. Available at https://opendata.mtc.ca.gov/datasets/d74d81cfce2a4bc9851858f087b78f49_0/explore?location=37.648195%2C-122.421374%2C12.20. Accessed January 23, 2023.Metropolitan Transportation Commission and Association of Bay Area Governments (MTC & ABAG), 2013. *Plan Bay Area: Strategy for a Sustainable Region*, 2013. Available at http://files.mtc.ca.gov/library/pub/28536.pdf. Accessed January 5, 2023.

———, 2017. *Plan Bay Area 2040,* adopted July 26, 2017. Available at http://files.mtc.ca.gov/library/pub/30060.pdf. Accessed January 5, 2023.

———, 2021. *Plan Bay Area 2050,* adopted October 2021. Available at https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf. Accessed January 5, 2023.

Office of the Governor of California, 2005. Executive Order S-3-05. June 1, 2005. Available at https://static1.squarespace.com/static/549885d4e4b0ba0bff5dc695/t/54d7f1e0e4b0f0798cee3010/1423438304744/California+Executive+Order+S-3-05+(June+2005).pdf. Accessed January 5. 2023.

———, 2018. Executive Order B-55-18 to Achieve Carbon Neutrality. September 10, 2018. Available at https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf. Accessed January 5, 2023.

United States Environmental Protection Agency, 2022. *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2020.* Available at https://www.epa.gov/system/files/documents/2022-04/us-ghg-inventory-2022-main-text.pdf. Accessed January 5, 2023.

U.S. Environmental Protection Agency and National Highway Traffic Safety Administration (EPA and NHTSA), 2010. *Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards; Final Rule*, May 5, 2010. Available at https://www.govinfo.gov/content/pkg/FR-2010-05-07/pdf/2010-8159.pdf. Accessed January 5, 2023.

———, 2019. *One National Program Rule on Federal Preemption of State Fuel Economy Standards*, 2019. Available at https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100XI4W.pdf. Accessed January 5, 2023.

U.S. Global Climate Change Research Program (USGCRP), 2016. *The Impacts of Climate Change On Human Health in the United States: A Scientific Assessment.* Available at https://health2016.globalchange.gov/. Accessed January 5, 2023.

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4.8 Hazards and Hazardous Materials

This section describes and evaluates the potential for construction and operation of the proposed Project to result in significant impacts related to hazards and hazardous materials. The analysis is based on review of available reports and maps of the Project site and vicinity, including site-specific investigations (including three Phase I environmental site assessments conducted for the Project site by the applicant), relevant regulations, and a discussion of the methodology and thresholds used to determine whether the proposed Project would result in significant impacts. This section analyzes the potential for both Project-level and cumulative environmental impacts. Issues and impact analysis concerning air quality and air toxics are presented in Section 4.2, *Air Quality*. Issues and impact analysis concerning noise are presented in Section 4.11, *Noise and Vibration*.

4.8.1 Environmental Setting

The study area for evaluation of hazards and hazardous materials impacts includes the proposed Project site and surrounding areas. The evaluation considers the Project site and the surrounding area of approximately 0.25 miles from the Project site. However, the analysis focuses on the Project site and the immediately adjacent area. Sites beyond the immediately adjacent area would have a remote chance of affecting the Project site since releases of hazardous materials tend to be localized. In addition, a radius of up to 0.25 miles from the Project site is considered relative to proximity to schools, and a radius of up to 2 miles is similarly considered relative to proximity to airports, both in accordance with the CEQA Guidelines.

Definitions and Background

Definitions of Hazardous Materials

A hazardous material is defined as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment (California Health and Safety Code Chapter 6.95, Section 25501(n)). The term “hazardous materials” refers to both hazardous substances and hazardous wastes. Under federal and State laws, any material, including wastes, may be considered hazardous if it is specifically listed by statute as such or if it is toxic (causes adverse human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), or reactive (causes explosions or generates toxic gases).

Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been spent, discarded, discharged, spilled, contaminated, or are being stored until they can be disposed of properly (Title 22 California Code of Regulations [CCR] Section 66261.10). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific criteria established in Sections 66261.20 through 66261.24 of the CCR Title 22. Hazardous substances are regulated by multiple agencies, as described in the Regulatory Framework below, and cleanup requirements of hazardous material releases are determined on a

case-by-case basis according to the regulatory agency (e.g., Department of Toxic Substances Control [DTSC] or Regional Water Quality Control Board [RWQCB]) with lead jurisdiction over a contaminated site.

San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels

The San Francisco Bay RWQCB Environmental Screening Levels (ESLs) are used to screen sites and evaluate whether further action (investigation or remediation) is needed (RWQCB, 2019). ESLs provide conservative screening levels for over 100 chemicals commonly found at sites with contaminated soil and groundwater. They are intended to help expedite the identification and evaluation of potential environmental concerns at contaminated sites. ESLs address a range of media (soil, groundwater, soil gas, and indoor air) and a range of concerns (e.g., impacts to drinking water, vapor intrusion, and impacts to aquatic life).

The development of Soil ESLs takes into consideration human health, leaching to groundwater, gross contamination, and odor nuisance, and sets the lowest of the various levels as the Soil ESL. The leaching to groundwater input criteria include non-drinking water criteria that include aquatic receptors, specifically for discharges to surface water using toxicity criteria for both freshwater and saltwater receptors. Thus, the Soil ESLs include ecological risk input.

Existing Hazardous Building Materials

Portions of the Project site and adjoining properties were part of the San Francisco Bay tidal zone and infilled in the 1950s and 1960s. The Project site was developed with the present-day commercial buildings between the mid-1950s through the late 1960s, which predates the late 1970s nationwide bans on the use of asbestos-containing materials (ACM), lead-based paint (LBP), PCBs in transformers, and mercury in electrical switches in construction materials (see Section 4.8.2, *Regulatory Framework).*

A Phase I environmental site assessment conducted by the Project applicant for the northern parcels of the Project site included a limited ACM sampling program that verified the presence of ACM in drywall, joint compound, and floor tile and mastic in existing buildings (Blackstone, 2021a). The two Phase I environmental site assessments conducted by the Project applicant for the southern parcels of the Project site included a visual survey that also identified suspect ACM in buildings (Blackstone, 2021b, 2021c).

The Phase I environmental site assessments also concluded that LBP was likely present in the Project site buildings due to their age. In addition, several pad-mounted electrical transformers were observed on the Project site; the majority of the transformers were not labeled as "Non-PCB," a typical practice to indicate that the oil in the transformer does not contain PCBs. Given the age of the development, the transformers may have PCB-containing oil. Similarly, the Phase I environmental site assessments indicated that given the age of the buildings, they may also contain mercury switches and fluorescent light ballasts. In summary, hazardous building materials are known to be present in the existing buildings at the Project site.

Former Leaking Underground Storage Tank (UST) Sites

The Project site has three parcels that previously had leaking USTs. The locations of the UST sites are shown on **Figure 4.8-1**, and discussed below.

1298 Old Bayshore Highway Parcel (Former Chevron Station)

The 1298 Old Bayshore Highway parcel, currently a paved parking lot, was occupied by a Chevron gasoline and service station from at least 1968 until the late 1980s. In 1986, four fuel USTs and one waste oil UST were removed from the parcel. During removal of the fuel USTs, fuel was detected in soil and groundwater, and the parcel underwent remediation consisting of the excavation of contaminated soil and pump-and-treat of contaminated groundwater. Following several years of monitoring and assessment, the overseeing regulatory agency, the San Mateo County Environmental Health Services (SMCEHS) issued a case closure determination on June 27, 2002, with concurrence from the state-level regulatory agency, the San Francisco Bay RWQCB, and indicated that concentrations of any remaining hydrocarbons were decreasing, and it was unlikely to present risks to human health or the environment. The case closure letter indicated this parcel has a land use restriction that requires that the City must notify SMCEHS of a change in use or redevelopment of the parcel that may impact groundwater (e.g., construction dewatering) and that the SMCEHS must approve these changes pursuant to Government Code 65850.2 (Blackstone, 2021a).

As part of the planning for potential redevelopment, a limited soil quality evaluation was conducted in the parking areas of the parcel in January 2021. Soil was sampled and analyzed for organochlorine pesticides, PCBs, semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), asbestos, total petroleum hydrocarbons (TPH) as gasoline, diesel, and motor oil. The soil sample results detected elevated concentrations of TPH as diesel and motor oil.[1] These contaminants are attributed to residual fuel from the prior leaking USTs. In addition, low concentrations of various metals, including lead, arsenic, and nickel, were identified in samples collected from the boring.[2] These contaminants appear to be related to fill material or background conditions. While the soil investigation concluded that TPH as diesel and motor oil, and some metals are present in soil, with some concentrations exceeding commercial land use ESLs, there was no evidence of deeper migration of the TPH identified during the investigation. Given the restricted closure granted for the parcel, the investigation determined that the soil concentrations identified were not considered a risk to current occupants or groundwater, however, as indicated above, reiterated that further assessment and/or remediation may be required in connection with a change in land use or redevelopment (Blackstone, 2021a).

[1] The investigation included two soil borings to approximately 30 feet below ground surface (bgs) in the parking areas. The soil sample results detected elevated concentrations of TPH as diesel and motor oil at 10 feet bgs in the boring nearest the former gas station on the western portion of the parcel with no elevated concentrations of contaminants at lower depths in this boring. The highest concentrations of TPH as diesel was between 980 and 35,000 milligrams per kilogram (mg/kg); the commercial land use ESL for diesel is 1,200 mg/kg. TPH as motor or waste oil was detected at 3,200 mg/kg and 70,000 mg/kg; the commercial land use ESL for oil is 180,000 mg/kg.

[2] Samples were collected at a depth of 20-30 feet bgs on the east side of the parcel. Lead was detected at concentrations up to 330 mg/kg, which exceeded the commercial land use ESL of 320 mg/kg. Arsenic was detected at concentrations of up to 12 mg/kg, which exceeded the commercial land use ESL of 0.31 mg/kg. Nickel was detected at concentrations up to 145 mg/kg, slightly over the background concentrations but below the commercial land use ESL of 11,000 mg/kg. No other samples exceeded the commercial land use ESLs.

2022\D2022002271.00 - 1200 -1340 Bayshore Hwy Project\05 Graphics-GIS-Modeling-USE AZURE\Illustrator

SOURCE: First Carbon Solutions, 2022; County of San Mateo, 2012; Blackstone Consulting LLC, 2021; ESA, 2022; Google Maps, 2022

1200-1340 Old Bayshore Highway EIR

Figure 4.8-1
Former Leaking Underground Storage Tank Sites on Project Site

1288 Old Bayshore Highway Parcel (Former Rental Car Facility)

A former rental car facility at the 1288 Bayshore parcel historically operated two USTs. A 1,000-gallon gasoline UST was installed in 1966 and replaced in 1969 due to a reported leak. In 1981, a 10,000-gallon unleaded gasoline UST was installed. Both USTs were removed in 1988, and the SMCEHS issued case closure letters in May 1990 and September 1991 indicating no further action was required for these USTs based on the results of limited soil and groundwater sampling (Blackstone, 2021a). However, it is unknown whether residual fuel or motor oil may be present in soil and/or groundwater at this parcel.

1200 Old Bayshore Highway (Former BP/Union 76 and Platinum Energy)

While a BP/Union 76 gasoline and service station operated at this parcel, this parcel had three gasoline USTs and two waste oil USTs, as documented in the case closure summary. One leaking waste oil UST and associated contaminated soil and groundwater was removed between 1988 and 2010. The case closure summary stated that residual levels of gasoline remain in soil and groundwater at this parcel and that redevelopment at this parcel will require notification to and approval from the SMCEHS (SMCEHS 2012).

Later, while this parcel was a Platinum Energy service station, three gasoline USTs, one waste oil UST, and associated contaminated soil and groundwater were removed from this parcel in 2014 and 2015, as documented in the case closure summary (Atlas 2016; SMCEHS 2016a).[3] The case closure summary states that residual levels of waste oil remain in soil and groundwater at this parcel. The SMCEHS issued a land use restriction letter stating that excavation or redevelopment at this parcel will require notification to and approval from the SMCEHS (SMCEHS 2016b).

As part of the planning for potential redevelopment, a preliminary soil quality evaluation was conducted on this parcel in August 2021. The soil investigation confirmed that residual concentrations of petroleum contaminants are present at this parcel, however, were well below commercial land use ESLs (Blackstone, 2021c).

Proximity to Schools

There are no schools located within 0.25 mile of the Project site. The nearest schools are Peninsula High School (a public alternative school) located at 860 Hinckley Road, approximately 0.4 miles northwest of the Project site; Lincoln Elementary School at 1801 Devereux Drive about 0.8 miles west of the Project site; McKinley Elementary School, located at 702 Paloma Avenue approximately 0.8 miles south of the Project site; and Burlingame High School, located at 1 Mangini Way approximately 0.85 miles southeast of the Project site.

[3] The concentration of waste oil in soil in the waste oil UST excavation was 12,000 mg/kg, below the commercial land use waste oil ESL of 180,000 mg/kg.

Proximity to Airports

The project site is located approximately 0.3-miles south of the San Francisco International Airport (SFO) south property boundary, and just over one mile from the nearest SFO runway. The City/County Association of Governments of San Mateo (C/CAG) is the designated Airports Land Use Commission (ALUC) in San Mateo County, and develops and implements the *San Mateo County Comprehensive Airport Land Use Plan for the Environs of San Francisco International Airport* (ALUCP). The SFO ALUCP applies to areas that are located within the Airport Influence Area (AIA) boundary established and defined by the ALUCP. AIA boundaries define areas where height, noise, overflight and safety standards, policies, and criteria are applied to certain proposed land use policy actions. The Project site is located inside the AIA B. The Project site is located outside all of the ALUCP safety compatibility zones and the 65 decibel Community Noise Equivalent Level (dBA CNEL) contour (see Section 4.11, *Noise and Vibration*, for additional information regarding noise) (SFO, 2022).

Federal Regulation 49, Code of Federal Regulations (CFR) Title 14, Part 77 establishes standards and notification requirements for objects affecting navigable airspace. In particular, CFR Title 14 Part 77.13 requires that any developer who intends to perform any construction or alterations to structures that exceed 200 feet in height above ground level must obtain project approval from the Federal Aviation Administration (FAA). In addition, prior to issuance of any demolition or construction permits, the City would require the Project applicant to provide appropriate notification of proposed construction to the FAA via FAA Form 7460-1 (Notice of Proposed Construction or Alteration).

Airport Part 77, Subpart C, establishes obstruction standards for the airspace around airports including approach zones, conical zones, transitional zones, and horizontal zones known as "imaginary surfaces." The FAA considers any objects penetrating these surfaces, whether buildings, trees or vehicles travelling on roads and railroads, as obstructions to air navigation. SFO has mapped the critical aeronautical surfaces that protect the airspace required for flight procedures. The Project site is located in an area covered by the FAR Part 77 imaginary airspace surfaces for SFO. The lowest critical aeronautical surface above the Project site varies between approximately 240 feet above mean sea level (AMSL)[4] near 1340 Bayshore Highway, to approximately 280 feet AMSL near 1200 Bayshore Highway.

Wildland Fire

A wildland fire is any non-structure fire that occurs in vegetation or natural fuels. The Project site is in a highly urbanized setting with no nearby wildlands. According to the California Department of Forestry and Fire Protection (Calfire) Fire Hazard Severity Zone Maps of San Mateo County, the Project site is not located within or near a very high fire hazard severity zone (Calfire, 2007, 2008).

[4] In this context, AMSL is defined from the origin of the North American Vertical Datum of 1988 (NAVD88).

4.8.2 Regulatory Framework

Federal

The primary federal agencies with responsibility for hazards and hazardous materials management include the US Environmental Protection Agency (US EPA), US Department of Labor Occupational Safety and Health Administration (Fed/OSHA), and the US Department of Transportation (DOT). Federal laws, regulations, and responsible agencies are summarized in **Table 4.8-1**.

TABLE 4.8-1
FEDERAL LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT

Classification	Federal Law or Responsible Federal Agency	Description
Hazardous Waste Handling	Resource Conservation and Recovery Act of 1976 (RCRA)	Under RCRA, the US EPA regulates the generation, transportation, treatment, storage, and disposal of hazardous waste from "cradle to grave."
	Hazardous and Solid Waste Act	Amended RCRA in 1984, affirming and extending the "cradle to grave" system of regulating hazardous wastes. The amendments specifically prohibit the use of certain techniques for the disposal of some hazardous wastes.
	Toxic Substances Control Act (TSCA)	Code of Federal Regulations Title 40 Chapter 1, Subchapter R – Toxic Substances Control Act – Part 761 Polychlorinated Biphenyls (PCBs) – covers the identification and sampling requirements for PCBs for disposal purposes.
Hazardous Materials Management	Community Right-to-Know Act of 1986 (also known as Title III of the Superfund Amendments and Reauthorization Act (SARA)	Imposes requirements to ensure that hazardous materials are properly handled, used, stored, and disposed of and to prevent or mitigate injury to human health or the environment in the event that such materials are accidentally released.
Hazardous Materials Transportation	US Department of Transportation (DOT)	DOT has the regulatory responsibility for the safe transportation of hazardous materials. The DOT regulations govern all means of transportation except packages shipped by mail (49 CFR).
	US Postal Service (USPS)	USPS regulations govern the transportation of hazardous materials shipped by mail.
Occupational Safety	Occupational Safety and Health Act of 1970	Fed/OSHA sets standards for safe workplaces and work practices, including the reporting of accidents and occupational injuries (29 CFR).
Structural and Building Components (Hazardous Building Materials [ACM, LBP, and PCBs])	Toxic Substances Control Act	Regulates the use and management of hazardous building materials, and sets forth detailed safeguards to be followed during the disposal of such items.
	US EPA	The US EPA monitors and regulates hazardous materials used in structural and building components and their effects on human health.
Federal Regulation 49 CFR Part 77, Objects Affecting Navigable Airspace	Federal Aviation Administration (FAA)	Proximity to San Francisco International Airport triggers the application of Federal Aviation Regulation (FAR) Part 77, Objects Affecting Navigable Airspace, which sets forth criteria and requirements for proposed structures to be filed with the FAA for airspace safety review. The FAA review determines whether the proposed structures would constitute an obstruction or hazard to aircraft.

State

Hazardous Materials

The primary State agencies with responsibility for hazardous materials management in the region include the DTSC and the RWQCB within the California Environmental Protection Agency (Cal EPA), California Occupational Safety and Health Administration (Cal/OSHA), California Department of Health Services (CDHS), California Highway Patrol (CHP), and the California Department of Transportation (Caltrans). State laws, regulations, and responsible agencies are summarized in **Table 4.8-2**.

TABLE 4.8-2
STATE LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT

Classification	Law or Responsible State Agency	Description
Hazardous Materials Management	Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program); CUPA (Health and Safety Code Sections 25404 et seq)	Cal EPA adopted regulations in January 1996 that implemented the Unified Program at the local level. The agency responsible for implementation of the Unified Program is called the Certified Unified Program Agency (CUPA), which for San Mateo County is the San Mateo Environmental Health Services (SMCEHS).
	California Fire Code, Title 24, Chapter 9, California Code of Regulations and California Building Code, Part 2	The California Fire Code regulates the storage and handling of hazardous materials, including the requirement for secondary containment, separation of incompatible materials, and preparation of spill response procedures.
Hazardous Waste Handling	California Hazardous Materials Release Response Plan and Inventory Law of 1985; CUPA	The California Hazardous Materials Release Response Plan and Inventory Law of 1985 (Business Plan Act) requires that businesses that store hazardous materials onsite prepare a Hazardous Materials Business Plan (HMBP) and submit it to the local CUPA, which in this case is the SMCEHS.
	California Hazardous Waste Control Act; California Health and Safety Code, Division 20, Chapter 6.5, Article 2, Section 25100, et seq.; DTSC	Under the California Hazardous Waste Control Act, DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste in California. The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; dictate the management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills. DTSC is also the administering agency for the California Hazardous Substance Account Act. California Health and Safety Code, Division 20, Chapter 6.8, Sections 25300 et seq., also known as the State Superfund law, providing for the investigation and remediation of hazardous substances pursuant to State law.
Hazardous Materials Transportation	Titles 13, 22, and 26 of the California Code of Regulations	Regulates the transportation of hazardous waste originating in and passing through the state, including requirements for shipping, containers, and labeling.
	CHP and Caltrans, California Vehicle Code, Chapter 5, Sections 31303 - 31309	These two state agencies are primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies.
Occupational Safety	Cal/OSHA regulations (Title 8 CCR)	Cal/OSHA has primary responsibility for developing and enforcing workplace safety regulations in California. Because California has a federally approved OSHA program, it is required to adopt regulations that are at least as stringent as those found in Title 29 of the Code of Federal Regulations (CFR). Cal/OSHA standards are generally more stringent than federal regulations. Requires employee safety training, safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation.

TABLE 4.8-2 (CONTINUED)
STATE LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT

Classification	Law or Responsible State Agency	Description
Construction Storm Water General Permit (Construction General Permit; Order 2022-0057-DWQ, NPDES No. CAS000002)	RWQCB	Dischargers whose project disturbs one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one of more acres, are required to obtain coverage under the *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit; Order 2022-0057-DWQ, NPDES No. CAS000002). Construction activity subject to this permit includes clearing, grading, grubbing, and other disturbances to the ground such as excavation and stockpiling, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of a facility. The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes specific Best Management Practices (BMPs) designed to prevent sediment and pollutants from contacting stormwater from moving offsite into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area.
Municipal Separate Storm Sewer System (MS4) Permit NPDES No. CAS612008 and Order No. R2-2022-0018 (RWQCB 2022)	RWQCB	The San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (MRP) requires permittees, which includes the City of Burlingame, to reduce pollutants and runoff flows from new development and redevelopment using BMPs to the maximum extent practical. The San Mateo County MRP permittees, which includes the City of Burlingame, prepared the C.3 Regulated Projects Guide (SMCWPPP) as a guide to for use by developers, builders, and project applicants to provide development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification element. The MRP requires specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.
Underground Infrastructure	California Code of Regulations Section 4216-4216.9	Section 4216-4216.9 “Protection of Underground Infrastructure” requires an excavator to contact a regional notification center (e.g., Underground Services Alert or Dig Alert) at least two days prior to excavation of any subsurface installations. Any utility provider seeking to begin a project that could damage underground infrastructure can call Underground Service Alert, the regional notification center for southern California. Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the project. Representatives of the utilities are then notified and are required to mark the specific location of their facilities within the work area prior to the start of project activities in the area.

Regulations Applicable to Hazardous Building Materials

From the above-listed regulations, the use and removal of hazardous building materials is subject to the following regulations specific to the demolition and renovation of structures.

Asbestos-Containing Material (ACM)

Asbestos, a naturally occurring fibrous material, was used as a fireproofing and insulating agent in building construction before such uses were terminated due to liability concerns in the late 1970s. State-level agencies, in conjunction with the US EPA and OSHA, regulate removal,

abatement, and transport procedures for ACM. Releases of asbestos from industrial, demolition, or construction activities are prohibited by these regulations 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, the Bay Area Air Quality Management District (BAAQMD) must be notified prior to the onset of demolition or construction activities with the potential to release asbestos. The following regulations apply to the removal and disposal of ACM: Code of Federal Regulations (CFR) Title 40, Part 61, Subpart M (Asbestos National Emission Standards for Hazardous Air Pollutants [NESHAP]); California Code of Regulations (CCR) Title 8, Sections 1529 and 5208; and BAAQMD Regulation 11, Rule 2. BAAQMD Rule 2 provides detailed requirements for the definition of materials that qualify as ACM, qualifications for ACM contractors, and procedures for testing, containment, removal, and disposal.

Lead-Based Paint (LBP)

Among its numerous uses and sources, lead can be found in paint, water pipes, solder in plumbing systems, and in soils around buildings and structures painted with LBP. Old peeling paint can contaminate near surface soil, and exposure to residual lead can have adverse health effects, especially in children. Cal/OSHA's Lead in Construction Standard is contained in CCR Title 8, 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; employee information, training, and certification; signage; record keeping; monitoring; and agency notification. The following regulations apply to the removal and disposal of LBP: Title IV, Toxic Substances Control Act, Sections 402, 403, and 404; Title 8 CCR Section 1532.1; and BAAQMD Regulation 11, Rule 1. In addition, the California Department of Public Health (CDPH) requires that LBP removal actions prepare and submit CDPH Form 8551: Abatement of Lead Hazards Notification and CDPH Form 8552: Lead Hazard Evaluation Report to the CDPH.

Polychlorinated Biphenyls

PCBs are mixtures of 200-plus individual chlorinated compounds (known as congeners) (DTSC 2022). PCBs were used in many applications such as coolants and lubricants in transformers, capacitors, and other electrical equipment. The manufacture of PCBs ended in the U.S. in the late 1970s because they can cause harmful effects to human health and the environment. PCBs can be found in sources such as electrical transformers, fluorescent light ballasts and electrical devices with PCB capacitors, hydraulic oils, and building materials. PCBs are toxic, highly persistent in the environment, and bioaccumulate. There are no known natural sources of PCBs.

The US EPA prohibited the use of PCBs in the majority of new electrical equipment and fluorescent light ballasts starting in 1979, and initiated a phase-out for much of the existing PCB-containing equipment (US EPA 2021). The inclusion of PCBs in electrical equipment and the handling of those PCBs are regulated by the provisions of the Toxic Substances Control Act, 15 U.S.C. Section 2601 et seq. (TSCA). Relevant regulations include labeling and periodic inspection requirements for certain types of PCB-containing equipment and outline highly specific safety procedures for their disposal. The State of California likewise regulates PCB-laden

electrical equipment and materials contaminated above a certain threshold as hazardous waste; these regulations require that such materials be treated, transported, and disposed accordingly. At lower concentrations for non-liquids, the RWQCB may exercise discretion over the classification of such wastes. The following regulations apply to the removal and disposal of PCBs: Resource Conservation and Recovery Act: 4 CFR 761; Toxic Substances Control Act: U.S. Code Title 15, Section 2695; and 22 CCR Section 66261.24. In addition, Burlingame Municipal Code, Chapter 15.15 regulates the management of PCBs during building demolition.

Mercury

Mercury may be present in mercury switches and compact fluorescent light bulbs (CFLs) and other tubes (DTSC 2005, 2010). A mercury switch is an electrical switch that opens and closes a circuit when a small amount of the liquid metal mercury connects metal electrodes to close the circuit. Since mercury is a toxic heavy metal, devices containing mercury switches must be treated as hazardous waste for disposal. Because of current regulations, most modern applications have eliminated mercury in switches. In the United States, the US EPA regulates the disposition and release of mercury. Individual states and localities may enact further regulations on the use or disposition of mercury. The following regulations apply to the removal and disposal of mercury switches: 22 CCR Sections 66262.11, 66273 et seq., and 67426.1 through 67428.1.

Universal Waste

Universal waste is hazardous waste that has less stringent requirements for management and disposal. Common examples of universal waste include televisions, computers, computer monitors, batteries, and fluorescent lamps. Universal wastes are hazardous upon disposal but pose a lower risk to people and the environment than other hazardous wastes. State and federal regulations identify which unwanted products are universal wastes and provide simple rules for handling and recycling of them. Universal waste, must be disposed of in accordance with the DTSC Universal Waste Rule (DTSC, 2010). These regulations are found in the CCR, Title 22, Division 4.5, Chapter 23. Universal wastes, including those that contain mercury, must either be sent directly to an authorized recycling facility or to a universal waste consolidator for shipment to an authorized recycling facility. If the wastes are not to be recycled, then the waste must be managed as hazardous waste rather than as universal waste. This includes notifying DTSC, using a manifest and a registered hazardous waste hauler, complying with shorter accumulation times, and shipping only to an authorized hazardous waste disposal facility.

Regulations Applicable to Life Science Research Uses

Life science research can include the storage, use, and disposal of biohazardous, chemical, low-level radioactive and other materials and/or wastes.

The United States Department of Health and Human Services (USDHHS), Centers for Disease Control and Prevention (CDC), and National Institutes of Health (NIH) prescribe containment and handling practices for use in microbiological and biomedical laboratories. Based on the potential for transmitting biological agents, the rate of transmission of these agents, and the quality and concentrations of biological agents produced at a laboratory, Biosafety Levels are

defined for four tiers of relative hazards. Biosafety Level 1 (BSL-1) is for the least hazardous biological agents, and Biosafety Level 4 (BSL-4) is for the most hazardous biological agents. Biosafety Levels for infectious agents are based on the characteristics of the agent (virulence, ability to cause disease, routes of exposure, biological stability and communicability), the quantity and concentration of the agent, the procedures to be followed in the laboratory, and the availability of therapeutic measures and vaccines.

In addition to the previously described regulations, the proposed Project may be subject to the following regulations specific to materials that may be used in life sciences research.

Medical Waste Management Act

Medical wastes must be managed as a biohazardous material, in accordance with the California Health and Safety Code. The management of biohazardous materials must comply with USDHHS guidelines and CDPH regulations pertaining to such materials. Biohazardous medical waste is generally regulated in the same manner as hazardous waste, except that special provisions apply to storage, disinfection, containment and transportation. Within the regulatory framework of the Medical Waste Management Act (California Health and Safety Code, Sections 117600 - 118360), the CDHS Medical Waste Management Program ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste offsite treatment facilities and transfer stations throughout the state. The CDHS also oversees all medical waste transporters.

Radioactive Materials

Pursuant to the federal Atomic Energy Act (42 U.S. Code Sections 2011-2021, 2022-2286i, 2296a-2297h-13), which requires states to assume responsibility for the use, transportation, and disposal of low-level radioactive material and for the protection of the public from radiation hazards, the Radiologic Health Branch (RHB) of the CDHS administers the state's Radiation Control Law, which governs the storage, use, transportation, and disposal of sources of ionizing radiation (radioactive material and radiation-producing equipment). Radioactive material regulations require registration of sources of ionizing radiation, licensing of radioactive material, and protection against radiation exposure. The RHB also regulates the transportation of radioactive materials and disposal of radioactive waste. Users of radioactive materials must maintain detailed records regarding the receipt, storage, transfer, and disposal of such materials. State regulations concerning radioactive substances are included in the California Health and Safety Code, Sections 114960 through 115273. The regulations specify appropriate use and disposal methods for radioactive substances, as well as worker safety precautions and worker health monitoring programs.

Local

San Mateo County Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program), codified in California Health and Safety Code Sections 25404 et seq., requires the administrative consolidation of six hazardous materials and waste programs under one

agency, a Certified Unified Program Agency (CUPA). The following programs are consolidated under the unified program:

- Hazardous Materials Release Response Plans, and Inventory (also referred to as Hazardous Materials Business Plans)
- California Accidental Release Program
- Underground Storage Tanks
- Aboveground Petroleum Storage Spill Prevention Control and Countermeasures
- Hazardous Waste Generation and Onsite Treatment
- Uniform Fire Code Plans and Inventory Requirements

The State Secretary for Environmental Protection designated SMCEHS as the local CUPA. The CUPA is charged with the responsibility of conducting compliance inspections of over hazardous materials facilities in San Mateo County. These facilities and businesses handle hazardous materials, generate or treat a hazardous waste, and/or operate underground storage tanks. The CUPA uses education and enforcement to minimize the risk of chemical exposure to human health and the environment. The CUPA forwards important facility information to local fire prevention agencies that enables them to take appropriate protective action in the event of an emergency at regulated facilities. In order to legally store and use hazardous materials above the trigger quantities, users must apply for permits and demonstrate satisfactory compliance with regulations. The quantities that trigger disclosure are based on the maximum quantity on site at any time:

- 55 gallons, 500 pounds, or 200 cubic feet for 30 days or more at any time in the course of a year
- Any amount of hazardous waste
- Category I or II pesticides
- Explosives
- Extremely hazardous substances above the threshold planning quantity

San Mateo County Medical Waste Program

The San Mateo County Medical Waste Program has been managed by the Environmental Health Services Division (EHS) of the San Mateo County Health Department since 1991. EHS is responsible for the regulation of medical waste generation, storage, transport and disposal. The Program is authorized by California's Medical Waste Management Act (described above). EHS enforces these regulations and additional requirements adopted by the County, such as Medical Waste Management Plans and closure requirements.

San Mateo County 2021 Multijurisdictional Local Hazard Mitigation Plan

San Mateo County has developed a local hazard mitigation plan that encompasses 20 cities and towns in the county, including the City of Burlingame, as well the county's fire districts and other special purpose districts (San Mateo County, 2021). The plan defines measures to reduce risks from natural disasters in the San Mateo County planning area, which consists of the entire county,

including unincorporated areas, incorporated cities, and special purpose districts. The plan complies with federal and State hazard mitigation planning requirements to establish eligibility for funding under Federal Emergency Management Agency (FEMA) grant programs for all planning partners.

Hazardous materials response, mitigation and clean-up for San Mateo County is managed by the Belmont Fire Protection District's Hazardous Materials Team through a contractual agreement between the County of San Mateo, the Emergency Services Council and the Belmont Fire Protection District.

San Mateo County Emergency Operations Plan

The County of San Mateo Emergency Operations Plan (EOP) establishes policies and procedures and assigns responsibilities to ensure the effective management of emergency operations within the San Mateo County Operational Area (SMOA), which includes the City of Burlingame. It provides information on how and when the Emergency Operations Center (EOC) staff is activated. The primary objective of the EOP is to ensure the effective coordination of response forces and resources in preparing for and responding to situations associated with natural disasters, technological incidents and national security emergencies (County of San Mateo, 2015).

City of Burlingame General Plan

The City of Burlingame General Plan, *Envision Burlingame*, is the guiding document for the city's physical development. It includes detailed goals, policies and implementation programs that convey a long-term vision and guide local decision-making to achieve that vision. The General Plan includes the following goals and policies that are applicable to the Project.

Chapter VII. Infrastructure

Goal IF-4: Protect people and property from the adverse effects of flooding through a stormwater system that adequately moves runoff from existing and future development, prevents property damage due to flooding, and improves environmental quality.

> ***Policy IF-4.4: Green Stormwater Infrastructure.*** Plan for and implement low impact development (LID) retrofits, such as green infrastructure which uses vegetation and soil to capture, treat, and retain stormwater runoff. Promote the use of pervious surfaces, green streets, and rainwater harvesting to achieve multiple benefits, such as creating open space, improving stormwater quality, and increasing groundwater recharge. Avoid or minimize the impact of stormwater discharges on local receiving waters, including San Francisco Bay.
>
> ***Policy IF-4.6: Grading Projects.*** Impose appropriate conditions on grading projects performed during the rainy season to ensure that silt is not conveyed to storm drainage systems.
>
> ***Policy IF-4.9: Pollution Prevention.*** Prevent pollutants from entering the storm drain system by managing point and non-point pollution sources through public and private facilities, local regulations, and education.

Chapter VIII. Community Safety Element

Goal CS-3: Protect Burlingame residents, property, and businesses by ensuring preparedness for, and effective response to, natural and human-caused disasters.

> ***Policy CS-3.1: Emergency Management Plan.*** Maintain a Comprehensive Emergency Management Plan that outlines the City's responsibilities and procedures in an emergency. Ensure the plan integrates needed coordination between the City and neighborhood groups, schools, churches, businesses, and hotels.

Goal CS-6: Protect residents, workers, and visitors from hazardous materials through improved regulations, disposal practices, location and site design requirements, and public information and education.

> ***Policy CS-6.1: Hazardous Materials Storage and Disposal.*** Require the proper storage and disposal of hazardous materials to prevent leakage, potential explosions, fire, or the release of harmful fumes. Coordinate with the Fire Department to identify and monitor pre-incident plans associated with hazardous materials storage and use.

Goal CS-8: Minimize the community's exposure to aircraft safety hazards associated with San Francisco International Airport and Mills-Peninsula Medical Center.

> ***Policy CS-8.1: Land Use Safety Compatibility and Airspace Protection Criteria.*** Consider all applicable Federal statutes (including 49 U.S.C. 47107), Federal regulations (including 14 Code of Federal Regulations 77 et seq.), the Federal Aviation Administration (FAA) Airport Compliance Manual, FAA Advisory Circulars, other forms of written guidance, and State law with respect to criteria related to land use safety and airspace protection when evaluating development applications within the Airport Influence Area of the San Francisco International Airport and Mills-Peninsula Medical Center helipad.
>
> ***Policy CS-8.2: Airport Land Use Compatibility Plan.*** Require development projects within the Airport Influence Area designated in the Airport Land Use Compatibility Plan of the San Francisco International Airport to comply with all applicable Federal statutes (including 49 U.S.C. 47107), Federal regulations (including 14 Code of Federal Regulations 77 et seq.), the FAA's Airport Compliance Manual, FAA Advisory Circulars, other forms of written guidance, and State law with respect to criteria related to land use safety and airspace protection.
>
> ***Policy CS-8.3: Airport Land Use Compatibility Plan Land Use and Development Consistency.*** Ensure that all future land use actions and/or associated development conforms to the relevant height, aircraft noise, and safety policies and compatibility criteria contained in the most recently adopted version of the Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport.
>
> ***Policy CS-8.4: Airport Land Use Commission Review.*** Ensure all applicable plans and ordinances are reviewed by the City/County Association of Governments Board of Directors, acting as the San Mateo County's Airport Land Use Commission, for a determination of consistency with the most current Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport, as required by State law.

4.8.3 Impacts and Mitigation Measures

Significance Criteria

The proposed Project would result in a significant impact to hazards and hazardous materials if it would:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

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

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area or create a hazard to navigable airspace and/or operations at a public airport;

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

Approach to Analysis

This environmental analysis of the potential impacts related to hazards and hazardous materials from the construction and operation of the proposed Project is based on a review of the results of the site-specific investigations, a review of literature and database research, and the City of Burlingame General Plan; information regarding proposed Project construction details; and the description potential uses and associated operations at the Project site under the proposed Project.

As discussed in Section 3, *Project Description*, the proposed Project is anticipated to include either office or life science tenants. Life science research could include the storage, use, and disposal of general waste (universal waste), biohazardous (e.g., pharmaceutical and medical), chemical (e.g., solvents, oxidizers, corrosives, and reactives), low-level radioactive materials (e.g., radionuclides) and/or fuels and compressed gases. The specific materials and chemicals and their quantities are not known at this time, as it would depend on the tenant(s) who eventually occupy the buildings. However, it is assumed in this EIR potential life science uses would potentially store, use, and dispose of variable quantities of these types hazardous materials.

The proposed Project would be regulated by the various laws, regulations, and policies summarized above in Section 4.8.2, *Regulatory Framework*. Compliance by the proposed Project with applicable federal, state, and local laws and regulations is assumed in this analysis and local and state agencies would be expected to continue to enforce applicable requirements to the extent that they do so now. Note that compliance with many of the regulations would be a condition of permit approval.

A significant impact would occur if, after considering the features described in Section 3.0, *Project Description*, and the required compliance with regulatory requirements, a significant impact would still occur. For those impacts considered to be significant, mitigation measures are proposed to reduce the identified impacts.

Criteria Not Analyzed

Based on the Project site location, there would no impact related to the following topics for the reasons described below:

- ***Hazardous materials in proximity to schools:*** There are no schools located within 0.25 mile of the Project site. As discussed in Section 4.8.1, *Environmental Setting,* the nearest school is Peninsula High School located at 860 Hinckley Road, approximately 0.4 miles northwest of the Project site; and other proximate schools (Lincoln Elementary School, McKinley Elementary School, and Burlingame High School) are located 0.8 miles or more from the Project site. Therefore, there would be no impact relative to the proposed Project emitting hazardous emission handling hazardous or acutely hazardous materials, substances or waste within one-quarter mile of a school, and this topic will not be evaluated further in this section.
- ***Risk involving wildland fire***: As discussed in Section 4.8.1*,* The Project site is in a highly urbanized setting with no nearby wildlands; and not located within or near a very high fire hazard severity zone. Therefore, there would be no impact relative to the proposed Project exposing people or structures to risks involving wildland fires, and this topic will not be evaluated further in this section.

Impact Analysis

Impact HAZ-1: The Project would not create a significant hazard to the public or the environment through the routine transport, use, disposal of hazardous materials; or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials. (*Less than Significant with Mitigation*)

Significance criteria topics a) and b) identified above are discussed together in Impact HAZ-1 as many of the same applicable regulations apply to both criteria.

Construction

Demolition of Existing Buildings

The proposed Project includes the demolition and removal of the eight existing buildings on the Project site. As discussed in Section 4.8.1, *Environmental Setting,* the existing buildings on the proposed Project site predate the late 1970s regulatory bans on the use of hazardous building materials, such as ACM, LBP, PCBs, and mercury. Furthermore, as discussed in Section 4.8.1,

previous investigations conducted at the Project site confirmed the presence of ACM, and the likely existence of LBP, PCBs and mercury in building materials and structures at the Project site. As a result, the existing development at the Project site is known to contain hazardous building materials. Demolition of the existing buildings and structures could expose construction workers and the environment to hazardous building materials if not managed appropriately.

As described in Section 4.8.2, *Regulatory Framework* the testing, handling, removal, and disposal of hazardous building materials would be conducted in accordance with existing federal, State, and local regulations. Demolition activities that may disturb or require the removal of hazardous building materials are required to be inspected and/or tested for the presence of hazardous building materials. If present at concentrations above regulatory action levels, hazardous building materials must be managed and disposed of in accordance with the existing laws and regulations described in Section 4.8.2, *Regulatory Framework*. The required compliance with the numerous laws and regulations that govern the transportation, use, handling, and disposal of hazardous building materials would reduce the potential to create hazardous conditions due to the use or accidental release of hazardous materials, and would render this impact less than significant.

Excavation

As discussed in Chapter 2, *Project Description*, Section 3.4.2, *Construction Employment, Equipment and Methods*, and Section 3.4.5, *Site Grading*, the Project includes the excavation of soil to 27 feet below grade to accommodate the two basement levels in the proposed parking garages; the installation of piles to support the foundations for the proposed buildings; and subsurface utilities and other supporting infrastructure. As discussed in Section 4.8.1, *Environmental Setting*, previous investigations reported that some portions of the Project site may have residual levels of fuel, waste oil, and/or metals (e.g., arsenic, lead, and nickel) from previous leaking USTs. In addition, the entire Project site was previously wetland or open water of San Francisco Bay that was filled in with undocumented fill that may contain hazardous materials. Excavation and dewatering activities may expose construction workers and the environment to hazardous materials if not managed appropriately.

As summarized in Section 4.8.2, *Regulatory Framework*, and described in more detail in Section 4.6, *Geology and Soils*, construction contractors would be required to prepare a SWPPP for construction activities in compliance with the NPDES General Construction Permit requirements. The SWPPP would list the hazardous materials (including petroleum products) proposed for use during construction; describe spill prevention measures, equipment inspections, equipment and fuel storage; establish protocols for responding immediately to spills; and describe BMPs for controlling site runoff. The management of stormwater during construction in accordance with the State Construction General Permit during construction would control runoff, and the migration of sediment and other pollutants from the Project site.

The proposed excavation of fill and soil to a depth of about 27 feet below grade would extend to below the groundwater table. Residual fuel, waste oil, and metals associated with previous land uses and the filling in of the Bay with undocumented fill may have resulted in fill, soil, and/or groundwater with chemical concentrations above regulatory action levels. In addition, the parcels with land use restrictions (1298 and 1200 Old Bayshore Highway) due to subsurface soil and/or

groundwater affected by prior land uses will require that the City notify SMCEHS of proposed excavation and/or redevelopment of those parcels and that the SMCEHS must approve of any changes to the parcel. To reduce the potential significant impact to construction workers and the environment during the excavation and dewatering activities and to comply with the SMCEHS land use restrictions, the Project applicant shall implement Mitigation Measure HAZ-1, Construction Soil and Groundwater Management Plan, described below. With compliance with the numerous laws and regulations that govern the transportation, use, handling, and disposal of hazardous materials and the implementation of Mitigation Measure HAZ-1 to properly manage excavated materials and dewatering effluent, impacts related to the accidental release of hazardous materials, and would render this impact less than significant with mitigation.

Construction of New Buildings and Improvements

During the Project construction phase, construction equipment and materials would include fuels, oils and lubricants, solvents and cleaners, cements and adhesives, paints and thinners, degreasers, cement and concrete, and asphalt mixtures, which are all commonly used in construction. The routine use or an accidental spill of hazardous materials could result in inadvertent releases, which could adversely affect construction workers, the public, and the environment.

Construction activities would be required to comply with numerous hazardous materials regulations described in in Section 4.8.2, *Regulatory Framework,* designed to ensure that hazardous materials would be transported, used, stored, and disposed of in a safe manner to protect worker safety, and to reduce the potential for a release of construction-related fuels or other hazardous materials into the environment, including stormwater and downstream receiving water bodies. Contractors would be required to prepare and implement Hazardous Materials Business Plans (HMBPs) that would require that hazardous materials used for construction would be used properly and stored in appropriate containers with secondary containment to contain a potential release. The California Fire Code would also require measures for the safe storage and handling of hazardous materials.

As indicated above, and as summarized in Section 4.8.2, and described in more detail in in Section 4.6, construction contractors would be required to prepare a SWPPP for construction activities that would list the hazardous materials proposed for use during construction; describe spill prevention measures, equipment inspections, equipment and fuel storage; protocols for responding immediately to spills; and describe BMPs for controlling site runoff.

In addition, the transportation of hazardous materials would be regulated by the USDOT, Caltrans, and the CHP. Together, federal and state agencies determine driver-training requirements, load labeling procedures, and container specifications designed to minimize the risk of accidental release.

Finally, in the event of an accidental spill that could release hazardous materials at the Project site, a coordinated response would occur at the federal, state, and local levels, including, but not limited to, the Belmont Fire Protection District's Hazardous Materials Team, which is the countywide hazardous materials response team, and the Central County Fire Department and Burlingame Police Department, to respond to and assess the situation, as needed.

The required compliance with the numerous laws and regulations discussed above that govern the transportation, use, handling, and disposal of hazardous materials would limit the potential for creation of hazardous conditions due to the use or accidental release of hazardous materials, and would render this impact less than significant.

Operation

As discussed above under *Approach to Analyses*, the specific materials and chemicals that the potential life sciences research tenants at the Project site would use are not known at this time, as it would depend on the tenant(s) who eventually occupy the buildings. However, it is assumed that potential life science research uses would store, use, and dispose of variable quantities of hazardous materials that may include general waste (universal waste), and biohazardous, chemical, low-level radioactive and other materials and/or waste. In addition, all of the tenants, regardless of the nature of their particular business, would be expected to use small quantities of cleaning chemicals typical for commercial offices. The improper storage, use, or disposal of these chemicals could expose people or the environment to hazardous materials.

The life science research operations would be required to comply with all hazardous materials regulatory requirements as detailed in Section 4.8.2, *Regulatory Framework*, which includes the storage, use, and disposal of medical, pharmaceutical, and low-level radioactive materials and waste. The life science research facilities would be required to comply with existing health and safety practices as well as those federal, State and local regulations, which would minimize the potential for adverse health effects related to biohazardous, chemical or radioactive materials and waste. In addition, generated wastes would be segregated, handled, labeled, stored and transported to minimize direct or indirect exposure of personnel in accordance with applicable regulations. To minimize exposure to airborne emissions, fume hoods and engineering controls would be required to meet applicable Cal/OSHA requirements. Compliance with hazardous materials storage and transportation regulations, and programs and controls to manage hazardous materials as mandated by federal, State and local laws, including but not limited to those of the NIH (when federal grants received), CDC, U.S. Department of Agriculture (USDA), FDA, Office of Laboratory Animal Welfare (OLAW), and CDPH, would minimize the hazards to workers, the public and the environment, and therefore, operation of potential life science uses at the Project site would be less than significant.

Few chemicals used in routine office maintenance would be considered hazardous materials (e.g., bleach and cleaning solutions, paints and thinners) and the anticipated volumes would be small (i.e., typically less than 5 gallons). Given that the quantities would be small, the routine use or an accidental spill of office cleaning solutions, paints, and thinners would render this impact less than significant.

To reduce the potential impact to construction workers during the excavation and handling of contaminated materials, the Mitigation Measure HAZ-1 shall be implemented, as described below.

Mitigation Measure HAZ-1: Construction Soil and Groundwater Management Plan.

The contractor conducting excavation of fill and soil and dewatering of excavations shall develop and implement a soil and groundwater management plan (SGMP) for the management of soil, fill, soil gas, and groundwater before any ground-disturbing activity to manage contaminated materials, if encountered. The SGMP shall include the following, at a minimum:

- Site description, including the hazardous materials that may be encountered.
- Roles and responsibilities of on-site workers, supervisors, and the regulatory agency.
- Training for site workers focused on the recognition of and response to encountering hazardous materials or unknown structures, e.g., underground storage tanks (USTs).
- Notification requirements in the event of discovery of unknown structures or contamination.
- Protocols for the materials (fill, soil, and dewatering effluent) testing, handling, removing, transporting, and disposing of all excavated materials and dewatering effluent in a safe, appropriate, and lawful manner.
- Reporting requirement to the overseeing regulatory agency, if any contamination is found that requires agency oversight, documenting that site activities were conducted in accordance with the SGMP.

The SGMP shall be submitted to the SMCEHS and the City of Burlingame Building Division for review to inform their permit approval process before the start of demolition and construction activities and as a condition of the grading, construction, and/or demolition permit(s). The contract specifications shall mandate full compliance with all applicable federal, state, and local regulations related to the identification, transportation, and disposal of hazardous materials.

The SGMP shall include measures to remove and/or treat/remediate the impacted soil, fill, and groundwater, as needed, in a manner that is protective of human health and the environment and compatible with commercial land use, in compliance with all applicable regulatory standards, under supervision of a qualified environmental professional. The SGMP shall describe measures for (i) management of excavated soil, fill, and groundwater, (ii) characterization of soil and fill to determine whether they qualify as hazardous waste under regulations such as 22 C.C.R. Section 66262.11 or other regulations identified in the SGMP or otherwise identified by the oversight agencies, and (iii) offsite disposal of excavated soil and fill, and disposal of dewatered groundwater in compliance with all applicable regulations. The SGMP shall also provide measures for the evaluation of vapor intrusion risk at the Project site, and if necessary, modification of the Project design and/or installation of a vapor intrusion mitigation system consistent with the procedures and performance standards set forth in DTSC's October 2011 Vapor Intrusion Mitigation Advisory or as otherwise determined applicable by the oversight agency at the time of construction.

For work that would encounter groundwater, as part of the SGMP, the contractor(s) shall include a groundwater dewatering control and disposal plan specifying how groundwater (dewatering effluent) will be handled and disposed of in a safe, appropriate, and lawful

manner. The groundwater portion of the SGMP shall include the following, at a minimum:

- The locations at which groundwater dewatering is likely to be required.
- Test methods to analyze groundwater for hazardous substances.
- Appropriate treatment and/or disposal methods.
- Discussion of discharge to a publicly owned treatment works or the stormwater system, in accordance with any regulatory requirements the treatment works may have, if this effluent disposal option is to be used.

Significance after Mitigation: To ensure the proper management of any contaminated soil, fill, and groundwater and to reduce the risk of impacts to construction workers, the public, or the environment, the Project would be required to implement Mitigation Measure HAZ-1, which requires the preparation and implementation of a SGMP, prior to and during Project construction. Groundwater management is included because excavation is anticipated to be deep enough to encounter groundwater that may be contaminated from prior land uses or the deposition of undocumented fill. The implementation of this mitigation measure would reduce impacts to a less than significant level.

Impact HAZ-2: The Project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and could have the potential to create a significant hazard to the public or the environment. (*Less than Significant with Mitigation*)

As discussed in Section 4.8.1, *Environmental Setting*, three parcels of the Project site are listed on Government Code Section 65962.5 (Cortese List). As described above under Impact HAZ-1, it is anticipated that Project excavation and dewatering activities would have the potential to encounter contaminated soil, fill, and/or groundwater due to previous land uses and the deposition of undocumented fill. Excavation and dewatering activities may expose construction workers and the environment to hazardous materials if not managed appropriately.

As discussed above under Impact HAZ-1, compliance with the numerous laws and regulations that govern the transportation, use, handling, and disposal of hazardous materials; compliance with the SMCEHS land use restrictions; and the implementation of Mitigation Measure HAZ-1 to properly manage excavated materials and dewatering effluent, would ensure that potential impacts related to being listed on the Cortese List would be less than significant with mitigation.

Mitigation: Implement Mitigation Measure HAZ-1.

Level of Significance after Mitigation: To ensure the proper management of any contaminated soil, fill, and groundwater and to reduce the risk of impacts to construction workers, the public, or the environment, the Project would be required to implement Mitigation Measures HAZ-1, which requires the preparation and implementation of a SGMP prior to and during Project construction. Groundwater management is included

because excavation is anticipated to be deep enough to encounter groundwater that may be contaminated from prior land uses or the deposition of undocumented fill. The implementation of this mitigation measure would reduce impacts to a less than significant level.

Impact HAZ-3: The Project would be located within an airport land use plan but would not result in a safety hazard or excessive noise for people residing or working in the project area or create a hazard to navigable airspace and/or operations at a public airport. (*Less than Significant*)

As discussed in Section 4.8.1, *Environmental Setting*, the Project site is located approximately 0.3-miles south of the SFO south property boundary, and just over one mile from the nearest SFO runway The Project site is located inside the SFO ALUCP Airport Influence Area (AIA) B. The Project site is located outside all of the ALUCP safety compatibility zones and the 65 dBA CNEL contour (see Section 4.11, *Noise and Vibration*, for additional information regarding noise) (SFO, 2022).

Further, as discussed in Section 4.8.1, the Project site is located in area covered by FAR Part 77 imaginary airspace surfaces for SFO for which any object penetrating this surface would be considered an obstruction to air navigation. Specifically, the lowest critical aeronautical surface above the Project site ranges between 240 and 280 feet AMSL[5]. As explained in Chapter 3, *Project Description*, the three proposed life science/office buildings would measure no greater than 225 feet, 6 inches AMSL to top of the roof mechanical screen, and parking structures would measure no greater 113 feet, 10 inches AMSL to top of parapet. As such, the proposed Project buildings would not represent an obstruction to air navigation under FAR Part 77, Subpart C.

Accordingly, SFO determined that the proposed Project does not appear to be inconsistent with the ALUCP Airspace Compatibility policies, provided the proposed Project receives a Determination of No Hazard from the FAA (SFO, 2022). CFR Title 14 Part 77.13 requires that the developer for structures that exceed 200 feet in height above ground level must obtain project approval from the FAA. In addition, prior to issuance of any demolition or construction permits, the City would require the Project applicant to provide appropriate notification of proposed construction to the FAA via FAA Form 7460-1 (Notice of Proposed Construction or Alteration).

Given the above, the Project would not result in a safety hazard or excessive noise for people residing or working in the project area or create a hazard to navigable airspace and/or operations at a public airport, and the impact would therefore be less than significant.

Mitigation: None required.

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[5] In this context, AMSL is defined from the origin of the North American Vertical Datum of 1988 (NAVD88).

Impact HAZ-4: The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (*Less than Significant*)

Construction

As discussed in Chapter 3, *Project Description*, the proposed Project would include the construction of three life science/office buildings, two parking structures, and associated hardscape, landscaping, and utilities. The delivery of materials and equipment, entry and exit of construction workers, and connections to utilities in Old Bayshore Highway could require temporary lane closures, which could temporarily impair or interfere with emergency vehicles passing by the Project site.

Construction of the proposed Project would be required to acquire an Encroachment Permit for any work within the City right-of-way, public easements, or utility easements. The Encroachment Permit includes the required preparation and implementation of a Traffic Control Plan Implementation of the Traffic Control Plan would ensure that emergency vehicles would be able to pass by the project site during construction activities and render this impact less than significant.

Operation

The proposed Project would redevelop the site and result in increased usage with a greater number of employees and visitors to the site. However, the project would not involve the permanent closure of roads and would not otherwise interfere with emergency response or evacuation plans including the San Mateo County Multijurisdictional Local Hazards Mitigation Plan or Emergency Operations Plan. All proposed development would be designed in accordance with California Fire Code requirements which include egress and emergency response design measures. Therefore, with adherence to existing building and Fire Code requirements, the potential impact related to evacuation and emergency plans would be less than significant. Therefore, potential impacts related to emergency response or evacuation would be less than significant.

Mitigation: None required.

Cumulative Impacts

This section presents an analysis of the cumulative effects of the Project in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to hazards and hazardous materials could occur if the incremental impacts of the Project combined with the incremental impacts of one or more of the cumulative projects. The cumulative projects considered in this EIR are summarized in Section 4.0.4, under *Cumulative Impact Analysis*. There are three cumulative commercial development projects located within one-half mile of the Project site, none of which are located adjacent to the Project site.

As previously discussed, the Project site is not located within or near a fire hazard severity zone. Accordingly, the Project would not contribute to cumulative impacts related to this topic and are not discussed further.

The geographic area affected by the Project and its potential to contribute to cumulative impacts varies based on the environmental resource under consideration. The geographic scope of analysis for cumulative hazards and hazardous materials impacts encompasses and is limited to the Project site and its immediately adjacent area. This is because impacts relative to hazards and hazardous materials are generally site-specific and depend on the nature and extent of the hazardous materials release, and existing and future soil and groundwater conditions. For example, hazardous materials incidents tend to be limited to a smaller and more localized area surrounding the immediate spill location and extent of the release and could only be cumulative if two or more hazardous materials releases spatially overlapped.

The timeframe during which the Project could contribute to cumulative hazards and hazardous materials effects includes the construction and operations phases. For the Project, the operations phase is permanent. However, similar to the geographic limitations discussed above, it should be noted that impacts relative to hazardous materials are generally time-specific. Hazardous materials events could only be cumulative if two or more hazardous materials releases occurred at the same time, as well as overlapping at the same location.

Impact C-HAZ-1: The Project, in combination with past, present, and reasonably foreseeable future development would not result in a cumulatively significant impact related to hazards and hazardous materials. ***(Less than Significant)***

Cumulative Impacts during Project Construction

Significant cumulative impacts related to hazards and hazardous materials could occur if the incremental impacts of the Project combined with the incremental impacts of one or more of the cumulative projects discussed above to substantially increase risk that people or the environment would be exposed to hazardous materials. As listed and shown, there are no cumulative projects under consideration adjacent to the Project site.

The construction activities for all cumulative projects would be subject to the same regulatory requirements discussed for the Project for compliance with existing hazardous materials regulations, including spill response during construction and being located on sites with residual contamination from previous land uses. Cumulative projects that have spills of hazardous materials and/or residual contamination from previous land uses would be required to remediate their respective sites to the same established regulatory standards as the Project. This would be the case regardless of the number, frequency, or size of the release(s). The responsible party associated with each spill would be required to remediate site conditions to the same established regulatory standards. The residual less-than-significant effects of the Project that would remain after mitigation would not combine with the potential residual effects of cumulative projects to cause a potential significant cumulative impact because residual impacts would be highly site-specific, would not spatially overlap, and would be below regulatory standards. Accordingly, no significant cumulative impact with respect to the use of hazardous materials would result. For the

above reasons, the Project in combination with cumulative projects would not cause or contribute to a cumulatively considerable impact with respect to the use of hazardous materials, and impacts would be less than significant.

Construction for two or more projects that occur at the same time and use the same roads could cause interference with emergency access. However, all construction sites (i.e., Project site and cumulative project sites) that could cause lane closures would be required to apply for a City Encroachment Permit, which would require the preparation and implementation of a Traffic Control Plan that would manage the movement of vehicles to maintain traffic flow and prevent interference with emergency access. With the implementation of traffic control plan**s**, the Project in combination with cumulative projects would not cause or contribute to a cumulatively significant impact with respect to emergency access, and impacts would be less than significant.

Cumulative Impacts during Project Operations

Significant cumulative impacts related to operational hazards could occur if the incremental impacts of the Project combined with those of one or more of the above-listed cumulative projects were to cause a substantial increase in risk that people or the environment would be exposed to hazardous materials used or encountered during the operations phase.

Other office/life science developments currently operate, are approved, or are proposed in Burlingame. The nature and the use of hazardous materials for life science related cumulative projects is assumed to be similar to the proposed Project. Similar to the proposed Project, it is assumed that such operations would store, use, and dispose of variable quantities of hazardous materials. Similar to the proposed Project, the life science related cumulative projects would also be required to comply with all of the same hazardous materials regulatory requirements as detailed in Section 4.8.2, *Regulatory Framework*, which includes the storage, use, and disposal of hazardous materials and waste. Life science research facilities would be required to comply with existing federal and State regulations, which would minimize the potential for adverse health effects related to hazardous materials and waste. Therefore, the Project in combination with cumulative projects would not cause or contribute to a cumulatively significant impact with respect to the use of hazardous materials, and impacts would be less than significant.

As with the proposed Project, some of the cumulative projects would be located within the boundary of the SFO ALUCP. Similar to the proposed Project, the cumulative projects would also be required to comply with FAA requirements that require building heights not interfere to the navigable airspace of the airport. Therefore, the Project in combination with cumulative projects would not cause or contribute to a cumulatively significant impact with respect to proximity to an airport and impacts would be less than significant.

Mitigation: None required.

4.8.4 References

Atlas Environmental Engineering, 2016. *Former Platinum Energy #2611204P, 1200 Bayshore Highway, Burlingame, California 94010, SMHS Case #660114, APN #026-142-130, Additional Site Investigation and Limited Soil Excavation*. January 25.

Blackstone Consulting, 2021a. *Phase I Environmental Site Assessment, Fox Bayshore Property, 1288, 1298, 1290, 1300, 1310, and 1338-1340 Bayshore Highway, Burlingame, San Mateo County, California 94101*. May 24.

Blackstone Consulting, 2021b. *Phase I Environmental Site Assessment, Max's Restaurant Property, 1250 Bayshore Highway, Burlingame, San Mateo County, California 94101*. March 22.

Blackstone Consulting, 2021c. *Phase I Environmental Site Assessment, ECC Building, 1200-1240 Bayshore Highway, Burlingame, San Mateo County, California 94101*. September 1.

Calfire, 2007. *San Mateo County, Fire Hazard Severity Zones on SRA*. November 24.

Calfire, 2008. *San Mateo County, Very Fire Hazard Severity Zones on LRA*. November 7.

San Mateo County Sheriff's Office, Homeland Security Division, Office of Emergency Services, 2015. *Emergency Operations Plan, Basic Plan*. May 22.

Department of Toxic Substances Control (DTSC), 2005. *DTSC - How to Handle Mercury Switches in Major Appliances Fact Sheet*. March.

Department of Toxic Substances Control (DTSC), 2010. *DTSC Universal Waste Fact Sheet*. January.

Department of Toxic Substances Control (DTSC), 2022. *Polychlorinated Biphenyl (PCB) Evaluation Quick Reference Guide*.

San Francisco Bay Regional Water Quality Control Board (SF RWQCB), 2019. *Environmental Screening Levels, Revision 2*. January.

San Francisco International Airport (SFO), 2022. *NOP Comments: Draft Environmental Impact Report for the 1200-1340 Bayshore Highway Project (Peninsula Crossing), Burlingame*. September 8.

San Mateo County Department of Emergency Management, 2021. *2021 Multijurisdictional Local Hazard Mitigation Plan*. October.

San Mateo County Sheriff's Office, Homeland Security Division, Office of Emergency Services, 2015. *Emergency Operations Plan, Basic Plan*. May 22.

San Mateo County Environmental Health Department, 2012. *Case Closure, Former BP#11204, 1200 Bayshore Highway, Burlingame, CA*. February 21.

San Mateo County Environmental Health Department, 2016a. *Case Closure, Remedial Action Oversight, Platinum Energy #2611204P (Former), 1200 Bayshore Boulevard, Burlingame*. June 21.

San Mateo County Environmental Health Department, 2016b. *Residual Contaminants at 1200 Bayshore Boulevard, Burlingame*. June 21.

US EPA, 2021. *Policy and Guidance for Polychlorinated Biphenyl (PCBs)*. Available: https://www.epa.gov/pcbs/policy-and-guidance-polychlorinated-biphenyl-pcbs. Accessed August 11, 2021.

4.9 Hydrology and Water Quality

This section assesses the potential for the Project to result in significant adverse impacts on hydrology and water quality. This section first includes a description of the existing environmental setting as it relates to surface and groundwater, flooding, water quality, and other hydrological considerations, and provides a regulatory framework that discusses applicable federal, state, and local regulations. This section also includes an evaluation of potential significant impacts of the Project on hydrology and water quality.

4.9.1 Environmental Setting

Climate

The San Francisco Bay Area has a Mediterranean climate, with cool, dry summers and mild, wet winters. The mean annual precipitation in the Project vicinity site is 20 inches per year with most of the rainfall occurring between November and March.[1] The average annual temperature is approximately 58 degrees Fahrenheit, with the minimum average monthly temperature occurring in December and January (42 degrees Fahrenheit) and the maximum average monthly temperature occurring during September (70 degrees Fahrenheit).

Surface Hydrology and Drainage

The Project site is bounded by a privately owned, partially submerged parcel abutting San Francisco Bay to the east, Old Bayshore Highway to the west, Airport Boulevard to the south, and a privately-owned parcel containing commercial development to the north.

The Project site is relatively level, with ground surface elevation generally ranging between approximately 10 and 12 feet NAVD 88.[2] Portions of the Project site and adjoining properties were part of the San Francisco Bay tidal zone and infilled in the 1950s and 1960s. Based on preliminary geotechnical field investigations performed by Cornerstone Earth Group (Cornerstone, 2021), the Project site is underlain by approximately 8.5 to 12.5 feet of artificial fill, underlain by approximately 8.5 to 13.5 feet of Bay Mud, below which are native alluvial deposits (see Section 4.6, *Geology and Soils*, for additional detail).

As shown in Figure 3-2 in Chapter 3, *Project Description*, the Project site is largely disturbed with existing buildings surrounded by asphalt paved driveways and parking areas, concrete sidewalks, and areas of landscaping. Easton Creek bisects the northern portion of the Project site, and flows eastward into the Bay. The catchment area for Easton Creek is approximately 680 acres (Moffatt & Nichol, 2022). Easton Creek is channelized within the Project site, and culverted for

1 U.S. Climate Data, https://www.weather.gov/wrh/Climate?wfo=mtr, accessed December, 2022.

2 North American Vertical Datum of 1988. NAVD 88 is the vertical control datum established in 1991 by the minimum-constraint adjustment of the Canadian-Mexican-United States leveling observations. It held fixed the height of the primary tidal benchmark, referenced to the new International Great Lakes Datum of 1985 local mean sea level height value, at Father Point/Rimouski, Quebec, Canada. (Source: National Marine Fisheries Service (NOAA). National Geodetic Survey. Website: https://geodesy.noaa.gov/datums/vertical/north-american-vertical-datum-1988.shtml.

approximately 70 feet within the west most portion near Old Bayshore Highway. An unnamed remnant channel partially bisects the southern portion of the Project site. The southernmost parcel on the Project site is largely unpaved but disturbed, containing a drainage ditch and unpaved gravel road, tidal salt marsh, and the aforementioned remnant channel. The drainage ditch extends north within the southern parcel from just north of Airport Boulevard, and terminates at the remnant channel.

There are three existing storm drainage outfalls on the Project site: one outfall on each side of Easton Creek and one outfall north of the existing 1300-1308 Old Bayshore Highway building; each outfall is directly connected to an existing on-site storm drain structure. Additionally, there is a storm drain pipe at the southern end of the Project site that discharges off-site stormwater from Airport Boulevard into the drainage ditch located on the Project site's southern parcel. The drainage ditch conveys stormwater runoff to the tidally influenced wetland area located at the mouth of the drainage channel.

Groundwater

The City of Burlingame overlies the southern portion of the approximately 40 square mile Westside Groundwater Basin (Groundwater Basin Number 2-35; or Basin). The Basin is not adjudicated, nor has it been found by the Department of Water Resources (DWR) to be in a condition of overdraft. As part of the implementation of the Sustainable Groundwater Management Act (SGMA), the basin was ranked as a "very low priority" basin under the 2014 California Statewide Groundwater Elevation Monitoring basin prioritization process, and maintained this ranking in the DWR's latest basin prioritization project effort in 2020. The Basin is therefore not subject to the requirements of SGMA. The City of Burlingame has not historically utilized groundwater as a substantial water supply source or participated in management of the Basin (City of Burlingame, 2021).

According to the preliminary geotechnical investigation, at the Project site groundwater was encountered at depths ranging from 3 to 9 feet below ground surface (bgs) and is subject to tidal fluctuations that influence groundwater levels due to close proximity to the Bay (Cornerstone 2021).

Water Supply

The City is a member of the Bay Area Water Supply and Conservation Agency (BAWSCA) and purchases all of its potable water from the San Francisco Public Utilities Commission (SFPUC) via the Hetch Hetchy Regional Water System (RWS). The City owns and operates the City's water distribution system, and oversees water conservation and maintenance of water quality in the City. The City's distribution system consists of six pumping stations, seven water storage tanks, and buried pipes of varying compositions, ages, and sizes. The distribution system provides water to ten pressure zones within the City's water service area (City of Burlingame 2021). Please see Section 4.15, *Utilities and Service Systems*, for addition information on the water supply.

Flooding

Flooding is inundation of normally dry land as a result of a rise in surface water levels or rapid accumulation of stormwater runoff during storm events. Low-lying areas along San Francisco Bay's shoreline are subject to flooding during periods of extreme high tides, storm surge, and waves. High bay water levels and wave conditions cause coastal flooding along the bay shoreline. High water levels occur as a result of high astronomical tides coupled with storm surge and other processes such as *El Niño* conditions, which can elevate Pacific coast water levels during winter months. Strong winds during storms can also generate waves that impact the shoreline and cause localized flooding or erosion, particularly when the waves ride on a storm surge-elevated water surface.

The Federal Emergency Management Agency (FEMA), through its Flood Insurance Rate Mapping (FIRM) program, designates areas where urban flooding could occur during 100-year and 500-year flood events. A 100-year flood event has a one-percent probability of occurring in a single year. 100-year floods can occur in consecutive years or periodically throughout a decade. A 500-year flood event has a 0.2 percent probability of occurring in a single year. FEMA revised its FIRM maps for the City of Burlingame in April 2019. Portions of the Project site along the Easton Creek and the remnant channel, and an area in the northeast corner are mapped within the 100-year flood plain (Zone AE) at a base flood elevation of 10 feet NAVD 88; the remaining portions of the Project site are mapped as either within the 500-year flood plain or within an area of minimal flood hazard (Zone X) (FEMA, 2019).

Tsunami and Seiche Hazards

Tsunamis are a series of waves generated by vertical movement of the sea floor, normally associated with earthquakes or volcanic eruptions. According to the Tsunami Hazard Area Map published by the California Geological Survey (CGS), the Project site is within a Tsunami Hazard Area (CGS, 2021).

Seiches are oscillations of enclosed or semi-enclosed bodies of water that result from seismic events, wind stress, volcanic eruptions, underwater landslides, and local basin reflections of tsunamis. The key requirement for the formation of a seiche is that a body of water be at least partially bounded, allowing for a standing wave to form. The Project site is immediately adjacent to the San Francisco Bay, and therefore, would be subject to impacts from a seiche.

Sea Level Rise

The Project site is on the Bay shoreline, it is exposed to elevated Bay water levels. Sea-level rise will increase the elevation of Bay water levels and hence increase the potential risk of flooding. During future floods, particularly those that include sea-level rise, many stretches of the Bay shoreline could be overtopped and experience inundation in developed areas landward of the shoreline.

The State of California released its Sea-Level Rise Guidance 2018 Update, which provides a science-based methodology for state and local governments to analyze and assess the risks

associated with sea-level rise, including ranges of sea-level rise projections for locations along the California coast. **Table 4.9-1** lists the probabilistic projections of sea-level rise for San Francisco Bay for low- and high-emissions scenarios through 2100. Sea-level rise projections beyond 2050 are highly dependent on assumptions regarding future global greenhouse gas emissions and future changes in the rate at which land ice melts. Recognizing this uncertainty, the State of California Sea-Level Rise Guidance recommends an adaptive management approach for development in areas that may be subject to sea-level rise beyond 2050. Adaptive management is an iterative process that involves monitoring conditions to evaluate whether an area could be inundated by sea-level rise and identifying actions to be implemented to ensure that the area and existing structures are resilient to future flooding conditions.

TABLE 4.9-1
PROJECTED SEA-LEVEL RISE FOR SAN FRANCISCO BAY RELATIVE TO THE YEAR 2000

Year	Likely Range[a] 66% probability sea level rise is less than… (feet)	1-in-200 Chance[b] 0.5% probability sea level rise meets or exceeds… (feet)
2050	1.1	1.9
2100 Low Emissions[c]	2.4	5.7
2100 High Emissions[c]	3.4	6.9

NOTES:

[a] The "Likely Range" shown is the value recommended by the State of California for low-risk aversion decisions, and represents the upper end of the range of sea-level rise that has a 66% probability of being exceeded by the given year.

[b] The "1-in-200 Chance" shown is the value recommended by the State for medium- to high-risk aversion decisions, and represents the feet of sea-level rise that has a 0.5% probability of being exceeded by the given year.

[c] The State recommends considering low- and high-emissions scenarios after 2050. The emissions scenarios are the same as those used by the Intergovernmental Panel on Climate Change's Fifth Assessment Report. The "High Emissions" value is consistent with a "business-as-usual" future in which there are few global efforts to limit or reduce carbon dioxide emissions. The "Low Emissions" value is consistent with a future in which global carbon dioxide emissions decline by about 70% between 2015 and 2050, to zero by 2080, and below zero thereafter.

SOURCE: California Natural Resources Agency and California Ocean Protection Council, *State of California Sea-Level Rise Guidance 2018 Update*, 2018.

4.9.2 Regulatory Framework

Federal

Clean Water Act

The federal Clean Water Act (CWA) and subsequent amendments, under the enforcement authority of the U.S. Environmental Protection Agency (USEPA), was enacted "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The purpose of the CWA is to protect and maintain the quality and integrity of the nation's waters by requiring states to develop and implement state water plans and policies. The CWA gave the USEPA the authority to implement pollution control programs such as setting wastewater standards for industry. In California, implementation and enforcement of the National Pollutant Discharge Elimination System (NPDES) program is conducted through the California State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs). The CWA also sets water quality standards for surface waters and established the NPDES program to protect water

quality through various sections of the CWA, including Sections 401 through 404 and 303(d) that are implemented and regulated by the SWRCB and the nine RWQCBs.

Section 402

The 1972 amendments to the Federal Water Pollution Control Act established the NPDES permit program to control discharges of pollutants from point sources (Section 402). The 1987 amendments to the CWA created a new section of the CWA devoted to stormwater permitting (Section 402[p]). The USEPA has granted the SWRCB primacy in administering and enforcing the provisions of CWA and NPDES through the local RWQCBs. NPDES is the primary federal program that regulates point-source and non-point-source discharges to waters of the United States.

The SWRCB issues both general and individual permits for discharges to surface waters, including for both point-source and non-point-source discharges. In response to the 1987 amendments, the US EPA developed the Phase I NPDES Storm Water Program for cities with populations larger than 100,000, and Phase II for smaller cities. In California, the SWRCB has drafted the General Permit for Discharges of Storm Water from Municipal Separate Storm Sewer Systems (MS4 General Permit).

National Pollutant Discharge Elimination System (NPDES) Permit

The NPDES permit system was established in the CWA to regulate municipal and industrial point discharges to surface waters of the U.S. Each NPDES permit for point discharges contains limits on allowable concentrations of pollutants contained in discharges. Section 402 of the CWA contain general requirements regarding NPDES permits.

The CWA was amended in 1987 to require NPDES permits for non-point source (i.e., stormwater) pollutants in discharges. Stormwater sources are diffuse and originate over a wide area rather than from a definable point. The goal of NPDES stormwater regulations is to improve the quality of stormwater discharged to receiving waters to the "maximum extent practicable" through the use of structural and non-structural Best Management Practices (BMPs). BMPs can include the development and implementation of various practices including educational measures (workshops informing public of what impacts results when household chemicals are dumped into storm drains), regulatory measures (local authority of drainage facility design), public policy measures, and structural measures (filter strips, grass swales and detention ponds). The NPDES permits that apply to activities in San Mateo County are described under State and local regulations.

Federal Emergency Management Agency (FEMA)

Under Executive Order 11988, the FEMA is responsible for management of floodplain areas defined as the lowland and relatively flat areas adjoining inland and coastal waters subject to a 1 percent or greater chance of flooding in any given year (the 100-year floodplain). FEMA's overall mission is to support citizens and first responders to ensure that the United States builds, sustains, and improves capabilities to prepare for, protect against, respond to, recover from, and mitigate all hazards. With regard to flooding, FEMA provides information, guidance, and regulation associated with flood prevention, mitigation, and response. Under Executive Order 11988, FEMA requires that local governments covered by the federal flood insurance

program pass and enforce a floodplain management ordinance that specifies minimum requirements for any construction within the 100-year floodplain. Through its Flood Insurance and Mitigation Administration, FEMA manages the National Flood Insurance Program (NFIP), which includes flood insurance, floodplain management, and flood hazard mapping functions. FEMA determines flood elevations and floodplain boundaries and distributes the FIRM maps used in the NFIP. These maps identify the locations of special flood hazard areas, including 100-year floodplains.

Federal regulations governing development in a floodplain are set forth in the Code of Federal Regulations (CFR) Title 44, Part 60. Those regulations enable FEMA to require municipalities participating in the NFIP to adopt certain flood hazard reduction standards for construction and development in 100-year floodplains.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Division 7 of the Water Code Sections 13000, et sec.) is the primary water quality control law in California. Porter-Cologne established the State Water Resources Control Board and divided the state into nine regional basins, each overseen by a RWQCB. The nine RWQCBs have the primary responsibility for the coordination and control of water quality within their respective jurisdictional boundaries. The Porter-Cologne Act requires the RWQCBs to establish water quality objectives while acknowledging that water quality may be changed to some degree without unreasonably affecting beneficial uses. Water quality objectives are limits or levels of water quality constituents or characteristics established for the purpose of protecting beneficial uses. Designated beneficial uses, together with the corresponding water quality objectives, also constitute water quality standards under the federal CWA. Therefore, the water quality objectives form the regulatory references for meeting state and federal requirements for water quality control. Designated beneficial uses for water bodies in the study area are described in the regional regulatory section (under Basin Plan discussion).

NPDES Construction General Permit

Construction associated with projects that would disturbs more than one acre of land surface affecting the quality of stormwater discharges into waters of the United States is subject to the *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Order 2022-0057-DWQ, NPDES No. CAS000002). The Construction General Permit (CGP) regulates discharges of pollutants in stormwater associated with construction activity to waters of the U.S. from construction sites that disturb one acre or more of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface. The permit regulates stormwater discharges associated with construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines.

The CGP requires that construction sites be assigned a Risk Level of 1 (low), 2 (medium), or 3 (high), based both on the sediment transport risk at the site and the receiving waters risk during

periods of soil exposure (e.g., grading and site stabilization). The sediment risk level reflects the relative amount of sediment that could potentially be discharged to receiving water bodies and is based on the nature of the construction activities and the location of the site relative to receiving water bodies. The receiving waters risk level reflects the risk to the receiving waters from the sediment discharge. Depending on the risk level, the construction projects could be subject to the following requirements:

- Effluent standards;
- Good site management "housekeeping;"
- Non-stormwater management;
- Erosion and sediment controls;
- Run-on and runoff controls;
- Inspection, maintenance, and repair; or
- Monitoring and reporting requirements.

The CGP requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes specific best management practices (BMPs) designed to prevent sediment and pollutants from contacting stormwater from moving off site into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area. Routine inspection of all BMPs is required under the provisions of the CGP. In addition, the SWPPP is required to contain a visual monitoring program, a chemical monitoring program for non-visible pollutants, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

The SWPPP must be prepared before the construction begins. The SWPPP must contain a site map(s) that delineates the construction work area, existing and proposed buildings, parcel boundaries, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project area. The SWPPP must list BMPs and the placement of those BMPs that the applicant would use to protect stormwater runoff. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Examples of typical construction BMPs include scheduling or limiting certain activities to dry periods, installing sediment barriers such as silt fence and fiber rolls, and maintaining equipment and vehicles used for construction. Non-stormwater management measures include installing specific discharge controls during certain activities, such as paving operations, vehicle and equipment washing and fueling. The CGP also sets post-construction standards (i.e., implementation of BMPs to reduce pollutants in stormwater discharges from the site following construction).

In the Project area, the CGP is implemented and enforced by the San Francisco Bay RWQCB, which administers the stormwater permitting program. Dischargers must electronically submit a

notice of intent and permit registration documents to obtain coverage under this CGP. Dischargers are to notify the San Francisco Bay RWQCB of violations or incidents of non-compliance, and submit annual reports identifying deficiencies in the BMPs and explaining how the deficiencies were corrected. The risk assessment and SWPPP must be prepared by a State Qualified SWPPP Developer, and implementation of the SWPPP must be overseen by a State Qualified SWPPP Practitioner. A legally responsible person, who is legally authorized to sign and certify permit registration documents, is responsible for obtaining coverage under the permit.

Municipal Separate Stormwater System (MS4s)

The San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (MRP; Municipal Separate Storm Sewer System (MS4) Permit NPDES No. CAS612008 and Order No. R2-2022-0018) requires permittees, which includes the City of Burlingame, to reduce pollutants and runoff flows from new development and redevelopment using BMPs to the maximum extent practical. The San Mateo County MRP permittees, which includes the City of Burlingame, prepared the C.3 Regulated Projects Guide (SMCWPPP) as a guide to for use by developers, builders, and project applicants to provide development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification element. The MRP requires specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

Sustainable Groundwater Management Act (SGMA)

The SGMA of 2014, effective January 1, 2015, authorizes local agencies to manage groundwater in a sustainable manner and allows limited state intervention when necessary to protect groundwater resources. SGMA defined "sustainable groundwater management," established a framework for local agencies to develop plans, and implement strategies to sustainably manage groundwater resources, established basin prioritization (ranked from very low to high priority), and set a 20-year timeline for implementation. Basins are prioritized under the SGMA by the DWR. As discussed above, the Westside Groundwater Basin was ranked as a "very low priority" basin under the 2014 California Statewide Groundwater Elevation Monitoring basin prioritization process and maintained this ranking in the DWR's latest basin prioritization project effort in 2020. The Basin is therefore not subject to the requirements of SGMA.

Regional

San Francisco Bay Water Quality Control Plan (Basin Plan)

The San Francisco Bay Basin (Region 2) Water Quality Control Plan (commonly referred to as the Basin Plan) was adopted by the San Francisco Bay RWQCB and has been amended as of 2019. The Basin Plan is the master water quality control planning document used to designate beneficial uses and surface and ground water quality objectives. The Project site is located within the water quality control jurisdiction of Region 2, the San Francisco Bay RWQCB. Region 2 is tasked with implementing the adopted Basin Plan for the San Francisco Bay Basin through planning, permitting, and enforcement of established water quality objectives. In accordance with State Policy for Water Quality Control, Region 2 employs a range of beneficial use designations

for surface waters (including creeks, streams, lakes and reservoirs), groundwaters, marshes, and mudflats that serve as the basis for establishing water quality objectives, discharge conditions, and prohibitions. The Basin Plan, as updated with amendments adopted through November 5, 2019, has identified existing and potential beneficial uses supported by the key surface water drainages throughout its jurisdictional planning area (RWQCB, 2019). Designated beneficial uses for water bodies in the study area are presented in **Table 4.9-2**.

TABLE 4.9-2
DESIGNATED BENEFICIAL USES FOR WATER BODIES IN THE STUDY AREA

Water Body	Designated Beneficial Uses
San Francisco Bay, Central & Lower	IND, PROC, COMM, SHELL, EST, MIGR, RARE, SPWN, WILD, REC-1, REC-2, NAV
Easton Creek	WARM, WILD, REC-1, REC-2

Existing and Potential Beneficial Uses Key:
IND (Industrial Service Supply), PROC (Industrial Process Supply), COMM (Commercial and Sport Fishing), SHELL (Shellfish Harvesting), EST (Estuarine Habitat), MIGR (Fish Migration), RARE (Preservation of Rare and Endangered Species), REC-1 (Water Contact Recreation), REC-2 (Noncontact Water Recreation), SPWN (Fish Spawning), WARM (Warm Freshwater Habitat), WILD (Wildlife Habitat), NAV (Navigation).

SOURCE: RWQCB, 2019

City of Burlingame

The City of Burlingame General Plan, *Envision Burlingame*, is the guiding document for the city's physical development. It includes detailed goals, policies and implementation programs that convey a long-term vision and guide local decision-making to achieve that vision. The General Plan includes the following goals and policies that are applicable to the Project.

Chapter VII. Infrastructure

Goal IF-4: Protect people and property from the adverse effects of flooding through a stormwater system that adequately moves runoff from existing and future development, prevents property damage due to flooding, and improves environmental quality.

IF-4.2: Localized Flooding. Identify and correct problems of localized flooding. Promote the use of green infrastructure, whenever feasible, to mimic a natural hydrologic system that uses stormwater as a resource.

IF-4.3: Guard against Sea Level Rise. Pursue the policies outlines in the Safety Element related sea level rise.

IF-4.4: Green Stormwater Infrastructure. Plan for and implement low impact development (LID) retrofits, such as green infrastructure which uses vegetation and soil to capture, treat, and retain stormwater runoff. Promote the use of pervious surfaces, green streets, and rainwater harvesting to achieve multiple benefits, such as creating open space, improving stormwater quality, and increasing groundwater recharge. Avoid or minimize the impact of stormwater discharges on local receiving waters, including San Francisco Bay.

IF-4.6: Grading Projects. Impose appropriate conditions on grading projects performed during the rainy season to ensure that silt is not conveyed to storm drainage systems.

IF-4.9: Pollution Prevention. Prevent pollutants from entering the storm drain system by managing point and non-point pollution sources through public and private facilities, local regulations, and education.

Chapter VIII. Community Safety

Goal CS-5: Protect vulnerable areas and infrastructure from flooding related to rising sea levels in the San Francisco Bay.

CS-5.1: Monitor Rising Sea Level. Regularly coordinate with regional, State, and Federal agencies on rising sea levels in San Francisco Bay and major tributaries to determine if additional adaptation strategies should be implemented to address flooding hazards. This includes monitoring FEMA flood map updates to identify areas in Burlingame susceptible to sea level rise, addressing changes to State and regional sea and bay level rise estimates, and coordinating with adjacent municipalities on flood control improvements.

CS-5.3: New Development in Vulnerable Areas. Continue to require appropriate setback and building elevation requirements for properties located along the Bayshore, lagoons, and in other low-lying areas that are susceptible to the effects of sea level rise. Consider other strategies to support resiliency through design.

CS-5.5: Regional Hazard Risk Reduction Planning. Coordinate with San Mateo County and other local agencies to implement the Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP).

Chapter IX. Healthy People and Healthy Places

Goal HP-6: Protect local and regional water resources through conservation, preservation, and sustainable management practices.

HP-6.1: Waterway Protection. Protect and maintain the water quality of the four creek systems and watersheds (Burlingame Creek, Easton Creek, Mills Creek, and Sanchez Creek) that course through the city and drain into San Francisco Bay. Participate in regional efforts, such as the Bay Area Integrated Regional Water Management Plan, to protect Burlingame's waterways and maintain water quality.

HP-6.2: Water Conservation. Promote best practices for water conservation throughout the city, and continue to enforce City ordinances requiring high-efficiency indoor water fixtures in new development. Educate the public about Burlingame's water rebate programs, and continue to establish tiered water rates that promote water conservation. Consider water consumption when evaluating development projects. Encourage drought-tolerant landscaping and efficient irrigation systems.

HP-6.3: Water Quality. Regularly measure and monitor water quality in Burlingame's surface water to ensure maintenance of high-quality water for consumption.

HP-6.5: Local Stormwater Management. Work with public and private property owners to reduce stormwater runoff in urban areas, manage stormwater as a resource, and protect water quality in creeks and the Bay. Require implementation of best management practices to reduce accumulation of non-point source pollutants in the drainage system originating from streets, parking lots, residential areas, businesses, and industrial operations.

HP-6.6: Regional Stormwater Management. Continue to follow requirements for the Municipal Regional Stormwater and National Pollutant Discharge Elimination System (NPDES) Permit to monitor stormwater activities, reduce pollution from stormwater runoff, and provide annual reports on compliance activities.

HP-6.10: New Development and Construction. Regulate new development and construction to minimize pollutant and sediment concentrations in receiving waters, and ensure surface water discharged into the San Francisco Bay meets or exceeds relevant regulatory water quality standards. Require new development to incorporate Low Impact Design features that treat and reduce surface runoff volumes.

HP-6.11: Low Impact Development Infrastructure. Use Low Impact Development approaches as upgrades are made to City-owned facilities such as streets, parks, and storm drainage infrastructure.

Burlingame Municipal Code

The City of Burlingame Municipal Code regulates the use and development of land within the City. Title 18 of the Municipal Code is intended to, among other objectives, lessen the exposure to or probability of flooding; and to establish procedures by which such requirements may be enforced. Section 18.20.030 requires obtaining a grading permit from the City prior to filling, excavation or grading of a site. Section 18.20.060 requires a number of factors to be considered prior to approval of a grading permit, including runoff of surface waters that produce erosion and silting of drainage ways. Section 18.22.431 states that the floodplain administrator shall review all development permits to determine that, among other requirements, that the site is reasonably safe from flooding, and that the proposed development does not adversely affect the carrying capacity of the floodway.[3] Section 18.22.513 requires new buildings have the lowest habitable floor elevated above the base flood elevation.

The City completed a comprehensive update of the zoning ordinance in 2021. The zoning code provides regulations for the Bayfront area, including guidelines for new development to be resilient to sea level rise. Chapter 25.12 in Article 2 includes the Bayfront Commercial District, and Section 25.12.050 provides public access, flood and sea level rise performance guidelines. This includes Section 25.12.050.I, which requires that for all properties within the Sea Level Rise Overlay Area indicated on the City's Map of Future Conditions, the lowest finished floor of new buildings must be elevated to 13 ft NAVD 88 in conformance with this Map. Section 12.050.I also requires that properties with Bay frontage include shoreline infrastructure that meets the specification in the Map of Future Conditions. For the Project site, this infrastructure consists of flood protection with a crest elevation of 17 ft NAVD 88 that is consistent with FEMA accreditation standards in the CFR. Section 25.12.050.J requires that prior to issuance of a Building Permit, a registered professional engineer shall certify that the design, specifications, and plans for the construction of Shoreline infrastructure are in accordance with certain requirements including, but not limited to, those in Chapter 25.12.050.I, FEMA guidance, and the CFR related to the mapping of areas protected by levee systems. Chapter 25.12.050.M requires

[3] The Municipal Code states that "adversely affects" means that the cumulative effect of the proposed development when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than one foot at any point.

100 percent of the drainage from impervious surfaces on the site shall be captured and retained on site with sufficient storage to keep the first 1.25 inches of rainwater from an individual rain event on site without discharging onto neighboring properties or rights-of-way unless a regional stormwater management system is available to serve the development and the specific discharges from the site into the system have been approved by the City Public Works Department.

Sea Change Burlingame

In 2019, the City of Burlingame began studying the potential impacts of sea level rise on the Bayfront and adaptation strategies to reduce future flood risks. This effort, known as Sea Change Burlingame, provided a high-level assessment that builds upon San Mateo County's Sea Level Rise Vulnerability Assessment completed for the Bayfront and other study areas along the Bay shoreline. The project has informed policies and future planning efforts such as the zoning ordinance described above, and has focused on identifying a range of adaptation options. For the section of shoreline that includes the Project site, raising the shoreline elevation is recommended to upgrade the existing flood protection[4]. The project included community engagement to gain an understanding of the issues involved with the Bayfront. Sea Change Burlingame was supported by Climate Ready SMC, an initiative of the County of San Mateo Office of Sustainability.

4.9.3 Impacts and Mitigation Measures

Significance Criteria

The proposed Project would result in a significant impact on hydrology and water quality if it would:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

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

   i) result in a substantial erosion or siltation on- or offsite;

   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.

[4] ESA. 2019. *Development and Screening of Burlingame Shoreline Adaptation Strategies*. Prepared for City of Burlingame.

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

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan

Approach to Analysis

This environmental analysis of the potential impacts related to hydrology and water quality from the construction and operation of the proposed Project is based on a review of the results of the site-specific investigations, a review of literature and database research, and the Burlingame General Plan, information regarding proposed Project construction details, and the description potential uses and associated operations at the Project site under the proposed Project.

The proposed Project would be regulated by the various laws, regulations, and policies summarized above in Section 4.9.3, *Regulatory Framework*. Compliance by the proposed Project with applicable federal, state, and local laws and regulations is assumed in this analysis and local and state agencies would be expected to continue to enforce applicable requirements to the extent that they do so now. Note that compliance with many of the regulations is a condition of permit approval.

A significant impact would occur if, after considering the features described in in Chapter 3, *Project Description*, and the required compliance with regulatory requirements, a significant impact would occur. For those impacts considered to be significant, mitigation measures are proposed to the extent feasible to reduce the identified impacts.

Impact Analysis

Impact HYD-1: Implementation of the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. (*Less than Significant with Mitigation*)

Construction

Project construction would involve ground-disturbing earthwork including removal of existing buildings and paved areas, soil excavation and filling, trenching, and grading. These activities could increase the susceptibility of soils on the Project site to erosion by wind or water. During construction, heavy equipment such as bulldozers, graders, earth movers, heavy trucks, trenching equipment and other machinery is likely to be used. Such machinery could contribute pollutants to stormwater runoff in the form of sediment and other pollutants such as fuels, oil, lubricants, hydraulic fluid, or other contaminants. Additionally, site work could result in conditions of runoff. Sediment, silt, and construction debris, if mobilized during construction could be transported to receiving waters such as the San Francisco Bay or Easton Creek. In the absence of runoff controls, exceedances of water quality standards could result. If not controlled and managed, the impact of soil erosion could be significant. Construction of the Project would require disturbance of more than one acre and thus would be required to apply for coverage under the State GCP to comply with federal NPDES regulations. A site-specific SWPPP would be developed and implemented as part of the Project in accordance with the NPDES CGP, to

minimize water impacts during demolition and construction. This plan would include BMPs designed to control and reduce soil erosion. The BMPs may include dewatering procedures, storm water runoff quality control measures, watering for dust control, the construction of silt fences, as needed. During construction-related activities, soil compaction would be used to further reduce soil erosion.

As explained in Impact HAZ-1 in Section 4.8, *Hazards and Hazardous Materials*, there is a recorded history of subsurface contaminants associated with prior land uses on portions of the Project site; furthermore, the Project site contains undocumented fill that may contain hazardous materials. In addition, since the proposed Project includes the excavation of soil during construction (in places up to 27 feet below 11.5-foot grade) it is expected that dewatering would be required during construction. Excavation and dewatering activities could expose construction workers and the environment to hazardous materials if not managed appropriately.

To reduce the potential significant impact to construction workers and the environment during the excavation and dewatering activities and to comply with the San Mateo County Health Services (SMCEHS) land use restrictions on the Project site (see Section 4.8 for additional detail), and Mitigation Measure HAZ-1, Construction Soil and Groundwater Management Plan, is identified to be implemented prior to construction. The implementation of this mitigation measure would reduce impacts associated with potential releases of hazardous materials to surface and groundwater to a less than significant level.

Compliance with the NPDES CGP regulations discussed above, and implementation of Mitigation Measure HAZ-1 identified in Section 4.8 would prevent substantial degradation in water quality during construction of Project development, and would be effective in ensuring that construction activities would result in a less than significant impact to water quality.

Operation

As under existing conditions, stormwater runoff from operation of the Project development would potentially contain pollutants common in urban runoff, including metals, oils, and grease, pesticides/herbicides, nutrients, pet waste and garbage/litter. While there would be no substantive change in the type of pollutants associated with the proposed development compared to existing conditions, pollutants in stormwater runoff from urban development would nevertheless have the potential to violate water quality standards if the types and amounts are not adequately controlled or reduced.

Stormwater runoff from the types of urban uses that would result from the Project is regulated under the MRP. The Project applicant would be required to submit the SMCWPPP checklist to the City to show compliance with NPDES regional permit requirements. BMPs included in site designs and plans for the Project would be reviewed by the City's engineering staff to ensure appropriateness and adequate design capacity prior to permit issuance. The San Francisco Bay RWQCB has incorporated requirements in the MRP to protect water quality and approved the SMCWPPP, which is in compliance with the NPDES municipal stormwater permit. The City review and permitting process would ensure that the Project meets the permit's waste discharge requirements.

The proposed Project stormwater management plan is described in Chapter 3, *Project Description.* Existing on-site stormwater collection infrastructure would be replaced with new stormwater collection and treatment system. Stormwater flows collected from the proposed parking structures and the remainder of the Project site would be treated with the use of on-grade flow-through planters. Stormwater collected from site building roofs and impervious roads would be treated in the bioretention areas and then discharged to the existing City storm drain system in Old Bayshore Highway or to new Easton Creek outfalls. On-site access roads would grade toward Old Bayshore Highway, and bioretention areas would be required along that frontage to collect and treat road runoff.

As discussed under Impact HYD-2, below, the Project would increase pervious surface areas of the Project site. The Project's proposed bioretention areas would be sized at approximately 4 percent of the impervious areas of the site. All stormwater treatment measures implemented on the Project site would be required to be in compliance with state and County of San Mateo requirements and Provision C.3 measures of the MRP. Flood protection measures (including raised ground, flood walls, etc.) would be included as project design features to prevent flooding, which would also prevent the spread of pollutants.

Based on the above, operation of the Project would not violate any waste discharge requirements or otherwise substantially degrade water quality.

> **Mitigation:** In addition to compliance with the NPDES CGP regulations, to reduce to the potential Project construction impacts to surface or groundwater quality, implement Mitigation Measure HAZ-1.
>
> **Significance after Mitigation:** Less than Significant.

Impact HYD-2: Implementation of the Project would 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*)

Construction

As explained above, excavation depths during construction are anticipated to extend to a maximum of approximately 27 feet below 11.5-foot grade. Given the depth of excavation, and proximity to the Bay, limited and temporary dewatering would be required during construction; in which case, water would be discharged to the City's sewer system, after on-site treatment pursuant to the protocols established in the Construction Soil and Groundwater Management Plan required in Mitigation Measure HAZ-1 in Section 4.8, *Hazards and Hazardous Materials*, as necessary. If the dewatering effluent requires on-site treatment, it would be treated to the standards required by applicable state and local regulations, and the acceptance criteria of the City's sewer system.

As a result, Project construction would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that it may impede sustainable groundwater management of the basin. As dewatering during construction would be limited and temporary, and would be properly treated as necessary prior discharge, the construction-related impact to groundwater recharge and sustainable management of the Basin would be less than significant.

Operation

The Project would increase pervious areas of the Project site from 89,000 square feet (existing pre-project) to 137,553 square feet (post-project), an increase of 48,553 square feet. This would include approximately 237,600 square feet of landscaped area, open space, creeks and wetlands, for approximately 45 percent of the Project site surface area. Landscaped areas, including stormwater treatment planters that promote infiltration by draining to pervious surfaces, would allow for groundwater recharge.

Given the proposed excavation to accommodate the below-grade parking levels beneath the parking structures, and the proximity of the Project site to the San Francisco Bay, the preliminary geotechnical report identifies measures to prevent groundwater infiltration into the garages. This includes the installation of a continuous cut-off wall for shoring the garage excavations, and designing the below-grade parking levels for hydrostatic uplift and waterproofing (Cornerstone, 2021). With implementation of these design features, the Project would not require permanent groundwater dewatering during operation.

As a result, the Project is anticipated to result in a net increase in groundwater recharge over existing conditions. In addition, as discussed in Section 4.15, *Utilities and Service Systems*, the Project would generate an increase in potable water demand over existing conditions but would be served by the City's water supply, and not use groundwater. As explained in Section 4.9.2, *Regulatory Framework*, the City of Burlingame purchases all of its potable water from the SFPUC RWS and there are no plans to use groundwater as a supplemental potable water supply source in the future.

Given the above factors, operation of the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that it may impede sustainable groundwater management of the basin.

Mitigation: None required.

Impact HYD-3: Implementation of 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 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. (*Less than Significant*)

Construction

During construction, stormwater drainage patterns could be temporarily altered. However, the Project would implement BMPs, as required in the SWPPP, to minimize the potential for erosion or siltation in nearby storm drains as well as temporary changes in drainage patterns during construction. Construction BMPs would capture and infiltrate small amounts of sheet flow into the ground such that offsite runoff from the construction site would not increase, ensuring that drainage patterns would not be significantly altered. Measures required by the NPDES CGP would also limit site runoff during construction and would not alter stormwater drainage patterns. BMPs would be implemented to control construction site runoff, ensure proper stormwater control and treatment, and reduce the discharge of pollution to the storm drain system. Therefore, construction would not substantially alter the existing drainage pattern of the area in a manner that would result in substantial erosion or siltation or increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite. In addition, the MRP provides practices to prevent polluted runoff during construction activities.

Given the above considerations, the Project's potential construction-related changes to drainage patterns or waterways, and resultant effects on increases in erosion/ siltation, and/or stormwater flows and flooding, would be less than significant.

Operation

The proposed Project stormwater management plan is described and illustrated in Chapter 3, *Project Description*. The Project proposes an extensive system of stormdrains that would capture and convey stormwater runoff to on-site stormwater treatment controls, prior to discharge to Easton Creek and the existing City storm drain main in Old Bayshore Highway. The Project would also replace two existing outfalls on Easton Creek with new outfalls. These described features would reduce runoff and treat stormwater through filtration, in compliance with state and County of San Mateo requirements and Provision C.3 of the MRP. As discussed in Impact HYD-2, above, the Project would not increase the amount of impervious surfaces compared to the existing conditions at the Project site. In fact, the Project would increase the amount of pervious surfaces by over one acre in surface area. Therefore, the Project would not substantially alter the existing drainage pattern at the Project site through the addition of impervious surfaces. As such, the proposed Project would not substantially increase runoff from the site in a manner that would result in flooding or exceed the capacity of the storm drainage system or result in substantial additional sources of polluted runoff. Furthermore, as discussed in Chapter 3, under *Sea Level Rise/Flood Control Improvements*, the proposed Project includes a number of shoreline improvements and other features relevant to sea level rise and flooding:

- Sea level rise and flood protection, including raised ground (elevated on fill), sea walls, flood walls, riprap slopes, settlement mitigation, and/or geotechnical provisions for seismic stability of the shoreline and along Easton Creek.
- Sections of sea wall would be epoxy-coated steel sheet piles.
- Approximately 260 linear feet of "soft" or "living" shoreline where feasible, including shoreline grading and planting that allows tidal influence in both current and future sea level conditions. Where wider areas exist between building faces and the property line on the Bayside, more gradual shoreline grading, planted earth benches, and riprap would be combined to allow for future tidal influence and shoreline resilience.
- A steel sheet pile sea wall would be installed along both sides of Easton Creek and along the entire bay shoreline of the project site. Sheet piles would be driven entirely outside of aquatic/jurisdictional habitats. After completion, the sea walls would largely be embedded/buried within project landscaping.
- Grading and placement of fill for the South Entry Plaza would occur at Old Bayshore Highway to bring the entry plaza to road grade at about 17.5 feet, with a stepped seating area and earthwork slopes returning this elevation to the grade of the existing tidal marsh.
- Enhanced existing tidal marsh, which would include earthwork, grading, and native planting. Grading would achieve moderate slopes from the marsh up to the entry plaza and Bay Trail. All marsh enhancements would occur outside the jurisdictional wetland area.

The Project flood protection measures would prevent Bay water from flooding onto the Project site. Coastal hydraulics modeling completed as part of a regional flood study indicates that the potential extent and magnitude of change to the Bay's coastal hydraulics caused by protecting a section of the shoreline including and longer than the Project's shoreline frontage is limited.[5] While the modeling did not specify the type of shoreline protection, the Project-proposed seawall and raising of the Project site's ground surface elevation would provide protection functionally similar to what was represented in this modeling. The Project's proposed shoreline improvements would reduce the length of shoreline subject to coastal flooding, however, given that the displacement of water due to the presence of the Project would be very small relative to the volume of the Bay, the improvements would not substantially affect coastal flooding, or result in additional areas becoming inundated. Therefore, the proposed Project would not cause substantial adverse effects due to impeding or redirecting flood flows.

In addition, the Project proposes a new pedestrian/bicycle bridge, which would be constructed across Easton Creek between the North and Center Buildings. In response to the City's request, the applicant conducted a channel capacity analysis that confirmed that the proposed bridge would not impact the capacity of Easton Creek[6] (Moffatt & Nichol, 2022).

5 Hummel, M.A. and M.T. Stacey, *Assessing the Influence of Shoreline Adaptation on Tidal Hydrodynamics: The Role of Shoreline Typologies*, 2021.

6 The channel capacity analysis included hydraulic modeling that considered a 100-year flood event in conjunction with future sea level rise in Easton Creek.

Given the above factors, the Project's potential operational changes to drainage patterns or waterways, and resultant increases in erosion/siltation, and/or stormwater flows and flooding would be less than significant.

Mitigation: None required.

Impact HYD-4: Implementation of the Project would not result risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. (*Less than Significant*)

As discussed in Section 4.9.1, *Environmental Setting*, the Project is within the 100-year and 500-year floodplain as designated on the FEMA FIRM for the area. Also discussed in Section 4.9.1, *Environmental Setting*, the Project site is within an established Tsunami Hazard Area. Additionally, as the Project site is adjacent to the San Francisco Bay, it is susceptible to the impacts from seiche.

The Project site falls wholly within the City of Burlingame's Sea Level Rise Overlay Area. As such, Chapter 25.12.050 of the City's zoning code specifies that the finished floor elevation must be at least 13 feet NAVD 88. The Project would construct all its new buildings with finished floor elevations of about 16 feet NAVD 88, three feet above the minimum required by the City.

The current 100-year base flood elevation on the Project site is 10 ft NAVD 88. Therefore, the finished floor elevations would not be subject to inundation from the 100-year flood event until sea-level rise exceeded six feet. Six feet of sea-level rise is not projected to occur until 2100 under the 1-in-200 chance of exceedance and is likely to be closer to three feet (Table 4.9-1).

In addition, as part of the City and San Mateo County planning to provide regional flood protection infrastructure, the Project would raise the ground surface elevation along the bay shoreline to a contiguous crest elevation of 17 ft NAVD 88, as specified by the City's Map of Future Conditions. This shoreline infrastructure would connect to new flood walls on either side of Easton Creek which have a crest elevation of 16 ft NAVD 88. This shoreline infrastructure, which would consist of a mix of earthen berms and flood walls, would be designed to be consistent with FEMA levee accreditation requirements.

Therefore, given the Project would be designed in compliance with applicable City Municipal Codes regarding sea level rise and flooding, it would therefore also minimize the potential for the release of pollutants due to tsunami or seiche, and the impact would be less than significant.

Mitigation: None required.

Impact HYD-5: Implementation of the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (*Less than Significant with Mitigation*)

Construction

Commonly practiced BMPs, as required by the NPDES CGP, would be implemented to control construction site runoff and reduce the discharge of pollutants from stormwater and other nonpoint-source runoff to storm drain systems. As part of complying with permit requirements during ground-disturbing or other construction activities, water quality control measures and BMPs would be implemented to assist in achieving water quality standards, including water quality objectives that protect designated beneficial uses of surface water and groundwater, as defined in the Basin Plan.

Furthermore, as explained in Impact HAZ-1 in Section 4.8, *Hazards and Hazardous Materials*, to reduce the potential significant impact to construction workers and the environment during the excavation and dewatering activities and to comply with applicable SMCEHS land use restrictions on the Project site, implementation of Mitigation Measure HAZ-1, Construction Soil and Groundwater Management Plan shall be implemented prior to construction and reduce impacts associated with potential releases of hazardous materials to surface and groundwater to a less than significant level.

Compliance with the NPDES CGP regulations, and implementation of Mitigation Measure HAZ-1 identified in Section 4.8, would ensure Project construction would not result in substantial degradation in water quality, and thus, ensure that the Project would not conflict with or obstruct implementation of the Basin Plan, and the impact would be less than significant.

There is no Groundwater Sustainability Plan (GSP) that applies to the Westside Groundwater Basin. Regardless, as described in Impact HYD-2, above, construction-related impacts to groundwater recharge and sustainable groundwater management of this groundwater basin would be less than significant.

Operation

As discussed in Impact HYD-1, operation of the Project would have a less-than-significant impact related to water quality standards and/or waste discharge requirements. The Project would include installation of surface water treatment project design features (i.e., on-grade flow-through planters, and bioretention areas), which would assist in ensuring flows from the Project site would be properly treated and would not violate water quality standards or waste discharge requirements. Implementation of these Project design features would improve water quality, as these features are not part of the existing conditions at the Project site. The proposed raising of the Project site and building floor elevations would prevent flooding of these buildings, which would also prevent the spread of pollutants. Therefore, the proposed Project operations would be consistent with the Basin Plan, and the impact would be less than significant.

As noted above, there is no GSP that applies that applies to the Westside Groundwater Basin. Regardless, as described in Impact HYD-2, above, operations-related impacts to groundwater recharge and sustainable groundwater management of this groundwater basin would be less than

significant. Therefore, Project operations would not conflict with or obstruct a sustainable groundwater management plan, and the impact would be less than significant.

> **Mitigation:** In addition to compliance with the NPDES CGP regulations, to reduce to the potential Project construction impacts to surface or groundwater quality, implement Mitigation Measure HAZ-1.
>
> **Significance after Mitigation:** Less than Significant.

Cumulative Impacts

This section presents an analysis of the cumulative effects of the Project in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to hydrology and water quality could occur if the incremental impacts of the Project combined with the incremental impacts of one or more of the cumulative projects. The cumulative projects considered in this EIR are summarized in Section 4.0.4, under *Cumulative Impact Analysis*. There are three cumulative commercial development projects located within one-half mile of the Project site, none of which are located on or adjacent to the Project site.

The geographic area affected by the Project and its potential to contribute to cumulative impacts varies based on the environmental resource under consideration. The geographic scope of analysis for cumulative hydrology and water quality impacts encompasses and is limited to the Project site and its immediately adjacent area. This is because impacts relative to hydrology and water quality impacts are generally site-specific. For example, the effect of erosion would tend to be limited to the localized area of a project and could only be cumulative if erosion occurred as the result of two or more adjacent projects that spatially overlapped.

The timeframe during which the Project could contribute to cumulative hydrology and water quality impacts includes the construction and operations phases. For the Project, the operations phase is permanent. However, similar to the geographic limitations discussed above, it should be noted that impacts relative to hydrology and water quality are generally time-specific. Hydrology and water quality impacts could only be cumulative if two or more impacts occurred at the same time, as well as overlapping at the same location.

Impact C-HYD-1: Implementation of the Project, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on hydrology and water quality. (*Less than Significant with Mitigation*)

As discussed in Impact HYD-1 and Impact HYD-5, above, compliance with the NPDES CGP regulations and implementation of Mitigation Measure HAZ-1 identified in Section 4.8, would prevent substantial degradation in water quality during construction of Project development, and would be effective in ensuring that construction activities would result in a less than significant impact to water quality. As discussed in Impacts HYD-2 through HYD-4, construction impacts to

groundwater supply/recharge, erosion/siltation, and potential flooding effects were also identified to be less than significant with compliance with the NPDES CGP regulations.

Significant cumulative impacts related to hydrology and water quality could occur if the incremental impacts of the Project combined with the incremental impacts of cumulative development would adversely affect water quality or water supply. However, the construction activities for all cumulative development would be subject to the same regulatory requirements discussed for the Project, ensuring compliance with existing hydrology and water quality regulations, including preparation and implementation of SWPPPs in compliance with the state CGP and local erosion control regulations. With compliance with existing regulations, Project construction would not cause or contribute to a cumulatively considerable impact with respect to hydrology and water quality impacts, and therefore, the impact would be less than significant.

As discussed in Impact HYD-2, the proposed Project would decrease impervious surfaces on the Project site, and consequently, would not result in an increase in stormwater flows from the site or decrease groundwater supply/recharge. Furthermore, as discussed in Impact HYD-1 through Impact HYD-5, with incorporation of required stormwater treatment measures in compliance with state and County of San Mateo requirements and Provision C.3 measures of the MRP, operation effects on water quality, erosion/siltation and potential flooding effects would be less than significant.

All cumulative projects that involve the creation or replacement of 10,000 square feet of impervious surface area would also be subject to MRP MS4 requirements, including hydromodification management controls and LID design standards and would be required to demonstrate in their stormwater control plans that run off from such disturbance is adequately controlled to prevent erosion or impacts to water quality. The Project would not contribute to a cumulatively considerable impact. With compliance with existing regulations, the Project would not cause or contribute to a cumulatively considerable impact with respect to the use of hydrology and water quality, and impacts would be less than significant.

Mitigation: Implement Mitigation Measure HAZ-4.

Significance after Mitigation: Less than Significant.

4.9.4 References

California Geological Survey (CGS) and the California Governor's Office of Emergency Services, 2021. *Tsunami Hazard Area Map*, County of San Mateo. March 23, 2021.

City of Burlingame, 2021. *2020 Urban Water Management Plan*. September 2021.

Cornerstone Earth Group (Cornerstone), 2021. *Design-Level Geotechnical Investigation, Burlingame Bayshore Development, 1200-1340 Old Bayshore Highway, Burlingame, California*. Proposal No. 497-11-1. December 9, 2021Federal Emergency Management Agency (FEMA), 2019.

California Regional Water Quality Control Board (RWQCB), 2019. *San Francisco Bay Basin Water Quality Control Plan,* November 5, 2019. Available at: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/docs/ADA_compliant/BP_all_chapters.pdf. Accessed December 17, 2022

Federal Emergency Management Agency (FEMA), 2019. Flood Insurance Rate Map, version 2.3.2.0, map number 06081C0151F and 06081C0153F. April 5, 2019.

Moffatt & Nichol, 2022. *Easton Creek Channel Capacity Analysis*, December 5, 2022.

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4.10 Land Use and Planning

This section evaluates land use and planning effects that would occur with implementation of the proposed Project. Specifically, this section evaluates whether implementation of the proposed Project would physically divide an established community, or if the proposed Project would 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. This section analyzes the potential for both Project-level and cumulative impacts related to land use and planning.

4.10.1 Environmental Setting

City of Burlingame

The City of Burlingame is located on the San Francisco Peninsula, about 10 miles south of San Francisco. The City boundaries and its regional location are shown in Figure 3-1 in Chapter 3, *Project Description*.

The City limits encompass approximately 5.8 square miles. Framed by San Francisco Bay and the Santa Cruz Mountains, the City of Burlingame has both hillside and flatland environments that have defined its land use and development patterns. The early development of Burlingame in the early twentieth century established the traditional grid street pattern for the residential neighborhoods and commercial districts of the City that remain today.

Burlingame's Bayfront area covers approximately 2.5 linear miles of frontage along San Francisco Bay. The Bayfront area is characterized by the open waters of the Bay, recreation and open space resources, and office buildings, hotels, and restaurants that benefit from their proximity to San Francisco International Airport (SFO). The San Francisco Bay Trail runs along the Bayfront, providing a pedestrian and bicycle connection between recreation opportunities and services along the Bay. While the trail is substantially complete, gaps occur where the trail route crosses private lands (City of Burlingame, 2019).

Project Site and Vicinity

The approximately 12-acre Project site is located in Burlingame's Bayfront area. Figure 3-2 in Chapter 3, *Project Description*, provides an aerial photograph of the Project site and vicinity.

The Project site is relatively level and consists of 13 contiguous parcels, as shown in Figure 3-3 in Chapter 3, *Project Description*. Easton Creek bisects the northern portion of the Project site. An unnamed remnant channel partially bisects the southern portion of the Project site. The Project site is bounded by a privately owned, partially submerged parcel abutting San Francisco Bay to the east, Old Bayshore Highway to the west, and Airport Boulevard to the south. The Project site is located approximately 0.3 mile south of the SFO south property boundary and just over one mile from the nearest SFO runway.

The Project site is designated Bayfront Commercial in the City of Burlingame General Plan and is within the Bayfront Commercial (BFC) Zoning District. The San Francisco Bay Conservation

Development Commission (BCDC) maintains jurisdiction over the 100-foot band of the Bay shoreline and Easton Creek channel portions of the Project site.

There are eight existing buildings on the Project site, which comprise several one- to three-story commercial buildings and a former movie theater. These buildings are presently occupied by a few businesses, including professional offices, a hotel, an auto rental agency, and restaurants.

Regional access to the Project site is provided by U.S. Highway 101 (U.S. 101). Local access is provided by Old Bayshore Highway, Broadway, and Airport Boulevard. Existing paved off-street segments of the San Francisco Bay Trail currently terminate at the northeast and southeast corners of the Project site, creating a missing link in the Bay Trail network. Currently, Bay Trail users go through the parking lot and onto the public sidewalk on Old Bayshore Highway to connect to the remainder of the trail.

Existing land uses in the Project site vicinity include office, commercial, hotel, industrial, warehouse, and recreational uses. A nine-story commercial office building and associated parking lots are located to the north of the Project site. The nine-story Hyatt Regency San Francisco Airport Hotel and associated parking is located across Old Bayshore Highway to the west of the Project site. A two-story office building is located across Old Bayshore Highway to the southwest of the Project site. Bayside Park is located across Airport Boulevard to the southeast of the Project site.

4.10.2 Regulatory Framework

Federal

Federal Regulation Title 14, Part 77

Federal Regulation 49, Code of Federal Regulations (CFR) Title 14, Part 77 establishes standards and notification requirements for objects affecting navigable airspace. In particular, CFR Title 14 Part 77.13 requires that any developer who intends to perform any construction or alterations to structures that exceed 200 feet in height above ground level must obtain project approval from the Federal Aviation Administration (FAA). Height restrictions set forth by the FAA Federal Aviation Regulation (FAR) Part 77 require all development exceeding 200 feet in height to submit Form 7460-1, *Notice of Proposed Construction or Alteration*, to the FAA.

State

San Francisco Bay Conservation and Development Commission and Bay Plan

The BCDC is a state agency with permit authority over the San Francisco Bay and its shoreline. Created by the McAteer-Petris Act in 1965, BCDC regulates filling, dredging, and changes in use in the Bay. It is necessary to obtain a BCDC permit prior to undertaking most work in the Bay or within 100 feet of the shoreline, including filling, dredging, shoreline development, and other work. Several different types of permit applications exist, depending on the size, location, and impacts of a project.

In addition, BCDC regulates new development within 100 feet of the shoreline to ensure that maximum feasible public access to and along the Bay is provided. In Burlingame, this includes all creeks draining to San Francisco Bay as far inland as the east side of Old Bayshore Highway, Anza Lagoon, Sanchez Channel, Burlingame Lagoon, and the Sanchez Marsh. In Burlingame, standards for providing shoreline access have been adopted by both BCDC and the Burlingame City Council. These standards define how public access is provided on shoreline properties and establish measurable standards for implementation. Development within BCDC's jurisdiction is required to conform to these standards (City of Burlingame, 2018).

The San Francisco Bay Plan (Bay Plan) was prepared by BCDC from 1965 through 1969 and amended through 2019 in accordance with the McAteer-Petris Act (BCDC, 1965). The Bay Plan guides the protection and use of the Bay and its shoreline. Under the McAteer-Petris Act, the Bay Plan provides policy direction for BCDC's permit authority regarding the placement of fill, extraction of materials, determining substantial changes in use of land, water, or structures within its jurisdiction, protecting the Bay habitat and shoreline, and maximizing public access to the Bay.

Part IV of the Bay Plan contains findings and policies that pertain to development of the Bay and shoreline. These findings and policies address the many facets that comprise the uses, needs, and design issues associated with balancing the environmental, ecological, economic, recreational and social objectives of development within or along the shoreline of the Bay. They include: (1) Safety of Fills; (2) Protection of the Shoreline; (3) Dredging; (4) Water-Related Industry; (5) Ports; (6) Airports; (7) Transportation; (8) Commercial Fishing; (9) Recreation (including Marinas); (10) Public Access; (11) Appearance, Design and Scenic Views; (12) Salt Ponds and Other Managed Wetlands; and (13) Other Uses.

Regional

Plan Bay Area

The Sustainable Communities and Climate Protection Act of 2008, also known as Senate Bill 375 (SB 375), is a State of California law targeting greenhouse gas (GHG) emissions from passenger vehicles. SB 375 requires all metropolitan regions in California to complete a sustainable communities strategy (SCS) as part of a regional transportation plan. In the Bay Area, the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) are jointly responsible for developing and adopting an SCS that integrates transportation, land use, and housing to meet GHG reduction targets set by the California Air Resources Board (CARB). Plan Bay Area 2050, adopted in October 2021, serves as the SCS for the Bay Area's nine counties — Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma — in accordance with SB 375. For a discussion of the proposed Project's consistency with Plan Bay Area as it relates to GHG, see Section 4.7, *Greenhouse Gas Emissions*, of this Draft EIR.

San Francisco Bay Trail Plan

The San Francisco Bay Trail Plan guides the development of a regional hiking and bicycling trail around the perimeter of San Francisco and San Pablo Bays. In 2015, ABAG prepared the plan pursuant to Senate Bill 100 (SB 100), which mandated that the Bay Trail provide connections to existing park and recreation facilities, create links to existing and proposed transportation facilities, and be planned in such a way as to avoid adverse effects on environmentally sensitive areas. Approximately 355 miles of the Bay Trail have been constructed. When complete, the trail will pass through 47 cities and all nine Bay Area counties (ABAG, 2022).

The Bay Trail Plan contains policies to guide selections of the trail route and implementation of the trail system. Policies fall into five categories:

- Trail alignment policies reflect the goals of the Bay Trail program—to develop a continuous trail that highlights the wide variety of recreational and interpretive experiences offered by the diverse bay environment and is situated as close as feasible to the shoreline, within the constraints defined by other policies of the plan.
- Trail design policies underscore the importance of creating a trail that is accessible to the widest possible range of trail users and that is designed to respect the natural or built environments through which it passes. Minimum design guidelines for trail development are recommended for application by implementing agencies.
- Environmental protection policies underscore the importance of San Francisco Bay's natural environment and define the relationship of the proposed trail to sensitive natural environments such as wetlands.
- Transportation access policies reflect the need for bicycle and pedestrian access on bay area toll bridges, in order to create a continuous trail and to permit cross-bay connections as alternative trail routes.
- Implementation policies define a structure for successful implementation of the Bay Trail, including mechanisms for continuing trail advocacy, oversight, and management.

Local

Airport Land Use Commission and Airport Land Use Compatibility Plan

As previously noted, the Project site is located approximately 0.3 mile south of the SFO south property boundary and just over one mile from the nearest SFO runway. With limited exceptions, an Airport Land Use Commission (ALUC) is required by California law in every county with an airport in its jurisdiction. Each ALUC must develop a plan for promoting and ensuring compatibility between each airport in the county and surrounding land uses. In San Mateo County, in which the City of Burlingame and the Project site are located, the City/County Association of Governments of San Mateo County (C/CAG) Board acts as the ALUC.

The ALUC has three primary responsibilities: to coordinate airport land use compatibility planning efforts at the state, regional, and local levels; to prepare and adopt an Airport Land Use Compatibility Plan (ALUCP) for each public-use airport in its jurisdiction; and to review plans, regulations, and other specified actions of local agencies and airport operators.

The SFO ALUCP (C/CAG, 2012) is the key to implementation of the ALUC policies related to proposed land development in the vicinity of SFO. The SFO ALUCP provides the standards, criteria, and policies on which the compatibility of proposed local agency land use policy actions are determined. It also establishes the planning boundaries around SFO that define height/airspace protection, noise, and safety areas for policy implementation, and areas within which notification of SFO proximity is required as part of real estate transactions.

Based on state law and guidance provided in the California Airport Land Use Planning Handbook, the SFO ALUCP has four primary areas of concern:

- ***Aircraft Noise Impact Reduction*** – To reduce the potential number of future airport area residents who could be exposed to noise impacts from airport and aircraft operations.
- ***Safety of Persons on the Ground and in Aircraft in Flight*** – To minimize the potential number of future residents and land use occupants exposed to hazards related to aircraft operations and accidents.
- ***Height Restrictions/Airspace Protection*** – To protect the navigable airspace around the Airport for the safe and efficient operation of aircraft in flight.
- ***Overflight Notification*** – To establish an area within which aircraft flights to and from the Airport occur frequently enough and at a low enough altitude to be noticeable by sensitive residents. Within this area, real estate disclosure notices shall be required, pursuant to State law.

City of Burlingame General Plan

The City of Burlingame General Plan, *Envision Burlingame*, is a long-range policy document that guides decision-making and establishes the requirements for the design and development of new projects, conservation of resources, economic development, mobility and infrastructure improvements, expansion of public services, and community amenities in the City. The General Plan is intended to provide direction through the year 2040.

Land Use Designation

The Project site is designated as Bayfront Commercial (BFC) in the General Plan. The BFC designation provides opportunities for both local and tourist commercial uses. Permitted uses include entertainment establishments, restaurants, hotels and motels, retail, and higher-intensity office uses. Development in this area should prioritize public access to the waterfront; thus, the designation allows public open space and includes open space easements to implement local and regional trail plans, recreation, and habitat preservation objectives. The BFC designation provides a mix of uses, creating a welcoming environment for Burlingame residents and tourists alike to visit, shop, eat, bike and walk, and enjoy nature. The maximum allowed floor area ratio (FAR) for the BFC land use designation is 3.0.[1]

[1] Floor area ratio (FAR) is the relationship between the total amount of usable floor area that a building has, or has been permitted to have, and the total area of the lot on which the building stands.

Land Use Policies

The General Plan includes the following goals and policies that are applicable to the proposed Project:

Chapter IV. Community Character

Goal CC-1: Incorporate sustainable practices in all development decisions.

Policy CC-1.10: Site Design. Establish sustainable site design standards that maintain and protect valuable stands of vegetation, minimize impacts of runoff to San Francisco Bay and local creeks, reduce water consumption, optimize buildings' solar orientation, and minimize the impact of new structures on wind movement.

Goal CC-5: Maintain and promote the Bayfront area as a premier destination along San Francisco Bay for land- and water-based recreation, hospitality uses, creative industries, logistics support, water-based transit service, and local businesses that benefit from proximity to San Francisco International Airport.

Policy CC-5.1: Commercial Destinations. Support and encourage commercial uses along the waterfront that enliven the area and serve as destinations for residents and visitors, including hotels, restaurants, and entertainment venues.

Policy CC-5.4: Parks and Open Space. Preserve and enhance Bayfront parks and open spaces and identify strategies to increase usage of recreational amenities.

Policy CC-5.5 Trail Connectivity. Coordinate with partner agencies to connect gaps in the Bay Trail and require new waterfront development to improve and maintain trail segments along property lines.

Goal CC-6: Establish a cohesive design character for the Bayfront area that protects views to the waterfront, encourages biking and walking, accommodates water-based recreation and ferry service, and addresses sea level rise.

Policy CC-6.1: View Preservation. Ensure that new development preserves public views to the waterfront. Consider sightlines and viewsheds from Bayfront open spaces when planning future projects.

Policy CC-6.3: Infill Development. Encourage increased intensity through high-quality infill development on surface parking lots and support the conversion of surface parking lots into active commercial and hospitality uses.

Policy CC-6.4: Design Character. Establish design standards that facilitate attractive interfaces between use types, enhance the public realm, and activate commercial districts. Prioritize pedestrian improvements and waterfront access.

Policy CC-6.5: Pedestrian and Bicycle Access. Improve pedestrian and bicycle access to the Bayfront across Highway 101 and along the Bay Trail, and identify opportunities for new bicycle and walking connections to key waterfront destinations.

Chapter V. Economic Development Element

Goal ED-1: Maintain a diversified economic base that provides a wide range of business and employment opportunities and ensures a healthy and prosperous economy for generations to come.

> ***Policy ED-1.1: Diverse Building Types and Sizes.*** Encourage development of new office, research, and technology spaces to diversify the types of businesses in Burlingame, focusing specifically on the Rollins Road, Bayfront, and downtown areas.

Goal ED-2: Cultivate a business environment that supports long-established enterprises, attracts new and emerging businesses, and provides support for synergistic business relationships and partnerships.

> ***Policy ED-2.10: Bayfront Office and Research and Development.*** Position the Bayfront area as a location for larger office-based and research and development businesses as a complement to the hospitality businesses.

Chapter VIII. Community Safety Element

Goal CS-5: Protect vulnerable areas and infrastructure from flooding related to rising sea levels in the San Francisco Bay.

> ***CS-5.3: New Development in Vulnerable Areas.*** Continue to require appropriate setback and building elevation requirements for properties located along the Bayshore, lagoons, and in other low-lying areas that are susceptible to the effects of sea level rise. Consider other strategies to support resiliency through design.

Goal CS-8: Minimize the community's exposure to aircraft safety hazards associated with San Francisco International Airport and Mills-Peninsula Medical Center.

> ***Policy CS-8.1: Land Use Safety Compatibility and Airspace Protection Criteria.*** Consider all applicable Federal statutes (including 49 U.S.C. 47107), Federal regulations (including 14 Code of Federal Regulations 77 et seq.), the Federal Aviation Administration (FAA) Airport Compliance Manual, FAA Advisory Circulars, other forms of written guidance, and State law with respect to criteria related to land use safety and airspace protection when evaluating development applications within the Airport Influence Area of the San Francisco International Airport and Mills-Peninsula Medical Center helipad.

> ***Policy CS-8.2: Airport Land Use Compatibility Plan.*** Require development projects within the Airport Influence Area designated in the Airport Land Use Compatibility Plan of the San Francisco International Airport to comply with all applicable Federal statutes (including 49 U.S.C. 47107), Federal regulations (including 14 Code of Federal Regulations 77 et seq.), the FAA's Airport Compliance Manual, FAA Advisory Circulars, other forms of written guidance, and State law with respect to criteria related to land use safety and airspace protection.

> ***Policy CS-8.3: Airport Land Use Compatibility Plan Land Use and Development Consistency.*** Ensure that all future land use actions and/or associated development conforms to the relevant height, aircraft noise, and safety policies and compatibility criteria contained in the most recently adopted version of the Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport.

Policy CS-8.4: Airport Land Use Commission Review. Ensure all applicable plans and ordinances are reviewed by the City/County Association of Governments Board of Directors, acting as the San Mateo County's Airport Land Use Commission, for a determination of consistency with the most current Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport, as required by State law.

Chapter IX. Healthy People and Healthy Places

Goal HP-7: Protect local scenic resources, and preserve views of the natural amenities in the city.

Policy HP-7.5: Connectivity to Recreational Amenities. Coordinate and identify connectivity opportunities between scenic routes and adjacent public recreation areas such as parks, scenic outlooks, and biking and hiking trails. Prioritize the development of separated bicycle lanes along scenic routes to connect with recreational trails.

City of Burlingame Zoning Ordinance

The City of Burlingame Zoning Ordinance (Title 25 of the City of Burlingame Municipal Code) is the primary tool used by the City to carry out the goals, objectives, and policies of the General Plan. The Zoning Ordinance also establishes standards such as minimum lot size, maximum building height, street setbacks, and other standards that guide development of projects in the City.

The Project site is zoned as Bayfront Commercial (BFC) under the City's Zoning Ordinance. This district allows entertainment establishments, restaurants, hotels and motels, retail, and higher-intensity office uses. The maximum permitted building height within the BFC zone is 65 feet. The BFC Zoning District allows a maximum base FAR of 1.0, referred to as Tier 1 development standards, without a Special Permit. Tier 2 and Tier 3 development standards allow for a maximum FAR of 2.0 and 3.0, respectively, with approval of a Special Permit and the provision of at least two or three, respectively, community benefits that exceed the City's normal requirements that improve the quality of life of employees, residents, and/or visitors, or assist the City in implementing an important plan or policy, as specified in Section 25.12.040, *Community Benefits for Increased FAR in the BFC and I-I Zoning Districts*, of the Zoning Ordinance.

Maximum building heights are also required to comply with Airspace Protection Policies AP-1 through AP-4 of the SFO ALUCP. This includes determining the need to file Form 7460-1, *Notice of Proposed Construction or Alteration*, with the FAA for any proposed project that would exceed the FAA notification heights as identified in the ALUCP and complying with FAA Aeronautical Study Findings.

Design Review

With specific exceptions, such as minor additions to buildings, design review is required for construction, relocation, or significant modification of any structure in the City of Burlingame. As specified in Chapter 25.68, *Design Review*, of the Zoning Ordinance, design review is a discretionary Planning Commission review process that includes public notice with a public hearing conducted as is required for all Commission actions. The primary purpose of design review is to ensure that proposed development is compatible with the physical and environmental

characteristics of the site and surrounding properties; provides for safe and convenient access and circulation for pedestrians and vehicles; is of high-quality design; and implements General Plan policies, applicable design guidelines, and any other applicable City planning-related documents.

4.10.3 Impacts and Mitigation Measures

Significance Criteria

The proposed Project would result in a significant impact related to land use and planning if it would:

a) Physically divide an established community.

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

Approach to Analysis

The analysis impacts related to land use and planning evaluates the potential for the proposed Project to result in substantial adverse effects related to land use and planning, including physical division of an established community and the potential for implementation of the proposed Project to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

While an EIR may provide information regarding land use and planning issues, CEQA does not consider inconsistency with land use plans and policies to be a physical effect on the environment unless the plan or policy was adopted for the purpose of avoiding or mitigating a significant environmental effect. Adverse physical effects on the environment that could result from implementation of the proposed Project, including the changes to land use addressed in this section, are evaluated and disclosed in the appropriate technical sections of this EIR.

Impact Analysis

Impact LU-1: The Project would not physically divide an established community. (*No Impact*)

As discussed in Section 4.10.1, *Environmental Setting*, the approximately 12-acre Project site is located in Burlingame's Bayfront area and includes several commercial buildings and a former movie theater. Existing land uses in the Project site vicinity include office, commercial, hotel, industrial, warehouse, and recreational uses. Regional access to the Project site is provided by U.S. 101. Local access is provided by Old Bayshore Highway, Broadway, and Airport Boulevard. Existing paved off-street segments of the San Francisco Bay Trail currently terminate at the northeast and southeast corners of the Project site, creating a missing link in the Bay Trail network. Currently, Bay Trail users go through the parking lot and onto the public sidewalk on Old Bayshore Highway to connect to the remainder of the trail.

As described in Chapter 3, *Project Description*, the proposed Project would demolish and remove all existing buildings and surface parking lots on the Project site and redevelop the site to include three life science and/or office buildings and two parking structures, along with site circulation, recreation, and other improvements.

Figure 3-9 in Chapter 3 illustrates the proposed vehicle circulation plan for the proposed Project, and Figure 3-10 in Chapter 3 illustrates the proposed bicycle and pedestrian circulation plan. Pedestrian access would be provided by new sidewalks on the Project site frontage and along Airport Boulevard. In addition, a new 1,475-foot segment of the Bay Trail would be extended across the Project site and connect to existing segments of the Bay Trail at the north and south ends of the Project site. Bicycle access to the Project site would be provided via internal site pathways and driveways as well as from the Bay Trail. The Project would include a pedestrian/bicycle bridge over Easton Creek and a new public trail along both sides of the Easton Creek corridor. This corridor would also provide a key pedestrian connection to/from Old Bayshore Highway. In addition, the proposed Project would extend the striped bike lane across the full length of the Project site along Old Bayshore Highway, which would consist of a Class II buffered bike lane.

While implementation of the proposed Project would result in the development of new life science and/or office uses on the Project site, these changes would not alter the physical layout such that movement within or across the Project site would be obstructed. The proposed Project also does not propose any roadways, such as freeways, that would divide established communities or isolate individual neighborhoods within the communities. The proposed Project would not create any physical barriers that would physically divide an established community. To the contrary, the proposed Project would improve vehicle, bicycle, and pedestrian connectivity to and within the Project site. Consequently, implementation of the proposed Project would have no impact related to the division of an established community.

Mitigation: None required.

Impact LU-2: The Project would not 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. (*Less than Significant*)

City of Burlingame General Plan and Zoning Ordinance

All development in the City must conform to the land use regulations and policies of the General Plan and the Zoning Ordinance. The BFC General Plan designation and zoning district permits commercial uses, including entertainment establishments, restaurants, hotels and motels, retail, and higher-intensity office uses. Policies in the BFC designation and zoning district prioritize public access to the waterfront; thus, the designation permits public open space that implements local and regional trail plans, recreation, and habitat preservation objectives.

The proposed Project would include the construction and operation of a life science and/or office development consisting of three life science and/or office buildings and two parking structures,

along with site circulation, infrastructure, recreational, and landscaping improvements. As presented in Table 3-1 in Chapter 3, *Project Description*, the proposed Project would construct three separate 11-story life science/office buildings (South, Center, and North Buildings) totaling approximately 1.42 million gross square feet (gsf), along with two parking structures totaling approximately 1.18 million gsf. The life science/office buildings would be designed to support either office or life science tenants. The proposed Project would provide for flexibility in end use and range from an overall building program of 100 percent life science use to a100 percent professional office use, or a combination thereof. The program would also include various tenant amenities and 5,000 total square feet of public café/restaurant space. The life science buildings would have a FAR of 2.71.

The BFC Zoning District allows a maximum base height of 65 feet but allows greater heights with approval of a Special Permit. The BFC Zoning District allows a maximum base FAR of 1.0, referred to as Tier 1 development standards, without a Special Permit. Tier 2 and Tier 3 development standards allow for a maximum FAR of 2.0 and 3.0, respectively, with approval of a Special Permit and the provision of at least two or three, respectively, community benefits that exceed the City's normal requirements that improve the quality of life of employees, residents, and/or visitors, or assist the City in implementing an important plan or policy.

The proposed Project would require a Special Permit for the proposed building heights of a maximum of approximately 214 feet, 6 inches; parking garage heights of 113 feet, 10 inches and 104 feet, 10 inches. The proposed Project's FAR of 2.71 also would require a Special Permit and the provision of sufficient community benefits to qualify for application of Tier 3 development standards in accordance with Section 25.12.040, *Community Benefits for Increased FAR in the BFC and I-I Zoning Districts*, of the Zoning Ordinance. The proposed Project would be consistent with all other applicable zoning regulations and development standards, including those pertaining to setbacks, parking, view corridors, lot coverage, lot frontage, minimum lot size, landscaping, and trash and loading areas. Therefore, if the City were to approve the requested Special Permit for the proposed Project's increased height and FAR, the proposed Project would be consistent with the BFC land use designation and zoning.

Finally, the proposed Project would be subject to the City's design review process, which would require a finding that the proposed Project is consistent with applicable General Plan policies, design guidelines, and any other applicable City planning-related documents prior to approval of the proposed Project.

San Francisco Bay Conservation and Development Commission and Bay Plan

As discussed in Section 4.10.2, *Regulatory Framework*, BCDC maintains jurisdiction over the 100-foot band of the Bay shoreline and Easton Creek channel portions of the Project site under the McAteer-Petris Act. The Bay Plan provides policy direction for BCDC's permit authority regarding the placement of fill; extraction of materials; determining substantial changes in use of land, water, or structures within its jurisdiction; protecting the Bay habitat and shoreline; and maximizing public access to the Bay.

As described in Chapter 3, *Project Description*, the proposed Project would include sea-level-rise, flood-control, utility, recreational, and other improvements that could be subject to BCDC permit approval. The environmental effects of the proposed Project are addressed in other technical sections in Chapter 4 of this Draft EIR, as appropriate. BCDC will consider the information and analysis presented in this Draft EIR to determine if the proposed Project is consistent with the McAteer-Petris Act and the policies and findings of the Bay Plan prior to approving BCDC permits to allow the implementation of the proposed Project. Compliance with the applicable permit requirements would ensure that the proposed Project would not conflict with BCDC plans or policies.

Airport Land Use Commission and Airport Land Use Compatibility Plan

As discussed in Section 4.10.1, *Environmental Setting*, the Project site is located approximately 0.3 mile south of the SFO south property boundary and just over one mile from the nearest SFO runway. In a letter submitted to the City of Burlingame in response to the Notice of Preparation (NOP) for this Draft EIR (included in Appendix A), SFO identified that the Project site is located within the Airport Influence Area (AIA) [2] identified in the SFO ALUCP, but the Project site is outside the noise and safety compatibility zones identified in the ALUCP, and therefore the proposed Project would not be inconsistent with the noise and safety compatibility policies adopted in the SFO ALUCP. SFO noted that, while this factor does not affect ALUCP compatibility determinations, site designers should take proximity to departing aircraft into account when planning and designing the site. SFO further noted that this determination does not waive the requirement for the proposed Project to undergo FAA review as described in 14 CFR Part 77 for both permanent Project structures and any temporary cranes or other equipment taller than the permanent Project structures required to construct those structures. Based on the information provided above and the proposed Project's required compliance with FAA FAR Part 77 height restrictions, the proposed Project would not conflict with any policies of the SFO ALUCP. See Section 4.11, *Noise and Vibration*, for additional information regarding noise and Section 4.8, *Hazards and Hazardous Materials*, for a discussion of safety compatibility.

San Francisco Bay Trail Plan

As discussed in Section 4.10.2, *Regulatory Framework*, the Bay Trail Plan, prepared by ABAG in 2015 pursuant to Senate Bill 100, guides the development of a regional hiking and bicycling trail around the perimeter of San Francisco and San Pablo Bays. Approximately 355 miles of the Bay Trail have been constructed. As provided in Section 4.10.2, *Regulatory Framework*, the Bay Trail Plan contains policies related to trail alignment, trail design, environmental protection, transportation access, and implementation.

As discussed in Section 4.10.1, *Environmental Setting*, existing paved off-street segments of the Bay Trail currently terminate at the northeast and southeast corners of the Project site, creating a missing link in the Bay Trail network. Currently, Bay Trail users go through the parking lot and onto the public sidewalk on Old Bayshore Highway to connect to the remainder of the trail.

[2] Airport Influence Area (AIA) boundaries define areas where height, noise, overflight and safety standards, policies, and criteria are applied to certain proposed land use policy actions.

As described in Chapter 3, *Project Description*, the proposed Project would include a new 1,475-foot segment of the Bay Trail that would extend across the Project site and connect to existing segments of the Bay Trail at the north and south ends of the Project site. Figure 3-10 in Chapter 3, *Project Description*, illustrates the proposed bicycle and pedestrian circulation plan for the proposed Project.

Consistent with the policies of the Bay Trail Plan, the new Bay Trail segment within the Project site would be situated as close as feasible to the shoreline, within the constraints defined by other policies of the Bay Trail Plan; would be accessible to the widest possible range of trail users; and would incorporate design guidelines for trail development recommended for application by implementing agencies, including ABAG and BCDC. Consequently, the proposed Project would not conflict with Bay Trail Plan policies or impede the planned completion of the trail. Rather, the proposed Project would eliminate a currently missing link in the Bay Trail.

Conclusion

For the reasons stated above, the proposed Project would be consistent with applicable land use plans, policies, and regulations. Consequently, impacts related to this significance criterion would be less than significant. As previously noted, CEQA does not consider inconsistency with land use plans and policies to be a physical effect on the environment unless the plan or policy was adopted for the purpose of avoiding or mitigating a significant environmental effect. Adverse physical effects on the environment that could result from implementation of the proposed Project, including the changes to land use addressed in this section, are evaluated and disclosed in the appropriate technical sections of this EIR.

Mitigation: None required.

Cumulative Impacts

This section presents an analysis of the cumulative effects of the proposed Project in combination with other past, present, and reasonably foreseeable future development that could cause cumulatively significant impacts related to land use and planning. Significant cumulative impacts related to land use and planning could occur if the incremental impacts of the proposed Project combined with the impacts of cumulative development identified in *Cumulative Impact Analysis* in Section 4.0, *Introduction to Environmental Analysis*, would result in a significant cumulative impact and if the proposed Project's contribution would be considerable. Table 4.0-1 describes, and corresponding Figure 4.0-1 illustrates the location of, the cumulative projects in the City of Burlingame considered in this EIR. This includes proposed projects currently undergoing environmental review, approved projects that are not yet constructed, and approved projects currently undergoing construction.

Impact C-LU-1: The Project, when combined with other past, present, or reasonably foreseeable projects, would not result in a significant cumulative land use and planning impact. (*Less than Significant Impact*)

As described in Chapter 3, *Project Description*, the proposed Project would include the construction and operation of a life science and/or office development consisting of three life science and/or office buildings and two parking structures, along with site circulation, infrastructure, recreational, and landscaping improvements. As described in Impact LU-1, the proposed Project would not physically divide an established community, and as described in Impact LU-2, the proposed Project would not 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. All development in the City, including the proposed Project, must be reviewed for consistency with applicable land use plans, policies, and regulations prior to approval of entitlements for development. These requirements ensure that cumulative impacts related to division of an established community or conflicts with applicable plans, policies, or regulations would be less than significant.

Mitigation: None required.

4.10.4 References

Association of Bay Area Governments (ABAG), 2022. *San Francisco Bay Trail*. Available: https://abag.ca.gov/our-work/projects/san-francisco-bay-trail.

City/County Association of Governments of San Mateo County (C/CAG), 2012. *Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport*. November 2012. Available: https://ccag.ca.gov/wp-content/uploads/2014/10/Consolidated_CCAG_ALUCP_November-20121.pdf.

City of Burlingame, 2019a. *2040 General Plan Final Environmental Impact Report*. certified by City Council January 2019. City of Burlingame, 2019. City of Burlingame, 2019b. *Burlingame General Plan*. Adopted on January 7, 2019. Available: https://www.burlingame.org/departments/planning/general_plan_update.php.

San Francisco Bay Conservation and Development Commission (BCDC), 1965. *San Francisco Bay Plan* (as amended through 2019). Available: https://www.bcdc.ca.gov/pdf/bayplan/bayplan.pdf.

4.11 Noise and Vibration

This section describes and evaluates the potential for the construction and operation of the proposed Project to result in significant noise and vibration impacts. The section contains a description of the existing local conditions of the Project site and the surrounding area; includes a summary of the applicable regulations related to noise and vibration; identifies criteria used to determine impact significance, provides an analysis of the potential noise and vibration impacts associated with the construction and operations of the Project, and identifies feasible mitigation measures that could mitigate potentially significant impacts.

4.11.1 Environmental Setting

Noise Background

Sound is characterized by various parameters that describe the rate of oscillation (frequency) of sound waves, the distance between successive troughs or crests in the wave, the speed that the sound wave travels, and the pressure level or energy content of a given sound. The sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound, and the decibel (dB) scale is used to quantify sound intensity. Because sound can vary in intensity by over one million times within the range of human hearing, a logarithmic loudness scale is used to keep sound intensity numbers at a convenient and manageable level. Since the human ear is not equally sensitive to all sound frequencies within the entire spectrum, human response is factored into sound descriptions in a process called "A-weighting," expressed as "dBA." The dBA, or A-weighted decibel, refers to a scale of noise measurement that approximates the range of sensitivity of the human ear to sounds of different frequencies. On this scale, the normal range of human hearing extends from about 0 dBA to about 140 dBA. An increase of 10 dBA in the level of a continuous noise represents a perceived doubling of loudness. The noise levels presented herein are expressed in terms of dBA, unless otherwise indicated. **Table 4.11-1** shows some representative noise sources and their corresponding noise levels in dBA (Caltrans, 2013).

Planning for acceptable noise exposure must take into account the types of activities and corresponding noise sensitivity in a specified location for a generalized land use type. Some general guidelines are as follows: sleep disturbance can occur at noise levels above 35 dBA; interference with human speech begins at about 60 dBA (FICON, 1992). Hearing damage can result from prolonged exposure to noise levels in excess of 85 to 90 dBA as an 8-hour time weighted average (NIOSH, 2018).

Attenuation of Noise

Noise from line sources, such as roadway traffic, attenuates (lessens) at a rate of 3.0 to 4.5 dBA per doubling of distance from the source, based on the inverse square law and the equation for cylindrical spreading of noise waves over hard and soft surfaces.

TABLE 4.11-1
TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT

Common Outdoor Activities	Decibels (dBA)	Common Indoor Activities
Jet Flyover at 1,000 feet	110	Rock Band
Gas Lawnmower at 3 feet	100	Very Loud
	90	
Diesel Truck at 50 feet at 50 mph	85	Food Blender at 3 feet
Near Freeway Auto Traffic	80	Garbage Disposal at 3 feet
Noisy Urban Area, Daytime	75	
Gas Lawnmower at 100 feet	70	Vacuum Cleaner at 10 feet
	65	Normal Speech at 3 feet
Commercial Area Heavy Traffic at 300 feet	60	
	55	Large Business Office
Quiet Urban Daytime	50	Dishwasher in next room
Quiet Urban Nighttime	40	Theater, Large Conference Room Background
	30	Library
Quiet Rural Nighttime	25	Bedroom at Night

SOURCE: Caltrans, 2013.

Noise from point sources, including stationary mobile sources such as idling vehicles or onsite construction equipment, attenuates at a rate of 6.0 to 7.5 dBA per doubling of distance from the source, based on the inverse square law and the equations for spherical spreading of noise waves over hard and soft surfaces. For the purposes of this analysis, it is assumed that noise from line and point sources to a distance of 200 feet attenuates at rates of between 3.0 and 6.0 dBA per doubling of the distance, and the noise from line and point sources at a distance greater than 200 feet attenuates at a rate of 4.5 to 7.5 dBA per doubling of distance, to account for the absorption of noise waves due to ground surfaces such as soft dirt, grass, bushes, and intervening structures (Caltrans, 2009).

Noise Descriptors

An individual's noise exposure is a measure of noise over a period of time. A noise level is a measure of noise at a given period of time. Community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic. What makes community noise variable throughout a day, besides the slowly changing background noise, is the addition of short-duration, single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual. These successive additions of sound to the community

noise environment change the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise effects. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below:

L_{eq}: The L_{eq}, or equivalent sound level, is used to describe noise over a specified period of time in terms of a single numerical value; the L_{eq} of a time-varying signal and that of a steady signal are the same if they deliver the same acoustic energy over a given time. The L_{eq} may also be referred to as the average sound level.

L_{max}: The maximum, instantaneous noise level experienced during a given period of time.

L_{90}: The level of noise exceeded 90 percent of the time is sometimes conservatively considered as the background ambient noise level for the purposes of assessing conformity with noise ordinance standards with respect to noise from stationary equipment or entertainment venues.

L_{dn}: Also termed the day-night average noise level (DNL), the L_{dn} is the average A-weighted noise level during a 24-hour day, obtained after an addition of 10 dB to measured noise levels between the hours of 10 PM to 7 AM to account for greater nighttime noise sensitivity.

CNEL: CNEL, or Community Noise Equivalent Level, is the average A-weighted noise level during a 24-hour day that is obtained after an addition of 5 dB to measured noise levels between the hours of 7 PM to 10 PM and after an addition of 10 dB to noise levels between the hours of 10 PM to 7 AM to account for greater noise sensitivity in the evening and nighttime, respectively.

Health Effects of Environmental Noise

The World Health Organization (WHO) is perhaps the best source of current knowledge regarding the health effects of noise impacts because European nations have continued to study noise and its health effects, while the United States Environmental Protection Agency (USEPA) all but eliminated its noise investigation and control program in the 1970s. According to WHO, sleep disturbance can occur when continuous indoor noise levels exceed 30 dBA or when intermittent interior noise levels (such as from traffic) reach 45 dBA, particularly if background noise is low. With a bedroom window slightly open (a reduction from outside to inside of 15 dB), the WHO criteria suggest that exterior continuous (ambient) nighttime noise levels should be 45 dBA or below, and short-term events should not generate noise in excess of 60 dBA. WHO also notes that maintaining noise levels within the recommended levels during the first part of the night is believed to be effective for the ability of people to initially fall asleep (WHO, 1999).

Other potential health effects of high noise levels identified by WHO include decreased performance for complex cognitive tasks, such as reading, attention span, problem solving, and memorization; physiological effects such as hypertension and heart disease (after many years of constant exposure, often of workers, to high noise levels); and hearing impairment (again, generally after long-term occupational exposure, although shorter-term exposure to very high noise levels, for example, exposure several times a year to concert noise at 100 dBA, can also

damage hearing). Finally, noise can cause annoyance and can trigger emotional reactions like anger, depression, and anxiety. WHO reports that, during daytime hours, few people are seriously annoyed by activities with noise levels below 55 dBA or moderately annoyed with noise levels below 50 dBA.

Vehicle traffic and continuous sources of machinery and mechanical noise contribute to ambient noise levels. Short-term noise sources, such as truck backup beepers, the crashing of material being loaded or unloaded, and car doors slamming contribute very little to 24-hour noise levels but are capable of causing sleep disturbance and annoyance. The importance of noise to receptors depends on both time and context. For example, long-term high noise levels from large traffic volumes can make conversation at a normal voice level difficult or impossible, while short-term peak noise levels, if they occur at night, can disturb sleep.

Vibration Descriptors

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Several different methods are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe physical vibration impacts on buildings and structures. Another useful vibration descriptor is known as vibration decibels or VdBs. VdBs are generally used when evaluating human response to vibration, as opposed to damage to structures (for which PPV is the more commonly used descriptor). Vibration decibels are established relative to a reference quantity, typically 1×10^{-6} inches per second and are based on the root mean square velocity amplitude (FTA, 2018).

Typically, groundborne vibration generated by human activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors to vibration include people (especially residents, the elderly, and sick people), structures (especially older masonry structures), and vibration-sensitive equipment.

The background vibration velocity levels in residential areas are typically 50 VdB or lower, and the threshold of perception for humans is approximately 65 VdB. A vibration level of 85 VdB in a residence can result in strong annoyance (FTA, 2018).

Existing Noise and Vibration Environment

Long-term environmental noise in urbanized areas is primarily dependent on vehicle traffic volumes and the mix of vehicle types. The existing ambient noise environment at the Project site is dominated by vehicular traffic on adjacent and nearby streets, including Old Bayshore Highway, Airport Boulevard and Broadway; vehicular traffic on U.S. Highway 101, located approximately 250 feet west of the Project site; and vehicles within the site's surface parking facilities. Additionally, intermittent aircraft operations of the San Francisco International Airport (SFO), contribute the existing noise environment; the nearest SFO runway is located just under one mile from the Project site.

Ambient Noise Measurements

Ambient long-term (24-hour) and short-term (15-minute) noise measurement data were collected in December 2022. Additionally, a long-term noise measurement was collected in 2017 in support of a previously proposed project on the Project site was used.[1]. These noise measurement locations are shown in **Figure 4.11-1**, and noise results for the short-term and long-long monitoring locations are summarized in **Table 4.11-2** and **Table 4.11-3**, respectively.

TABLE 4.11-2
SHORT-TERM AMBIENT NOISE LEVELS IN THE PROJECT SITE VICINITY

Measurement Location		Time	Noise Levels in dBA	
			L_{eq}	L_{max}
ST-1	North side of Bayside Fields in Bayside Park	11:43 AM	57.9	67.1
ST-2	Bay Trail east of One Bay Plaza office building at 1350 Old Bayshore Highway	10:56 AM	53.5	59.1
ST-3	Northeast side of 1299 Old Bayshore Highway parking lot	11:18 AM	61.9	70.8
ST-4	Northeast corner of Northpark Apartments on Cadillac Way	12:55 PM	63.9	78.0
ST-5	Northwest corner of Rhinette Avenue and California Drive	1:18 PM	63.4	76.1

NOTE: See Figure 4.11-1 for noise measurement locations. L_{eq} represents the constant sound level; L_{max} is the maximum noise level.

SOURCE: Environmental Science Associates, 2022

TABLE 4.11-3
LONG-TERM AMBIENT NOISE LEVELS IN THE PROJECT SITE VICINITY

Measurement Location		Day-Night Noise level (Ldn)	Noise Levels in dBA	
			Daytime hourly average, L_{eq}	Nighttime hourly average, L_{eq}
LT-1	Center of Project site (1310 Old Bayshore Highway) approximately 200 feet east of Old Bayshore Highway	66	62	59
LT-2	Hyatt Regency San Francisco Airport at 1333 Old Bayshore Highway	72	74	64

NOTE: See Figure 4.11-1 for noise measurement locations.

SOURCE: Environmental Science Associates 2017 and, 2022.

Short-term monitoring location ST-1 is located off-site at Bayside Fields in Bayside Park adjacent to Airport Boulevard. Short-term monitoring location ST-2 is located on-site at the entrance of the Bay Trail behind 1350 Old Bayshore Highway. Short-term monitoring location ST-3 is located at the northeast parking lot at 1299 Old Bayshore Highway (the office building at this property includes Niles College as a tenant). Long-term monitoring location LT-1 is located at the center of the Project site (1300 Old Bayshore Hwy) set back approximately 200 feet east of Old Bayshore Highway. As discussed above, the noise environment at the Project site is dominated by noise

[1] The 2017 measurement reflects roadway and air traffic patterns in the area prior to the COVID-19 pandemic and generally considered representative of baseline noise conditions.

2022\D2022002271.00 - 1200 -1340 Bayshore Hwy Project\05 Graphics-GIS-Modeling-USE AZURE\Illustrator

SOURCE: ESA, 2022; Google Earth, 2022

1200-1340 Old Bayshore Highway EIR

Figure 4.11-1
Noise Monitoring Locations

generated by vehicle traffic on adjacent roadways and U.S. 101, although transportation noise is largely reduced after 10:00 p.m. Aircraft activity associated with SFO operations also contribute intermittently to the long-term noise environment here. Noise data indicate that noise levels are generally consistent throughout the daytime and nighttime hours, respectively. Long-term monitoring location LT-2 is located at Hyatt Regency San Francisco Airport. Noise levels at the LT-1 and LT-2 monitoring locations were at or marginally in excess of 60 dBA, Ldn.

Sources of Vibration

There are no major sources of vibration in the Project site vicinity. Most motor vehicles and trucks have independent suspension systems that substantially reduce if not eliminate vibration generation, barring discontinuities in the roadway.

Sensitive Receptors

Sensitive receptors for noise are generally considered to include nursing homes, senior citizen centers, hospitals with overnight accommodations, schools, churches, libraries, and residences. Land uses in the Project site vicinity are described in additional detail in Section 4.10, *Land Use and Planning*.

There are no residential receptors in the vicinity of the Project site; the nearest existing residential uses are located approximately 1,150 feet to the south at the Northpark Apartment complex along Cadillac Way, on the west side of U.S. Highway 101. The San Francisco Bay Trail terminates on the northeast side and southeast corners of the Project site. Bayside Park is located across Airport Boulevard, approximately 130 feet to the southeast of the Project site. As indicated below under *Regulatory Framework*, the noise compatibility criteria of the City's General Plan allow for greater noise exposure for recreational uses which are considered less noise-sensitive compared to residential or scholastic land uses. As discussed above under *Ambient Noise Measurements,* several noise measurements were taken at sensitive receptors in the area, including at Bayside Park, as well as at residential uses west of U.S. 101.

Vibration sensitive receptors can include not only residences and other places where people would be expected to sleep, such as a nursing home, or hospital, but also locations where vibration-sensitive equipment may be in use such as microscopes and magnetic resonance imagery (MRI) equipment and recording studios. Vibration-sensitive receptors in the Project site vicinity consist of the noise-sensitive receptors identified above. Older structures, especially those constructed of masonry, are also sensitive to vibration.

4.11.2 Regulatory Framework

State

State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are collectively known as the California Noise Insulation Standards and are found in Title 24 of the California Code of Regulations.

The 2022 California Building Code includes sound transmission standards which (CBC, Title 24, Part 2 of the California Code of Regulations) require that walls and floor/ceiling assemblies separating dwelling units from each other, or from public or service areas, have a Sound Transmission Class (STC) of at least 50, meaning they can reduce noise by a minimum of 50 dB.[2] The CBC (Section 1207.4, Allowable Interior Noise Levels) also specifies a maximum interior noise limit of 45 dBA (Ldn or CNEL) in habitable rooms, and requires that common interior walls and floor/ceiling assemblies meet a minimum STC rating of 50 for airborne noise.

City/County Association of Governments of San Mateo

The Project site is approximately 0.3-mile southeast of the SFO property boundary and, as noted above, approximately 1 mile from the nearest SFO runway. The City/County Association of Governments of San Mateo (C/CAG) is the designated Airports Land Use Commission (ALUC) in San Mateo County, and develops and implements the *San Mateo County Comprehensive Airport Land Use Plan for the Environs of San Francisco International Airport* (ALUCP). The SFO ALUCP applies to areas that are located within the Airport Influence Area (AIA) boundary established and defined by the ALUCP. AIA boundaries define areas where height, noise, overflight and safety standards, policies, and criteria are applied to certain proposed land use policy actions. The Project site is located inside the AIA Area B.

In accordance with guidance provided in FAR Part 150, the ALUCP includes Noise Exposure Maps that depict CNEL noise contours of CNEL 65 dBA, 70 dB and 75 dB. The Project site is located outside the 65 dBA CNEL contour (SFO, 2012).

City of Burlingame

City of Burlingame General Plan

Land Use Compatibility Guidelines for Community Noise

The Community Safety Element of the *Burlingame General Plan* contains noise/land use compatibility criteria for Burlingame; these are reproduced in **Figure 4.11-2** (City of Burlingame, 2019). These noise criteria, which are similar to, but differ somewhat from, those included in state guidelines promulgated by the Governor's Office of Planning and Research, indicate maximum acceptable exterior noise levels for various newly developed land uses. The City's noise criteria lists exterior noise levels that might be inappropriate for sensitive land uses, and would therefore require additional noise insulation considerations beyond standard practices. The City identifies a range of noise levels that are considered compatible or incompatible with various land uses, the maximum "normally acceptable" noise level is 65 dBA (Ldn) for office buildings, business commercial and professional. If these uses are proposed to be located in areas with noise levels that exceed these guidelines, a detailed analysis of noise reduction requirements will normally be necessary prior to final review and approval.

[2] State Building Code section 1207.2.

FIGURE CS-2:
NOISE CRITERIA

Land Use Category	Community Noise Exposure Ldn/CNEL, dB					
	55	60	65	70	75	80
Residential – Low Density Single Family, Duplex, Mobile Homes						
Residential – Multi. Family						
Transient Lodging – Motels, Hotels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheaters						
Sports Arenas, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						
Golf Course, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Business Commercial and Professional						
Industrial, Manufacturing Utilities, Agriculture						

NORMALLY ACCEPTABLE
Specified land use is satisfactory based upon the assumption that most buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

NORMALLY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken. 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.

The northern portion of Burlingame west of Rollins Road and northwest of Mitten Road lies within the 65 CNEL noise contour, a key area where excessive noise can be a problem. Figure CS-3 identifies the projected

SOURCE: Burlingame General Plan, 2019 (Figure CS-2)

1200-1340 Old Bayshore Highway EIR

Figure 4.11-2
City of Burlingame General Plan Noise Compatibility Criteria

Noise-Related Policies

The following goals and policies of the *Burlingame General Plan* Community Safety Element relate to noise:

Goal CS-4: Protect residents and visitors to Burlingame from excessive noise and disruptive ground vibration.

Policy CS-4.3*: *Office Noise Level Standards. Require the design of new office developments and similar uses to achieve a maximum interior noise standard of 45dBA Leq (peak hour).

Policy CS-4.5*: *Noise Mitigation and Urban Design. Consider the visual impact of noise mitigation measures; require solutions that do not conflict with urban design goals and policies included in the General Plan.

***Policy CS-4.8*: *Airport Noise Evaluation and Mitigation*.** Require project applicants to evaluate potential airport noise impacts if the project is located within the 60 CNEL contour line of San Francisco International Airport (as mapped in the Airport Land Use Compatibility Plan). All projects shall be required to mitigate impacts to comply with the interior and exterior noise standards established by the Airport Land Use Compatibility Plan. Any action that would either permit or result in the development or construction of a land use considered to be conditionally compatible with aircraft noise of CNEL 65 dB or greater (as mapped in the Airport Land Use Compatibility Plan) shall include the grant of an avigation easement to the City and County of San Francisco prior to issuance of a building permit(s) for any proposed buildings or structures, consistent with Airport Land Use Compatibility Plan Policy NP-3 Grant of Avigation Easement.

Policy CS-4.9*: *Airport Disclosure Notices. Require that all new development comply with real estate disclosure requirements of State law. Section 11010 of the Business and Professions Code requires people offering subdivided property for sale or lease to disclose the presence of all existing and planned airports within two miles of the property (Cal. Bus. and Prof. Code Section 110010(b)(13). The law requires that, if the property is within an "airport influence area" designated by the airport land use commission, the following statement must be included in the notice of intention to offer the property for sale:

> *Notice of Airport in Vicinity:* This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

***Policy CS-4.10*: Construction Noise Study.** Require development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on those uses consistent with Municipal Code provisions.

***Policy CS-4.13*: Vibration Impact Assessment.** Require a vibration impact assessment for proposed projects in which heavy-duty construction equipment would be used (e.g., pile driving, bulldozing) within 200 feet of an existing structure or sensitive receptor. If applicable, require all feasible mitigation measures to be implemented to ensure that no damage or disturbance to structures or sensitive receptors would occur.

City of Burlingame Noise Ordinance

The City also addresses noise in various provisions of the Burlingame Municipal Code. These provisions are intended to implement the policies of the General Plan Community Safety Element and provide standards for noise mitigation to limit exposure to unhealthy effects of noise.

The City does not set a specific quantifiable noise level limit for construction. Rather, construction activity noise is regulated by limiting construction activity to the least intrusive periods. Thus, the City provides an exemption to the noise performance standards for construction activities under specified conditions. Municipal Code Section 18.07.110 limits the hours of construction within the Bayfront Commercial zone (which includes the Project site) to between 7:00 a.m. and 7:00 p.m. on weekdays, 9:00 a.m. and 6:00 p.m. on Saturdays, and with no construction activity on Sundays and holidays, except in circumstances where continuing work beyond legal hours is necessary to building or site integrity or in cases where it is in the interest of public health and safety, and then only with written approval of the City Building Official. However, the City prohibits the use of chainsaws, jackhammers, pile-drivers, or pneumatic impact wrenches from 7:00 a.m. to 8:00 a.m. unless written approval is granted by the City Building Official pursuant to one of the exceptions described above. Municipal Code Section 25.31.080 establishes performance standards for mechanical equipment; however, these standards only apply to residential and mixed-use development, and as a result, these standards would not apply to the proposed Project.

4.11.3 Impacts and Mitigation Measures

Significance Criteria

The proposed Project would result in a significant impact to noise and vibration if it would:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

b) Generation of excessive groundborne vibration or groundborne noise levels;

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels;

With respect to criterion a) above, this analysis applies the restrictions of the 90 dBA daytime construction noise criteria of the Federal Transit Administration (FTA) for residential uses in the assessment of construction-related noise. Additionally, an increase of 10 dBA representing a doubling of perceived loudness is also applied as an impact criterion for construction noise impact assessment, although not a regulatory threshold. With respect to criterion b) above, this analysis applies those thresholds published by Caltrans for vibration impacts that may result in building damage or human annoyance. See *Approach to Analysis*, below, for additional detail.

Approach to Analysis

Construction Noise and Vibration Assessment

Construction Noise

All construction activity for the Project would be required to be consistent with the restrictions established by Section 18.07.110 of the City of Burlingame Municipal Code which, as discussed above, limits the hours during which construction activities can occur (between the hours of 7:00 a.m. and 7:00 p.m. on weekdays, 9:00 a.m. and 6:00 p.m. on Saturdays), and prohibits the use of chainsaws, jackhammers, pile-drivers, or pneumatic impact wrenches from 7:00 a.m. to 8:00 a.m. unless written approval is granted by the City Building Official pursuant to one of the exceptions described above.

Neither the General Plan nor City codes establish a quantitative noise standard related to construction noise. In lieu of local quantitative standards for construction noise, this analysis provides a quantitative evaluation of daytime construction noise effects is based on the general assessment methodology and criteria set forth in the FTA guidelines for residential land uses which is an hourly 90 dBA L_{eq} (FTA, 2018) during daytime hours. The FTA methodology for general assessment of construction noise entails a process for calculating the hourly dBA, L_{eq} for each stage of construction considering (1) the reference noise emission level at 50 feet for equipment to be used for each stage of construction, (2) the usage factor for each piece of equipment, and (3) the distance between construction centerline and receptors. This methodology entails determining the resultant noise levels for the two noisiest pieces of equipment expected to be used in each stage of construction.

The FTA does not publish a software noise model; as such, the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) was used. The RCNM is used as the FHWA's national standard for predicting construction noise. The RCNM analysis includes the calculation of noise levels (L_{max} and L_{eq}) at incremental distances for a variety of construction equipment. The model inputs include acoustical use factors, L_{eq} values at various distances depending on the receptor location analyzed. Construction noise levels were calculated for the construction phases of the Project.

In addition to the assessment of construction noise relative to the FTA's 90 dBA L_{eq} daytime standard at residential uses, this analysis applies an increase of 10 dBA or more over existing noise levels at sensitive receptor locations to warrant the implementation of construction noise control measures. Such an increase is a perceived doubling of loudness (Caltrans, 2013).

Construction Vibration

The study area for evaluation of vibration impacts from construction encompasses the construction site and the nearest potentially affected sensitive receptors to that site. Vibration levels are predicted at various distances for equipment reasonably expected to be involved with project demolition and construction activities and impacts to receptors assessed based on methodology and criteria established by Caltrans and FTA. Construction vibration impacts are analyzed in terms of the potential of project-related vibrations to result in damage to nearby structures or

buildings, based on thresholds put forth by Caltrans (Caltrans, 2020). The Caltrans thresholds for potential architectural damage due to groundborne vibrations is 0.5 in/sec PPV for new residential structures and modern commercial buildings and 0.25 in/sec PPV for historic and older buildings. With respect to human annoyance, Caltrans considers vibrations of 0.04 in/sec PPV to be strongly perceptible and this is the threshold applied for vibration impacts during sensitive nighttime hours when people are likely to be sleeping. The threshold for vibration-sensitive equipment is 65 VdB, as published by FTA and based on the root mean square velocity amplitude (FTA, 2018).

Operational Noise Assessment

Operational Stationary Source Noise

Operational stationary sources include mechanical equipment such as heating, ventilation, and air conditioning (HVAC) equipment and backup generators. Noise levels generated from this equipment were calculated based on representative sound pressure level specifications for standard rooftop HVAC packages and generators and diagrams of the locations of HVAC units and generators. While Municipal Code Section 25.31.080 establishes performance standards for mechanical equipment, these standards only apply to residential and mixed-use development, these standards would not apply to the proposed Project. In lieu of available noise standards for commercial mechanical equipment in either the City Municipal Code or General Plan, this analysis conservatively assumes an increase of 3 dBA over existing ambient conditions to be a significant noise impact, which would be an increase defined by Caltrans to be barely perceptible to the human ear (Caltrans, 2013).

Operational Traffic Noise

Guidance on the significance of transportation-related changes to ambient noise levels is provided by the 1992 findings of the Federal Interagency Committee on Noise (FICON), which assessed the annoyance effects of changes in ambient noise levels caused by aircraft operations (FICON, 1992). The recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, they apply to all sources of transportation noise described in terms of cumulative noise exposure metrics such as the DNL.

Table 4.11-4 presents criteria based on the FICON findings, which show that as ambient noise levels increase, a smaller increase in decibel levels is sufficient to cause significant annoyance. In other words, the quieter the ambient noise level, the more the noise can increase (in decibels) before it causes significant annoyance. The 5 dBA and 3 dBA noise level increases listed in Table 4.11-4 also correlate directly with noise level increases that Caltrans considers to represent "readily perceivable" and "barely perceivable," respectively, for short-term noise increases. Thus, the significance of permanent increases in transportation noise levels is evaluated based on the increases identified in Table 4.11-4.

Traffic noise levels were modeled using the algorithms of the FHWA's Traffic Noise Prediction Model for the existing and existing plus Project and cumulative plus Project scenarios. The resulting noise levels were then compared to existing modeled conditions, to determine significance relative to the thresholds presented in Table 4.11-4.

TABLE 4.11-4
MEASURES OF A SUBSTANTIAL INCREASE IN TRANSPORTATION NOISE EXPOSURE

Ambient Noise Level without Project (DNL)	Significant Impact Assumed to Occur if Project Development Increases Ambient Noise Levels by:
<60 dB	+ 5.0 dB or more
60–65 dB	+ 3.0 dB or more
>65 dB	+ 1.5 dB or more[a]

NOTES:
dB = decibels; DNL = day-night average noise level

[a] According to the Federal Interagency Committee on Noise report, the 1.5 A-weighted decibel (dBA) increase in environments that exceed 65 dBA is not necessarily a significant increase but, rather, an increase warranting further investigation.

SOURCE: Federal Interagency Committee on Noise, *Federal Agency Review of Selected Airport Noise Analysis Issues*, August 1992.

Impact Analysis

Impact NOI-1: Construction activities under the Project would not generate a substantial temporary increase in ambient noise levels in the vicinity of the Project site in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Less than Significant*)

Construction activities for the Project would include site clearing, excavation, and grading activities, building construction, and hardscape and landscape material installation. Equipment involved with excavation, grading and construction at the Project site would include excavators, graders, backhoes, dozers, front-end loaders, drilling rigs, cranes, pavers, rollers, forklifts, generator sets, welders, and trucks for delivering materials and for off-hauling demolition debris. No impact pile driving or blasting activities are proposed during construction of the Project. However, sheet piles would be installed using a drilled, cast-in-place method, such as auger-cast or torquedown piles, or a vibratory hammer suspended from a crane for sheet piles comprising portions of the proposed sea wall.

For informational purposes, **Table 4.11-5** shows typical noise levels produced by various types of construction equipment that are likely to be involved with construction of the Project that would occur at a reference distance of 50 feet from the source. Noise levels at and near the Project construction site would fluctuate depending on the particular type, number and duration of uses of various pieces of construction equipment at any given time.

In addition to estimating the noise increases from the operation of individual pieces of equipment as reported in the table above, the total increase in noise from the concurrent/overlapping operation of several pieces of equipment was calculated for major construction phases of the proposed Project. The FHWA RCNM was used to estimate noise generated by the Project construction activities. Construction noise levels were calculated for each stage of construction based on the equipment list provided by the client. Distances to receptors input into the model include elevation gains as well as lateral distance, but conservatively the model does not consider any shielding attenuation from intervening topography.

TABLE 4.11-5
TYPICAL NOISE LEVELS FROM CONSTRUCTION EQUIPMENT

Construction Equipment	Noise Level (dBA, Lmax at 50 Feet)
Dump truck	77
Air compressor	78
Crane	81
Forklift (gradall)	83
Grader	85
Scraper	84
Excavator	81
Dozer	82
Paver	77
Generator	81
Tractor	84
Backhoe	78
Concrete Saws	90
Welder	74
Off-highway Truck	85

SOURCE: FHWA, 2006.

Table 4.11-6 presents the results of the RCNM modelling of various Project construction stages showing the predicted noise levels at the nearest off-site sensitive land use. The nearest residential sensitive receptor to the Project site is the Northpark Apartment complex on Cadillac Way, approximately 1,150 feet south of the Project site; and residences on California Drive are located as close as 1,650 feet southwest of the Project site. Predicted noise values in Table 4.11-6 represent a worst-case analysis when equipment is in operation at the point of the construction site closest to the sensitive receptors, as this would occur only for a relatively short percentage of the overall construction period. As can be seen in Table 4.11-6, noise levels generated during Project construction activities at the closest sensitive receptors would be below the FTA daytime criteria of 90 dBA Leq for residential uses. Additionally, construction-related noise would increase noise levels at the nearest noise sensitive land uses by less than 10 dBA. Therefore, the temporary increase in ambient noise levels would cause a less-than-significant impact.

As described in Chapter 3, *Project Description*, all construction staging laydown and worker parking would occur on the Project site, with the exception being during a portion of Phase 3, when an off-site laydown area and/or parking may be used, if available. Construction haul trucks traveling to and from Project site and staging areas would typically access regional transportation facilities at the nearby U.S. 101 ramps on Old Bay Bayshore Highway and Broadway, and consequently, would not increase noise levels along local roadways near noise-sensitive receptors. Therefore, Project haul trucks are not expected to generate noise impacts to noise-sensitive land uses.

TABLE 4.11-6
DAYTIME NOISE LEVELS FROM CONSTRUCTION FOR PROPOSED PROJECT

Representative Receptor	Existing Daytime Noise Level (dBA L_{eq})	Loudest Two Noise Sources	Reference Noise Level (dBA)[a]	Distance to Receptor[b] (feet)	Usage Factor (%)	Adjusted L_{eq} Level (dBA)[c]	Exceed 90 dBA L_{eq} Daytime Standard?	Resultant Noise Level (dBA)[d]	Increase over Noise Level (dBA)
Demolition (Phase 1 only)									
Northpark Apartments	63.9	Concrete/Industrial Saw, Rubber Tired Dozer	89.6	1,150	20 / 40	56.6	No	64.3	0.4
California Drive Residences	63.4	Concrete/Industrial Saw, Rubber Tired Dozer	89.6	1,650	20 / 40	53.4	No	63.7	0.4
Site Preparation									
Northpark Apartments	63.9	Concrete/Industrial Saw, Tractors/Loaders/Backhoes	89.6	1,150	40 / 40	54.8	No	64.2	0.3
California Drive Residences	63.4	Concrete/Industrial Saw, Tractors/Loaders/Backhoes	89.6	1,650	40 / 40	51.7	No	63.7	0.3
Grading									
Northpark Apartments	63.9	Grader, Tractors/Loaders/ Backhoes	85.0	1,150	40 / 40	56.3	No	64.3	0.4
California Drive Residences	63.4	Grader, Tractors/Loaders/ Backhoes	85.0	1,650	40 / 40	53.2	No	63.7	0.4
Building Construction[e]									
Northpark Apartments	63.9	Vibratory Hammer, Tractors/Loaders/Backhoes	100.8	1,810 / 1,150	20 / 40	63.1	No	66.6	2.7
California Drive Residences	63.4	Vibratory Hammer, Tractors/Loaders/Backhoes	100.8	1,820 / 1,650	20 / 40	62.8	No	66.1	2.7
Paving									
Northpark Apartments	63.9	Paver, Roller	80.0	1,150	50 / 20	49.4	No	64.0	0.1
California Drive Residences	63.4	Paver, Roller	80.0	1,650	50 / 20	46.3	No	63.5	0.1
Landscaping									
Northpark Apartments	63.9	Other Lawn and Garden Equipment	85.0	1,150	50 / 50	57.8	No	63.9	0.5
California Drive Residences	63.4	Other Lawn and Garden Equipment	85.0	1,650	50 / 50	54.6	No	63.9	0.5
Architectural Coating									
Northpark Apartments	63.9	Air Compressor	77.7	1,150	40	46.5	No	63.9	0.0
California Drive Residences	63.4	Air Compressor	77.7	1,650	40	43.3	No	63.9	0.0

TABLE 4.11-6 (CONTINUED)
DAYTIME NOISE LEVELS FROM CONSTRUCTION FOR PROPOSED PROJECT

NOTES:

dBA = A-weighted decibels; L_{eq} = equivalent sound level; NA = not applicable

[a] The instantaneous maximum noise level (L_{max}) at 50 feet.
[b] Distance between the approximate location of equipment and the property line of the sensitive receptor.
[c] The L_{eq} level is adjusted for distance and percentage of usage.
[d] The resultant noise level is the logarithmic sum of the existing noise level and the contribution (adjusted) noise level from construction.
[e] Noise from the vibratory hammer is measured from Easton Creek, which is the closest distance to the nearest residential receptors

SOURCE: FHWA. 2006. Roadway Construction Noise Model User Guide; data compiled by Environmental Science Associates, 2023

Mitigation: None required.

Impact NOI-2: Implementation of the Project would not generate substantial permanent increases in ambient noise levels in the vicinity of the Project site in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Less than Significant*)

Stationary Noise Sources

Operation of the Project would increase ambient noise levels in the immediate Project site vicinity primarily associated with the operation of new building stationary equipment, such as HVAC systems and emergency generators. In lieu of available noise standards for commercial mechanical equipment in either the City Municipal Code or General Plan, this analysis conservatively assumes an increase of 3 dBA over existing ambient conditions to be a significant noise impact, which would be an increase defined by Caltrans to be barely perceptible to the human ear.

Based on preliminary site plans provided by the Project applicant, HVAC equipment (air handling units and chiller rooms) would be mounted on the life science/office building rooftops. Rooftop HVAC equipment would be located within enclosures to provide both noise attenuation and weather protection. Operational noise from the proposed HVAC/chiller rooms was conservatively modeled using HVAC equipment locations indicated in the site plans and all HVAC units were assumed as a point source (see **Appendix NOI**). Modeled noise from proposed HVAC/chiller rooms are predicted to be 43.5 dBA without acoustical treatment at the nearest sensitive residential receptors (Northpark Apartments on Cadillac Way). As shown in Table 4.11-2, the existing ambient noise level at the nearest receptor is 63.9 dBA. Given the substantial distance of the nearest residential receptors from the Project site buildings, the contribution of noise from proposed building HVAC equipment would not meaningfully (less than 0.1 dBA) increase noise levels at the nearest residential uses. Because the increase in noise would be less than 3 dBA, the impact of HVAC operations would be less than significant.

Regular maintenance operation testing of the Project building and parking structure emergency standby generators would occur for approximately one hour per week (50 hours annually). These emergency generators are proposed to be located within enclosed rooms on each of the buildings' ground floors (Level 1). The emergency generator noise from the Project was conservatively modeled assuming operation of the Project emergency generator unit located closest to the nearest off-site sensitive residential receptors (i.e., generator in the South Building) (see Appendix NOI) and conservatively did not account for noise reduction that would be afforded by their enclosures. Modeled noise levels from operation of this generator is predicted to be 46.3 dBA at the nearest residential receptor. As shown in Table 4.11-2, the existing ambient at the nearest receptor is 63.9 dBA, resulting in a less than 0.1 dBA increase. Given the substantial distance of the nearest residential receptors from the Project site buildings, the contribution of emergency generator noise would not increase noise levels by 3 dBA and would, therefore, be less than significant.

Operational Traffic Noise Increases

Operation of the Project would be considered to generate a significant impact if it resulted in a permanent increase in ambient noise levels greater than 3 dBA above levels existing without the Project for areas already impacted by noise and a 5 dBA increase at receptors where the noise compatibility standard is being met. As discussed under *Approach to Analysis*, increases in traffic noise levels were determined for this analysis using the FHWA Traffic Noise Prediction Model. Peak-hour turning movement volumes for the Existing, Existing plus Project, and Cumulative plus Project conditions provided by the transportation consultant traffic study[3] were analyzed to evaluate traffic-generated noise increases on roadway segments most affected by Project-related traffic. The roadway segments analyzed and the modeled noise levels are presented in **Table 4.11-7**. Table 4.11-7 shows existing roadside traffic noise levels, whether those levels already exceed noise compatibility standards, and the applicable increase in noise used as the threshold. All roadways are assumed to be flanked by residential receptors, which is the use with the most stringent standard for land use noise compatibility.

TABLE 4.11-7
PEAK-HOUR TRAFFIC NOISE LEVELS IN THE VICINITY OF THE PROJECT SITE (dBA)

Roadway Segment[a,b]	(A) Existing	Does Existing Noise Exceed Residential Compatibility Standard?	Applicable Significance Threshold	(B) Existing Plus Project	(B-A) Difference between Existing Plus Project and Existing[c]	(D) Cumulative Plus Project (2050)	(D-A) Difference between Cumulative Plus Project and Existing
Old Bayshore Highway between proposed Project North Driveway and US 101 NB On/Off Ramp	68.9	Yes	>3 dBA increase in an area >60 dBA Ldn	70.4	1.5	70.5	+1.6
Old Bayshore Highway between US 101 NB Off-Ramp and Broadway/Airport Boulevard	70.5	Yes	>3 dBA increase in an area >60 dBA Ldn	71.6	1.1	71.8	+1.3
Broadway between Old Bayshore Highway and Rollins Road	70.7	Yes	>3 dBA increase in an area >60 dBA Ldn	71.9	1.2	73.2	+2.5
Broadway between US 101 SB On/Off Ramp and Rollins Road	72.3	Yes	>3 dBA increase in an area >60 dBA Ldn	72.5	0.2	73.0	+0.7
Rollins Road between Cadillac Way and Broadway	67.3	Yes	>3 dBA increase in an area >60 dBA Ldn	67.3	0	67.8	+0.5
Airport Boulevard between Anza Boulevard and Old Bayshore Highway	66.0	Yes	>3 dBA increase in an area >60 dBA Ldn	66.0	0	68.9	+2.9

NOTES:
[a] Road center to receptor distance is 15 meters (approximately 50 feet) for all roadway segments. Noise levels were determined using algorithms of the FHWA Traffic Noise Prediction Model.
[b] The analysis considered the vehicle mix based on – cars 95 percent, medium trucks three percent, and heavy trucks two percent on observed city and para-transit bus activity. Traffic speeds for all vehicle classes were set at 35 mph for all vehicle classes.

SOURCE: ESA, 2023

[3] Because average daily traffic volumes and nighttime fraction data are not available for all the roadways analyzed, calculation of an Ldn value from available traffic volume data is speculative. This analysis uses peak hour Leq to determine the existing and with project noise levels. Caltrans recognizes that the Ldn is typically approximately equal to the peak hour Leq (Caltrans, 2013).

As shown in Table 4.11-7, the increase in peak hour traffic noise in the vicinity of the Project site for the Existing Plus project traffic scenario compared to the Existing traffic scenario would be less than 3 dBA on all roadway segments. Accordingly, the Project impact to increases in operational traffic noise on study area roadways would be less than significant.

Mitigation: None required.

Impact NOI-3: Construction activities for the Project and related improvements would not result in generation of excessive groundborne vibration or groundborne noise levels. (*Less than Significant*)

The types of construction-related activities associated with propagation of ground-borne vibration would primarily include the use of vibratory rollers for compacting, vibratory hammer for sheet piles, and drilling for pile installation. As discussed in Impact NOI-1 above, no impact pile driving or blasting activities are proposed during construction of the Project. However, piles would be installed using a drilled, cast-in-place method, such as auger-cast or torquedown piles, or a vibratory hammer suspended from a crane for sheet piles comprising portions of the proposed sea wall.

As discussed under *Approach to Analysis*, the Caltrans thresholds for potential architectural damage due to groundborne vibrations is 0.5 in/sec PPV for new residential structures and modern commercial buildings and 0.25 in/sec PPV for historic and older buildings. A matrix of typical vibration levels from various construction activities with distance is presented in **Table 4.11-8**. As can be seen from Table 4.11-8, use of a vibratory hammer as close as 25 feet from a non-historic building would be above the threshold for structural damage. There are no historic structures located within the vicinity of the Project construction site.

TABLE 4.11-8
VIBRATION LEVELS FOR CONSTRUCTION ACTIVITY

Equipment	Estimated PPV (inches per second)			
	At 25 Feet (reference)	At 75 Feet	At 130 Feet	At 190 Feet
Jack Hammer	0.035	0.007	0.003	0.002
Loaded Trucks	0.076	0.015	0.006	0.004
Caisson Drilling	0.089	0.017	0.008	0.004
Large Bulldozer	0.089	0.017	0.008	0.004
Vibratory Roller	0.21	0.04	0.018	0.01
Vibratory Hammer	0.65	0.125	0.055	0.031

SOURCE: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, 2018 and Caltrans, 2020.

The likely use of a vibratory hammer for the installation of sheet piles for the proposed sea wall along Easton Creek and the Bay would be expected to generate the highest vibration levels during Project construction. According to the Caltrans *Transportation and Construction Vibration Manual*, both impact pile driving and vibratory pile driving typically generate vibration levels of

0.65 inch/second PPV at a distance of 25 feet (Caltrans 2020). The closest existing off-site building to Project construction activities that would involve vibratory pile driving is the 1299 Old Bayshore Highway building, approximately 190 feet southwest Easton Creek on the Project site. The 1299 Old Bayshore Highway building would be exposed to a vibration level of 0.031 inch/second PPV, which is well below the applicable human annoyance (0.04 inch/second PPV) and building damage (0.50 inch/second PPV) thresholds. The next closest building would be the One Bay Plaza Building at 1350 Old Bayshore Highway, approximately 275 feet west of the limits of where Project piles may be installed along the bay shoreline. Since this distance is further than that of the 1299 Old Bayshore Highway building, the vibration level at this building would also be below the applied human annoyance and building damage threshold. Accordingly, Project impacts from vibratory pile driving on nearby buildings during construction would be less than significant.

The use of a vibratory roller would be the second highest contributor of vibration during Project construction. The nearest existing off-site building, One Bay Plaza located at 1350 Old Bayshore Highway, is approximately 75 feet from the nearest construction area for the Project where a vibratory roller could be used. A vibratory roller typically generate vibration levels of 0.04 inch/second PPV at a distance of 75 feet (see Table 4.11-8 above) and at this distance vibration levels are well below the applied human annoyance and building damage threshold for the building at 1350 Old Bayshore Highway. Project vibration levels from use of a vibratory roller at other nearby but further set back buildings would be similar to or less than that estimated for the 1350 Old Bayshore Highway building. Accordingly, Project impacts from vibratory roller use on nearby buildings during construction would be less than significant.

Mitigation: None required.

Impact NOI-4: The Project is located within an airport land use plan but would not expose people residing or working in the Project area to excessive noise levels? *(Less than Significant)*

As discussed in the 4.11.2, *Regulatory Setting*, The Project site is approximately 0.3-mile southeast of the SFO property boundary, approximately 1 mile from the nearest SFO runway. The Project site is located inside SFO AIA Area B. The FAA considers all land uses to be compatible when aircraft noise effects are less than 65 decibels (dB) CNEL. The Project site is located outside the 65 dB CNEL noise contour of airport operations (SFO, 2012). As such, no exceedances of FAA criteria within the Project site would occur, and the impact would be considered less than significant.

Mitigation: None required.

Cumulative Impacts

Impact C-NOI-1: Implementation of the Project, combined with cumulative construction noise in the Project area, would not generate a substantial temporary increase in ambient noise levels from construction activity in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Less than Significant*)

The geographic scope of analysis for cumulative noise and vibration construction impacts encompasses sensitive receptors within approximately 1,000 feet of the project site. This screening threshold distance was developed based on equations for stationary-source noise attenuation (California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, September 2013). The analysis also used the combined noise level generated by the typical construction phases for a given project assuming multiple pieces of equipment. Using the attenuation equations, the maximum noise level for both excavation and finishing would diminish to below 65 dBA at 1,000 feet. While the City does not have a quantitative threshold for construction, as shown in Table 4.11-1, a noise level of 65 dBA is consistent with normal speech at 3 feet and would be considered an acceptable outdoor noise level exposure during daytime hours.

Beyond 1,000 feet, the contributions of noise from other projects would be greatly attenuated through both distance and intervening structures and their contribution would be expected to be minimal. Section 4.0, *Introduction to Environmental Analysis*, presents the list of reasonably foreseeable future projects in the Project vicinity that could contribute to cumulative construction noise impacts. There are no reasonably foreseeable cumulative construction projects within the 1,000--foot geographic scope of the cumulative construction analysis. The nearest cumulative project at 1095 Rollins Road is over 1,000 feet from the Project site and, based on field observations, has already completed its vertical construction phase. Therefore, cumulative construction noise impacts would be less than significant.

Mitigation: None required.

Impact C-NOI-2: Implementation of the Project, combined with cumulative development in the project area, would not generate substantial permanent increases in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Less than Significant*)

Because operational noise is generally less impactful than construction noise, the same 1,000-foot geographical scope of analysis for cumulative construction noise may also conservatively be applied to operational noise from stationary sources. There are no reasonably foreseeable cumulative projects within the geographic scope of the Project that would generate substantial operational noise and, consequently, cumulative operational noise impacts from stationary sources would be less than significant. Implementation of the Project combined with cumulative development in the Project area could contribute to an increase in average daily noise levels of 3 dBA or more at property lines, if ambient noise levels in areas adjacent to proposed

development already exceed local noise levels set forth in local general plans or ordinances for such areas based on their use. As shown in Table 4.11-7 above, the increase in peak hour traffic noise in the vicinity of the Project site from the Existing Plus Cumulative traffic scenario compared to the Existing traffic scenario would be less than significant.

Mitigation: None required.

Impact C-NOI-3: Implementation of the Project, combined with cumulative construction in the Project area, would not result in generation of excessive groundborne vibration or groundborne noise levels. (*Less than Significant*)

Because groundborne vibration attenuates with distance much more rapidly than airborne noise, the same 1,000-foot geographical scope of analysis for cumulative construction noise may also conservatively be applied to construction vibration. There are no reasonably foreseeable cumulative projects within the geographic scope of the Project that would generate substantial construction vibration and, consequently, cumulative construction vibration impacts would be less than significant.

Further, vibration impact analysis is based on instantaneous PPV levels and worst-case groundborne vibration levels from construction are generally determined by whichever individual piece of equipment generates the highest vibration levels. Unlike the analysis for average noise levels, in which noise levels of multiple pieces of equipment can be combined to generate a maximum combined noise level, instantaneous PPV levels do not combine in this way. As described under the project-level construction vibration impact, the vibration levels from construction of the proposed Project would be well below the human annoyance thresholds. Vibration from construction of other cumulative projects, even if those projects are located in close proximity to the proposed Project and another structure, would not combine to raise the maximum PPV because there would be a substantial unlikelihood of simultaneous vibration peaks from separate construction sites. For these reasons, the impact of construction vibration from construction of cumulative projects located near the proposed Project would be highly localized and would not be anticipated to combine to further increase vibration levels. Therefore, cumulative groundborne vibration impacts would be less than significant.

Mitigation: None required.

4.11.4 References

California Department of Transportation (Caltrans), 2009. *Technical Noise Supplement*, November 2009. Available at: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf. Accessed January 27, 2023.

Caltrans. 2020. Transportation and Construction Vibration Guidance Manual. April 2020.

Caltrans, 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

City of Burlingame, 2019. *Envision Burlingame* (General Plan), Community Safety Element Noise.

City of Burlingame, 2002. City of Burlingame Municipal Code, Chapter 10.40 (2002) and 25.58, (2017).

Federal Highway Administration (FHWA), 2006. *Roadway Construction Noise Model User Guide*, 2006.

Federal Transit Administration (FTA), 2018. Transit Noise and Vibration Impact Assessment.

Federal Interagency Committee on Noise (FICON). 1992 (June). Federal Agency Review of Selected Airport Noise Analysis Issues. August 1992.

Kinsler, Lawrence E., Frey, A.R., Coppens, A.B., and Sanders, J.V., 1982. *Fundamentals of Acoustics*, Third Edition.

National Institute on Occupational Health and Safety (NIOSH), 2018. Preventing Hearing Loss by Chemical and Noise Exposure, March 2018. Available on-line at: https://www.cdc.gov/niosh/topics/noise/default.html. Accessed January 27, 2023.

U.S. Environmental Protection Agency (U.S. EPA), 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, March 1974, Available at: https://nepis.epa.gov/Exe/ZyPDF.cgi/2000L3LN.PDF?Dockey=2000L3LN.PDF. Accessed August 2021.

World Health Organization, 1999. Guidelines for Community Noise, Geneva. Available at: https://apps.who.int/iris/handle/10665/66217?show=full. Accessed January 27, 2023.

San Francisco International Airport (SFO), 2012. *Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport*, July 2012.

United States Department of Housing and Urban Development (HUD), 1985. *The Noise Guidebook*.

4.12 Population and Housing

This section provides background information on existing and projected population, employment, and housing conditions in the City of Burlingame; provides a regulatory framework that discusses applicable State and local regulations; and evaluates the potential for the Project to induce substantial unplanned population growth or displace substantial existing people or housing. Primary information sources used to prepare this section include, but are not limited to, the Burlingame General Plan, including its recent Housing Element update, Association of Bay Area Governments (ABAG) data, and U.S. Census Bureau data.

4.12.1 Environmental Setting

Existing Conditions

The proposed Project site is located along the Burlingame bayfront at 1200-1340 Old Bayshore Highway. There are eight existing buildings on the Project site, totaling approximately 247,466 square feet. They include several one- to three- story commercial buildings and a former movie theater. These buildings are presently occupied by a few businesses, including professional offices, a hotel, an ambulance service, and restaurants. Based on a field visit in December 2022, some of the Project site buildings were observed to be partially or fully vacant, and two of the Project site buildings (1310 and 1338-1340 Old Bayshore Highway) were boarded up. Land uses in the Project site vicinity consist primarily of commercial office, light industrial, hotel, warehouse, and open space uses.

Population

Burlingame's population has been growing, but less than the Bay Area region overall with 7 percent growth in the city from 2000 to 2020, compared to 9 percent for the county and 15 percent for the Bay Area. This increase throughout the region is mostly due to natural growth and the strong economy drawing new residents to the region. As of the 2020 Census, there was an estimated 31,386 people living in Burlingame (City of Burlingame, 2023; U.S. Census Bureau, 2020).

Despite these measures of growth, the region as a whole is projecting population growth in the coming decades, and a share of this growth will be accommodated in Burlingame. ABAG in conjunction with the Metropolitan Transportation Commission (MTC), routinely prepares population, household, and employment forecasts. *Plan Bay Area Projections 2040* presents projected growth of the San Francisco Bay Area, its nine counties, and individual cities and smaller geographic areas. The projections are based on assumptions about the U.S. economy and demographic change, how different economic sectors will grow and change, and the region's success in meeting the housing investment strategies as encouraged by the Plan Bay Area (ABAG, 2018).

Table 4.12-1 presents population projections for the City (based on buildout of the *Burlingame General Plan*), county and Bay Area between 2020 and 2040. In support of the *Burlingame*

General Plan, the City projected its 2040 buildout population to be approximately 36,500. This population projection was approximately 10 percent greater than the growth forecasted by ABAG in its *Plan Bay Area Projections 2040*. As indicated in Table 4.12-1, the percentage of population growth in both the city and county is projected to be below regional (Bay Area) projections for 2040.

TABLE 4.12-1
POPULATION PROJECTIONS—2020 TO 2040

Area	2020	2040	Growth (2020-2040)
City	31,386[a]	36,500[b]	5,114 (16%)
County	796,925[c]	916,590[c]	119,665 (15%)
Bay Area	7,920,230[c]	9,652,950[c]	1,732,720 (22%)

NOTES:
[a] U.S. Census Bureau, 2020.
[b] City of Burlingame, *Burlingame 2040 General Plan Final EIR*, certified 2019.
[c] ABAG, *Plan Bay Area Projections 2040*, November 2018.

SOURCES: U.S. Census, 2020; ABAG, 2018; City of Burlingame, 2019b.

Housing

In past decades, the total number of housing units in the city has remained fairly stable. The number of new homes constructed in Burlingame increased 0.8 percent between 2010 and 2020, which is substantially below the housing growth rate for the county and the Bay Area overall (4 percent and 5 percent, respectively). However, the pace of housing construction has increased in recent years. Housing growth has primarily been attributable to infill on redeveloped commercial sites resulting from additional zoning capacity identified in Downtown and in the North Burlingame and North Rollins Road areas (City of Burlingame, 2023).

As of the 2020 Census, there was an estimated 13,170 housing units in Burlingame (U.S. Census Bureau, 2020). According to ABAG, in 2020, there was an average of 2.32 persons per household in Burlingame in 2020 (ABAG, 2018). In 2020, the City had a homeowner vacancy rate of 0.0 and a rental vacancy rate of 4.9 (City of Burlingame, 2023).

Table 4.12-2 presents housing and/or household projections for the city (based on buildout of the *Burlingame General Plan*), county and Bay Area between 2020 and 2040. The *Burlingame General Plan* projected a total of 16,065 housing units in the city to accommodate its 2040 buildout population. As indicated in Table 4.12-2, the City General Plan housing growth rate exceeds ABAG's percentage of household growth rate for the county and Bay Area between 2020 and 2040.

The *Burlingame General Plan,* adopted in 2019, reflected updates to all elements of the General Plan, except for the Housing Element, which had been previously updated in 2015. The *City of Burlingame 2023-2031 Housing Element,* is an update of the City's 2015-2023 Housing Element and was submitted to HCD on February 17, 2023 and is pending HCD Certification, after which time the City Council will adopt.

TABLE 4.12-2
HOUSING/HOUSEHOLD PROJECTIONS—2020 TO 2040

Area	2020	2040	Growth (2020-2040)
City	13,170[a]	16,065[b]	2,895 (22%)
County	284,260[c]	317,965[c]	33,705 (12%)
Bay Area	2,881,965[c]	3,426,700[c]	544,735 (19%)

NOTES:
[a] U.S. Census Bureau, 2020 (housing units reported).
[b] City of Burlingame, *Burlingame 2040 General Plan Final EIR*, certified 2019 (housing units reported).
[c] ABAG, *Plan Bay Area Projections 2040*, November 2018 (households reported).

SOURCES: U.S. Census, 2020; ABAG, 2018; City of Burlingame, 2019b.

ABAG has the responsibility of projecting the housing needs for the 2023-2031 period based on factors identified in State law. The eight-year housing need numbers include market rate housing as well as units for those with lower incomes. The projected need number is the number of dwelling units needed to provide for the total expected household growth and Burlingame's share of the projected regional housing need. The projected need number for the planning period 2023-2031 for Burlingame is 3,257 dwelling units (City of Burlingame, 2023).

Employment

Burlingame is characterized by high-resourced neighborhoods, where residents have good access to employment opportunities. In Burlingame, there are 16,209 employed residents and 30,170 jobs, resulting in a jobs-to-employed-residents ratio of 1.86 (see additional discussion of this below, under *Jobs-Housing Relationship*). As of January 2021, Burlingame's unemployment rate was 4.5 percent, which was lower than the regional unemployment rate of 6.6 percent and its COVID-19 pandemic-related high rate of 9.9 percent in April 2020. Burlingame's pre-pandemic unemployment rate was 2.2 percent (January 2020) (City of Burlingame, 2023).

Table 4.12-3 below displays a summary of employment projections for the city (based on buildout of the *Burlingame General Plan*), county and Bay Area between 2020 and 2040. Over this 20-year period, the number of jobs in the City of Burlingame is projected to increase because of employment increases in the professional and financial services, health care, education, government and construction sectors. Decreases are projected in the manufacturing, wholesale, and transportation sectors. Growth in Burlingame's retail sector in is projected to remain relatively stable (ABAG, 2018). As shown in Table 4.12-3, job growth in the city (31 percent) is expected to be higher than job growth in the County (18 percent) and the Bay Area (14 percent).

As of 2019, approximately 11 percent of employees worked and lived in Burlingame, while 21 percent worked in other cities around San Mateo County, 22 percent worked in San Francisco, 13 percent worked in Santa Clara County, and the remainder worked in other locations (U.S. Census, 2019).

TABLE 4.12-3
EMPLOYMENT PROJECTIONS—2020 TO 2040

Area	2020	2040	Growth (2020-2040)
City	30,170[a]	39,610[b]	9,440 (31%)
County	399,415[c]	472,340[c]	72,925 (18%)
Bay Area	4,136,190[c]	4,698,375[c]	562,185 (14%)

NOTES:
[a] U.S. Census Bureau, 2020
[b] City of Burlingame, *Burlingame 2040 General Plan Final EIR*, certified 2019.
[c] ABAG, *Plan Bay Area Projections 2040*, November 2018.

SOURCES: U.S. Census, 2020; ABAG, 2018; City of Burlingame, 2019b.

While there are several different commercial businesses currently operating on the Project site, as noted above, some building space was observed to be vacant. Operation of existing land uses on the Project site currently involves approximately 83 employees.

Job-Housing Relationship

The term "jobs/housing balance" is used to describe the ratio of employed residents to the number of jobs in the city.[1] This ratio is used as one indicator of the potential degree of in- and out-commuting. When there are substantially more employed residents than jobs in a city, more people must travel to another jurisdiction, requiring longer commutes than if they worked locally (and vice versa). A well-balanced ratio (close to one employed resident to one job) is typically desirable for environmental, economic, and quality-of-life reasons, although many other factors influence average commute distance. Burlingame is considered a job-rich community, which means there are far more job opportunities than housing units available. As discussed above, the estimated jobs-to-employed-residents ratio in Burlingame in 2020 was 1.86.

4.12.2 Regulatory Framework

State

California Housing Element Law

California law (Government Code Section 65580, et seq.) requires cities and counties to include a Housing Element as a part of their General Plans to address housing conditions and needs in the community. Housing Elements are prepared approximately every eight years, following timetables set forth in the law. The Housing Element must identify and analyze existing and projected housing needs and "make adequate provision for the existing and projected needs of all economic segments of the community," among other requirements.

[1] A jobs-to-employed-residents ratio is used instead of a jobs-to-housing-units ratio because there can be more than one employed resident per housing unit. The ratio of jobs to employed residents is more accurate for assessing the overall amount of in- and out-commuting.

State law mandates that all cities and counties zone land appropriately to accommodate the increasing housing needs of regional population growth. Regional housing needs are determined by the California Department of Housing and Community Development (HCD).

Local

Envision Burlingame General Plan

The City of Burlingame's Envision Burlingame General Plan is a long-range policy document that guides decision-making and establishes the "ground rules" for the design and development of new projects, conservation of resources, economic development, mobility and infrastructure improvements, expansion of public services, and community amenities. The following goals and policies included in the Burlingame General Plan are applicable to the population and housing effects of the proposed project.

Goal CC-5: Maintain and promote the Bayfront Area as a premier destination along San Francisco Bay for land- and water-based recreation, hospitality uses, creative industries, logistics support, water-based transit service, and local businesses that benefit from proximity to San Francisco International Airport.

Policy CC-5.1: Commercial Destinations: Support and encourage commercial uses along the waterfront that enliven the area and serve as destinations for residents and visitors, including hotels, restaurants, and entertainment venues.

Goal ED-1: Maintain a diversified economic base that provides a wide range of business and employment opportunities capable of ensuring a healthy and prosperous economy for generations to come.

Policy ED-1.1: Diverse Building Types and Sizes. Encourage development of new office, research, and technology spaces to diversify the types of businesses in Burlingame, specifically focusing on the Rollins Road, Bayfront, and Downtown areas.

Policy ED-1.2: Flexible Building Use. Provide opportunities for flexible uses, such as live/work uses or conversion between types of space, as appropriate, in the Rollins Road, Bayfront, and Downtown areas consistent with land use policy.

Policy ED-1.6: Community Benefits of Development. Ensure that major commercial development projects contribute toward desired community benefits of urban design, land use, sustainability, resiliency, affordable housing, and community health while also expanding the economic base of the city.

Goal ED-2: Cultivate a business environment that supports long-established enterprises, attracts new and emerging businesses, and provides support for synergistic business relationships and partnerships.

Policy ED-2.2: Commercial Uses. Provide appropriate zoning in the north El Camino Real, California Drive, Broadway, Bayfront, and Downtown areas to ensure that established businesses can remain and continue to meet community needs.

Policy ED-2.10: Bayfront Office and Research and Development. Position the Bayfront area as a location for larger office-based and research and development businesses as a complement to the hospitality business.

City of Burlingame 2023-2031 Housing Element

The *City of Burlingame 2023-2031 Housing Element* was submitted to HCD on February 17, 2023 and covers the planning period that began on January 31, 2023 and ends on January 31, 2031.The updated Housing Element is pending HCD Certification, after which time the City Council will adopt. Programs proposed in the 2023-2031 Housing Element build on those from the City's prior housing element, with new programs added to respond to new and emerging housing needs. Programs are classified as those planned for implementation within 1 to 2 years of the housing element adoption, within four years of housing element adoption, and ongoing/continuous implementation throughout the housing element's 8-year duration.

4.12.3 Analysis, Impacts and Mitigation

Significance Criteria

Implementation of the proposed Project would have a significant impact on the population and housing if it would:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Methodology and Assumptions

The proposed Project's effects related to population and housing are evaluated by assessing anticipated population growth under the proposed Project in relation to adopted regional and local growth projections, including projections included in the Burlingame General Plan. The analysis of population and housing effects in this section is based on the Project development scenario which would allow for the largest increase in employees.

Issues Not Discussed in Impacts

The following significance criterion is considered to have no impact, as discussed below, and is not analyzed further.

- ***Displace substantial numbers of existing people or housing*.** As discussed in Section 4.12.1, *Environmental Setting*, the Project site is currently used for commercial purposes, and has no housing units or residential population. Consequently, implementation of the proposed Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere, and there would be no impact. Accordingly, this topic will not be evaluated further in this section.

Impacts and Mitigation Measures

Impact POP-1: Implementation of the proposed Project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). (*Less than Significant*)

As described in Section 4.12.1, *Environmental Setting*, there are currently eight buildings on the Project site totaling approximately 247,466 square feet, that are occupied by a variety of professional offices, an ambulance service, and restaurants; with an estimated 83 employees. Some of the building space at the Project site is currently vacant, and two of the buildings are boarded up. These buildings and their uses would be displaced by the Project.

Construction of the proposed Project would increase temporary construction employment during the approximate 3.5-year construction period. The size of the construction workforce would vary during the different subphases of construction, but the maximum average daily number of construction workers would occur during building construction subphases in Phases 1 through 3 (as described in Chapter 3, *Project Description*). Given the relatively common nature of the anticipated construction, the demand for employment would likely be met with the existing and anticipated labor market in the City and elsewhere in the County. The temporary nature of the construction activities would not require a substantial number of workers to relocate from outside the region.

As detailed in Chapter 3, the proposed Project would develop three 11-story life science/office buildings totaling approximately 1.42 million gross square feet. The Project would provide for flexibility in end use, and could range from 100 percent office use to a 100 percent life science use, or a combination of the two. The building program would also include various amenities and 5,000 total square feet of café/restaurant space.

Office use is a higher employment generator than life science use, with a ratio of one employee per 275 square feet of office use, as opposed to one employee per 350 square feet for life science use. For the purposes of this analysis, the more conservative employment generation estimate for office use will be utilized for the entire development.[2] Assuming the ratio of one employee per 275 square feet, it is estimated that 5,163 total new jobs, or a net increase of 5,080 net new jobs over existing conditions would be generated if the Project were to consist of 100 percent office uses.[3]

The increase in employment associated with the Project, and any recreational visitor population that would use the proposed Project open space, would increase the daytime population at the Project site. However, since the Project does not include any residential development, it would not result in a direct population impact. Nevertheless, potential indirect population impacts could be induced through the provision of the Project's employment opportunities. The estimated net new job growth of the project would represent approximately 54 percent of projected citywide job

[2] Employees for the proposed 5,000 square feet of restaurant space are included in overall employee calculations.
[3] Based on a calculation of 1.42 million square feet x one employee per 275 square feet, minus the existing 83 employees onsite.

growth under the *Burlingame General Plan* between 2020 and 2040[4]. The majority of the jobs projected under General Plan for the 2020-2040 planning period would be targeted in several areas of City, including the Bayfront Area, which the General Plan envisions as both a regional recreation and business destination. When considering the Project by itself, it would be within the General Plan's employment projections.

As summarized in **Table 4.12-4**, below, the amount of office (including life science) development that has been approved in the City under the General Plan has outpaced that which was assumed to be developed in the *2040 General Plan Final EIR*. This is largely driven by accelerated growth in the life science sector and the correlating demand for new life science space in Peninsula cities such as Burlingame. As shown in Table 4.12-4, the amount of office development that has been approved by the City to date exceeds the total office development assumed in the City General Plan Final EIR by 348,000 sf. The proposed Project addition of 1.415 million sf of office/life science development would further increase the office exceedance to 1,763,400 sf. Conversely, less commercial development has been approved in the City compared to that assumed to be developed in the General Plan Final EIR. Table 4.12-4 shows that 120,555 sf of commercial development that has been approved to date by the City is under the 639,445 sf of total commercial development assumed in the City. The proposed Project would add a minor addition (5,000 sf) of commercial development (restaurant use). It should be noted that the assumptions made regarding the amounts of different land use types in the General Plan Final EIR do not represent imposed limits for allowable development in the City. However, the differences between land use assumptions in the General Plan Final EIR and actual conditions reflect evolving trends in local land use development in response to market conditions.

TABLE 4.12-4
OFFICE AND COMMERCIAL DEVELOPMENT IN BURLINGAME

Scenario	Office (sf)	Commercial (sf)
Burlingame 2040 General Plan FEIR Assumption for Increases in Office and Commercial Development[a]	867,000	760,000
Office and Commercial Development Approved to Date under Burlingame General Plan[b]	1,215,400	120,555
Change between Office and Commercial Development Assumed in 2040 General Plan FEIR vs. Approved under General Plan	(348,400)	639,445
Proposed Project	1,415,000	5,000
Change between Office and Commercial Development Assumed in 2040 General Plan FEIR vs. Approved + Project	(1,763,400)	634,445

NOTES:
[a] The Burlingame 2040 General Plan FEIR also assumed an increase in 570,000 sf of Industrial land use development in the City, not reflected in this table.
[b] Approved office and commercial projects in the City include office/life science developments at 777 Airport Boulevard, 1699 Old Bayshore Highway/810 Malcolm Road, and 567 Airport Boulevard project; the 220 Park Road office/commercial project; and the Topgolf sports complex project.

SOURCES: City of Burlingame, 2023

[4] i.e., 5,080 net new project jobs / 9,440 projected job growth in City = 54 percent.

Regionally, the estimated 5,080 net new jobs generated under the project would represent seven percent of growth projections for the County, and 0.9 percent for the Bay Area overall.

As discussed in Section 4.12.1, *Environmental Setting*, approximately 11 percent of all Burlingame residents also work in the City. This percentage was used to estimate the number of new workers who would be expected to seek and find housing in the City as a result of the Project. Therefore, approximately 558 of the net new projected employees at the Project site would be expected to live in the City of Burlingame.[5] This would equate to a demand for up to 558 housing units within the City. The Project-induced housing demand would equate to approximately 19 percent of the project housing demand by 2040, as shown in Table 4.12-2 above. In 2020, the City entitled the construction of 818 net new units, along with "in progress" applications for approximately 180 new units; and in 2021, the City entitled an additional 346 net new units (City of Burlingame 2021, 2022). In addition, as discussed in Section 4.12.2, *Regulatory Framework*, the *2023-2031 Housing Element*, based on the RHNA allocation, the City plans for an additional 3,257 housing units to be developed for the 2023 to 2031 planning period. New residents induced by the jobs at the Project site that would live in Burlingame could be accommodated within this new housing. Therefore, the Project would not directly result in substantial population growth beyond what is expected for the City.

Other Project employees would create a demand for housing and live in surrounding communities in the County and Bay Area. However, since other cities and counties in the Bay Area are also subject to address future housing needs and accommodate RHNA housing obligations as part of their regular housing element updates, it is expected that these new residents housing needs would similarly be accommodated.

The Project would be an infill development within an already-developed area of Burlingame. The Project site is well-served by urban infrastructure, services, and transit. The Project site is designated under the General Plan as Bayfront Commercial (BFC), which permits uses that would be consistent with the potential office or life science uses planned at the Project site. Therefore, the population growth at the Project site which would occur with Project implementation would be expected and accounted for under this designation. As discussed in more detail in Section 4.13, *Public Services and Recreation*, the Bay Trail extension improvements proposed on the Project site would serve predominantly Project employees, as well as local visitors and residents, and would not directly or indirectly result in unplanned growth.

In addition, as discussed Chapter 3, *Project Description*, and Section 4.15, *Utilities and Services Systems*, on-site utility infrastructure improvements proposed at the Project site as part of the Project, in conjunction with, existing the utilities that currently serve the Project site would be adequate to serve the Project site during operation, and would not serve off-site areas. In addition, proposed new on-site roadways would be intended for internal circulation only, and limited proposed off-site transportation improvements would not increase roadway capacity. Therefore, there would be no new infrastructure that would induce or otherwise result in unplanned population growth, either directly or indirectly.

[5] 11 percent of 5,080 net new Project employees.

Population growth under the proposed Project would be consistent with adopted regional and local projections. Furthermore, the proposed Project would not be designed in a way that could induce additional growth outside the Project site. For these reasons, the impact of the Project related to inducement of unplanned population growth would be less than significant, and no mitigation would be required.

Mitigation: None required.

Cumulative Impacts

This section presents an analysis of the cumulative effects of the proposed Project in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. The context for the analysis of cumulative effects related to population and housing is projected growth in the City of Burlingame and surrounding region through 2040.

Impact C-POP-1: Implementation of the proposed project, in combination with other development, could induce substantial unplanned population growth in an area, either directly or indirectly. (*Less than Significant*)

Cumulative development in the City and associated residential and employee populations would result in population growth. Substantial unplanned growth is increased population for which infrastructure, services, and housing have not been planned. So long as the cumulative population and housing conditions are within the projections of the City, County, and ABAG, there would be no significant adverse growth impact related to population, housing, or employment.

As discussed in Impact POP-1 above, implementation of the proposed Project was determined to not induce substantial unplanned population growth, either directly or indirectly. The Project site is identified in City planning documents as anticipated for future development and zoned consistent with the General Plan and anticipated uses of the site. The Project's employment generation by itself would be within the *Burlingame General Plan's* employment projections, as well as those of the County and region. Impact POP-1 acknowledges that more office (including life science) development has been approved in the City versus that which was assumed in the General Plan Final EIR, and the Project would further this trend. Residents induced by the jobs at the Project site that would live in Burlingame could be accommodated by housing being planned by the City under its General Plan. The housing needs of those Project residents that would live elsewhere in the County or Bay Area would similarly be accommodated by those jurisdictions, since those communities are also subject to address future housing needs and accommodate RHNA housing obligations as part of their regular housing element updates.

Growth projections in the *Burlingame General Plan* are based in part on regional estimates provided by ABAG. These projections inform the policies of the General Plan to ensure that infrastructure and government services are expanded accordingly. The General Plan currently assumes that employment-generating uses will be developed within the Project site, the

surrounding area, and other locations throughout the City. This cumulative growth is anticipated at a regional level by ABAG.

Future cumulative development in the Bayfront area and elsewhere in the City include several projects to be developed for office (including life science) or commercial use, which would generate employment in the area in addition to the proposed Project. As summarized in **Table 4.12-5**, below, planned future cumulative office development in the City would further exceed the office development assumed to be developed in the General Plan Final EIR by 713,600 sf, and in conjunction with the Project and approved office development would increase the total office exceedance to 2,477,000 sf. The additional planned cumulative commercial development, by itself and in conjunction with the commercial contribution from the Project and approved commercial development, would continue to be less than the commercial development assumed in the General Plan Final EIR.

TABLE 4.12-5
CUMULATIVE OFFICE AND COMMERCIAL DEVELOPMENT IN BURLINGAME

Scenario	Office (sf)	Commercial (sf)
Burlingame 2040 General Plan FEIR Assumption (Assumed Development)[a]	867,000	760,000
Office and Commercial Development Approved to Date (Approved Development)[b]	1,215,400	120,555
Difference between Assumed and Approved Office and Commercial Development	(348,400)	639,445
Proposed Project	1,415,000	5,000
Other Proposed Development[c]	713,600	94,164
Difference between Assumed Development and Approved Development + Project + Other Proposed Development	(2,477,000)	540,281

NOTES:
[a] The Burlingame 2040 General Plan FEIR also assumed an increase in 570,000 sf of Industrial land use development, not reflected in this table.
[b] Approved office and commercial projects in the City include office/life science developments at 777 Airport Boulevard, 1699 Old Bayshore Highway/810 Malcolm Road, and 567 Airport Boulevard project; the 220 Park Road office/commercial project; and the Topgolf sports complex project.
[c] Future cumulative projects planned in the City include office/life science developments at 620 Airport Boulevard and 1499 Old Bayshore Highway; and the 410 Airport Boulevard commercial project.

SOURCES: City of Burlingame, 2023

As discussed above in Impact POP-1, population growth under the proposed Project would be consistent with adopted regional and local projections and would not induce additional growth outside the Project site. Consequently, implementation of the proposed Project, in combination with other development, would not induce unplanned population growth, and the cumulative impact would be less than significant.

As discussed in Section 4.12.1, *Environmental Setting*, the City currently experiences a jobs/housing imbalance, as evidenced by the its current jobs/housing ratio of approximately 1.86. As a result, the Project in conjunction with cumulative employment growth in the city would result in secondary effects related to increased vehicle miles traveled (VMT) resulting from commuting due to a shortage of residential opportunities in closer proximity to Burlingame

employment areas. However, the Project is consistent with the overall intensity of development contemplated for the Project site by the *Burlingame General Plan*, and would not result in any new or more severe impacts related to population growth under the cumulative condition, this impact would be less than significant. The City would continue to support the implementation of the General Plan, and projects that help meet the city's housing goals. It should also be noted, as discussed in Section 4.14, *Transportation*, the Project is located within one-half mile of a major transit stop (Broadway Caltrain station). In addition, the Project would upgrade the Commute.org Burlingame Bayside shuttle, such that this fixed route transit service would qualify as a high quality transit corridor. These factors would encourage transit use over personal vehicles, and further serve to minimize Project contribution to VMT.

It should be noted that many cities in San Mateo and Santa Clara Counties and throughout the Bay Area have more jobs than employed residents. For example, according to ABAG, South San Francisco has a jobs per employed resident ratio of 1.36, San Mateo has a ratio of 1.09, Redwood City has a ratio of 1.73, Sunnyvale has a ratio of 1.19, and Santa Clara has a ratio of 2.14. However, nearby cities in San Mateo County such as Daly City, San Bruno, Millbrae, Belmont, and San Carlos have more employed residents than jobs. When considering the larger geographical context, San Mateo County has a relatively balanced jobs and housing ratio (0.96 jobs per employed resident).

Mitigation: None required.

4.12.4 References

Association of Bay Area Governments (ABAG), 2018. *Plan Bay Area Projections 2040.* November 2018.

City of Burlingame, 2023. City of Burlingame 2023-2031 Housing Element. January 17 2023

City of Burlingame, 2019a. Burlingame General Plan. Adopted January 2019. Available online: https://cms6.revize.com/revize/burlingamecity/document_center/Planning/General%20and%20Specific%20Plans/BurlingameGP_Final_Nov2019_COMPLETE%20DOCUMENT.pdf. Accessed December 6, 2022.

City of Burlingame, 2019b. *Burlingame 2040 General Plan Final Environmental Impact Report*. certified by City Council January 2019. City of Burlingame, 2019.

City of Burlingame, 2021. Staff Report: Housing Element Annual Progress Report (APR) on Implementation of the Housing Element. Available online: https://cms6.revize.com/revize/burlingamecity/document_center/Planning/2021APR-DRAFT.pdf. Accessed December 7, 2022.

City of Burlingame, 2022. Staff Report: Housing Element Annual Progress Report (APR) on Implementation of the Housing Element. Available online: https://cms6.revize.com/revize/burlingamecity/document_center/Planning/Burlingame_HE_APR_2020.pdf. Accessed December 7, 2022.

U.S. Census Bureau, 2019. *OnTheMap, Work Destination Analysis, Jobs Counts by Places Where Workers are Employed - All Jobs.* Accessed January 6, 2023.

U.S. Census Bureau, 2020. 2020 Census. Available online: https://data.census.gov/profile?g=1600000US0609066. Accessed December 14, 2022.

U.S. Census Bureau, 2021. QuickFacts: Burlingame city, California. Available online: https://www.census.gov/quickfacts/burlingamecitycalifornia. Accessed December 6, 2022.

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4.13 Public Services and Recreation

This section describes conditions and potential environmental effects of the Project pertaining to public services and recreation. The section discusses relevant existing environmental conditions of the Project site and regulations pertinent to this section, in addition to any applicable existing General Plan policies. The section then analyzes potential impacts to the physical environment that could result from implementation of the Project. Applicable City policies and programs that would reduce potential impacts to public services and recreation are identified.

4.13.1 Environmental Setting

Fire Protection and Emergency Medical Service

Central County Fire Department

The Central County Fire Department (CCFD) provides fire protection services and Emergency Medical Services (EMS) to the City of Burlingame and the communities of Hillsborough and Millbrae. The CCFD has a service area of approximately 15 square miles around the San Francisco International Airport (SFO) and serves approximately 70,000 residents and tens of thousands of visitors each year (CCFD, 2021a).

The CCFD operates six fire stations, two of which are located in the City of Burlingame: CCFD Fire Station 34, located at 799 California Drive (approximately 0.8 mile southeast from the Project site) and CCFD Fire Station 35, located at 2832 Hillside Drive (approximately 1.1 miles southwest from the Project site). CCFD Fire Station 36, located at 1399 Rollins Road (approximately 0.3 mile west of the Project site) was closed in August 2010 because of budget restrictions but continues to operate as administrative offices for CCFD (CCFD, 2021b).

The top-ranking person of the Department is the Fire Chief, who is supported by a command staff of the Deputy Chief, Fire Marshal, Battalion Chiefs, and Administrative Services Manager. Daily staffing consists of six engine companies, one ladder truck, and one Battalion Chief, 24 hours a day. The CCFD maintains a State of California Type 1 heavy rescue Urban Search & Rescue (USAR) unit that is cross-staffed daily in addition to a Type 6 wildland unit.

The CCFD's Fire Prevention Division is comprised of the Fire Marshal, as well as a Deputy Fire Marshal, two inspectors, three fire prevention specialists, and a Community Risk and Resiliency Specialist. The Fire Prevention Division manages several significant community risk reduction initiatives including vegetation and hazard abatement programs, plan reviews, comprehensive code enforcement activities, and fire investigations. The EMS Division of CCFD also provides ambulance services to the City of Burlingame and surrounding communities (CCFD, 2021a).

In the 2021-2022 fiscal year, CCFD employed 88 full-time equivalent employees, which included 21 captains as well as 45 firefighters and paramedics. During the 2021-2022 fiscal year the CCFD received 7,389 calls, 3,378 of which were for the City of Burlingame. From 2020-2022, the percentage of time the first fire engine arrives on scene within six minutes of dispatch was 86 percent. During this time the average response time to Priority 1 calls (emergency response calls)

was 5 minutes and 30 seconds. The average response time to Priority 3 calls (non-emergency response calls) was 6 minutes and 37 seconds (CCFD, 2022).

Police Protection Service

Burlingame Police Department

The Burlingame Police Department (BPD) provides police services in the City of Burlingame. The BPD is headquartered at 1111 Trousdale Drive (approximately 1.2 miles west of the Project site). Main law enforcement operations and support services for Burlingame are located at the BPD's headquarters. A small Police Department substation operates out of the City's Community Center at 850 Burlingame Avenue.

The BPD is comprised of three divisions: the Operations Division, Investigations Division, and Support Services/Administrations Division. The Operations Division includes uniformed patrol and the Traffic and Parking Bureau. These officers are the first to respond to calls for service and respond to over 40,000 calls for service a year. The Investigations Division consists of the Police Detectives, School Resource Officer, and Community Response Team. The Administrative Services Division consists of the Police Records Bureau and the Communications Bureau. The Police Records Bureau is responsible for processing police reports, citations, subpoenas and other related paperwork as well as staffing the main counter and assisting the public with questions. The Communications Bureau is the primary answering point for all 9-1-1 and non-emergency calls for police services in Burlingame. The Public Safety Dispatchers are on duty 24 hours a day, every day of the year (City of Burlingame, 2022).

The BPD currently consists of 40 full-time sworn police officers consisting of: 1 Chief, 1 Captain, 2 Lieutenants, 6 Sergeants, and 30 Officers). Additionally, the force staffs 19 full-time non-sworn professional staff and approximately 10 part-time non-sworn professional staff (City of Burlingame, 2022). The BPD has four patrol teams consisting of one Sergeant and six officers who rotate through the City's three patrol beats on a weekly basis, and a traffic bureau consisting of one Sergeant and two officers.

Public Schools

There are two school districts within the City of Burlingame: the Burlingame School District and the San Mateo Union High School District.

Burlingame School District

The Burlingame School District (BSD) serves students in grades K-8 from seven schools: Franklin Elementary School, Hoover Elementary School, Lincoln Elementary School, McKinley Elementary School Roosevelt Elementary School, Washington Elementary School, and Burlingame Intermediate School. During the 2021-2022 school year, BSD school facilities had a total enrollment of 3,312 students (CDE, 2022a).

As authorized by California Government Code Sections 65995 and 65996, BSD collects school impact fees from developers of new residential building space. The impact fee revenue is used

together with other BSD funds (e.g., State grants, general obligation bonds) to complete capital improvements. The amount of the fee (currently $4.70 per square foot of new residential space and $0.78 per square foot of commercial/industrial development) is established through BSD's 2022 Developer Fee Justification Study (BSD, 2022).

San Mateo Union High School District

The San Mateo Union High School District (SMUHSD) serves students in grades 9-12. The SMUSD has six high schools and an alternative/continuation high school: Aragon High School, Burlingame High School, Capuchino High School, Hillsdale High School, Mills High School, Peninsula High School (continuation school), and San Mateo High School. The SMUHSD offers the Middle College at College of San Mateo, which is an alternative education program in the seven-school SMUHSD that allows students to earn college units while meeting their high school diploma requirements. Additionally, SMUHSD has a charter school, the Design Tech High School, which is a free, public high school open to all students in the State of California. The San Mateo Adult and Career Education prepares adults for success in college, career, and community engagement (SMUHSD, 2022a). During the 2021-2022 school year, SMHUSD school facilities, including the Design Tech High School, had a total enrollment of 9,655 students (CDE, 2022b). Burlingame High School is the closest to the Project site, located 1 mile southeast of the Project site.

Similar to the BSD, the SMUHSD collects school impact fees from developers of new residential building space which are used with other SMUHSD funds to complete capital improvements. The combined SMUHSD and San Mateo/Foster City Elementary School District School Impact Fees for the cities of San Mateo and Foster City are currently $4.08 for residential construction, $0.66 for commercial construction, and $0.04 per square foot for storage. The SMUHSD's portion of School Impact Fees for the cities of Hillsborough, Millbrae, San Bruno, and unincorporated Burlingame are $1.92 per square foot of residential and $0.31 per square foot of commercial (SMUHSD, 2022b).

Libraries

The Burlingame Public Library (BPL) system consists of a Main Library and an Easton Branch. The nearest library to the Project site is the Burlingame Library Easton Branch, located approximately 0.78 mile southwest of the Project site (BPL, 2022). The City collects a Public Facilities Impact Fee that is a general category of fees based on the uses, number of dwelling units and/or amount of square footage to be located on the property after completion of a development project. The fees are committed to public improvement, public services, and community amenities affected by new development. The purpose of the fee is established upon approval of a permit for construction or reconstruction and is intended for improvements to one or more public facility categories, including libraries (City of Burlingame, 2021).

Parks and Recreation

The City of Burlingame's Parks and Recreation Department manages the parks and recreation facilities in Burlingame. Burlingame's parks system includes developed parks, undeveloped areas

and parks, and lands owned by the California State Lands Commission and leased by private businesses. The City of Burlingame's Parks and Recreation Department manages 15 developed parks totaling 93.55 acres, which include (City of Burlingame, 2020):

- Alpine Park (0.10 acres)
- Bayside Park (36.00 acres)
- Cuernavaca Park (5.00 acres)
- Heritage Park (0.40 acres)
- "J" Lot Playground (0.05 acres)
- Laguna Park (0.50 acres)
- Murray Field (20.60 acres)
- Paloma Playground (0.10 acres)
- Pershing Park (1.10 acres)
- Ray Park (5.90 acres)
- Shorebird Sanctuary (2.00 acres)
- Trenton Playground (0.10 acres)
- Victoria Park (0.90 acres)
- Village Park (1.90 acres)
- Washington Park (18.90 acres)

Furthermore, there are 2 natural park areas in Burlingame totaling 37.90 acres, consisting of Mills Canyon Wildlife Area (34.5 acres) and Skyline Park (3.30 acres) (City of Burlingame, 2020).

Of the park facilities identified above, Bayside Park is located nearest the Project site, just south of Airport Boulevard, and includes sports fields, several miles of trails, a dog exercise area, and a community garden. Bayside Fields provide the largest collection of formal athletic facilities in Burlingame, and includes lighted fields soccer, youth baseball, and softball. Several miles of trails are available in Bayside Park for walkers, runners, and cyclists which connect with the expanding Bay Trail system.

The Shorebird Sanctuary is located approximately 0.2 miles north from the Project site at the mouth of Mills Creek and serves as a sanctuary for migratory birds. Village Park is a neighborhood park on the north end of Burlingame, located at 1535 California Drive (approximately 0.7 miles west of the Project site). Village Park hosts a preschool program and includes a playground and picnic areas. Washington Park, located at 850 Burlingame Avenue (approximately 1.2 miles southeast of the Project site), is a year-round center for community recreation. The Burlingame Recreation Division provides hundreds of classes and activities each year in the park and new Community Center. Washington Park includes tennis courts, a children's playground, picnic areas, and baseball facilities (Burlingame Parks & Recreation, 2022).

The State Lands Commission owns two parks in the City of Burlingame: the 1.76-acre Robert E. Wooley State Park leased by Embassy Suites, and the 0.70-acre Anza Fisherman's Park (City of Burlingame, 2020). The County of San Mateo Parks Department operates the Coyote Point Recreation Area at 1701 Coyote Point Drive in San Mateo, a 670-acre regional recreation area that provides a wide variety of opportunities, including picnicking, swimming, windsurfing, bicycling, jogging, fishing, boating, and sailing.

The San Francisco Bay Trail (Bay Trail) is a regional hiking and bicycling trail that, when completed, will extend around the perimeter of San Francisco and San Pablo Bays. Currently, more than 350 miles of the planned 500-mile path is completed. At this time, a large portion of the Bay Trail has been constructed within the city, including all of the segments of the trail on City-owned land. Within the Project site vicinity, existing paved off-street segments of the Bay

Trail currently terminate at the northeast and southeast corners of the project site, and is a missing link in the Bay Trail network. Along this trail gap, bicyclists and pedestrians currently use Old Bayshore Highway.

4.13.2 Regulatory Framework

Federal

National Fire Protection Association 1710

National Fire Protection Association (NFPA) 1710 is the Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments. NFPA developed NFPA 1710 as an industry standard for the deployment of fire suppression operations to ensure safe and effective fire service operations. The Standard stipulates that the first fire engine should arrive to 90 percent of emergency calls within a range of 6:15 and 6:45 minutes. It is recognized that the NFPA 1710 Standard is the optimal nationally.

State

California Fire Code

The California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout the state of California. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, and fire safety during construction and demolition.

California Building Code

The California Building Code, Chapter 9 Fire Protection and Life Safety Systems, establishes fire protection and life safety systems that are required to apply to the design, installation, and operation of fire protection systems. Chapter 9 prescribes the minimum requirements for active fire protection equipment systems to perform the functions of detecting a fire, alerting the occupants or fire department of a fire emergency, mass notification, gas detection, controlling smoke, and controlling or extinguishing the fire. Generally, the requirements are based on the occupancy, the height, and the area of the building. These fire protection systems shall be installed, repaired, operated, and maintained in accordance with this code and the California Fire Code.

California Occupational Safety and Health Administration

In accordance with California Code of Regulations Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment" the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and

emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance and use of all firefighting and emergency medical equipment.

Senate Bill 50

The Leroy F. Greene School Facilities Act of 1998, or Senate Bill 50 (SB 50), authorizes school districts to levy developer fees to finance the construction or reconstruction of school facilities, and restricts the ability of local agencies to deny project approvals on the basis that public school facilities (classrooms, auditoriums, etc.) are inadequate. School impact fees are collected at the time when building permits are issued. Payment of school fees is required by SB 50 is considered full and complete mitigation of any school impacts. School impact fees are payments to offset capital cost impacts associated with new developments, which result primarily from costs of additional school facilities, related furnishings and equipment, and projected capital maintenance requirements. As such, agencies cannot require additional mitigation for any impacts on school facilities or due to the inadequacy of school facilities.

Quimby Act

California Government Code Section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The dedication of land or in-lieu fees may be required for land or condominium subdivisions. Land dedicated and fees collected pursuant to the Quimby Act may only be used for developing new, or rehabilitating existing, park or recreational facilities. The Quimby Act effectively preserves open space needed to develop parkland and recreational facilities; however, the actual development of parks and other recreational facilities is subject to discretionary approval and is evaluated on a case-by-case basis with new residential development.

Regional

Bay Trail Plan

The San Francisco Bay Trail Plan proposes developing a regional hiking and bicycling trail around the perimeter of San Francisco and San Pablo Bays. In 2015, ABAG prepared the plan pursuant to Senate Bill 100, which mandated that the Bay Trail provide connections to existing park and recreation facilities, create links to existing and proposed transportation facilities, and be planned in such a way as to avoid adverse effects on environmentally sensitive areas (ABAG, 2022). See Section 4.10, *Land Use and Planning*, for additional detail on this plan.

Local Plans, Ordinances, and Policies

City of Burlingame General Plan

The City of Burlingame General Plan serves as a guiding document for the City's decision-making and establishes the "ground rules" for the design and development of new projects, conservation of resources, economic development, mobility and infrastructure improvements,

expansion of public services, and community amenities. The following goals and policies within the Community Safety Element of the General Plan apply to the Project:

Goal CS-1: Ensure high-quality, responsive police services necessary to deter crime and support a safe and secure community.

Policy CS-1.1: Staffing Levels. Maintain optimal police staffing levels, including sworn officers and civilian support, necessary to meet current and projected community needs.

Policy CS-1.3: Response Times. Identify, monitor, and achieve appropriate minimum police response times for all call priority levels.

Policy CS-1.5: Communication. Maintain and encourage two-way communication with the Burlingame community to facilitate public safety and effective policing.

Goal CS-2: Ensure coordinated and effective fire and emergency medical services to maintain the health, safety, and well-being of the Burlingame community.

Policy CS-2.3: Development Review. Continue to include the Central County Fire Department in the review of development proposals to ensure projects adequately address fire access and building standards.

Policy CS-2.4: Adequate Water Supply and Infrastructure for Fire Suppression. Require that new development projects document the availability of water supplies and infrastructure to meet the fire-suppression needs of the project without compromising existing fire suppression services to existing users.

Policy CS-2.6: Removal of Fire Hazards. Maintain code enforcement programs that require private and public property owners to minimize fire risks by:

- Maintain buildings and properties to prevent blighted conditions.
- Removing excessive or overgrown vegetation (e.g., trees, shrubs, weeds) in accordance with wildland-urban interface clearance requirements.
- Removing litter, rubbish, and illegally dumped items from properties.

Policy CS-2.7: Staffing and Timing of Expanded Services. Ensure that the demands of new development for fire protection and emergency medical response services do not strain the ability of the Central County Fire Department to provide the staffing and equipment needed to meet response time goals and other stated service metrics. In particular, assess the need to provide strategically located and equipped fire stations within the Bayfront and Rollins Road districts.

Policy CS-2.8: Alley and Emergency Access. Ensure access to City alleys and easements and maintain rear building exits to be clear and unobstructed in accordance with the American with Disabilities Act. Ensure alleys that provide egress from rear exits provide clear and unobstructed access all the way to a public way.

The following goals and policies within the Engagement and Enrichment Element of the General Plan apply to the Project:

Goal EE-1: Provide opportunities for residents of all ages and backgrounds to access high-quality educational services and resources.

Policy EE-1.3: Public Schools. Support Burlingame's well-regarded public-school system, working with the Burlingame School District and the San Mateo Union High School District as appropriate to ensure program and facility needs are met.

Policy EE-1.5: Library Funding. Pursue funding for library facility maintenance and enhancement of programs and services through a variety of mechanisms, including developer fees, general fund resources, special service districts, user fees, bond initiatives, and grants. Include funds in the Capital Improvement Program for timely facility improvements.

The following goals and policies within the Healthy People and Healthy Places Element of the General Plan apply to the Project:

Goal HP-1: Improve the overall health and well-being of all Burlingame residents through land use and design policies, equitable access to health care, and opportunities for healthy lifestyle choices.

Policy HP-1.3: Recreation, Parks Open Spaces. Provide convenient access to a variety of recreation opportunities, parks and open spaces for all community members.

Policy HP-1.6: Community Safety through Design. Improve sidewalks, streetscapes, community centers, parks and open spaces, and traffic conditions in neighborhoods to encourage walking and activity on the local streets and public areas.

Goal HP-4: Provide a diversity of City-owned parks, recreation facilities, natural open spaces, and public gathering places citywide, and ensure that every Burlingame residents lives within one-half mile of such a resource.

HP-4.1: Parks, Recreation, and Trail Master Plan. Develop and implement a parks, recreation, and trails master plan to guide open space investments and ensure a comprehensive and integrated system of parks, plazas, playgrounds, trails, and open space.

Policy HP-4.2: Equitable Distribution of Open Spaces. Ensure all neighborhoods have easy access to park and recreation opportunities within comfortable walking distance of homes, schools, and businesses.

Policy HP-4.4: Potential New Open Spaces. In concert with development proposals in the North Burlingame and North Rollins Road districts, require plans for publicly accessible plazas and open spaces. Develop guidelines so that these spaces fit within the overall parks and recreation system in Burlingame.

Policy HP-4.8: Recreational and Multi-Purpose Facilities. Provide a range of quality recreational and multi-purpose facilities that are suited to community needs. Provide space for fitness classes, sports leagues, continuing education opportunities, community events, and other functions. Ensure facilities are well maintained and have adequate lighting, signage, and hours of operations.

Policy HP-4.10: Trails and Corridors. Establish and maintain an integrated recreational corridor system that connects regional and local trails to creeks, open spaces, hillside areas, and City parks. Identify potential recreational linkage opportunities to better connect Burlingame's existing trails, and retain publicly owned corridors for future use.

Policy HP-4.11: San Francisco Bay Trail and Bayfront Recreation. Work with Metro, the Coastal Conservancy, the Metropolitan Transportation Commission, the San Francisco Bay Conservation and Development Commission, and private property owners to close gaps in the San Francisco Bay Trail along Burlingame's Bayfront. Improve public access and connectivity to the shoreline and enhance recreation opportunities in the Bayfront area.

Policy HP-4.12: Access to Natural Areas. Improve access to large-scale natural areas along Burlingame's Bayfront and in Mills Canyon Park. Identify areas for limited or restricted recreational use where natural habitat is particularly sensitive. Pursue opportunities for environmental education to encourage habitat conservation for residents, schools, and visitors.

Policy HP-4.15: Access for People with Mobility Challenges and Disabilities. Provide parks, recreation, and trail access for people with disabilities. Identify spaces with limited disability access, and implement plans to incorporate accessible features, including appropriately graded paths and trails, firm and stable paving materials, edge protection on trails, gates and doorways of appropriate widths, accessible drinking fountains and restrooms, and accessible benches and tables.

Policy HP-4.17: Signage and Wayfinding. Establish consistent signage and wayfinding for the parks and trail system to indicate distances to different open space and recreational destinations.

Policy HP-4.18: Funding. Pursue funding for parks, recreation, and trail enhancement, development, and maintenance through a variety of mechanisms, including developer fees, the general fund, parking funds, special service districts, user fees, and grants. Include funds in the City's Capital Improvement Program for timely community facility and park improvements.

Burlingame Municipal Code

Development is required to conform to Burlingame Municipal Code Chapter 25.46 Public Facilities Impact Fees. The Public Facilities Impact Fees shall be paid pursuant to this chapter before the issuance of any building permit except as otherwise stated in the chapter. The public facilities impact fees are established and imposed on the issuance of development permits within the City as determined by resolution of the Council for the following categories: general facilities and equipment, libraries (not applicable to office, commercial or industrial uses), police, parks and recreation, streets and traffic, fire, and storm drainage.

4.13.3 Impacts and Mitigation Measures

Significance Criteria

With respect to public services, would implementation of the Project:

a) 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 public services:

i) Fire protection;

ii) Police protection;

iii) Schools;

iv) Parks; or

v) Other public facilities.

With respect to recreation, would implementation of the Project:

a) 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; or

b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Criteria Not Analyzed

Based on the Project characteristics there would no impact related to public libraries for the reasons described below:

- **Libraries.** As reported in Section 4.12, *Population and Housing*, the Project would result in an estimated 558 net new employees that would be expected to live in the City of Burlingame and create additional demand for the City's public libraries. This limited demand would be anticipated to be met by existing libraries. In addition, as discussed in Section 4.13.1, *Environmental Setting*, the City collects Public Facility Impact Fees committed to public services, including libraries, that are affected by new development; however, as per the Resolution 796-2008, the library fees are not collected for office, commercial or industrial projects because the City Council determined these developments do not have a significant impact on the provision of City library services or facilities. Given these factors, the Project would not result in physical impacts associated with new or physically altered library facilities, and this topic is not evaluated further in this section.

Approach to Analysis

This is a Draft EIR that considers the potential impacts from adoption of the Project. Impacts relative to public services are evaluated using the criteria listed above and based on information included in the City of Burlingame General Plan and the documents referenced in this section.

The Project would be regulated by the various laws, regulations, and policies summarized above in Section 4.13.2, *Regulatory Framework*. Compliance by the Project with applicable federal, state, and local laws and regulations is assumed in this analysis and local and state agencies would be expected to continue to enforce applicable requirements to the extent that they do so now.

A significant impact would occur if, after considering the features described in Chapter 3, *Project Description*, and the required compliance with regulatory requirements, a significant impact would still occur. Mitigation measures are identified, as necessary, to reduce impacts to less-than-significant levels.

The Project could have a significant impact on public services if: (1) it would require the construction of new or physically altered governmental facilities in order to maintain acceptable levels of public services; and (2) the construction or alteration of such facilities would result in a substantial adverse physical impact on the environment. Potential direct impacts to recreation are discussed related to the accelerated substantial physical deterioration of recreational facilities and the construction/expansion of recreational facilities.

Impact Analysis

Impact PSR-1: Implementation of the Project would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered fire protection and emergency medical response services facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection. (*Less than Significant*)

The Project would increase the demand for fire protection and emergency medical response services over existing conditions due to the overall increase in site operations and an estimated 5,080 net new employment-related daytime population on the Project site, 558 of which would be expected to live in the city of Burlingame (see Section 4.12, *Population and Housing*); and associated increases in off-site vehicular traffic. As explained in Section 4.13.1, *Environmental Setting*, the CCFD provides fire protection services and maintains two fire stations in Burlingame that would serve the Project site. As discussed below, the increase in demand for fire protection and emergency medical services would not require construction of new or physically altered fire protection or emergency medical facilities.

The Project does not propose residential uses, and as a result, would not result in substantial increases in population or housing within Burlingame. The increase in calls for fire protection and medical response associated with the Project would not be substantial in light of the existing demand and capacity for fire protection and emergency medical services in the City. The Project site is located in an existing urban area and would not extend the demand of the CCFD beyond the current limits of service capabilities. The proposed development would neither adversely affect CCFD service standards nor require an increase in CCFD staff that would require the construction of new fire protection facilities.

As described in Chapter 3, *Project Description*, the Project proposes three driveways on Old Bayshore Highway that would provide vehicular access to the Project site, and Old Bayshore Highway and proposed emergency access roads would provide access for fire vehicles to each office/life science building and parking structure. Emergency water service for firefighting would also be provided to each building and parking structure. A fire water loop system would be installed to serve the buildings and parking structures on each side of Easton Creek. Fire command centers and/or fire pump rooms would be located on the ground floor of each building and parking structure.

In accordance with standard City practices, and consistent with General Plan Policy CS-2.3 the CCFD would review Project plans before building permits are issued to ensure compliance with

all applicable fire and building code standards and to ensure that adequate fire and life safety measures are incorporated into the Project. Compliance with the most up-to-date building and fire codes and standards would include, but not be limited to, use of fire-retardant building materials, inclusion of emergency water infrastructure (fire hydrants and sprinkler systems), installation of smoke detectors and fire extinguishers, installation of emergency response notification systems, and provision of adequate emergency access to the Project site for emergency vehicles and personnel.

The Project would be subject to fees that would provide additional funds to the City's General Fund which the City allocates in part to cover increased operational costs, such as additional fire personnel to meet increased needs from new development. The Project would comply with the Public Facilities Impact Fee, which would assist in funding public improvements and public services, including for fire protection, affected by new development (Burlingame Municipal Code Chapter 25.46).

Given the factors discussed above, the Project impact on fire protection and emergency medical response services would be less than significant.

Mitigation: None required.

Impact PSR-2: Implementation of the Project would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection. (*Less than Significant*)

The increase in on-site daytime employment-population, and associated increases in off-site vehicular traffic, could lead to an incremental increase in the demand for police response to the Project site and vicinity over existing conditions. As explained in Section 4.13.1, *Environmental Setting*, the BPD provides emergency police protection services to the city, and maintains a police station at 1111 Trousdale Drive, approximately 1.2 miles west of the Project site.

As described in Section 4.12, *Population and Housing*, the Burlingame General Plan projects 9,731 new jobs during its planning period (2020-2040). The maximum of 5,080 net new jobs that could be provided by the Project (under the 100 percent office use scenario) would be within these employment projections but would represent slightly more than half of all job growth in the City by 2040 estimated in ABAG forecasts and by the City in its *Burlingame 2040 General Plan Final EIR*. Therefore, the Project would be within the projected job growth in the City for its planning period. The General Plan Final EIR reported that the BPD did not identify the need for any new or expanded facilities to meet the service needs of the City, and police protection impacts would be less than significant with implementation of General Plan policies and environmental review standards. For example, General Plan Policy CS-1.1 requires continued maintenance of optimal police staffing levels necessary to meet current and project community needs, and General Plan Policy CS-1.3 requires appropriate minimum police response times for

all call priority levels. Police staffing that may be needed to provide adequate levels of service to the Project site and vicinity would be addressed in the BPD's annual budgeting process.

As such, it is not expected that the Project would adversely affect service ratios or response times or increase the use of existing police protection facilities such that substantial physical deterioration, alteration, or expansion of these facilities would be required, thereby triggering environmental impacts.

It should be noted that the Project would include a variety of security measures for the proposed development, including, but not limited to security locks, security night lighting, video surveillance; and employ private security personnel. In addition, in accordance with standard City practices, the BPD would review project plans before building permits are issued to ensure compliance with all applicable access and security measures are incorporated into the Project in compliance with all applicable state and City regulations. This would serve to minimize the need for BPD response to the Project site.

In addition, as discussed above in Impact PSR-1, the Project would be subject to fees that would provide additional funds to the City's General Fund. The Project would also comply with the Public Facilities Impact Fee, which would assist in funding public improvements and public services, including for police protection, affected by new development (Burlingame Municipal Code Chapter 25.46).

Given the factors discussed above, the Project impact on police protection services would be less than significant.

Mitigation: None required.

Impact PSR-3: Implementation of the Project would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools. (*Less than Significant*)

No residential development is proposed as part of the Project. However, the Project would generate an estimated 5,080 net new employees on the Project site, 558 of which would be expected to live in the city of Burlingame (see Section 4.12, *Population and Housing*). As such, a small number of school age children of Project employees that would reside in Burlingame would be expected to generate a demand for enrollment in the BSD and SMUHSD.

The BSD uses a student generation rate of 0.2157 student per housing unit for elementary schools and a generation rate of 0.0553 for middle schools (BSD, 2022). In lieu of a specific available student generation rate for the SMUHSD, the state high school student generation rate of 0.2 student per housing unit was used (State of California, 2022). Using the assumption that there would be one new household for each net new Project employee that resides in Burlingame, and using the aforementioned student generation rates, the additional households in the City could

result in up to 120 net new elementary school students, 31 net new middle school students, and 112 net new high school students in Burlingame.

As described in Section 4.13.2, *Regulatory Framework,* the proposed Project would be required to pay school impact fees in compliance with SB 50. According to California Government Code Section 65996, payment of school impact fees that may be required by a state or local agency constitutes full and complete mitigation of school impacts from development. Therefore, physical impacts associated with the provision of or need for new or physically altered school facilities as a result of the proposed Project would be less than significant.

Mitigation: None required.

Impact PSR-4: Implementation of the Project would not 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. (*Less than Significant*)

As discussed in Section 4.13.1, *Environmental Setting,* the City of Burlingame's Parks and Recreation Department owns and maintains a variety of both developed and natural parks; in addition, there are two State Lands Commission-owned parks in the city. The nearest City public park and/or recreation facilities to the Project site are Bayside Park, Shorebird Sanctuary, Village Park, and Washington Park. In addition, there are other popular park and recreational facilities in adjacent jurisdictions, including, but not limited to, the Coyote Point Recreation Area in San Mateo.

The Project would not include residential uses. However, the Project would generate an estimated 5,080 net new employees on the Project site, 558 of which would be expected to live in the City of Burlingame, which would increase demand for use of local and/or regional park and recreation facilities. Any use of existing public park and recreational facilities by this population in the Project site vicinity is expected to be passive and result in minimal increases in demand for these facilities, such that substantial physical deterioration of these facilities would not occur. Otherwise, the Project population is expected to primarily use park and recreation facilities near their homes, and as such, the use would be dispersed, and similarly, not anticipated to result in substantial physical deterioration.

As discussed further in Impact PSR-5, below, the Project would improve and enhance public access to the waterfront by extending the Bay Trail through the Project site, along with other on-site publicly accessible open space improvements, including public plaza, seating areas, and nature overlook and play area. These facilities would further serve in part to offset increased Project demand for existing local and/or regional park and recreation facilities in the area.

Additionally, the Project would be subject to General Plan Policy HP-4.18 which seeks to pursue funding for parks, recreation, and trail enhancement, development, and maintenance through a variety of mechanisms, such as developmental impact fees like the Public Facilities Impact Fee. Compliance the Public Facilities Impact Fee would assist in funding public improvements and community amenities, including for parks and recreation facilities affected by new development

(Burlingame Municipal Code Chapter 25.46). Additionally, the City collects a parkland dedication fee as authorized under the Quimby Act which allows cities to require that developers set aside land, donate conservation easements, or pay fees in lieu of providing land as part of the land subdivision process.

For the reasons discussed above, potential impacts associated with physical deterioration of parks and recreation resources would be less than significant.

Mitigation: None required.

Impact PSR-5: Implementation of the Project would include recreational facilities, but would not require the construction or expansion of recreational facilities which might have a substantially adverse physical effect on the environment. (*Less than Significant*)

As discussed, and illustrated in Chapter 3, *Project Description*, the Project would improve and enhance public access to the waterfront by extending the Bay Trail through the Project site. This proposed connection would include installation of a new 1,475-foot segment of the Bay Trail along the shoreline through the Project site and connection of existing segments of the Bay Trail at the north and south ends of the Project site. Additionally, the Project would include overlooks, seating amenities, and a pedestrian/bicycle bridge over Easton Creek. These improvements would be expected to be used by employees of the Project, and recreational visitors and nearby residents. As indicated in Impact PSR-4, these facilities would serve in part to offset the minor increase in demand on existing local and/or regional park and recreation facilities created by the Project.

The development of the Bay Trail extension is proposed to be prioritized during Project construction. As discussed in Chapter 3, construction is expected to be constructed in three overlapping phases. At the completion of Phase 1, Bay Trail extension access would be open to the public for the entire length of the Project site, using a combination of permanent and temporary Bay Trail segments until the entire permanent extension is completed in Phase 3.

To the extent that the construction of the new open space and recreational facilities that would be developed as part of the Project could potentially result in significant adverse environmental effects, such effects are analyzed in other sections this EIR, including Section 4.2, *Air Quality*, Section 4.3, *Biological Resources*; Section 4.6, *Geology and Soils*, Section 4.8, *Hazards and Hazardous Materials*; Section 4.9, *Hydrology and Water Quality;* Section 4.11*, Noise and Vibration;* and Section 4.14, *Transportation.* Compliance with mitigation measures and other construction-related regulatory requirements would reduce construction related-effects of new recreational facilities to less than significant levels.

Mitigation: None required.

Cumulative Impacts

This section presents an analysis of the cumulative effects of the Project in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to public services could occur if the incremental impacts of the Project combined with the incremental impacts of one or more of the cumulative projects. The cumulative approach is summarized in Section 4.0.4, under *Cumulative Impact Analysis*.

Impact C-PSR-1: Implementation of the Project, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on public services that would require new or physically altered governmental facilities, construction of which could have significant physical environmental impacts. (*Less than Significant*)

Significant cumulative impacts related to public services could occur if the incremental impacts of the Project combined with the incremental impacts of one or more of the cumulative projects discussed above substantially increase the need for new or altered public service facilities.

As discussed above under Impacts PSR-1 and PSR-2, the Project would have less than significant impacts with regard to fire protection, emergency medical response services, and police protection services. Cumulative growth in the City would, however, contribute to additional demand for police and fire protection services. The Burlingame General Plan includes a number of goals and policies to address long-term needs for police and fire protection for growth anticipated under the General Plan. This includes Goal CS-2.1 which is to ensure coordinated and effective fire and emergency medical services; Policy CS-2.3 which requires that the CCFD review development proposals to ensure project adequately address fire access and building standards; Policy CS-1.1 requires continued maintenance of optimal police staffing levels necessary to meet current and project community needs; and General Plan Policy CS-1.3 requires appropriate minimum police response times for all call priority levels. The Burlingame *2040 General Plan Final EIR* determined that if cumulative development in the City were to necessitate construction of new or expanded fire or police protection facilities to meet demand over the long term, such facilities would undergo a development review process and be subject to environmental review pursuant to CEQA, and mitigation would be identified, as necessary, to reduce potential impacts related to new or expanded facilities, and implemented by the City through its review procedures. As with the proposed Project, cumulative development projects in the city would also be subject to the Public Facilities Impact Fee. Compliance with these development impact fees would assist in funding new, expanded, or improved public facilities needed to provide expanded services in the City, therefore ensuring fire and police protection services in the City are maintained.

As discussed in Impact PSR-3 the Project would have less than significant impacts with regard to public schools. Cumulative growth in the City, particularly that related to new residential development, would include school age children that would contribute to additional demand for public schools serving the City. Both the BUSD and SMUHSD monitor growth in Burlingame and updates its facilities plans as needed to identify new facility needs, including locations,

timing, and funding for expanded or new classrooms and related facilities. Similar to the Project, cumulative projects would also be subject to pay school impact fees in compliance with SB 50, which would be sufficient for mitigating for any potential impacts to school facilities resulting from long-term growth in the City. The General Plan Final EIR determined that if cumulative development in the City were to necessitate construction of new school facilities to meet demand over the long term, such facilities would be subject to environmental review under CEQA, and mitigation would be identified, as necessary, to reduce potential impacts.

For these reasons, the contribution of the Project to the increase in demand for public services would not be cumulatively considerable, and the impact would be less than significant.

Mitigation: None required.

Impact C-PSR-2: Implementation of the Project, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on parks and recreation. (*Less than Significant*)

Significant cumulative impacts related to parks and recreation could occur if the incremental impacts of the Project combined with the incremental impacts of one or more of the cumulative projects discussed above substantially increase the risk of physical deterioration of parks and recreation facilities.

As discussed above under Impacts PSR-4 and PSR-5, the Project would have less than significant impacts with regard to increase in use of existing parks and recreational facilities, and with new recreational facilities proposed under the Project. Cumulative growth in the City would contribute to additional demand for parks and recreation facilities. The Burlingame *2040 General Plan Final EIR* found that due to lack of vacant land in the City, creating new public park and recreation facilities would be a challenge, and that in the absence of provision of new park and open space, demands on existing facilities could increase. The Final EIR recognized Burlingame General Plan Goal HP-4, which expresses the City's commitment to provide public recreation to meet the needs of its residents, and Policies HP-4.1, HP- 4.4 and HP- 4.8, which promote publicly accessible green space and gathering spots, and ensure that Burlingame residents can walk or bike to a public open space. The Project-proposed Bay Trail extension through the Project site and publicly accessible open space improvement would serve to further General Plan Policy HP-4.8 to provide quality recreational and multi-purpose facilities in the City. The General Plan Final EIR found that with the City's commitment to provide new and/or improved open spaces for new residents and requiring that these requirements be imposed on private development projects, increased demand on existing facilities would be reduced. The General Plan Final EIR also determined that if cumulative development in the City were to necessitate construction of new park and recreation facilities to meet demand over the long term, such facilities would be subject to environmental review under CEQA, and mitigation would be identified, as necessary, to reduce potential impacts. As with the Project, cumulative development projects in the City would be subject to applicable development and facility impact fees as described above that would assist in funding of new parks and recreational facilities in the City.

For these reasons, the contribution of the Project to parks and recreation-related impacts would not be cumulatively considerable, and the impact would be less than significant.

Mitigation: None required.

4.13.4 References

Association of Bay Area Governments (ABAG), 2022. *San Francisco Bay Trail*. Available: https://abag.ca.gov/our-work/projects/san-francisco-bay-trail.

Burlingame Parks & Recreation, 2022. *Parks & Amenities.* Available: https://www.burlingame.org/parksandrec/facilities/parks_and_playgrounds/index.php. Accessed December 8, 2022.

Burlingame Public Library (BPL), 2022. *Easton Branch*. Available: https://www.burlingame.org/library/hours_and_locations/easton_branch.php. Accessed December 8, 2022.

Burlingame School District (BSD), 2022. *2022 Developer Fee Justification Study Burlingame School District*, April 2022. Available: http://bsd-ca.schoolloop.com/file/1514016404431/1456820467807/8212754352274475755.pdf. Accessed December 8, 2022.

Central County Fire Department (CCFD), 2021a. *About CCFD.* Available: https://ccfd.org/about-ccfd/. Accessed December 8, 2022.

CCFD, 2021b. *Fire Station Locations.* Available: https://ccfd.org/about-ccfd/fire-stations/. Accessed December 8, 2022.

CCFD, 2022. *Central County Fire Department Adopted Budget Fiscal Year 2021/2022.* Available: https://ccfd.org/wp-content/uploads/2021/07/Adopted-Budget-Book-Web-1.pdf. Accessed December 8, 2022.

California Department of Education (CDE), 2022a. *Burlingame Elementary.* Available: http://www.ed-data.org/district/San-Mateo/Burlingame-Elementary. Accessed December 8, 2022.

CDE, 2022b. *San Mateo Union High.* Available: http://www.ed-data.org/district/San-Mateo/San-Mateo-Union-High. Accessed December 8, 2022.

City of Burlingame, 2019. *2040 General Plan Final Environmental Impact Report*. certified by City Council January 2019.

City of Burlingame, 2020. *Parks Master Plan*, adopted January 2020. Available: https://cms6.revize.com/revize/burlingamecity/burlingameparksandrecs/document_center/Projects/Parks%20Master%20Plan/BurlingameParksMasterPlan_FINAL%20ADOPTED_1-29-20_spreads.pdf. Accessed December 8, 2022.

City of Burlingame, 2021. *City of Burlingame Master Fee Schedule,* effective July 1, 2021. Available: https://cms6.revize.com/revize/burlingamecity/2021-22%20Master%20Fee%20Schedule%20-%20Final.pdf. Accessed December 15, 2022.

City of Burlingame, 2022. *Police About Us*. Available: https://www.burlingame.org/departments/police_department/about_us.php. Accessed December 8, 2022.

San Mateo Union High School District (SMUHSD), 2022a. *General Information.* Available: https://www.smuhsd.org/domain/55. Accessed December 8, 2022.

SMUHSD, 2022b. *School Impact (Developer) Fees.* Available: https://www.smuhsd.org/domain/2518#:~:text=%241.39%20sq%20foot%20for%20residential,%240.22%20sq%20foot%20for%20commercial. Accessed December 8, 2022.

State Allocation Board, Office of Public School Instruction. 2008. Enrollment Certification/Projection. Available: https://www.dgsapps.dgs.ca.gov/OPSC/ab1014/sab50-01instructions.pdf. Accessed: December 27, 2022.

U.S. Census Bureau, 2021. *QuickFacts Burlingame City, California.* Available: https://www.census.gov/quickfacts/fact/table/burlingamecitycalifornia/AGE295221. Accessed December 15, 2022.

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4.14 Transportation

This section evaluates whether implementation of the proposed Project would conflict with programs, plans, ordinances, or policies addressing the circulation system, conflict with CEQA Guidelines Section 15064.3(b), introduce potentially hazardous conditions, or result in inadequate emergency access. This section analyzes the potential for both Project-level and cumulative impacts related to transportation. The analysis in this section is based in part on Project-specific technical analysis included in a Transportation Impact Analysis prepared in support of the Project (**Appendix TR**).

4.14.1 Environmental Setting

This section describes the existing transportation and circulation setting near the Project site: the existing roadway network, transit network and service, pedestrian conditions, bicycle conditions, and emergency vehicle access.

Roadway Facilities

Regional vehicle access to the Project site is provided via U.S. 101, Broadway, and Old Bayshore Highway. Old Bayshore Highway provides direct access to northbound U.S. 101. Old Bayshore Highway also provides access to southbound U.S. 101 via the U.S. 101/Broadway interchange. Existing vehicular access to the Project site is provided via ten driveways along the Old Bayshore Highway frontage and one driveway on Airport Boulevard. Key local roadways near the Project site are described below. Street classifications are from the *Burlingame General Plan* mobility chapter.

U.S. 101 is an eight-lane freeway and principal north-south roadway connection between San Francisco, San José, and intermediate San Francisco Peninsula cities. In Burlingame, U.S. 101 is located approximately 600 feet south of the Project site and serves the city's Bayfront employment area with four primary access points: Peninsula Avenue (northbound access via Airport Boulevard and southbound access via Poplar Avenue), Anza Boulevard, Broadway, and Millbrae Avenue.

Old Bayshore Highway is a north-south Mixed-Use arterial that connects Millbrae Avenue to the north with the U.S. 101/Broadway interchange to the south. The roadway is two lanes in each direction with a center two-way left turn lane. Old Bayshore Highway is the primary arterial roadway that serves the northern half of the Bayfront Area.

Airport Boulevard is an east-west Mixed-Use Arterial that connects U.S. 101 at Broadway to the west and Peninsula Avenue and the northbound U.S. 101 ramps to the east. Between Anza Boulevard and Broadway, Airport Boulevard is one lane in each direction and east of Anza Boulevard widens to two lanes in each direction with a two-way left turn lane before narrowing to one lane in each direction at the San Mateo city boundary. Airport Boulevard is the primary arterial that serves the southern half of the Bayfront area.

Anza Boulevard is a north/south Mixed-Use Collector that connects Airport Boulevard to the north and U.S. 101 to the south, where the roadway begins and ends as on- and off-ramps to northbound U.S. 101. North of Airport Boulevard, the roadway continues to the north approximately 200 feet before becoming a private street that serves several properties before terminating at the Anza Lagoon. The roadway is one lane in each direction except for the approaches to the Airport Boulevard intersection.

Broadway is an east-west corridor with three street classifications. Between Vancouver Avenue and El Camino Real, the roadway is a neighborhood collector; between El Camino Real and California Drive, a Commercial Arterial, and between California Drive and Old Bayshore Highway, a Mixed-Use arterial. The third segment between California Drive and Old Bayshore Highway is the nearest and most relevant segment to the proposed Project as it functions as the interchange with north and southbound U.S. 101 and provides primary southbound U.S. 101 access to the Project site. This segment is two to three lanes in each direction with multiple left- and right-turn lanes approaching intersections.

Peninsula Avenue is an east-west corridor that connects El Camino Real to the west with Airport Boulevard to the East and crosses U.S. 101 but lacks direct on- and off-ramps. Northbound and southbound freeway access is provided via Airport Boulevard and Poplar Avenue, respectively. In Burlingame, the roadway is classified as a Neighborhood Arterial and in San Mateo it is classified as an Arterial.

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, off-street trails, and pedestrian traffic control devices such as signals. Pedestrian facilities near the Project site tend to serve walking trips connecting to shuttle stops, multi-use trails, and nearby offices and businesses. Near the Project site, sidewalk widths on public streets range from five to nine feet. The following pedestrian facilities exist near the Project site:

Old Bayshore Highway has sidewalks on the east and west side of the roadway and serves as a connection from the Project site to the existing Commute.org shuttle stop at 1333 Old Bayshore Highway. Old Bayshore Highway provides a pedestrian connection to the Bay Trail to the south via Airport Boulevard.

The Bayside Crossing is an overpass that provides separated bicycle and pedestrian access across U.S. 101. The overcrossing connects to Bay Trail at the Broadway/Old Bayshore Highway intersection and touches down at the intersection of Rollins Road and Cadillac Way, 0.25 miles from the Broadway Caltrain Station.

Broadway has sidewalks on the north side of the roadway and serves as a connection from the Project site to the Broadway Caltrain Station and commercial areas west of U.S. 101. The intersection of Old Bayshore Highway and Broadway has pedestrian signals and crosswalks at the north, east, and west legs of the intersections.

Bicycle Facilities

Bicycle facilities consist of separated bikeways, bicycle lanes, routes, trails, and paths, as well as bicycle parking, bicycle lockers, and showers for cyclists. The California Department of Transportation (Caltrans) recognizes four classifications of bicycle facilities as described below.

Class I – Shared-Use Pathway: Provides a completely separated off-street right-of-way for the exclusive use of cyclists and pedestrians.

Class II – Bicycle Lanes: Provides a striped lane for one-way travel on a street or highway. May include a "buffer" zone (i.e., Class IIB Bicycle Lanes) consisting of a striped portion of roadway between the bicycle lane and the nearest vehicle travel lane.

Class III – Bicycle Route: Provides for shared use with motor vehicle traffic; however, are often signed or include a striped bicycle lane.

Class IV – Separated Bikeway: Provides a right-of-way designated exclusively for bicycle travel adjacent to a roadway and which are protected from vehicular traffic. Types of separation include, but are not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

Existing and planned bicycle facilities near the Project site, as designated by the City of Burlingame's *Bicycle and Pedestrian Master Plan* (BPMP) (City of Burlingame 2020), are shown in **Figure 4.14-1** and are discussed below.

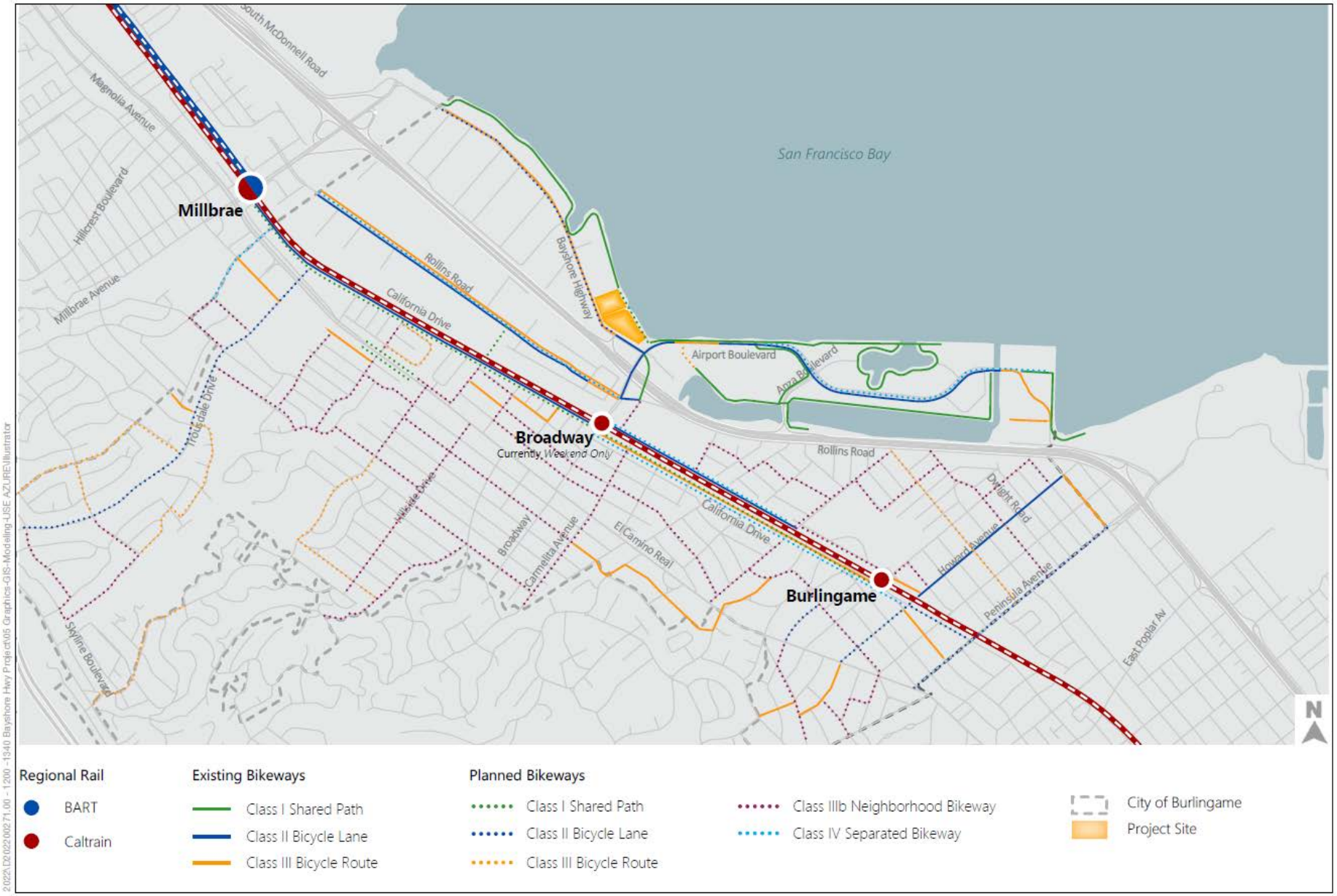
Old Bayshore Highway has a Class III bicycle route that provides connectivity along the Bayfront from the Project site to Burlingame's northern boundary. The corridor is a planned Class IIB buffered bicycle lane in the BPMP.

Broadway has Class II bicycle lanes that provide connectivity across U.S. 101 to and from the Project site. The Broadway crossing of U.S. 101 is one of only two U.S. 101 bike crossing locations in Burlingame and is located 0.3 miles from the Project site.

The San Francisco Bay Trail (Bay Trail) is a Class I path that runs along the Bayfront shoreline and is part of a planned 400-mile regional trail system encircling the San Francisco Bay. The San Francisco Bay Trail can be accessed directly from the Project site, however a 1,475-foot gap in the trail currently exists along the Project parcels. From the Project site, the Bay Trail provides access along the Bayfront to Bayfront Park to the north and Anza Lagoon to the south.

Transit Service and Facilities

The Project site is not directly served by regional bus, rail, or ferry service but instead relies on supplementary first- and last-mile public shuttle services to connect employees with the regional transit network. The Peninsula Traffic Congestion Relief Alliance (Commute.org) Burlingame Point shuttle provides weekday commute-period shuttle service along the Old Bayshore Highway corridor to and from the Millbrae Caltrain/BART intermodal station. Existing transit service is shown in **Figure 4.14-2** and is discussed below.



4.14-4

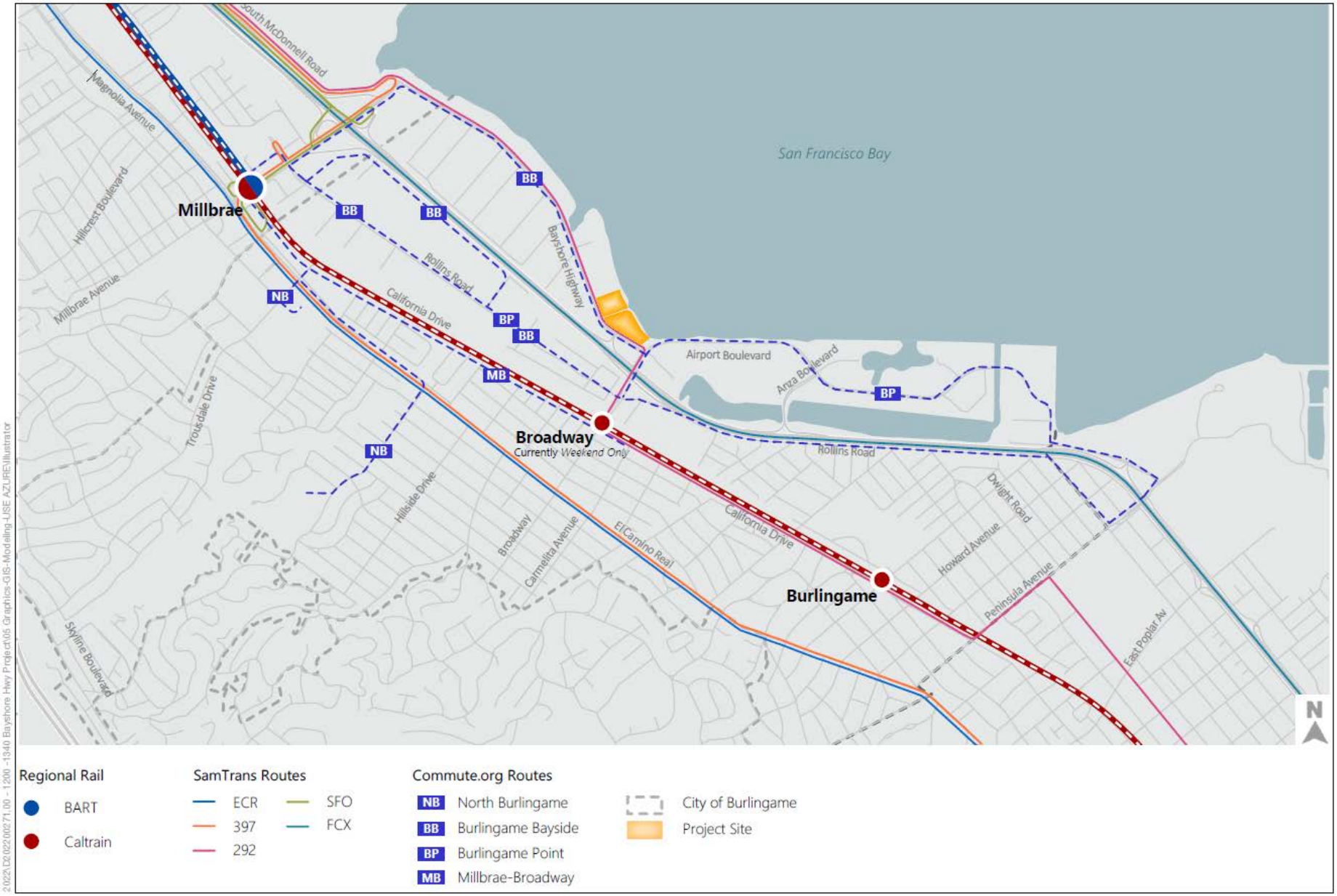
2022\ D2022002 71.00 - 1200 -1340 Bayshore Hwy Project\05 Graphics-GIS-Modeling-USE AZURE\Illustrator

SOURCE: Fehr & Peers, 2022

1200-1340 Old Bayshore Highway EIR

Figure 4.14-1
Existing and Planned Bicycle Facilities

ESA



4.14-5

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SOURCE: Fehr & Peers, 2022

1200-1340 Old Bayshore Highway EIR

Figure 4.14-2
Existing Transit Service

ESA

Regional Transit Service

Transit services that operate within the city of Burlingame and are accessible from the Project site by walking, bicycling, or the first- and last-mile shuttle connection provided by Commute.org are described below. Both Caltrain and Bay Area Rapid Transit (BART) provide regional rail service on the Peninsula and near the Project site at three stations.

Caltrain provides service between San Francisco and San José and limited-weekday peak commute period trains to Morgan Hill and Gilroy. During weekdays, Caltrain operates three train service tiers that feature different stopping patterns: Local, Limited, and Baby Bullet express. Local trains make all stops between San Francisco and San José while Limited and Baby Bullet express trains make fewer stops to provide faster travel times between key stations during peak commute periods. Caltrain has increased service relative to pre-pandemic levels.

BART provides service between the East Bay, San Francisco, and San Mateo County, connecting between San Francisco International Airport (SFO) and Millbrae Intermodal Station to the south, San Francisco to the north, and Oakland, Richmond, Antioch, Dublin/Pleasanton, and Berryessa/North San José in the East Bay and South Bay. During peak commute periods, BART service has returned to near pre-pandemic levels by providing trains on all lines every 15 minutes. Off-peak service remains reduced at approximately 30-minute headways on all lines.

Two Caltrain stations and one BART/Caltrain intermodal station are located near the Project site and are described below.

- ***Caltrain Broadway Station*** – Located in Burlingame's Broadway district, the Broadway Station is approximately 0.5 miles from the Project site. The Broadway station is currently not served by weekday trains. Weekday service is anticipated to resume in 2024 upon completion of the Peninsula Corridor Electrification Project.
- ***Caltrain Burlingame Station*** – Located in downtown Burlingame, the Burlingame Station is approximately 1.7 miles from the Project site. During weekday commute periods, Burlingame is served by limited and local service.
- ***Caltrain/BART Millbrae Intermodal Station*** – Located in downtown Millbrae, the Millbrae Intermodal Station is approximately 2.2 miles from the Project site. Of the three Caltrain stations near the Project site, this station receives the most weekday rail service both because both Caltrain and BART serve the station, and because Caltrain Local, Limited, and Baby Bullet express trains stop at the station. In addition, the Commute.org Burlingame Point shuttle begins and ends at the Millbrae station and is the sole transit route that directly serves the Project vicinity.

San Mateo County Transit District (SamTrans) provides bus service in San Mateo County and the Project site is directly served by Line 292. The closest SamTrans stop to the Project site is approximately 0.1 miles away at 1350 Old Bayshore Highway. This stop is served by route 292 which operates between the Hillsdale Mall in San Mateo and the Salesforce Transit Center in San Francisco via local streets that roughly parallel the U.S. 101 corridor. In Burlingame, route 292 operates along California Drive, Broadway, and Old Bayshore Highway and provides service on approximately 30-minute headways during weekday peak commute hours.

As part of the multi-year comprehensive network analysis Reimagine SamTrans (SamTrans 2022), SamTrans evaluated existing transit service routes and developed additional routes to improve the experience for existing riders, grow new and more frequent ridership, and improve the efficiency and effectiveness of SamTrans as a mobility provider. However, no major service changes near the Project site were included in the final plan that was adopted by the SamTrans board in April 2022.

Bayfront Commuter Shuttle Service

Peninsula Traffic Congestion Relief Alliance (Commute.org) provides weekday commute period first- and last- mile shuttles connecting employers with BART and Caltrain. The shuttles are equipped with bicycle racks. Service is roughly distributed between the Bayfront area and the Burlingame mainland along Rollins Road, California Drive, and Bayshore Highway. At present, shuttle access to the Project site is provided by an existing stop at 1333 Bayshore Highway, about 2 miles southeast from the El Camino Real/Millbrae Avenue intersection, which is served by the Caltrain and BART routes. Each shuttle operates at approximately 20-minute headways during commuting a.m. and p.m. peak periods.

Emergency Vehicle Access

Emergency vehicles typically use major streets through the study area when heading to and from an emergency and/or emergency facility. Arterial roadways allow emergency vehicles to travel at higher speeds and provide enough clearance space to permit other traffic to maneuver out of the path of the emergency vehicle and yield the right-of-way. Central County Fire Department (CCFD) Fire Station 34, is located at 799 California Drive (approximately 0.8 mile southeast from the Project site) and CCFD Fire Station 35, located at 2832 Hillside Drive (approximately 1.1 miles southwest from the Project site). Existing emergency access to the Project site is available via the vehicle access driveways on Bayshore Highway and Airport Boulevard. The Project site currently allows for larger vehicle (e.g., fire trucks) turning movements into and out of the site.

4.14.2 Regulatory Framework

State

California Department of Transportation

Caltrans has authority over the state highway system, including freeways, interchanges, and arterial routes. Caltrans operates and maintains state highways in the Project site vicinity. The *Vehicle Miles Traveled-Focused Transportation Impact Study Guide* (Caltrans 2020a) provides information that Caltrans uses to review impacts on state highway facilities, including freeway segments, consistent with the requirements of Senate Bill (SB) 743.

Complete Streets (AB 1358)

Assembly Bill (AB) 1358, also known as the California Complete Streets Act of 2008, requires cities and counties to include “complete street” policies in their general plans. These policies address issues regarding the safe accommodation of all users, including bicyclists, pedestrians,

motorists, public transit vehicles and riders, children, the elderly, and persons with disabilities. These policies can apply to new streets as well as the redesign of transportation corridors.

Senate Bill 743

SB 743 is intended to better align CEQA transportation impact analysis practices and mitigation outcomes with the State's goals to reduce greenhouse gas (GHG) emissions, encourage infill development, and improve public health through more active transportation. The law creates several key statewide changes to the California Environmental Quality Act (CEQA).

First, the law requires the Governor's Office of Planning and Research (OPR) to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPAs) and allows OPR to extend use of the metrics beyond TPAs. OPR selected vehicle miles of travel (VMT) as the preferred transportation impact metric and applied their discretion to require its use statewide.

Second, this legislation establishes that aesthetic and parking impacts of a residential, mixed-use residential, or employment center projects on an infill site within a TPA shall not be considered significant impacts on the environment. Please see Section 4.0.2 in this EIR for additional detail on correlating CEQA *Statute* Section 21099(d) as it relates to the proposed Project.

Third, the new CEQA Guidelines that implement this legislation state that generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts, and that as of July 1, 2020, this requirement shall apply statewide, but that until that date, lead agencies may elect to rely on VMT rather than level of service (LOS) to analyze transportation impacts.

Finally, the law establishes a new CEQA exemption for a residential, mixed-use, and employment center project a) within a transit priority area, b) consistent with a specific plan for which an EIR has been certified, and c) consistent with a Sustainable Communities Strategy (SCS). This exemption requires further review if the project or circumstances changes significantly.

To aid in SB 743 implementation, the following state guidance has been issued:

- *Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018)*
- *California Air Resources Board (CARB) 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals*, California Air Resources Board (CARB 2019)
- *Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance* (Caltrans 2020b)

CARB's 2017 *Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals* provides recommendations for VMT reduction thresholds that would be necessary to achieve the State's GHG reduction goals. CARB finds per-capita light-duty vehicle travel would need to be approximately 16.8 percent lower than existing by 2050, and overall, per-capita vehicle travel would need to be approximately 14.3 percent lower than existing levels by 2050 under that scenario. CARB also acknowledges that the SCS targets are not sufficient to meet climate goals. As stated in the report, "…the full reduction needed to meet our climate goals is an approximately

25 percent reduction in statewide per capita on-road light-duty transportation-related GHG emissions by 2035 relative to 2005."

OPR considered this research when developing recommended VMT thresholds. In the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018), OPR recommends that a per capita or per employee VMT that is 15 percent below that of existing development may be a reasonable threshold. This threshold is based on the above-mentioned research documents from CARB as well as evidence that suggests a 15 percent reduction in VMT is achievable at the project level in a variety of place types and would help the State towards achieving its climate goals. However, each jurisdiction must apply the statewide VMT analysis guidance based on available travel data and tools.

Regional

San Mateo City/County Association of Governments

The San Mateo City/County Association of Governments (C/CAG) is the Congestion Management Agency (CMA) for San Mateo County and is authorized to set state and federal funding priorities for improvements affecting the San Mateo County Congestion Management Program (CMP) roadway system. The C/CAG-designated CMP roadway system in Burlingame near the Project site includes U.S. 101.

C/CAG is responsible for overseeing the CMP, which includes the Land Use Impact Analysis Program Policy, also known as the "TDM Policy." C/CAG's TDM Policy is a component of the CMP that provides guidelines for analyzing the impact of land use decisions made by municipalities in San Mateo County. The policy requires that local jurisdictions implement specific measures to reduce the demand for single occupancy vehicle (SOV) trips of all new developments that are expected to generate at least 100 average daily trips (ADT). C/CAG requires submission of a TDM checklist alongside a project's development application and monitoring for the first three years of the development to assess compliance with the TDM plan.

Plan Bay Area

Plan Bay Area is overseen by the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG). It serves as the region's Sustainable Communities Strategy (SCS) pursuant to SB 375 and the 2050 Regional Transportation Plan (RTP), integrating transportation and land use strategies to manage greenhouse gas (GHG) emissions and plan for future population growth. The RTP and SCS include policies that call for shifting more travel demand to transit and accommodating growth along transit corridors in "Priority Development Areas." While ABAG and the MTC adopted *Plan Bay Area 2050* in 2021 (MTC and ABAG 2021), it will be several years before the regional transportation model and county transportation models are updated to reflect its projections (the models currently incorporate data from *Plan Bay Area 2040* because *Plan Bay Area 2050* growth projections are not yet available at the level of detail that includes local jurisdictions such as Burlingame).

Major regional transportation projects near the Project site area included in *Plan Bay Area 2050* include pricing strategies on U.S. 101 (i.e., per-mile tolling), new high-speed rail service, Caltrain electrification and increased service frequency, and improvements to local and express bus services.

Local

City of Burlingame General Plan

The City updated its General Plan in 2019 (City of Burlingame 2019) to include key land use, mobility, and economic development policies that focus on the Bayfront planning area, which is generally the area between the San Francisco Bay and U.S. 101 and is the location of the Project site. The Economic Development Element emphasizes the City's interest to attract office and research and development uses to the Bayfront area while the Community Character and Mobility Elements contain goals that support this vision. Relevant policies are listed below.

Chapter IV. Community Character (Land Use) Element

Policy CC-1.5: Transportation Demand Management. Require that all major development projects include a Transportation Demand Management (TDM) program, as defined in the City's TDM regulations, to reduce single occupancy car trips. "Major development" shall be defined in the TDM regulations by square footage for commercial development, or minimum number of units for residential development.

Policy CC-6.3: Infill Development (Bayfront Area). Encourage increased intensity via high-quality infill development on surface parking lots, and support the conversion of surface parking lots into active commercial and hospitality uses.

Chapter VI. Mobility Element

Policy M-1.1: Complete Streets. Define and develop a well-connected network of Complete Streets that can move all modes safely, efficiently, and comfortably to promote efficient circulation while also improving public health, safety, and accessibility.

Policy M-1.2: Connectivity to Destinations. Connect commercial districts, centers of employment, civic uses, parks, schools, and other destinations with high-quality options for all travel modes. Ensure the system accommodates the needs of all users, including youth, the elderly, and people with disabilities.

Policy M-1.3: Focus on Pedestrian and Bicycle Safety. Ensure that pedestrian and bicyclist safety at intersections is prioritized in roadway improvement projects.

Policy M-2.1: Pedestrian Amenities and Access. Expand pedestrian access by eliminating gaps in sidewalk and path networks, improving safety, and requiring safe and comfortable pedestrian facilities. Possible enhancements to the pedestrian network include:

- Enhanced pedestrian/bicycle access to the Bayfront
- Near schools, libraries, and City Hall
- Around commuter rail stations
- Pedestrian overcrossing or undercrossing of rail tracks between Trousdale Drive and Broadway

Policy M-2.2: Walkable Infrastructure and Access to Destinations. Ensure that schools, commercial districts, employment destinations, parks, civic facilities, and transit stops have safe and convenient pedestrian access, including connections across Highway 101 and trails through parks and regional networks. Explore improving access across Highway 101 exclusively for pedestrians and cyclists.

Policy M-2.3: Pedestrian Priority. Promote and prioritize pedestrian improvements and safety where conflicts or problems exist between pedestrians and other travel modes.

Policy M-3.1: Uninterrupted Bicycle Network. Develop a safe, convenient, and integrated bicycle network that connects residential neighborhoods to employment, education, recreation, and commercial destinations throughout Burlingame, as illustrated in Figure M-2.

Policy M-3.2: Safe and Functional Network. Ensure that roadway intersections, crossings, on-street bicycle lanes (Class II), separated bicycle paths (Class I), and other bicycle network facilities provide safe and comfortable connections to support continuous bicycle routes.

Policy M-3.5: Bicycle Wayfinding Signage and Marked Routes. Encourage bicycling by providing wayfinding signage that directs bicyclists to designated bike routes and to civic places, cultural amenities, and visitor and recreational destinations. Along bike routes, provide clear and unambiguous signage that alerts drivers to the presence of cyclists.

Policy M-3.6: Support Facilities for Cyclists. Provide standards in the Zoning Code that address required bicycle parking, including provisions for secured facilities, as well as other development features and incentives that encourage bicycle use (e.g., changing rooms at places of business).

Policy M-4.4: Access to Transit. Ensure roadways and sidewalks near transit stops are designed to protect pedestrians and bicyclists and are well-connected to provide seamless access to and from transit.

Policy M-4.7: Shuttle Service. Increase use of available shuttles in Burlingame by improving signage, outreach, and coordination with co-sponsors.

Policy M-5.1: TDM Guidelines and Programs. Establish specific TDM guidelines and requirements within the Zoning Code that encourage travel by a variety of modes for both individuals and employees, focusing different strategies in different parts of the community as appropriate to promote sustainability and economic development.

Policy M-6.1: Transit Supportive Land Use. Plan for and accommodate land uses that facilitate development of compact, mixed-use development with the density, diversity of use, and local accessibility supportive of transit use.

Policy M-6.2: Mixed Use Areas. Promote residential, employment, recreation, and commercial uses within designated mixed-use areas to reduce walking distances between destinations and to create an active street environment throughout the day.

Policy M-6.3: Building Access and Site Design. Establish site design guidelines that require entrances facing the street to provide convenient and direct access to pedestrians and transit users.

Policy M-8.1: Electric Vehicle Infrastructure. Identify electric vehicle charging priority locations and opportunities to integrate emerging technology into public parking infrastructure to encourage and expand the use of zero-emissions vehicles.

Policy M-8.2: Vehicle Trip Reduction. Support vehicle trip reduction strategies, including building safer and more inviting active transportation networks, supporting connections to high frequency and regional transit, implementing TDM programs, and integrating land use and transportation decisions.

Policy M-9.1: Vehicle Miles Traveled (VMT) Transportation Performance Measures. Update the City's transportation performance measures to use vehicle miles traveled (VMT) standards for traffic impact analyses instead of level of service (LOS) standards.

Policy M-14.1: Old Bayshore Highway and Airport Boulevard. Design and apply complete streets improvements to the Old Bayshore Highway and Airport Boulevard corridors.

Policy M-14: 2 Bay Trail. Identify and construct multimodal paths to complete all gaps in the Bay Trail.

Bicycle and Pedestrian Master Plan

The BPMP aims to improve the safety, health, and quality of life of Burlingame residents through transportation infrastructure, programs, and policy improvements that enhance the safety, comfort, and attractiveness of walking and bicycling for people of all ages and abilities. The BPMP includes a series of goals and objectives that focus on creating a connected, safe, and comfortable bicycling and walking network that's attractive for a variety of trip purposes. In the Bayfront area and the vicinity of the Project site, the BPMP identifies a need to strengthen bicycle connections between employment areas and regional transit stations such as Millbrae BART/Caltrain and the City's two Caltrain stations. As discussed in Section 4.14-1, *Environmental Setting*, the BPMP recommends upgrading the existing bicycle lanes on Old Bayshore Highway with Class II buffered bike lanes.

Old Bayshore Highway Corridor Feasibility Study

The Old Bayshore Highway Corridor Feasibility Study (City of Burlingame 2022) presents concepts for Old Bayshore Highway between the northern limit of the City of Burlingame to Broadway, with the objective of creating a comfortable corridor for bicycles, pedestrians, mass transit, and vehicles, and improving connections to the Bay Trail. Near the Project site, the study identifies opportunities to improve connections to the Bay Trail through new access points and improve comfort for people walking by widening sidewalks, planting street trees, and considering pedestrian crossing enhancements like new high visibility crosswalks. Consistent with the BPMP, the Study also recommends installing Class II buffered bicycle lanes along the length of the Old Bayshore Highway Corridor.

City of Burlingame Municipal Code

The City of Burlingame's Transportation Demand Management Ordinance outlines trip reduction measures required of new development projects that meet certain sized criteria. All projects are required to meet vehicle trip generation rates that are 20 percent lower than the standard rates as established in the most recent edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. Additionally, the City of Burlingame requires ongoing monitoring and an annual TDM report.

City of Burlingame Climate Action Plan

The City of Burlingame's *2030 Climate Action Plan Update* (CAP) presents the City's blueprint for reducing greenhouse gas emissions in Burlingame. The CAP requires that all new commercial developments of 10,000 square feet or larger incorporate TDM strategies that reduce trip generation by 20 percent compared to the standard rate estimated by the ITE Trip Generation Manual (10th Edition).

4.14.3 Impacts and Mitigation Measures

Significance Criteria

The proposed Project would result in a significant impact to transportation if it would:

a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);

c) Substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or

d) Result in inadequate emergency access.

Approach to Analysis

VMT Analysis Approach

CEQA Guidelines Section 15064.3, subdivision (b) and OPR's 2018 Technical Advisory provide lead agencies a VMT analytical framework to assess development projects. While each agency may adopt a customized methodology and impact thresholds, both the CEQA Guidelines and the OPR Technical Advisory recommend using "screening thresholds" to quickly identify when a project should be expected to cause less-than-significant impacts without conducting a detailed study. Two identified screening approaches are relevant to employment land uses: proximity to transit and location in a low-VMT area. For the proposed Project, the approach to screening is focused on proximity to transit.

CEQA Guidelines Section 15064.3(b)(1) states that generally, projects within one-half mile of an existing "major transit stop" or a stop along an existing "high quality transit corridor" should be presumed to cause less-than-significant transportation impact. Both "major transit stop" and "high quality transit corridor" are defined below:

> **Major Transit Stop:** A stop that contains an existing rail or bus rapid transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a service interval of 15 minutes or less during the morning and afternoon peak commute periods.[1]

[1] A "major transit stop" is defined in CEQA *Statute* 21064.3 as a site containing any of the following: an existing rail or bus rapid transit station; a ferry terminal served by either a bus or rail transit service; or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

> **High-Quality Transit Corridor:** A corridor with fixed-route bus service with service intervals no longer than 15 minutes during commute hours. Furthermore, all parcels within the project should have no more than 25 percent of their area farther than one-half mile from the stop or corridor.[2]

The proposed Project meets the first criteria because it is located within a one-half mile of a major transit stop as defined in the CEQA *Statutes* – namely, the Broadway Caltrain station. With respect to the second criteria, the Project would upgrade the Commute.org Burlingame Bayside shuttle, a public fixed-route transit service that stops less than one-half mile from the Project site, to maintain 15-minute headways or better during the weekday peak commute periods, and add two stop locations along the Project frontage. In addition, the entire Project site is located within one-half mile from the proposed stop locations and the transit corridor. With the Project applicant's funding commitments for this upgrade, this fixed route transit service would qualify as a "high quality transit corridor" as defined in the CEQA *Statutes*, and accordingly, the proposed Project also would meet this second criteria. However, the OPR Technical Advisory suggests that the less-than-significant presumption would not apply if project- or location-specific information indicates the project would still generate significant levels of VMT. If any of the following exceptions to the presumption apply, then the OPR Technical Advisory recommends a detailed VMT analysis be conducted to determine whether the project would exceed VMT thresholds:

- Floor Area Ratio (FAR) < 0.75
- More parking than required by City code
- Inconsistent with the applicable RTP/SCS, as determined by the City
- Replace affordable housing units with market-rate units

Based on the Project's proposed parking supply (please see Chapter 3.3, *Project Characteristics*), the Project would provide a total of 3,400 parking spaces, which is greater than the 2,105 spaces required by City code. Therefore, the proposed Project would not qualify for the VMT impact screening described above, and a detailed VMT analysis is required.

Project TDM Plan

The Project proposes a TDM Plan, intended to reduce the number of Project drive-alone trips by shifting a portion of those trips to more sustainable modes (e.g., walking, biking, carpooling, using transit), and thus, reduce traffic congestion, reduce GHG emissions and other air pollution, and reduce the demand for parking. The Project is required to comply with the City of Burlingame TDM Ordinance and the C/CAG TDM Program (see Section 4.14.2, *Regulatory Framework*).

As described in Chapter 3, *Project Description*, Project would include supportive TDM infrastructure as well as measures such as tenant access to public transportation, pedestrian

[2] CEQA *Statute* Section 21155(b) defines a "high-quality transit corridor" as a corridor with a fixed route bus service with service intervals no longer than 15 minutes during peak commute hours. Furthermore, PRC Section 21155(b) indicates that all parcels within the project should have no more than 25 percent of their area farther than one-half mile from the stop or corridor.

amenities, bicycle parking, and shower facilities. Because the Project may be occupied by one or more tenants, the Project applicant would require tenants, by lease agreement, to actively incorporate and participate in suitable TDM measures to achieve the purpose of the TDM Plan. The following measures would be considered in order to achieve the minimum 20 percent reduction goal:

- **Increase Job Density:** This measure accounts for the VMT reduction achieved by a project that is designed with a higher density of jobs compared to the average job density in the U.S. Increased densities affect the distance people travel and provide greater options for the mode of travel they choose. Increasing job density results in shorter and fewer trips by single-occupancy vehicles, and thus, a reduction in GHG emissions. It also takes into account the presence of on-site complimentary land uses and amenities that would support reduced vehicle trips.
- **Implement Commute Trip Reduction Marketing:** This measure would require tenants to implement a marketing strategy that promotes employee trip reduction. This would include information sharing and marketing and additional amenities that make it easy for employees to opt for non-auto modes.
  - *Transportation Manager and Commute Marketing Program*. Each tenant's transportation manager would be responsible for: providing commute program assistance to employees, and serving as the primary point of contact for employees who wish to commute using an alternative; working with local agencies as needed, such as Caltrain, SamTrans, 511 Rideshare, BAAQMD, and Commute.org; and cataloging all existing incentives that encourage employees to utilize alternative transportation programs.
  - *Guaranteed Ride Home Program*. Under this program, employees can use a taxi service, rental car, or other means to get home, and the employer pays for the service. Commute.org provides a Guaranteed Ride Home program for all employees in San Mateo County who use an alternative to driving alone to get to work.
- **End of Trip Facilities:** End-of-Trip facilities include amenities that make it easier for employees to choose biking as a form of transportation, thereby reducing VMT and GHG emissions. These amenities include secure bike parking (such as bike lockers), showers, personal employee lockers, and on-site bicycle repair station. This measure includes installing and maintaining end-of-trip facilities for employee use.
- **Pedestrian and Bicycle Network Improvements:** This measure would increase the sidewalk and bicycle facility coverage to improve pedestrian and bicycle access. This mode shift would result in a reduction in VMT and GHG emissions.
- **Extend Transit Network Coverage or Hours:** This measure would expand the local transit network by either adding or modifying existing transit service or extending the operation hours to enhance the service near the Project site. Starting services earlier in the morning and/or extending services to late-night hours can accommodate the commute times of alternative-shift workers. This would encourage the use of transit and therefore reduce VMT and associated GHG emissions.
- **Employee Survey:** At the time of employment, new employees would be asked to complete a short online survey to gauge their transportation needs and commute preferences. This survey would also allow the transportation manager to best connect the employee with transit resources, bicycle route maps, and 511.org or Scoop ride-matching sources. This survey would also act as an early opportunity to educate employees about resources and benefits.

Tenants would administer, at minimum, a bi-annual employee survey that would capture how each employee would access the Project site and any trips they made during the day. This survey would provide reports to the City of Burlingame on commute patterns, mode splits, and TDM program success. In addition, annual surveys would allow transportation managers to regularly assess and make adjustments as needed to improve transportation options available to employees.

Impact Analysis

Impact TR-1: Implementation of the Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. (*Less than Significant*)

A significant impact would occur if Project traffic would substantially affect performance or safety of existing bicycle or pedestrian facilities, or conflict with adopted plans and programs. In addition, a significant impact would occur if Project traffic would substantially affect the performance or safety of local transit or shuttle service or conflict with adopted plans and programs.

Project Construction

As discussed in Chapter 3, *Project Description*, Project construction would occur over an approximate 3 1/2 –year duration. Project construction would generate a temporary increase in off-site truck trips for deliveries of building materials, transportation of construction equipment to and from the Project site, and hauling of soils and debris from the Project site; as well as generate daily construction worker vehicle trips. Project construction would also require occasional work within adjacent roadways and sidewalks (e.g., for any utility connections, and off-site circulation improvements). As such, intermittent and temporary closures of adjacent sidewalks, and roadway travel lane(s), including bike lanes, would occur during construction.

Prior to first phase of construction, the construction contractor would be required to prepare traffic control plans addressing each phase of construction as part of the City's encroachment permit process. The traffic control plans would provide for rerouting for pedestrians, bicyclists and motorists during construction, as needed. The traffic control plan would document how temporary facilities, detour routes, and/or signage would be provided consistent with guidance provided by the California Manual on Uniform Traffic Control Devices (CA-MUTCD). The traffic control plan would also address construction access, staging and hours of delivery; identify routes for construction haul trucks to utilize; and provide for active management of construction truck traffic, as needed. Any detours during construction, and increases in construction traffic, and would be temporary and would not fully impede movement or have a sustained detrimental impact on existing roadway, bicycle and/or pedestrian facilities. Therefore, construction of the proposed Project would not result in conflicts with programs, plans, ordinances, or policies addressing the circulation system.

Project Operation

Bicycle and Pedestrian Analysis

Operation of the proposed Project would generate new pedestrian and bicycle trips, particularly employees traveling to and from shuttle stops and bicyclists traveling to Burlingame and

destinations west of the U.S. 101 freeway, including the Caltrain/BART Millbrae Intermodal Station, and the Caltrain Burlingame and Broadway Stations. As discussed in Chapter 3, *Project Description*, the Project proposes to participate in funding a Commute.org shuttle service, with a stop adjacent to the Project site along Old Bayshore Highway, that would connect to the Millbrae station. Consequently, most new pedestrian trips generated by the Project are expected to be the Commute.org shuttle riders accessing the Project site.

Along the Project's frontage, there are a number of proposed modifications to the existing pedestrian facilities in the Project vicinity, as described in the Chapter 3, under *Vehicular, Bicycle and Pedestrian Circulation*, and shown in Figure 3-10. New sidewalks ranging from 6 feet to 11 feet in width would be developed on the Project site frontage on Old Bayshore Highway and on Airport Boulevard, and new signalized crosswalks are proposed across the Project's northern most driveway and main driveway. The sidewalk on Old Bayshore Highway would connect to a new public trail that would be built along both sides of Easton Creek which would provide a key pedestrian connection to the proposed Bay Trail extension through the Project site. The Bay Trail extension would close the existing gap in the Bay Trail at this location. The proposed extension of the Bay Trail would include transitions to existing segments of the Bay Trail at the north and south end of the Project site, as well as a pedestrian/bicycle bridge over Easton Creek.

Most new bicycle trips are expected to occur either along Old Bayshore Highway and the Bay Trail. Both serve as the linkages between the Project site, the closest Caltrain stations, and other areas of Burlingame. As discussed in Section 4.14-1, *Environmental Setting*, in the Project vicinity, the Bay Trail is a Class I off-street, paved path with minimal vehicle conflicts; and Old Bayshore Highway has Class III bicycle facilities, including 200 feet of a striped bike lane extending north from the Old Bayshore Highway/Airport Boulevard intersection. The proposed Project would extend the striped bike lane across the full length of the Project site along Old Bayshore Highway, and provide a 7-foot Class II buffered bike lane consisting of a 2-foot buffer and 5-feet of travel space. This improvement is consistent with the City's Old Bayshore Highway Feasibility Study and BPMP, which propose Class II buffered bicycle lanes on Old Bayshore Highway. There are also Project-proposed bicycle-specific treatments at the Broadway/ Old Bayshore Highway Boulevard intersection, to ensure connection to the Bayside Crossing bicycle/ pedestrian bridge that crosses the U.S. 101 freeway.

As discussed in Chapter 3, the proposed Project would include 509 long-term Class I bike parking which would be located in "cycle centers" adjacent to the lobbies at the plaza level of each proposed building. The cycle centers would also include showers, personal lockers, and changing areas. These facilities are also referenced in the Project's proposed TDM Plan (see above) which includes the 'End-of-Trip Bicycle Facilities' measure. 120 short-term Class II bicycle parking spaces (publicly accessible, outdoor) are also proposed. Access to Class II spaces would be provided by a path that would connect to the proposed Bay Trail extension. Class II bicycle racks are proposed to be located in highly visible areas just outside front entrances to each proposed building, and outside the rear of each building, adjacent to the Bay Trail. Per the City's Municipal Code (Section 25.40.060), bicycle parking would be located on a paved surface, in proximity to building entrances, and in a visibly secure and well-lit location.

The Project would include dedicated passenger and commercial loading zones. Commercial loading zones would be located on site with one commercial loading zone located in each of the three buildings. Passenger loading zones would be located along the Project frontage on Old Bayshore Highway. One 100-foot loading zone would be located outside the entrance to the South Building and one 100-foot loading zone would be located between the North Building and the Central Building. Each 100-foot zone would accommodate approximately three or four vehicles simultaneously. Based on an expected passenger loading demand of 20 vehicles per hour during peak hours, the proposed passenger loading zones are expected to be adequate to meet Project demand, such that queues due to passenger loading activities would likely not extend into and therefore not conflict with, operation of the travel and bike lanes.

The Project is estimated to generate less than one new walking/biking trip (excluding transit trips, which begin/end as pedestrian trips) per minute during peak hours[3]. Given the relatively low volume of new walking and biking trips, the path, roadway, loading, and intersection bicycle facilities that are present and would be constructed, new walking and biking trips generated under the Project are not expected to exacerbate vehicle conflicts. Additionally, as discussed above, the Project would not create inconsistencies with adopted bicycle or pedestrian system plans, guidelines, or policies.

Transit Analysis

The proposed Project would generate new transit and vehicle trips, both of which have the potential to interfere with or delay transit operations. Since much of Burlingame's Bayfront employment area is outside the typical one-half-mile walking distance from regional rail stations, the area relies on Commute.org's Burlingame Bayside first-last-mile shuttles. The Burlingame Point shuttle serves the Project Site and the Airport Boulevard corridor with on-street shuttle stops which, in contrast to off-street shuttle stops, are generally the most efficient configuration to provide multi-stop shuttle service.

As noted above, shuttle riders accessing the Project site would likely use Commute.org's Burlingame Bayside shuttle, with shuttle access to be provided by a new shuttle stop along the Project site frontage. Based on the capacity of the Commute.org shuttle,[4] it is expected that the Project could generate a maximum of 24 pedestrian trips every 15 minutes between the shuttle stop and the Project site. Pedestrian traffic generated by the shuttle would be accommodated by proposed new sidewalks along the Project frontage on Old Bayshore Highway.

The Project would generate approximately 1,245 and 1,100 net new vehicle trips during the a.m. and p.m. peak hour, respectively, or approximately 18-21 new vehicles per minute (see Appendix TR). Project traffic volumes could add up to 1 second of delay to shuttle travel times during a.m. peak hours and up to 84 seconds of delay to shuttle travel times during a.m. peak hours. Although Project traffic volumes would add delay to shuttle travel times, it is not anticipated that the disruption to the Commute.org shuttle service surrounding the Project site would be substantial. As planned, the proposed Project would not include features that would

[3] Based on data collected from a similar life science project in South San Francisco.

[4] Assumes that people would access the Project using the Commute.org Burlingame Bayside Shuttle (expected to operate 4 runs/hour at peak periods) and that the capacity of the shuttle is 24 passengers.

disrupt existing or planned transit routes or facilities. The proposed Project's driveways would not cause disruptions to existing or planned transit service or transit stops. The proposed Project would not conflict with any adopted transit system plans, guidelines, policies, or standards.

Summary

Based on the discussion above, the proposed Project would not interfere with existing or planned bicycle or pedestrian facilities, nor would it cause disruptions to existing or planned transit service or transit stops. The proposed Project would not conflict with adopted plans and programs related to the circulation system, and the impact would be *less than significant*.

Mitigation: None required.

Impact TR-2: Implementation of the Project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). (*Less than Significant*)

As discussed above in *Approach to Analysis*, the proposed Project is not eligible for VMT impact screening under CEQA Guidelines Section 15064.3, subdivision (b) and, therefore, a detailed VMT analysis was conducted in support of the EIR (see Appendix TR). The results of the VMT analysis are described below and summarized in **Table 4-14-1**.

TABLE 4.14-1
VEHICLE MILES TRAVELED ASSESSMENT

Analysis Scenario	Average VMT per Employee
San Mateo County (Baseline)	16.8
Significance Threshold w/ Required 15% Reduction	14.3
Proposed Project	17.2
TDM Ordinance Compliance (-20%)	13.8
with TDM Plan (-25%)	12.9

SOURCE: Fehr & Peers 2023; C/CAG VMT Estimation Tool.

Guidance from OPR states that office projects that would generate vehicle travel exceeding 15 percent below existing VMT per employee for the region may indicate a significant transportation impact, and that in cases where the region is substantially larger than the geography over which most workers would be expected to live, it might be appropriate to refer to a smaller geography such as the county, that includes the area over which nearly all workers would be expected to live.

Since the City is currently updating its citywide CEQA transportation thresholds for consistency with SB 743, a Project-specific approach was developed for the proposed Project based on the OPR Technical Advisory. The VMT significance threshold for the proposed Project is defined as 15 percent below existing VMT per employee for San Mateo County.

A significant impact would occur if existing VMT per employee in the transportation analysis zone (TAZ) in which the Project is located is higher than 15 percent below the County average. Per the San Mateo C/CAG VMT Estimation tool,[5] this threshold is set at 14.3 VMT per employee, which is 15 percent below the existing Countywide average of 16.8 home-based work VMT per employee.

As noted previously, per Burlingame's TDM ordinance, the Project is required to implement a TDM Program to reduce Project vehicle trips by 20 percent. By complying with the City's TDM ordinance, the Project would be expected to achieve a home-based work VMT of 13.8, which is below the threshold of significance for a VMT impact of 14.3 VMT per employee.

The proposed Project's TDM Plan, described above in *Project TDM Plan*, is expected to exceed the City's requirement of a 20 percent reduction in VMT, resulting in a 25 percent reduction in VMT, further reducing VMT below the City's VMT threshold. The proposed Project is subject to annual monitoring and reporting which will ensure that the TDM Plan is effective, and results in a substantial decrease in Project-generated VMT. Based on the 25 percent reduction in VMT per employee that can be expected due to implementation of the TDM Plan, the proposed Project would both comply with the City's TDM ordinance and be expected to achieve a VMT per employee of 12.9. This is below the threshold of significance for a VMT impact of 14.3 VMT per employee. Therefore, the proposed Project would result in a *less-than-significant* impact with respect to CEQA Guidelines Section 15064.3, subdivision (b).

Mitigation: None required.

Impact TR-3: Implementation of the Project would not substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). (*Less than Significant*)

A significant impact would occur if the Project would substantially increase hazards to street users due to a design feature or land uses incompatible with the surrounding street network. The proposed Project would not worsen any existing geometric design features or cause new design hazards. The Project would remove the existing driveways along the Project frontage and construct three new driveways on Old Bayshore Highway for vehicle access. Two driveways would provide access to the South parking structure, and one driveway would provide access to the North parking structure. Each driveway would provide for adequate fire access and is sized and tested with turning analysis software consistent with this function. The proposed driveways would be appropriate to handle the estimated vehicle traffic in and out of the Project site, which would reduce the potential for vehicle queues that could disrupt other travel modes to form.

The Project proposes a new intersection of Old Bayshore Highway and the Project's northern driveway. At this intersection, existing mid-block crosswalks would be removed, and one new crosswalk installed at a new signalized intersection located at the entrance to the North Parking

5 C/CAG VMT Estimation Tool, https://gis.smcgov.org/apps/CCAG_VMT_EstimationTool/

structure. Changes would also be made to the signalized intersection of the South Project Driveways/Old Bayshore Highway/U.S. 101 northbound ramps. The U.S. 101 ramps at Old Bayshore Highway and Broadway would be restriped, two new medians would be installed on Old Bayshore Highway, a new pedestrian crosswalk would be installed, and the existing traffic signals would be modified consistent with the roadway geometry changes. These intersection geometry changes would be developed in coordination with Caltrans. None of the proposed roadway geometry changes would affect the number of travel lanes or reduce the vehicle capacity of Old Bayshore Highway.

Sight distance at the proposed Project driveways is expected to be sufficient for the posted speed limit of 35 miles per hour (mph). The Project would increase pedestrian and bicycle activity at the driveways along Old Bayshore Highway, it may increase exposure to pedestrians and bicyclists. Any vegetation located within the sight triangles at the driveways would be maintained so as not to restrict drivers' sight distance when exiting the driveways. Sight distance at the proposed driveway locations is expected to be adequate for drivers exiting the Project site and for pedestrians crossing the driveways.

The Project would not include any uses that are incompatible with the surrounding land use or the existing roadway system. Therefore, the Project is not expected to result in a substantial increase to hazards, and the Project's impacts to hazards would be *less than significant*.

Mitigation: None required.

Impact TR-4: Implementation of the Project would not result in inadequate emergency access. (*Less than Significant*)

A significant impact would occur if the Project would result in inadequate emergency access. Project vehicle volumes are not expected to introduce or exacerbate conflicts for emergency vehicles traveling near the Project site. The proposed Project would construct two new medians at the intersection of Old Bayshore Highway and the U.S. 101 northbound ramps, however these medians were tested for emergency vehicle turning movements and would not impact emergency vehicle access. During Project construction, emergency vehicles would have full access to the Project site via three driveways on Old Bayshore Highway, and each driveway would be capable of accommodating all types of emergency vehicles. The proposed Project is not expected to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, the Project would result in adequate emergency access, and the Project's impacts to emergency access would be *less than significant*.

Mitigation: None required.

Cumulative Impacts

Impact C-TR-1: Implementation of the Project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not result in a cumulatively considerable contribution to a cumulative transportation impact. (*Less than Significant*)

For the following reasons, the proposed Project would not result in a cumulatively considerable contribution to a transportation impact with respect to conflicts with plans, ordinances, or policies; increases in VMT; increased hazards; or emergency access.

- As discussed previously under Impact TR-2, the proposed Project would result in per employee VMT that is below the City's VMT threshold of significance (i.e., 15 percent below the Countywide average). Since the same VMT threshold of significance applied to the Project analysis would also apply to the future, cumulative projects, and the proposed Project would be responsible for implementing its TDM Plan throughout the life of the Project, the proposed Project would similarly result in a less-than-significant impact to cumulative VMT.
- As discussed previously under Impact TR-1, the proposed Project is consistent with the *Burlingame General Plan* and other plans, policies, and ordinances related to transportation facilities. Approval of cumulative projects would also be dependent on consistency checks with the General Plan and other relevant plans, policies, and ordinances.
- The same City design standards and requirements that must be met for individual project approvals identified under Impact TR-3 (increased hazards) and TR-4 (emergency access) would also apply to any and all other cumulative projects.

Mitigation: None required.

4.14.4 References

California Air Resources Board, 2019. *2017 Scoping Plan-identified VMT Reductions and Relationship to State Climate Goals*, January 2019. Available at: https://ww2.arb.ca.gov/sites/default/files/2019-01/2017_sp_vmt_reductions_jan19.pdf

City of Burlingame, 2022. *Old Bayshore Highway Corridor Feasibility Study*, June 2022. Available at: https://cms6.revize.com/revize/burlingamecity/document_center/Public%20Works/Capital%20Improvements/Old%20Bayshore%20Hwy%20Study%20(85490)/19016_FeasibilityStudyReport_220608.pdf

City of Burlingame, 2020. *Bicycle and Pedestrian Master Plan*, December 2020. Available at: https://www.dropbox.com/sh/3082josca9f3pu3/AADTDIgIWsH_f6lAJr6I9LD7a?dl=0&preview=BurlingamePlan_FINAL_01082021_Web.pdf

City of Burlingame, 2019. *Envision Burlingame – Burlingame General Plan*, November 2019. Available at: https://cms6.revize.com/revize/burlingamecity/document_center/Planning/General%20and%20Specific%20Plans/BurlingameGP_Final_Nov2019_COMPLETE%20DOCUMENT.pdf

Metropolitan Transportation Commission and Association of Bay Area Governments, 2021. *Plan Bay Area 2050 – a Vision for the Future*, October 2021. Available at: https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf

San Mateo County Transit District, 2022. *Reimagine SamTrans Final Report*, March 2022. Available at: https://www.samtrans.com/media/18477/download?inline

State of California, Governor's Office of Planning and Research, 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*, December 2019. Available at: https://opr.ca.gov/ceqa/docs/20190122-743_Technical_Advisory.pdf

State of California, Department of Transportation, 2020a.*Vehicle Miles Traveled-Focused Transportation Impact Study Guide*, May 20, 2020. Available at: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-05-20-approved-vmt-focused-tisg-a11y.pdf

State of California, Department of Transportation, 2020b. *Traffic Safety Bulletin 20-02-R1: Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance*, December 18, 2020. Available at: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-12-22-updated-interim-ldigr-safety-review-guidance-a11y.pdf

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4.15 Utilities and Service Systems

This section assesses the potential for the Project to result in significant impacts on utilities and service systems. The section includes a description of the existing environmental setting as it relates to utility and service systems, and provides a regulatory framework that discusses applicable federal, State, and local regulations. The section presents the significance criteria used to evaluate impacts on utility and service systems, and the results of the impact assessment, including any significant impacts and associated mitigation measures. The section relies in part on the results of a Water Supply Assessment prepared for the Project (see **Appendix WSA**).

4.15.1 Environmental Setting

Water

Potable Water Supply

The City of Burlingame provides water to residential, commercial, industrial, and governmental customers within the incorporated limits of the City as well as portions of unincorporated San Mateo County. As of 2020, the City serves 8,728 connections within its service area.

Approximately 85 percent of the water supply to the San Francisco Public Utilities Commission (SFPUC) Regional Water System (RWS) is from the Tuolumne River stored in the Hetch Hetchy Reservoir. The remaining 15 percent of the water supply to the SFPUC RWS originates locally in the Alameda and Peninsula watersheds and is stored in six different reservoirs in Alameda and San Mateo Counties.

The City of Burlingame purchases all potable water wholesale from the SFPUC RWS in accordance with the Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda, San Mateo and Santa Clara Counties, that was approved by the SFPUC on April 28, 2009 and amended in November 2018.

San Francisco has a perpetual commitment (Supply Assurance) to deliver 184 million gallons per day (mgd) to the SFPUC's Wholesale Customers collectively. Each wholesale customer's share of the 184 mgd is referred to as their Individual Supply Guarantee (ISG). The City of Burlingame's ISG is 5.23 mgd, or approximately 1,909 million gallons per year (mgy).[1]

The City is a member of the Bay Area Water Supply and Conservation Agency (BAWSCA) which provides regional water reliability planning and conservation programming for the benefit of its 26 member agencies that purchase wholesale water supplies from the SFPUC (City of Burlingame, 2021).

[1] Although the Agreement expires in 2034, the Supply Assurance and ISG continue in perpetuity as both are both are subject to binding water allocation agreements and would continue beyond the term of the Agreement.

Groundwater

The City owns one groundwater supply well that is located near Washington Park (WP Well), which has historically been used on occasion to irrigate portions of City-owned landscaping and parks. Currently, the WP Well is only used intermittently for minimal non-potable demands (e.g., limited irrigation and wash water) (City of Burlingame, 2021).

Recycled Water

The City does not have a recycled water distribution system within the City, and does not currently supply non-potable water to its customers (City of Burlingame, 2021).

Water Demand

All water demands within the Burlingame service area are currently met with potable water. The current and historical total water demands include water recorded by metered accounts in the service area, unmetered water used by the Water Division and Fire Department, and water that is lost within the distribution system (i.e., losses).

At the beginning of the 2012-2016 drought, the per capital potable water use in Burlingame was 138 gallons per capita per day (GPCD). Subsequently, drought caused local and state agencies issued mandatory water use restrictions which resulted in a substantial decline in water use. Burlingame saw a 28.5 percent reduction between 2012 and 2016 for the compliance period of June through December. Water demand reached a ten year low in 2016 at 98 GPCD, and since then increased to 107 GPCD in 2020, but has not returned to pre-drought water use levels.

The commercial and industrial sectors accounted for 14 percent and 13 percent, respectively, of the total Burlingame water demand during the 2016-2020 period. In 2020, commercial sector used approximately 172 million gallons per year, while the industrial sector used approximately 152 million gallons per year. (City of Burlingame, 2021).

Water Supply Reliability

Reliability of the RWS is expressed in terms of the system's ability to deliver water during droughts. To address the reliability of its supplies, SFPUC has developed a Water System Improvement Program (WSIP) and Water Shortage Allocation Plans (WSAP), discussed below.

Water System Improvement Program

In 2008, the SFPUC adopted the Phased Water System Improvement Program (WSIP). The WSIP includes several water supply projects to address the level of service Goals and Objectives established in the WSIP and updated in February 2020. SFPUC has also developed an Alternative Water Supply Planning Program to explore other projects that would increase overall water supply resiliency.

Water Shortage Allocation Plans

The Water Supply Agreement includes a Water Shortage Allocation Plan (WSAP) that allocates water from the RWS to Retail and Wholesale Customers during system-wide shortages of

20 percent or less. BAWSCA member agencies are also in discussions about jointly developing an allocation method that would consider additional equity factors in the event that SFPUC is not able to deliver its contractual supply volume, and its cutbacks to the RWS supply exceed 20 percent. The City is working independently and with the other BAWSCA agencies to identify regional measures to improve reliability for regional and local water supplies and meet its customers' water needs.

Wastewater

The City of Burlingame operates and maintains the wastewater collection system within the City. The City's existing wastewater collection system is comprised of roughly 95 miles of active gravity collection system pipe, seven wastewater pump stations and associated force mains. Within the Project site vicinity, sanitary sewer forcemains are located within Old Bayshore Highway. Wastewater flows are conveyed to the Burlingame Wastewater Treatment Plant (WWTP), located at 1103 Airport Boulevard, which serves the City as well as approximately one-third of Hillsborough, and Burlingame Hills part of the County. The WWTP is owned by the City and operated and maintained by Veolia Water North America, which has contracted with the City since 1972.

The WWTP's treatment process includes four treatment steps: (1) primary sedimentation, (2) secondary biological treatment, (3) sodium hypochlorite disinfection, and (4) contact time in a plug flow detention facility. Following treatment at the WWTP, the effluent is conveyed to South San Francisco through the Burlingame-Millbrae North Bayside System Unit and discharged after dechlorination into a joint-use deep-water outfall in the San Francisco Bay. An influent equalization basin provides flow equalization during wet weather.

The volume of wastewater collected from the Burlingame service area in 2020 was approximately 939 mg, which is lower than in previous years due to the impacts of the COVID-19 pandemic. The average dryweather flow of wastewater to the WWTP has remained fairly constant, at approximately 3.0 to 3.5 mgd. The WWTP has a designed capacity to treat up to 5.5 mgd average dry weather flow and 16 mgd during wet weather (City of Burlingame, 2021).

Stormwater Collection

Please refer to Section 4.9, *Hydrology and Water Quality* for a detailed description of the existing stormwater collection facilities serving the Project site.

Solid Waste

The City of Burlingame's solid waste collection, transportation, and disposal services are provided by Recology San Mateo County. The collected waste is brought to the San Carlos Transfer Station where recyclable materials are sorted and separated from the remaining solid waste, which is subsequently transferred to the Ox Mountain Sanitary Landfill near Half Moon Bay. The San Carlos Transfer Station is located at 225 Shoreway Road in San Carlos, California, and the Ox Mountain Sanitary Landfill is located at 12310 San Mateo Road in Half Moon Bay, California. The Ox Mountain Sanitary Landfill has a maximum permitted capacity of 60.5 million

cubic yards. As of December 2015, its remaining capacity was 22.18 million cubic yards. The landfill has an estimated closure date for 2034 and a permitted capacity of 3,598 tons per day (CalRecycle, 2023).

Electric Power, Natural Gas, and Telecommunications Facilities

Two electricity providers service Burlingame: Pacific, Gas and Electric Company (PG&E) and Peninsula Clean Energy (PCE). PG&E provides electrical and natural gas service, offers programs and rebates for energy efficiency, operates and expands transmission lines and gas service based on projected demands, and ensures that systems are properly maintained and reliable. PG&E is required to make sure that transmission and distribution facilities incorporate safety features and the latest technological advancements.

PCE is San Mateo County's Community Choice Energy (CCE) Program that provides cleaner electricity at competitive rates and with a higher renewable energy content than PG&E. Burlingame joined PCE to provide a choice for its community, to reduce greenhouse gas emissions, and support renewable energy. PCE offers two rates for customers: (1) ECOplus is the default rate with at least 50 percent renewable energy content; and (2) ECO100 is the opt-up rate with 100 percent renewable energy. Most of Burlingame's electricity customers are enrolled in PCE rather than PG&E and at the ECOplus rate. PCE plans to offer energy efficiency programs and rebates in the future.

Numerous telecommunications providers serve Burlingame and provide access to infrastructure for broadband, fiber optic, wireless, and other emerging technologies. AT&T, Xfinity from Comcast, Wave Broadband, Sonic, and others provide telecommunication and cable television services to residents and businesses in the city.

4.15.2 Regulatory Framework

Federal Regulations

Clean Water Act

Please see Section 4.9, *Hydrology and Water Quality*.

National Pollutant Discharge Elimination System (NPDES)

The NPDES permit program under the CWA controls water pollution by regulating point and nonpoint sources that discharge pollutants into "waters of the U.S." California has an approved State NPDES program. The San Francisco Bay Regional Water Quality Board (RWQCB) regulates water quality in the Project site and surroundings. Under this system, municipal and industrial facilities are required to obtain an NPDES permit that specifies allowable limits, based on available wastewater treatment technologies, for pollutant levels in their effluent. Specific industries and public facilities, including wastewater treatment plants, that have direct stormwater discharges to navigable waters, are also required to obtain either an individual permit or obtain coverage under the statewide General Industrial Stormwater Permit.

Operation of the Burlingame WWTP is regulated by Waste Discharge Requirements (WDR; NPDES No. CA 0037788) found in RWQCB Order No. R2-2018-0024. The effluent from the WWTP also is subject to two other NPDES permits: 1) the WDRs for mercury and polychlorinated biphenyls (PCBs) from municipal and industrial wastewater discharges to San Francisco Bay (NPDES No. CA0038849); and 2) waste discharge requirements for nutrients from municipal wastewater discharges to San Francisco Bay (NPDES No. CA0038873).

Please also see Section 4.9, *Hydrology and Water Quality* for information on additional applicable permits related to new development, including the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (MRP).

State Regulations

California Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (California Water Code Sections 10610 through 10656). The act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually, should make every effort to ensure reliable water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The act requires the urban water suppliers to prepare an Urban Water Management Plan (UWMP) and update it every five years. Details of the UWMP for the City of Burlingame are described below, under City of Burlingame plans and policies.

Senate Bill 610

The State of California adopted Senate Bill 610 (SB 610) effective January 1, 2002. SB 610 requires cities and counties, when evaluating large development and redevelopment projects, to request an assessment of the availability of water supplies from the water supply entity that will provide water to a project. The Water Supply Assessment (WSA) is performed in conjunction with the land use approval process associated with a project and must include an evaluation of the sufficiency of the water supplies available to the water supplier to meet existing and future demands, including the demand for a project over a 20-year time period that includes normal, single-dry, and multiple dry years. When a new development project is accounted for in the demand projections of an UWMP, the WSA can refer to the UWMP and no further analysis is necessary.

2018 Bay-Delta Plan Amendment

In December 2018, the State Water Resources Control Board adopted amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, which establishes water quality objectives to maintain the health of the rivers and the Bay-Delta ecosystem.[2] Among the goals of the adopted Bay-Delta Plan Amendment is to increase salmonid populations in three San Joaquin River tributaries (including the Tuolumne River) and the

[2] State Water Resources Control Board Resolution No. 2018-0059, *Adoption of Amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and Final Substitute Environmental Document,* December 12, 2018, available at https://www.waterboards.ca.gov/plans_policies/docs/2018wqcp.pdf.

Bay-Delta. Specifically, the plan amendment requires increasing flows in the Stanislaus, Tuolumne, and Merced Rivers of 30 to 50 percent of unimpaired flow[3] from February through June every year, whether it is wet or dry. During dry years, this would result in a substantial reduction in the SFPUC's water supplies from the Tuolumne River watershed (see additional detail below, in the City of Burlingame

Relationship of Bay-Delta Plan Amendment to Water Supply

As discussed above, in December 2018, the SWRCB adopted the Bay-Delta Plan Amendment to establish water quality objectives with the stated goal of increasing salmonid populations in three San Joaquin River tributaries and the Bay-Delta. It remains unclear if and when the Bay-Delta Plan Amendment will be implemented. The SWRCB has stated that it intends to implement the Bay-Delta Plan Amendment, assuming all required approvals are obtained. However, at this time, the implementation of the Bay-Delta Plan Amendment is uncertain for several reasons.

First, since adoption of the Bay-Delta Plan Amendment, over a dozen lawsuits have been filed in state and federal court, challenging the water board's adoption of the plan amendment, including legal challenges filed by the federal government at the request of the U.S. Bureau of Reclamation. That litigation is in the early stages, and there have been no dispositive court rulings as of this date.

Second, the Bay-Delta Plan Amendment is not self-executing and does not allocate responsibility for meeting its new flow requirements to the SFPUC or any other water rights holders. Rather, the plan amendment merely provides a regulatory framework for flow allocation, which must be accomplished by other regulatory and/or adjudicatory proceedings, such as a comprehensive water rights adjudication or, in the case of the Tuolumne River, the Clean Water Act, Section 401 certification process in the Federal Energy Regulatory Commission's relicensing proceeding for Don Pedro Dam. The license amendment process is currently expected to be completed in the 2022–2023 timeframe. This process and other regulatory and/or adjudicatory proceeding would likely face legal challenges and have lengthy timelines, and quite possibly could result in a different assignment of flow responsibility for the Tuolumne River than currently exists (and therefore a different water supply effect on the SFPUC).

Third, in recognition of the obstacles to implementation of the Bay-Delta Plan Amendment, the SWRCB directed its staff to help complete a "Delta watershed-wide agreement, including potential flow measures for the Tuolumne River." On March 1, 2019, the SFPUC, in partnership with other key stakeholders, submitted a proposed project description for the Tuolumne River that could be the basis for a voluntary agreement with the SWRCB that would serve as an alternative path to implementing the Bay-Delta Plan's objectives. On March 26, 2019, the SFPUC adopted Resolution No. 19-0057 to support its participation in the voluntary agreement negotiation process. To date, those negotiations are ongoing under the California Natural Resources Agency and the Newsom administration. On March 29, 2022, various parties participating in the

[3] "Unimpaired flow" represents the water production of a river basin, unaltered by upstream diversions, storage, or by export or import of water to or from other watersheds.

negotiations entered into a memorandum of understanding advancing a term sheet for the Voluntary Agreements (CNRA, et al, 2022).

For these reasons, whether, when, and the form in which the Bay-Delta Plan Amendment will be implemented, and how those amendments will affect the SFPUC's water supply, is currently unknown.

Assembly Bill 939 and Senate Bill 1016

The California Integrated Waste Management Act of 1989, or Assembly Bill 939 (AB 939), established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that local jurisdictions divert at least 50 percent of all solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. Projects that would have an adverse effect on waste diversion goals are required to include waste diversion mitigation measures to assist in reducing these impacts to less-than-significant levels. With the passage of Senate Bill 1016 (SB 1016, the Per Capita Disposal Measurement System) in 2006, only per capita disposal rates are measured to determine if a jurisdiction's efforts are meeting the intent of AB 939.

Public Resources Code Section 41780

The California State Legislature set the policy goal for the state that not less than 75 percent of solid waste generated be source reduced, recycled or composted by the year 2020. Furthermore, a 50 percent diversion rate will be enforced for local jurisdictions.

Local Plans, Ordinances, and Policies

City of Burlingame 2020 Urban Water Management Plan

The City's current urban water management plan for the City of Burlingame 2020 UWMP. The 2020 UWMP presents information on the City's service area and water distribution system; quantifies the City's current and projected water demands; demonstrates compliance with its capita water use target for 2020; assesses the City's water system supplies, and discusses future water projects and planned sources of water; assesses the reliability of the City's water supplies; discusses the City's water shortage contingency planning; and describes water demand management measures.

The water demand projections in the 2020 UWMP account for growth projected within the City's General Plan. The 2020 UWMP presents water demand projections in five-year increments over a 25-year planning horizon through 2045. The plan compares anticipated water supplies to projected demand through 2045 for normal, single-dry, and multiple-dry water years.

In acknowledgment of the uncertainty of whether and when the Bay-Delta Plan Amendment will come into effect (see *Relationship of Bay-Delta Plan Amendment to Water Supply*, above), the 2020 UWMP presented future supply scenarios both with and without the Amendment, as well as a scenario that considered implementation of the proposed Voluntary Agreement. The 2020 UWMP reported that if the Bay-Delta Plan Amendment is implemented, SFPUC would be able to

meet the projected water demands of the City of Burlingame in normal years but would experience supply shortages in single dry years or multiple dry years. As such, implementation of the Bay-Delta Plan Amendment would require rationing in all single dry years and multiple dry years. The 2020 UWMP also reported that if the Bay-Delta Plan Amendment is not implemented, then it is anticipated that SFPUC would be able to meet projected water demands for the City in all year types through 2040 (City of Burlingame, 2021).

In early 2020, the SFPUC began implementation of the Alternative Water Supply Planning Program (AWSP), a program designed to investigate and plan for new water supplies to address future long-term water supply reliability challenges and vulnerabilities on the RWS. This program is in early planning stages and includes expanding recycled expanding recycled water infrastructure, wastewater purification projects, groundwater banking, and reservoir expansion. As the region faces future water supply challenges—both known and unknown—the SFPUC is considering this suite of diverse non-traditional supplies and leveraging regional partnerships to meet Retail and Wholesale Customer needs through 2045. BAWSCA is heavily engaged with the SFPUC on its AWSP efforts (City of Burlingame, 2021).

Burlingame has developed a Water Shortage Contingency Plan (WSCP) to address water shortage conditions resulting from any cause. The WSCP identifies a variety of actions that Burlingame will implement to reduce demands and further ensure supply reliability at various levels of water shortage. The WSCP describes the City's approach to meeting six standard water shortage stages, ranging from 10 percent to greater than 50 percent shortages; identifies a suite of demand measures for Burlingame to implement at each level, and identifies procedures for Burlingame to annually assess whether or not a water shortage is likely to occur in the coming year, among other things (City of Burlingame, 2021).

City of Burlingame General Plan

The City of Burlingame General Plan serves as a guiding document for the City's decision-making and establishes the "ground rules" for the design and development of new projects, conservation of resources, economic development, mobility and infrastructure improvements, expansion of public services, and community amenities. The following goals and policies within the Infrastructure Element of the General Plan apply to the Project:

Water Delivery and Supply

Goal IF-2: Ensure the long-term availability of water through conservation methods and regular maintenance and improvements to the overall water supply delivery system.

Policy IF-2.3: New Development. Ensure long-term water supply capacity prior to granting building permits for new development. Require that new development projects fund the full cost of upgrading water storage and supply infrastructure to meet their specific needs.

Policy IF-2.9: Water Conservation Standards. Comply with State water conservation standards. Encourage water conservation practices as a way of life.

Policy IF-2.10: Water Conservation Programs. Implement cost-effective conservation strategies and programs that increase water use efficiency, including providing incentives for adoption of water-efficiency measures.

Policy IF-2.12: Recycled Water. Increase the use of recycled water as available, cost effective, and safe. This may include allowed use of graywater systems consistent with health and building codes.

Policy IF-2.13: Bay-Friendly Landscaping. Promote landscaping approaches that include native and climate appropriate plants, sustainable design and maintenance, water-efficient irrigation systems, and yard clipping reduction practices. Provide guidance to the community regarding preferred landscaping and irrigation practices.

Wastewater

Goal IF-3: Provide sufficient wastewater collection and disposal infrastructure to meet current and future community needs.

Policy IF-3.4: Reduce Infiltration and Inflow. Develop and implement a plan to repair or replace underperforming wastewater facilities to remove excessive infiltration and inflow from stormwater and other non-sewer sources. This includes effective enforcement of ordinances applicable to lateral sewer line replacement.

Policy IF-3.6: Service to New Development. Ensure that adequate wastewater collection and treatment services for all new development are available before developments are approved. Require new development projects to fund the full cost of upgrading sewage collection and treatment infrastructure to meet their specific needs.

Stormwater Drainage and Flood Control

Goal IF-4: Protect people and property from the adverse effects of flooding through a stormwater system that adequately moves runoff from existing and future development, prevents property damage due to flooding, and improves environmental quality.

Policy IF-4.2: Localized Flooding. Identify and correct problems of localized flooding. Promote the use of green infrastructure, whenever feasible, to mimic a natural hydrologic system that uses stormwater as a resource.

Policy IF-4.4: Green Stormwater Infrastructure. Plan for and implement low impact development (LID) retrofits, such as green infrastructure which uses vegetation and soil to capture, treat, and retain stormwater runoff. Promote the use of pervious surfaces, green streets, and rainwater harvesting to achieve multiple benefits, such as creating open space, improving stormwater quality, and increasing groundwater recharge. Avoid or minimize the impact of stormwater discharges on local receiving waters, including San Francisco Bay.

Solid Waste and Recycling

Goal IF-5: Achieve waste reduction goals in excess of State mandates.

Policy IF-5.5: Construction Waste Recycling. Require demolition, remodeling, and major new development projects include salvaging or recycling asphalt and concrete and all other non-hazardous construction and demolition materials to the maximum extent practicable.

Policy IF-5.6: Electronic Waste Disposal. Educate residents and businesses regarding proper and safe means of electronic waste disposal at permitted facilities, and make it easy for them to do so.

Policy IF-5.9: Outreach. Conduct and enhance programs that promote waste reduction through partnerships with schools, institutions, businesses, and homes.

Policy IF-5.10: Hazardous Waste. Work with providers and businesses to provide convenient hazardous and e-waste facilities for the community.

Policy IF-5.13: Collaboration. Collaborate with agencies and large businesses or projects to enhance opportunities for community-wide recycling, reuse, and reduction programs.

Policy IF-5.14: Recycled Materials. Encourage the use of recycled materials and sustainably harvested materials in City and private projects.

Policy IF-5.15: Composting. Expand composting programs in coordination with waste vendor to all residential type and businesses.

Energy

Goal IF-6: Ensure the provision of adequate and safe gas and electric services to Burlingame residents and businesses, and that energy facilities are constructed in a fashion that minimizes their impacts on surrounding development and maximizes efficiency.

Policy IF-6.4: Undergrounding Utilities. Encourage the undergrounding of existing overhead facilities, and require new facilities to be undergrounded when tied to large-scale or multi-block development.

Policy IF-6.8: ECO100 Enrollment. Increase ECO100 enrollment by residences and businesses. Coordinate with community champions and PCE to expand outreach on ECO100.

Telecommunications

Goal IF-7: Install state-of-the-art technology and telecommunications infrastructure to support Burlingame residents, businesses, institutions, and public agencies.

Policy IF-7.1: Access and Availability. Work with service providers to ensure access to and availability of a wide range of state-of-the-art telecommunications systems and services for households, businesses, institutions, public spaces, and public agencies throughout Burlingame.

Policy IF-7.4: Incorporation into New Development. Establish requirements for the installation of state-of-the-art internal telecommunications technologies in new office, commercial, and hotel developments.

Burlingame Municipal Code

Chapters 15.04, 15.06, and 15.07 of the Burlingame Municipal Code govern water connections for domestic and fire protection use, regulations regarding water shortage emergencies, and restrictions on wasteful water use. Chapter 18.17 of the Code provides regulations addressing water conservation in landscaping, and Chapter 18.19 provides requirements governing indoor water conservation. Chapter 18.30 of the Code includes the requirements of the Green Buildings

Standards Code, Construction Demolition and Recycling Plan, and use Tier 1 Energy Efficiency standards. Chapters 15.08 and 15.10 of the Code provides regulations regarding construction, use and maintenance of sanitary sewers. Please also see Section 4.9, *Hydrology and Water Quality*, for applicable municipal code regulations related to addressing flooding and sea level rise protection.

Development is also required to conform to Burlingame Municipal Code Chapter 25.46 Public Facilities Impact Fees. The Public Facilities Impact Fees shall be paid pursuant to this chapter before the issuance of any building permit except as otherwise stated in the chapter. The public facilities impact fees are established and imposed on the issuance of development permits within the City as determined by resolution of the Council for the several categories, including general facilities, equipment and storm drainage.

4.15.3 Impacts and Mitigation Measures

Significance Criteria

With respect to utilities and service systems, would implementation of the Project:

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

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

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

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

Approach to Analysis

The environmental impact analysis for utilities and service systems begins with an assessment of existing utility use and infrastructure services at the Project site. The projected demands for utilities and infrastructure services generated by the proposed Project are then calculated and compared to existing usage to estimate the net increase resulting from implementation of the proposed Project. Typically, utility assessments focus on supply, treatment or generation capacity and distribution or collection infrastructure requirements. For each utility, the analysis compares the net increase resulting from implementation of the proposed Project against the significance criteria set forth above. If the impact would be significant, the analysis identifies feasible mitigation measures that would eliminate the impact or reduce it to a less-than-significant level.

Water Supply

For the issue of water supply, impacts are evaluated largely based on information in the WSA prepared by the City's water supply consultant for the Project.

The proposed Project meets the definition of "project" as defined in Water Code §10912(a)(e) because it includes a commercial office building employing more than 1,000 persons or having more than 250,000 square feet (sq ft) of floor space. The purpose of the WSA is to evaluate whether "the total projected water supplies, determined to be available … for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses..." See Water Code Section 10910(c)(4).

The information contained in the WSA is based primarily on the City's 2020 UWMP, except where updated with relevant water demand and supply reliability and other information provided by DWR, the SFPUC, BAWSCA, and the City (City of Burlingame, 2023).

Project Water Demand

As discussed in Chapter 3, *Project Description*, the proposed Project would construct a life science/office development totaling 1.42 million gross square feet (gsf) of building space. The life science/office buildings would be designed to support either office or life science tenants. The building program would also include various amenities and 5,000 total square feet of café/restaurant space.

The following describes how the water demand for the various proposed Project land uses were estimated.

Life Science Water Use

The life science/office portion of the development account for 1.415 million gsf. To represent a worst-case water demand, the EIR conservatively assumes life science/research and development (R&D) use of the Project buildings instead of office use, as water demand for life science/R&D use is greater than that of office use. Water use generated by life science/R&D use varies substantially based on the specific operations of the facility. In absence of specific information regarding proposed facility water uses, the water demand for the Project life science/R&D use is estimated to be similar to that of the Genentech Campus development in South San Francisco, which yielded a water demand factor of 0.18 gallons per day per square foot (GPD/sq ft), and which represents a mix of laboratory, amenity and supporting office use typical of an R&D campus.[4] Based on the Project development size and assumed water demand factor, the total estimated R&D water use for the proposed Project is estimated to be 93 MGY.

[4] The life science/R&D water use is based on information from the *Genentech Campus Master Plan Update Final EIR* (Genentech, 2020). The water demand factor was calculated by dividing the total water use of the Genentech campus in 2016 by the total area of the campus to estimate demand per area.

Café/Restaurant Water Use

As discussed above, 5,000 gsf of café/restaurant use is proposed that would be open to the public, for which a separate water demand was estimated. Water use factors for the café/restaurant use was estimated at 0.068 GPD/sq ft for the café/restaurant.[5] The resultant water demand associated with the Project's proposed café/restaurant use is estimated to be 0.12 MGY.

Parking Garage Water Use

The proposed Project includes two multi-story parking structures, totaling approximately 1,180,200 sq ft parking. Water use associated with this space is anticipated to be minimal, limited to cleaning of these facilities, estimated at 0.28 MGY.[6]

Outdoor Water Use

The proposed Project includes a total of 137,553 sq ft of landscaped area. Irrigated landscape water use was calculated based on the Maximum Applied Water Allowance (MAWA) per the City's Water Conservation in Landscape Ordinance (City of Burlingame, Water Conservation in Landscape Ch 18.17). Based on this methodology, it is estimated that the total irrigated landscape water use for the Project would be 1.6 MGY.[7]

Existing Project Site Water Use

Based on recent records of historical water use for the existing Project site land over five years, the existing water use averaged 5.2 MGY (City of Burlingame, 2023).

Net New Project Water Use

Based on the above methodologies and assumptions, and adjusting for the existing water use at the site, the incremental net increase in water demand associated with the proposed Project at full buildout and occupancy is estimated to be 90 MGY.

Water Demand/Supply Scenarios

A substantial source of uncertainty identified in the City's 2020 UWMP is whether the Bay-Delta Plan Amendment will be implemented and how it will affect the supply reliability of the SFPUC's RWS. Given this uncertainty, and based on information provided by the SFPUC and BAWSCA, the Project WSA (similar to the City's UWMP) analyzed water supply and demands through 2045 under three scenarios:

Scenario 1: Implementation of the Bay-Delta Plan Amendment

Scenario 2: Without implementation of the Bay-Delta Plan Amendment

Scenario 3: Implementation of the Proposed Voluntary Agreement

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5 The water use factor for the café/restaurant use was derived from the US Energy Information Administration Commercial Buildings Energy Consumption Survey (CBECS, 2012).

6 It is assumed that the garage will be cleaned 12 times per year and that 0.02 gallons per sq ft will be used per each cleaning event (City of Los Angeles Bureau of Engineering, 2012).

7 MAWA demands were calculated by multiplying the Reference Evapotranspiration rate of 42.8 inches per year for Redwood City, an Evapotranspiration Adjustment Factor of 0.45 for non-residential areas, a conversion factor of 0.62, and the total project square footage.

Impact Analysis

Impact UTIL-1: Implementation of the proposed Project would require or result in the construction of new or expanded water, wastewater treatment or storm water drainage, electric power, or telecommunications facilities, the construction or relocation of which would not cause significant environmental effects. (*Less than Significant*)

Utility improvements and/or extensions on or adjacent to the Project site to serve the proposed Project would include domestic water, fire water, wastewater, stormwater, electrical, natural gas, and telecommunications. The utility infrastructure improvements required to serve the proposed Project are summarized in Chapter 3, *Project Description.*

Construction activities associated with the utility improvements described above would have the potential to result in significant or potentially significant impacts. However, implementation of mitigation measures and compliance with other construction-related regulatory requirements discussed in other sections of this EIR, including Section 4.2, *Air Quality*; Section 4.3, *Biological Resources*; Section 4.4, *Cultural Resources, including Tribal Cultural Resources*; Section 4.6, *Geology and Soils*; Section 4.8, *Hazards and Hazardous Materials*; Section 4.9, *Hydrology and Water Quality*; Section 4.11, *Noise and Vibration*; and Section 4.14, *Transportation*, would reduce construction-related effects associated with the utility improvements to a less-than-significant level. As a result, the impacts associated with the construction of new utilities to serve the proposed Project would be less than significant.

Mitigation: None required.

Impact UTIL-2: Sufficient City water supply would be available to serve the Project and reasonably foreseeable future development under normal years even if the Bay Delta Plan Amendment is implemented. However, the Project would contribute to a shortfall in the City's water supply during single dry and multiple dry years with implementation of the Bay-Delta Plan Amendment. (*Less than Significant with Mitigation*)

Operation of the proposed Project would create a long-term demand for potable water at the Project site. As discussed in Chapter 3, *Project Description*, the proposed Project would construct a life science/office development totaling 1.42 million gross square feet (gsf) of building space. The life science/office buildings would be designed to support either office or life science tenants. The building program would include various amenities and 5,000 total square feet of café/restaurant space. As described in *Approach to Analysis*, above, based on the Project size and conservative assumptions made regarding the proposed land uses, and adjusting for the existing water use at the site, the incremental net increase in water demand associated with the proposed Project at full buildout and occupancy is estimated to be 90 MGY.

The City's 2020 UWMP water demand projections account for growth projected within the City's General Plan (City of Burlingame, 2019). In 2022, the City conducted an update to its water demand projections using its Demand Management Decision Support System Model (DSS Model) to incorporate the additional residential water demand associated with the Regional Housing Needs

Allocation (RHNA; ABAG, 2022) and the City's ongoing Housing Element update. The DSS Model projects the City's commercial, industrial and institutional (CII) water use to be 502 MGY by 2030, and 618 MGY by 2045 (see **Table 4.15-1**).

TABLE 4.15-1
PROJECTED CII DEMANDS FOR THE CITY OF BURLINGAME

Development Type	Projected Demand (MGY)				
	2025	2030	2035	2040	2045
Existing CII Demand[a]	360	360	360	360	360
Proposed Project Demand	0	90	90	90	90
Other Planned Developments' Demand[b]	29	62	62	62	62
Total Estimated CII Demands[c]	389	511	511	511	511
Projected CII Demand[d]	467	502	539	578	618
Remaining City CII Growth with Proposed Project and Other Planned Developments[e]	**78**	**-9**	**27**	**67**	**106**

ABBREVIATIONS:

"CII" = commercial, industrial, institutional
"City" = City of Burlingame
"DSS" Model" = Demand Management Decision Support System Model
"FY" = fiscal year
"MGY" = million gallons per year

NOTES:

[a] Existing CII demand is the City's current (FY 2020) CII demand.
[b] The demands associated with the 777 Airport Boulevard Project per Reference 2, the 1669/1699 Old Bayshore Highway & 810/821 Malcolm Road Project per Reference 3, the 620 Airport Boulevard Project per Reference 4, and the 1499 Old Bayshore Highway Project per Reference 5. Projected demands associated with developments other than the proposed Project and the 1499 Old Bayshore Highway project are considered in the projected City CII growth.
[c] Total estimated CII demands are the sum of existing CII demand, proposed Project demand, and other planned developments' demands. Totals may not sum due to rounding.
[d] The City's projected CII demand is per Reference 1.
[e] Remaining CII growth is the difference between the Projected City CII Demand and the Total Estimated CII Demand. The resulting difference may differ due to rounding. A negative value indicates demands above the City's projected CII growth, whereas a positive value indicates the remaining CII demand within the City's growth projections. Projected demands above the City's growth projections will be addressed and mitigated by the City's Development Offset Program.

REFERENCES:

1. City of Burlingame DSS Model, updated August 9, 2022.
2. EKI, 2022. *Water Supply Assessment for the 777 Airport Boulevard Project*, prepared for the City of Burlingame, dated September 2, 2022
3. EKI, 2022. *Water Supply Assessment for the 1669/1699 Old Bayshore Highway & 810/821 Malcolm Road Project*, prepared for the City of Burlingame, dated September 9, 2022.
4. EKI, 2022. *Water Supply Assessment for the 620 Airport Boulevard Project*, prepared for the City of Burlingame, dated November 15, 2022.
5. EKI, 2023. *Water Supply Assessment for the 1499 Old Bayshore Highway Project*, prepared for the City of Burlingame, dated July 2023.

SOURCE: EKI, 2023

When considering this CII growth in conjunction with the water demands from other recently approved and proposed life science/office developments in the City[8] along with the proposed Project, the cumulative water demand of the proposed Project and the 1499 Old Bayshore Highway project (two most recently proposed projects) would exceed the City's total projected CII demands for the year 2030 by 9 MGY (see Table 4.15-1). Based on the proportional water demand

[8] This includes the approved 1669/1699 Old Bayshore Highway and 810/821 Malcolm Road project, approved 777 Airport Boulevard project, proposed 620 Airport Boulevard project and proposed 1499 Old Bayshore Highway project.

of these two projects, the proposed Project would account of 84 percent of the 9 MGY overage, or approximately 7.7 MGY.[9]

While there would be sufficient City water supplies for the additional 9 MGY water demand in normal years, there would not be sufficient water supplies during single dry and multiple dry years with implementation of the Bay-Delta Plan Amendment. The worst-case shortfall shown in the 2020 UWMP would occur for a multiple dry year drought starting in 2045. In this scenario, the City would experience up to a 53.3 percent shortfall without the demand associated with the proposed Project and the 1499 Old Bayshore Highway project. Adding the 9 MGY water demand associated with those projects would create an additional 0.3 percent to the City's worst-case shortfall (or a total shortfall of 53.6 percent) in 2045. The Project's contribution to the furtherance of the City's water supply shortfall would be a significant impact.

In acknowledgement of the number and large scale of recent development projects proposed in the City that would contribute to water demands that would exceed the development assumptions that were projected in the 2020 UWMP, the City has developed a Development Offset Program to demonstrate how future demands would be met through the implementation of citywide water conservation programs. The purpose of the Program is to ensure that the overall customer demand for water does not exceed available current or future supply under a range of hydrologic conditions, and to ensure the availability of water for residential, commercial, and other purposes for future water use in this service area.

> **Mitigation Measure UTIL-2: Contribute to Water Conservation Programs under the City's Development Offset Program.**
>
> Per the Development Offset Program and the WSA, the Project applicant shall make a monetary contribution to pay for its fair share of funding of water conservation programs to offset the Project's contribution to the City's water demand overage of 9 MGY during multiple dry years. The Project applicant shall make this contribution in three installments prior to issuance of Certificate of Occupancy for each of the three office/R&D buildings in amounts calculated at that time which are proportional to each building's square footage.

In 2020, BAWSCA completed the Regional Water Demand and Conservation Projections Project (BAWSCA, 2020). This regionwide effort developed water demand and conservation projections through 2045 for each BAWSCA member agency. This Demand Study estimated that the City could achieve 56 MGY of water savings by 2045 through the implementation of water conservation measures included in the Demand Study. 24 BAWSCA agency-selected water efficiency measures are identified below:

Commercial

- CII water survey
- CII water efficient technology (WET) rebate
- School building retrofit

[9] The 9 MGY overage and proportional splits are rounded values.

- Fixture rebate on resale or water account change

Irrigation

- Residential Outdoor Water Surveys
- Large Landscape Outdoor Water Surveys
- Large Landscape (Waterfluence) Program
- Lawn Be Gone! And Rainwater Capture Rebates

Community and Education

- Public and School Education
- Billing Report Educational Too Non-AMI (Advanced Metering Infrastructure)
- AMI Customer Portal

Residential

- Residential Indoor Water Surveys
- Residential Water-Savings Devices Giveway
- Flowmeter Rebate
- Leak Repair and Plumbing Emergency Assistance
- Multifamily High Efficiency Toilet (HET) Direct Install
- Multifamily Submetering for Existing Accounts
- New Development Submetering
- New Development Hot Water on Demand
- Low Impact New and Remodeled Development
- Fixture Retrofit on Resale or Water Account Change

System Water Loss

- Water Loss

Mitigated Water Supply Conditions (i.e., with Implementation of City's Development Offset Program)

A discussion of mitigated conditions for each water supply scenario, along with the projected supplies and demands for the City under normal, single, and multiple dry year conditions is presented below.

Mitigated Water Supply Conditions under Scenario 1: Implementation of the Bay-Delta Plan Amendment

As discussed above, this represents a worst-case scenario where the Bay-Delta Plan is implemented. As shown in **Table 4.15-2**, during normal hydrologic years, as mitigated with implementation of City's Development Offset Program, the City is expected to meet all projected demands, which are estimated to be 1,697 MG by 2045. Also, shown in Table 4.15-2, during single dry years, the annual supply within the City's service area under this scenario would be reduced to 929 MG by 2045. Supply shortfalls relative to total demands during single dry years are estimated to range between 34 percent in 2025 and 45 percent in 2045.

TABLE 4.15-2
MITIGATED SCENARIO 1: PROJECTED NORMAL AND SINGLE DRY YEAR WATER SUPPLY AND DEMAND FOR THE CITY OF BURLINGAME WITH IMPLEMENTATION OF THE BAY DELTA AMENDMENT

Water Supply and Demand	Projected Normal Year Supply and Demand (MGY)				
	2025	2030	2035	2040	2045
Water Supply					
Normal Year Supply[a]	1,909	1,909	1,909	1,909	1,909
Single Dry Year Supply with Implementation of Bay Delta Plan Amendment[b]	981	1,005	1,035	1,051	929
Water Demand					
City of Burlingame[c]	1,483	1,527	1,574	1,638	1,697
Proposed Project[d]	Included in City Demands After Implementation of the Development Offset Program				
Water Demand Inclusive of Proposed Project	**1,483**	**1,527**	**1,574**	**1,638**	**1,697**
Normal Year Supply Shortfall (% demand)	***None***	***None***	***None***	***None***	***None***
Single Dry Year Supply Shortfall (% demand)	***34%***	***34%***	***34%***	***36%***	***45%***

ABBREVIATIONS:

"BAWSCA" = Bay Area Water Supply and Conservation Agency
"DSS Model" = Demand Management Decision Support System Model
"ISG" = Individual Supply Guarantee
"MGY" = million gallons per year
"MGD" = million gallons per day
"SFPUC" = San Francisco Public Utilities Commission
"UWMP" = Urban Water Management Plan

NOTES:

[a] Water supply available to the City during normal years is assumed to be equal to the City's ISG. The City has an ISG of 5.23 MGD, or approximately 1,909 MGY.

[b] Water supply available to the City during single dry years is based on dry year supply projections, assuming the Bay Delta Plan Amendment is implemented as written. Supply projections with the Bay Delta Plan Amendment are presented per the City's 2020 UWMP; however, actual future supply allocations may vary based on actual shortage levels and the then-applicable allocation methodology being applied by BAWSCA and SFPUC. Supply volumes, which assumes implementation of the Bay Delta Plan Amendment, are per Reference 1.

[c] Water demand projections for the City were updated in 2022 per Reference 2.

[d] In accordance with and through implementation of the Development Offset Program, the proposed Project would mitigate its impact on the City's supply reliability and would not result in an increase in demand relative to those the City's 2020 UWMP projects and those included in the 2022 demand projections update.

REFERENCES:

1. SFPUC Regional Water System Supply Reliability and BAWSCA Tier 2 Drought Implementation Scenarios, Updated Drought Allocations, dated April 1, 2021.
2. City of Burlingame DSS Model, updated August 9, 2022

SOURCE: EKI, 2023

As shown in **Table 4.15-3**, during multiple dry years, the City's 2020 UWMP estimates that annual supply within the City's service area would be reduced to 981 MG in 2025 during the first year of a drought, and 843 MG in 2025 in the second, third, fourth, and fifth years of drought. The City's 2020 UWMP further estimates that in 2045, annual supply would be reduced to 929 MG during the first three years of a drought, and 792 MG in fourth and fifth years of drought. Supply shortfalls relative to total demands are estimated to range between 34 percent during the first year of a drought in 2025 to 53 percent during the fifth year of a drought in 2045.

TABLE 4.15-3
MITIGATED SCENARIO 1: PROJECTED MULTIPLE DRY YEAR WATER SUPPLY AND DEMAND FOR THE CITY OF BURLINGAME WITH IMPLEMENTATION OF THE BAY DELTA AMENDMENT

Water Supply and Demand	Projected Water Supply and Demand During Multiple Dry Years (MGY)[a]																								
	2025					2030					2035					2040					2045				
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5
Multiple Dry Year Supply with Implementation of Bay Delta Plan Amendment[b]	981	843	843	843	843	1,005	864	864	864	864	1,035	873	873	873	809	1,051	901	901	801	801	929	929	929	792	792
Demand																									
City of Burlingame[c]	1,483	1,483	1,483	1,483	1,483	1,527	1,527	1,527	1,527	1,527	1,574	1,574	1,574	1,574	1,574	1,638	1,638	1,638	1,638	1,638	1,697	1,697	1,697	1,697	1,697
Proposed Project[d]	Included in City Demands After Implementation of the Development Offset Program																								
Water Demand Inclusive of Proposed Project	**1,483**	**1,483**	**1,483**	**1,483**	**1,483**	**1,527**	**1,527**	**1,527**	**1,527**	**1,527**	**1,574**	**1,574**	**1,574**	**1,574**	**1,574**	**1,638**	**1,638**	**1,638**	**1,638**	**1,638**	**1,697**	**1,697**	**1,697**	**1,697**	**1,697**
Supply Shortfall (% demand)	***34%***	***43%***	***43%***	***43%***	***43%***	***34%***	***43%***	***43%***	***43%***	***43%***	***34%***	***45%***	***45%***	***45%***	***49%***	***36%***	***45%***	***45%***	***51%***	***51%***	***45%***	***45%***	***45%***	***53%***	***53%***

Abbreviations:
"BAWSCA" = Bay Area Water Supply and Conservation Agency
"DSS Model" = Demand Management Decision Support System Model
"MGY" = million gallons per year
"SFPUC" = San Francisco Public Utilities Commission
"UWMP" = Urban Water Management Plan

NOTES:
[a] While WSA regulations only require an analysis of a three-year drought scenario, UWMP regulations were updated in 2018 to include a five-year drought scenario (California Water Code §10635). Therefore, a five-year drought scenario is presented here.
[b] Projected supply is based on dry year allocation projections if the Bay Delta Plan Amendment is adopted, based on the methodology, assumptions and information utilized and provided by SFPUC and BAWSCA; however, actual future supply allocations may vary based on actual shortage levels and the then-applicable allocation methodology being applied by BAWSCA and SFPUC, per Reference 1.
[c] Water demand projections for the City were updated in 2022 per Reference 2.
[d] In accordance with and through implementation of the Development Offset Program, the proposed Project would mitigate its impact on the City's supply reliability and will not result in an increase in demand relative to those the City's 2020 UWMP projects and those included in the 2022 demand projections update.

REFERENCES:
1. SFPUC Regional Water System Supply Reliability and BAWSCA Tier 2 Drought Implementation Scenarios, Updated Drought Allocations, dated April 1, 2021.
2. City of Burlingame DSS Model, updated August 9, 2022.

If the "worst-case" supply scenario in which the Bay-Delta Plan Amendment is implemented as written, and not accounting for the implementation of actions identified as part of SFPUC's AWSP, BAWSCA's Long-Term Water Supply Reliability Strategy, shortfalls of up to 53 percent are projected during drought years. To address this issue, the City plans to enact its WSCP, which includes Mandatory Staged Restrictions of Water Use. The WSCP systematically identifies ways in which the City can reduce water demands during dry years.

The overall reduction goals in the WSCP are established for six drought stages and address water demand reductions over 50 percent. For example, if supply shortfalls amount to 53 percent or 905 MG per year ("worst-case" scenario under Scenario 1), then the City would implement Shortage Level 6 of the WSCP for shortages over 50 percent in order to ensure demand is met. The City's WSCP was revised as part of the City's 2020 UWMP update process and includes detailed information about how drought risks are evaluated by the City on an annual basis to determine the potential need for reductions. The City may choose to implement tiered allocation rationing to achieve the required level of water use reductions.

Mitigated Water Supply Conditions under Scenario 2: Without Implementation of the Bay-Delta Plan Amendment

This scenario represents the supply outlook for the City without implementation of the Bay-Delta Plan Amendment. Under this scenario, all BAWSCA member agencies would be allocated 100 percent of their contractual supply volume during single and multiple dry years up through the third year of a multi-year drought in 2045, at which point the members would be subject to their Tier Two drought cutbacks.

During normal hydrologic years and single dry years, as mitigated, the City is expected to meet all projected demands, which are estimated to be 1,697 MG by 2045 (please see **Table 8a** in Appendix WSA). During multiple dry years, as mitigated, the City is expected to have sufficient supply to meet projected demands through the third year of a multi-year drought in 2045 (please see **Table 8b** in Appendix WSA). During the fourth and fifth years of a multi-year drought in 2045, supplies would be reduced to 1,455 MG, resulting in supply shortfalls of 14 percent. These shortfalls would be addressed through implementation of the City's WSCP.

Mitigated Water Supply Conditions under Scenario 3: Implementation of the Voluntary Agreement

The March 1, 2019 Proposed Voluntary Agreement has yet to be accepted by SWRCB as an alternative to the Bay-Delta Plan Amendment and thus the shortages that would occur with its implementation are not known with certainty. However, given that the objectives of the Voluntary Agreement are to provide fishery improvements while protecting water supply through flow and non-flow measures, the RWS supply shortfalls under the Voluntary Agreement would be less than those projected under the Bay-Delta Plan Amendment, and therefore would require water use reductions of a lesser degree than that which would occur under Scenario 1.

It is anticipated that under this scenario, the City has sufficient water to meet all projected demands, including those of the proposed Project, in normal years. It is expected that the degree of water use reduction during dry years would also more closely align with the SFPUC's RWS

LOS goal of limiting water use reduction to no more than 20 percent on a system-wide basis in drought years. The City will enact its WSCP to curtail demands and ensure that its supplies remain sufficient to serve all users, including the proposed Project.

Rationing Implications

As described above, in response to anticipated future dry-year shortfalls, the City has developed a WSCP that systematically identifies ways in which the City can reduce water demands during dry years. The overall reduction goals in the WSCP are established for six drought stages ranging from up to 10 percent to greater than 50 percent shortfalls.

While the levels of water use reduction apply to the entire City service area (i.e., up to 53 percent under Scenario 1 an up to 14 percent under Scenario 2), the City may allocate different levels of rationing to individual customers based on customer type (e.g., dedicated irrigation, single family residential, multifamily residential, commercial, etc.) to achieve the level of citywide rationing required to ensure demand is met. It is anticipated that the WSCP may include a tiered allocation approach that imposes lower levels of rationing on customers who use less water than similar customers in the same customer class and would require higher levels of rationing by customers who use more water. City staff expects that under a future WSCP adopted by the City Council, the allocation method or combination of methods that would be applied during water shortages caused by drought would similarly be subject to the discretion of the Public Works Director.

The City anticipates that, as a "worst-case" scenario under Scenario 1, the proposed Project could be subject up to 53 percent rationing during a severe drought. In accordance with the WSCP, the level of rationing that would be imposed on the proposed Project would be determined at the time of a drought or other water shortage condition, and cannot be established with certainty prior to the shortage event.

Conclusion

With implementation of the Developer Offset Fee Program in Mitigation Measure UTIL-2, the proposed Project would mitigate its impact on the City's demand and supply reliability. As a result, the proposed Project is not anticipated to result in an increase in demands or decrease in supply reliability for the City relative to those projected in the City's 2020 UWMP and the City's 2020 water demand projections update. Based on currently available information, the City expects to be able to meet all future demands within its service area inclusive of the proposed Project in normal hydrologic years and dry years. The shortfalls that are currently projected during dry years will be addressed through planned implementation of the City's WSCP. In addition, the City, BAWSCA, and SFPUC are pursuing the development of additional water supplies and mitigation measures to improve the RWS and local supply reliability.

All other new developments that are expected to result in a net demand increase on the City's projected demands would also be required to comply with the Developer Offset Fee Program and thus, would similarly result in no additional impact on the City's water demand and supply reliability.

Significance after Mitigation: Less than Significant.

Secondary Impacts of Implementing the City's Development Offset Program

As discussed above, implementation of the City's Development Offset Program would entail the implementation of a range of water efficiency measures for commercial and residential development, and irrigation facilities; provide for community and school education on water efficiency; and repair leaks in the water distribution system to reduce water loss. In some cases, implementation of measures will require retrofit and/or new construction within existing and new private developments, as well as within City facilities and infrastructure. It is expected that improvements would occur both internally within buildings and structures (e.g., replacement or installation of new low-water-use fixtures, dishwashers, toilets) and externally (e.g., replacement or installation of water efficient irrigation system, landscape conversion, etc.). In other cases, implementation of water efficiency improvements involves changes in operational practices (e.g., car washing, and use of mulch in landscaping, use of pool covers).

As no specific sites or projects or locations within the City are presently identified for implementing water efficiency improvements under the Development Offset Program, it is speculative to analyze any specific associated environmental impacts. However, it is expected that physical construction of any water efficiency improvements would have the potential to result in short-term environmental impacts, such as limited ground disturbance, generation of construction-related emissions and noise. Over the long-term, water efficiency improvements would be beneficial as it relates to reducing water demand and water loss. Any long-term effects would be expected to be minor (e.g., externally-installed equipment that may be visible from public view, or minor operational noise associated with external equipment). However, given that the majority of water efficiency improvements would be small in scale, they would not be expected to generate any significant environmental effects, and all new equipment would be required to be installed pursuant to City regulations. Furthermore, to the extent that water efficiency measures occur as part of new development, any construction-related or long-term effects associated with would be addressed as part of the control measures imposed as part of the conditions of approval for those projects.

Impact UTIL-3: The wastewater treatment provider would have adequate wastewater treatment capacity to serve the Project. (*Less than Significant*)

The Project would generate an operational increase in wastewater over existing conditions and therefore increase the need for wastewater treatment at the Burlingame WWTP.

Using the net new Project water demand estimate derived above under *Approach to Analysis* (excluding the portion for outdoor water use), and conservatively assuming wastewater generation as 95 percent of wastewater generation as water usage, the net new increase in wastewater generation resulting from the Project would be approximately 0.24 mgd. The Project would install on-site sanitary sewer mains along proposed on-site roadways. A total of three laterals sized between 152 and 256 gallons per minute would serve the Project site; one sewer lateral would serve each proposed building.

All wastewater generated by the Project would be discharged to the City wastewater collection system and conveyed to the Burlingame WWTP for treatment. Based on review of the *City of Burlingame 2019-2020 Wastewater Collection System Master Plan Update*, there are no deficiencies identified in the existing City wastewater collection lines or pump stations identified between the Project site and point of treatment (City of Burlingame, 2022). As discussed above in Section 4.15.1, *Environmental Setting*, the WWTP has a designed capacity to treat up to 5.5 mgd average dry weather flow, and is currently treating approximately 3.0 to 3.5 mgd of dry weather flows. As a result, the City's treatment plant has excess dry weather treatment capacity, which is adequate to accommodate the increase in wastewater flow generated by the proposed Project, and the impact would be less than significant.

Mitigation: None required.

Impact UTIL-4: Construction and operation of the Project would not generate solid waste in excess of State or local standards or the capacity of local infrastructure and would comply with federal, state and local statutes and regulations related to solid waste. ***(Less than Significant)***

Construction

The project would generate 27,620 tons of solid waste during demolition that would be recycled, composted on-site, or disposed of in area landfills. Approximately 3,090 cubic yards (1,236 tons) of removed asphalt would be recycled on-site and used as base rock or for temporary roads. A construction debris recycling target of a minimum of 85 percent would be required by construction documents. An estimated 14,000 tons of construction debris would be recycled off-site. Any hazardous materials would be transported and disposed of in accordance with applicable local, State, and federal regulations. All other construction debris would be disposed of at a permitted landfill. All soil and debris, including contaminated soil, would be hauled to the Dumbarton or Newby Landfill or a similar facility, which have sufficient capacity to accommodate the solid waste generated during the construction of development.

Operation

Table 4.15-4 presents the estimated level of solid waste that would be generated annually during operation of the Project, assuming generation factors as noted. The Project would participate in recycling and composting programs and other efforts to reduce the amount of solid waste requiring landfill disposal. The total amount of solid waste that would be diverted to landfills would be approximately 8.1 tons per day (2,970 tons per year), assuming a full-service cafeteria is included, and conservatively assuming operation 365 days per year. As discussed in Section 4.15.1, *Environmental Setting*, The Ox Mountain Sanitary Landfill has a maximum permitted capacity of 60.5 million cubic yards. As of December 2015, its remaining capacity was 25.507 million tons (22.18 million cubic yards) and has an estimated closure date for 2034 and a permitted capacity of 3,598 tons per day. The amount generated by the Project would represent 0.2 percent of the total remaining capacity.

TABLE 4.15-4
ESTIMATED PROJECT OPERATIONAL SOLID WASTE

Use	Area (Square Feet)	Annual Tons/ Square Feet	Waste (tons/year)	Recycled (tons/year)	Compost (tons/year)	Total (tons/year)
Laboratory/Office Use with full-service cafeterias	1.42 million	0.009	2,594	2.215	7,384	12,553
Café/Restaurant	5,000	0.01	16.3	10.9	26	53.2
Total			**2,970**	**2,225**	**7,410**	**12,606**

NOTE:
Office solid waste generation: 80 lbs./1,000 square feet/week
Office recycle: 60 lbs./1,000 square feet/week
Café/Restaurant solid waste generation: 125 lbs/1,000 square feet/week
Café/Restaurant Recycle: 125 lbs/1,000 square feet/week
Compost: 200 lbs.1,000 feet/week

SOURCE: DivcoWest, 2022

Therefore, construction and operation of the Project would not result in solid waste generation would exceed the permitted capacity of the landfill that would serve the Project, or be in non-compliance with federal, state, and local statutes and regulations related to solid waste. Therefore, this impact would be less than significant.

Mitigation: None required.

Cumulative Impacts

Impact C-UTIL-1: Development under the proposed Project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the Project site, would not substantially contribute to cumulative impacts related to utilities and services systems. (*Less than Significant*)

Utility Infrastructure

The Project, when combined with foreseeable growth in the vicinity of the Project site, could increase the demand for utilities and service systems. As the vicinity of the Project site is a developed urban area, development in the vicinity of the Project site would occur as replacement or in-fill on otherwise built-out sites. City utility systems that serve the area have sufficient capacities to serve those sites and the proposed Project. To the extent that cumulative demands on water, wastewater or stormwater conveyance systems from reasonably foreseeable growth in the City would require the construction of new or expansion of existing conveyance systems, such construction may have the potential to cause environmental impacts. However, in general, impacts would be limited to temporary construction effects and would be minimized by best practices that are routinely imposed by the City on infrastructure projects. As discussed above, with mitigation and compliance with construction-related regulatory requirements, construction-related effects associated with utility improvements needed to serve the proposed Project would be reduced to less than significant. As a result, the cumulative impact with regard to utility infrastructure would be less than significant.

Water Supply

The analysis conducted in Impact UTIL-2, and the WSA it is based on, is a cumulative analysis of the Project's water demand within the context of the overall cumulative water demand in the City through 2045 based on current water supply planning. As noted in Impact UTIL-2, as mitigated, the Project would not make a considerable contribution to cumulative impacts on the City's water supply, and the impact would be less than significant.

Wastewater Treatment

The proposed Project, when combined with foreseeable growth in the City, would increase the cumulative demand for wastewater treatment. As described in Impact UTIL-3, there are no deficiencies in the existing City wastewater collection lines or pump stations identified between the Project site and point of treatment. Furthermore, even with the additive wastewater treatment demand from the Project, there is considerable remaining surplus dry weather capacity to accommodate future cumulative development (approximately 2.74 to 3.24 mgd). In addition, the City of Burlingame General Plan includes policies to providing sufficient wastewater treatment capacity, including Policy IF-3.6, ensures that adequate wastewater collection and treatment services for all new development are available before developments are approved. Additional General Plan Policies include Policy IF-3.4, for repairing and replacing wastewater facilities to reduce infiltration and inflow to wastewater collection facilities, and Policy IF-3.5 for improving seismic safety of the sewage collection and treatment system. Given these factors, cumulative impacts with regard to wastewater treatment capacity would be less than significant.

Mitigation: None required.

4.15.4 References

California Code of Regulations, Title 23, Division 2, Chapter 2.7, Model Water Efficient Landscape Ordinance September 29, 2020.

California Natural Resources Agency, California Environmental Protection Agency, California Department of Water Resources, California Department of Fish and Wildlife, 2022. *Memorandum of Understanding Advancing a Term Sheet for the Voluntary Agreements to Update and Implement the Bay-Delta Water Quality Control Plan, and Other Related Actions*. March 29, 2022.

CalRecycle, 2023. *SWIS Facility/Site Activity Details (ca.gov), Corinda Los Trancos Landfill (Ox Mtn) (41-1AA-002)*. Available: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1561?siteID=3223. Accessed May 25, 2023.

CBECS, 2012. *US Energy Information Administration 2012 Commercial Buildings Energy Consumption Survey: Water Consumption in Large Buildings.* 2012.

City of Burlingame, 2019. *Burlingame General Plan.* Adopted January 2019. Available online: https://cms6.revize.com/revize/burlingamecity/document_center/Planning/General%20and%20Specific%20Plans/BurlingameGP_Final_Nov2019_COMPLETE%20DOCUMENT.pdf.

City of Burlingame, 2021. *2020 Urban Water Management Plan*. September 2021.

City of Burlingame, 2022. *City of Burlingame 2019-2020 Wastewater Collection System Master Plan Update, Final.* June 2022.

City of Los Angeles Bureau of Engineering, 2012. City of Los Angeles Bureau of Engineering, City of Los Angeles Bureau of Sanitation, Sewer Generation Rates Table. April 6, 2012.

City of South San Francisco, 2019. *Genentech Campus Master Plan Update Final Environmental Impact Report*. October 2020.

EKI Environment & Water, Inc., 2023. *Water Supply Assessment for 1200-1340 Old Bayshore Highway, City of Burlingame*. September 2023.

SFPUC, 2023. *Water System Infrastructure Improvements, About the Water System Improvement Program*, https://sfpuc.org/construction-contracts/water-infrastructure-improvements#:~:text=The%20San%20Francisco%20portion%20of,overall%20WSIP%20is%20May%202023. Accessed May 24, 2023.

SFPUC, 2021. 2020 Urban Water Management Plan. June 2021.

4.16 Effects Found Not to Be Significant

According to *CEQA Guidelines* Section 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 section presents information for certain environmental topic areas that, based on preliminary review by the City of Burlingame, were determined to have no Project impact, including Agriculture and Forestry Resources; Mineral Resources; and Wildfire. The following presents a brief summary of these Project effects that were found not to be significant, including a discussion of reasons they would not be significant. Please also refer to other impact sections in Chapter 4 of this EIR for other environmental issues that were found not to be significant.

4.16.1 Agriculture and Forestry Resources

The California Department of Conservation (DOC), Division of Land Resource Protection, has established the Farmland Mapping and Monitoring Program (FMMP), which monitors the conversion of the state's farmland to and from agricultural use. Four categories of farmland – Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance – are considered valuable. The entire City of Burlingame, including the Project site, is identified as "Urban and Built-Up Land" by the FMMP According to the FMMP map for San Mateo County, there is no Prime Farmland, Unique Farmland, Grazing Land, or Farmland of Statewide or Local Importance designated on any portion of the city." (DOC, 2016). Thus, the Project would have no impact related to conversion of important farmland to a nonagricultural use.

The City of Burlingame's Zoning Code has no agricultural designations. The Project site is zoned Bayfront Commercial (BFC), for which the proposed development would be an allowed use. As a result, the Project would not conflict with any zoning for agricultural use, and there would be no impact (City of Burlingame, 2021).

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to designate agricultural preserves and enter into contracts with private landowners for restricting specific parcels of land to agricultural, or related open space use. The City of Burlingame does not contain an area subject to an agricultural preserve or a Williamson Act Contract (DOC, 2017). Thus, the Project would not conflict with a Williamson Act contract, and there would be no impact.

With respect to forestry resources, no forest land or existing timber harvest uses are located on or in the vicinity of the Project site. No areas of the Project site are zoned for timberland. As such, the Project would not result in the loss of forest land or conversion of forest land to non-forest uses, or conflict with existing zoning for timberland, and therefore would have no impact on forest land or timberland.

4.16.2 Mineral Resources

The Project is located on land classified by the DOC Division of Mines and Geology as Mineral Resource Zone 1 (MRZ-1), an area where adequate geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence. This zone is applied where well developed lines of reasoning, based on economic-geologic principles and adequate data, indicate that the likelihood for occurrence of significant mineral deposits is nil or slight (DOC, 1987; 2000). There are no known significant mineral resources in the Project site or in the vicinity of the Project site. Additionally, there are no areas designated or zoned as mineral resource zones by the City's General Plan (City of Burlingame, 2021).

No mineral extraction activities currently occur or have historically occurred on the Project site, and mineral extraction is not included within the Project's design. The Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; and would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. As a result, adoption of the Project would not interfere with any mineral extraction operations and would not result in the loss of land designated for mineral resources. Therefore, no impact to mineral resources would occur.

4.16.3 Wildfire

Wildfire was added in the update to the CEQA Guidelines as an environmental topic for consideration with regard to impacts that could occur in areas in or near State Responsibility Areas (SRA) or lands classified as very high fire hazard severity zones. The Project is not located in or near an SRA or lands classified as very high fire severity zones and is not susceptible to wildfires (CAL FIRE, 2007). Additionally, the Project site is in an area that is highly developed and lacking features that normally elevate wildland fire risks (e.g., dry vegetation, steeply sloped hillsides). Therefore, no impact would occur with regard to wildfire.

Please also see Section 4.8, *Hazards and Hazardous Materials*, which addresses potential impacts related to exposure of people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

4.16.4 References

City of Burlingame, 2021. *City of Burlingame Zoning Map*, Updated November 30, 2021. Available: https://cms6.revize.com/revize/burlingamecity/Zoning%20Map%20-%202021.pdf. Accessed December 21, 2022.

California Department of Forestry and Fire Protection (CAL FIRE), 2007. *San Mateo County Very High Fire Hazard Severity Zones in LRA, As Recommended by CAL FIRE. Fire Hazard Severity Zones in SRA, Adopted by CAL FIRE,* November 7, 2007. Available: https://www.smcgov.org/media/73036/download?inline=. Accessed December 21, 2022.

California Department of Conservation (DOC) Division of Mines and Geology, 1987. *Special Report 146 Part II, Mineral Land Classification: Aggregate Materials in the San Francisco-Monterey Bay Area.* Available: https://ia902602.us.archive.org/35/items/mineral landclass00stin/minerallandclass00stin.pdf. December 21, 2022.

DOC, 2016. *San Mateo County Important Farmland 2014,* February 2016. Available: https://www.smcgov.org/media/73096/download?inline=. Accessed December 21, 2022.

DOC, 2017. *State of California Williamson Act Contract Land.* Available: https://planning.lacity.org/eir/HollywoodCenter/Deir/ELDP/(E)%20Initial%20Study/Initial%20Study/Attachment%20B%20References/California%20Department%20of%20Conservation%20Williamson%20Map%202016.pdf. Accessed December 21, 2022.

DOC, 2000. *Guidelines for Classification and Designation of Mineral Lands.* Available: https://www.conservation.ca.gov/smgb/Guidelines/Documents/ClassDesig.pdf. Accessed December 21, 2022.

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CHAPTER 5
Other CEQA Considerations

5.1 Introduction

CEQA Guidelines Section 15126 requires that all phases of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation taking account of the impacts both in the short-term and long-term. More specifically, Section 15126.2 requires disclosure of (1) Significant Environmental Effects Which Cannot be Avoided if the Proposed Project is Implemented (CEQA Guidelines Section 15126.2(c)), (2) Significant Irreversible Environmental Changes Which Would be Caused by the Proposed Project Should it be Implemented (CEQA Guidelines Section 15126.2(d)), and (3) Growth-Inducing Impact of the Proposed Project (CEQA Guidelines Section 15126.2(e)).

Chapter 2, *Summary*, and Chapter 4, *Environmental Setting, Impacts and Mitigation Measures,* Sections 4.1 through 4.16 provide a comprehensive presentation of the potential environmental effects that could result from implementation of the proposed Project, proposed mitigation measures, and conclusions regarding the level of significance of each impact before and after mitigation. Chapter 6, Alternatives, presents a comparative analysis of alternatives to the proposed Project. Other CEQA-required analyses described above are presented below.

5.2 Significant and Unavoidable Impacts

Section 15126.2(c) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The environmental effects of the proposed Project on various aspects of the environment are discussed in detail in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measure*s. The Proposed Project would not result in any significant and unavoidable impacts. All potentially significant project impacts would either be less than significant or would be reduced to a less-than significant level with implementation of identified mitigation measures, as discussed throughout Chapter 4 of this EIR.

Section 15126.2(c) also requires: “Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and reasons why the project is being proposed, notwithstanding their effect, should be described.” The discussion of the feasibility of alternatives to address significant impacts of the proposed Project is found in Chapter 6, Alternatives.

5.3 Significant Irreversible Environmental Changes

Under CEQA, an EIR must evaluate the extent to which a project's primary and secondary effects would generally commit future generations to the allocation of nonrenewable resources and to irreversible environmental damage. Specifically, CEQA Guidelines Section 15126.2(d) states:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Generally, a project would result in significant irreversible environmental changes if:

- The primary and secondary impacts would generally commit future generations to similar uses;
- The project would involve a large commitment of nonrenewable resources;
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Development of the Project would result in the dedication of the Project site to proposed commercial uses (i.e., office and/or life science), along with supporting parking, site circulation, infrastructure, recreational and landscaping improvements on a commercially zoned site. The proposed Project would preclude the development of other uses on the Project site for the lifespan of the Project.

With respect to the commitment of non-renewable resources, and consumption of resources, these would occur during both construction and operation of the proposed Project. Construction of the proposed Project would require the use of fossil fuels, construction materials, and water. During operation, the proposed NHPH would also require an irreversible commitment of energy, primarily in the form of fossil fuels for vehicle fuel, and potential limited natural gas use for lab use and café/restaurant use; potable water for consumption, landscaping, and other uses; and potential future recycled water use for landscaping when the City brings recycled water to the area.

However, as discussed in Section 4.5, *Energy*, the Project would be required to adhere to all applicable codes and regulations that are designed to conserve and reduce energy consumption. This would include, but not limited to, compliance with the City's Reach Code, which requires new developments to use electric appliances for heating, cooling, and cooking (with some exceptions); and install electric vehicle (EV) infrastructure and solar power. In addition, the design the Project buildings are proposed to meet the LEED™ Gold standard. The proposed

office/life science building glazing would control interior heat and light transmission for energy efficiency. The Project would also implement water conservation features, including low-flow plumbing fixtures and drip irrigation for a drought-tolerant landscape. In addition, the Project would also be plumbed for potential future recycled water use for landscaping when the City brings recycled water to the area. As demonstrated in the Project energy analysis in Section 4.5, the Project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of fuel or energy. In addition, as described in Section 4.7, *Greenhouse Gas Emissions*, with implementation of the air quality mitigation measures identified in the EIR, the Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or conflict with the CARB 2022 Scoping Plan for Achieving Carbon Neutrality or the City's 2030 Climate Action Plan. Furthermore, as described further in Section 4.14, *Transportation*, the proposed Project is both located within one-half mile of either an existing major transit stop; and with the proposed upgrade the Commute.org Burlingame Bayside shuttle, would be located within a stop along an existing high quality transit corridor. Accordingly, the Project's transportation impacts, including but not limited to effects on vehicle miles travelled (VMT), are presumed to be less than significant.

With respect to irreversible damage that could result from an environmental accident associated with the proposed Project, the potential for such effects is discussed in Section 4.8, *Hazards and Hazardous Materials*. As discussed there, potential impacts related to the accidental release of hazardous materials during Project construction would be rendered less-than-significant with compliance with the numerous laws and regulations that govern the transportation, use, handling, and disposal of hazardous materials and the implementation of Mitigation Measure~~s~~ HAZ-1 to properly manage excavated materials and dewatering effluent during construction. During Project operation, it is assumed that potential life science research uses would store, use, and dispose of variable quantities of hazardous materials that may include biohazardous, chemical, low-level radioactive and other materials and/or waste. However, compliance with applicable hazardous materials storage and transportation regulations, and programs and controls to manage hazardous materials as mandated by federal, State and local laws would substantially reduce the likelihood and severity of a potential accident that could result in irreversible environmental damage during Project operation.

5.4 Growth-Inducing Effects

As required by Section 15126.2(e) of the State CEQA Guidelines, the EIR must discuss ways in which the proposed Project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also, the EIR must discuss the characteristics of the Project that could encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. Growth can be induced in a number of ways, such as through the elimination of obstacles to growth, through the stimulation of economic activity within the region, or through the establishment of policies or other precedents that directly or indirectly encourage additional growth. The purpose of this section is to evaluate the potential growth-inducing effects resulting from the implementation of the Project in the city of Burlingame, and throughout the region. Additional analysis of the effects

of the proposed project on population and employment growth is provided in Section 4.12, *Population and Housing*.

In general, a project may foster spatial, economic, or population growth in a geographic area if the project removes an impediment to growth (e.g., the establishment of an essential public service, the provision of the new access to an area; a change in zoning or general plan amendment approval); or indirectly stimulates economic expansion or growth that occurs in an area in response to the project (e.g., changes in revenue base, employment expansion, etc.). These circumstances are further described below:

- **Elimination of Obstacles to Growth:** This refers to the extent to which a proposed project removes infrastructure limitations or provide infrastructure capacity, or removes regulatory constraints that could result in growth unforeseen at the time of project approval;
- **Economic Effects:** This refers to the extent to which a proposed project could cause increased activity in the local or regional economy. Economic effects can include such effects as the Multiplier Effect. A "multiplier" is an economic term used to describe inter-relationships among various sectors of the economy. The Multiplier Effect describes the direct employment effect of a project, as well as indirect and induced employment growth. The multiplier effect recognizes that the onsite employment and population growth of each project may not be the complete picture of growth caused by the project.

5.4.1 Elimination of Obstacles to Growth

The elimination of physical obstacles to growth is considered a growth-inducing effect. Common factors that limit growth include limited capacities of local or regional utility infrastructure, such as storm drainage systems or wastewater conveyance and treatment systems. Transportation infrastructure can also be a factor that limits growth.

The implementation of the Project would not result in the elimination of obstacles to growth. The Project is located on an existing developed site and within an urbanized area of Burlingame. The Project would include limited localized circulation improvements, including the addition of driveways and creation of a new intersection on Old Bayshore Highway, restriping of the U.S. 101 ramps at Old Bayshore Highway and Broadway, extension of Class II bike lanes on Old Bayshore Highway adjacent to the Project site, and extension of the multi-use Bay Trail through the Project site. Such improvements would be designed to facilitate Project-related circulation and would not substantially expand the capacity of area roadways, which are constrained by existing development.

In addition, as discussed Chapter 3, *Project Description*, Section 4.9, *Hydrology and Water Quality*, and Section 4.15, *Utilities and Services Systems*, on-site utility infrastructure improvements proposed at the Project site as part of the Project, including stormwater and wastewater collection, and water, electrical and natural gas distribution, in conjunction with existing utilities that currently serve the Project site, would be adequate in capacity to serve the Project site during operation, and would not serve off-site areas.

Therefore, improvements associated with the Project would not expand the capacity of local infrastructure to the extent that current constraints to development in surrounding areas would be eliminated. As such, the proposed Project would not eliminate obstacles to further growth within the Burlingame.

5.4.2 Economic Effects

Construction of the proposed Project would directly, but temporarily, increase construction employment. Given the limited duration and standard nature of the construction anticipated, the demand for construction employment would likely be met within the existing and future labor market in the City of Burlingame or elsewhere in the County. Neither a substantial quantity of specialized labor nor construction workers from outside the region would be expected to be induced to relocate temporarily or to commute extraordinarily long distances. Any direct spending associated with construction activities would stimulate production of associated products and services in the economy during construction. This indirect job growth would not be substantial in terms of the local or Bay Area economy, due to its temporary nature.

As estimated in Section 4.12, *Population and Housing*, the Project would generate a net increase of up to 5,080 net new jobs. In addition to the employment growth generated by the Project, additional local employment would be generated through what is commonly referred to as the "multiplier effect." The multiplier effect refers to the secondary economic effects caused by spending from Project-generated employees. The multiplier effect also includes induced employment, which follows the economic effect of employment beyond the expenditures of the Project employees to include jobs created by the stream of goods and services necessary to construct or operate the proposed Project. The multiplier effect tends to be greater in regions with larger diverse economies (like the Bay Area) due to a decrease in the requirement to import goods and services from outside the region, as opposed to smaller economies.

The future cumulative context of citywide and regional growth used for the cumulative analyses in the *Burlingame 2040 General Plan Final EIR* and the cumulative analyses in ABAG's *Plan Bay Area Final EIR* include the multiplier effects of the proposed growth in the Bay Area. The Project would not facilitate growth beyond the growth assumptions included in these planning documents. Consequently, the cumulative impact analyses in these planning documents account for additional growth beyond the Project site that would be generated by the Project.

5.4.3 Environmental Effects of Induced Growth

While economic and employment growth is the intended consequence of the Project, growth induced directly and indirectly by the Project could also affect the region. Potential effects caused by induced growth in the region could include: increased traffic congestion; increased air pollutant emissions; increased demand on public utilities and services, such as fire and police protection, water, recycled water, wastewater, solid waste, energy, and natural gas; and increased demand for housing.

Specifically, an increase in housing demand in the region could cause significant environmental effects because new residential development would require governmental services, such as schools, libraries, and parks. Indirect and induced employment and population growth would further contribute to the loss of open space because it would encourage conversion to urban uses for housing, commercial space, and infrastructure.

The proposed Project would contribute to direct, indirect, and induced growth in the region. However, it is not anticipated that growth induced by the proposed project would be of sufficient size to substantially increase demand for development in the region, to the extent that such demand would lead to significant environmental effects. For these reasons, this impact would be less than significant.

CHAPTER 6
Alternatives

6.1 Introduction

An EIR must describe a range of reasonable alternatives to the proposed project that might feasibly accomplish most of the basic objectives of the proposed project and could avoid or substantially lessen one or more of the project's significant effects. This chapter describes the CEQA requirements for an alternatives analysis, presents the Project applicant's project objectives, summarizes the significant effects of the proposed Project that cannot be avoided or reduced to less than significant with mitigation, and describes the alternatives, including those that were considered but dismissed from further evaluation. The chapter then presents the comparative effects of each of the alternatives relative to those of the proposed Project, and evaluates the relationship of the alternatives to the Project objectives. As required under Section 15126.6(e) of the State CEQA Guidelines, an environmentally superior alternative is identified and addressed at the end of this chapter.

6.1.1 CEQA Requirements for Alternatives Analysis

CEQA requires that an EIR describe and evaluate a range of reasonable alternatives to the proposed project, or to the location of the proposed project, and evaluate the comparative merits of the alternatives (CEQA Guidelines Section 15126.6(a), (d)). The "range of alternatives" is governed by the "rule of reason," which requires the EIR to describe and consider only those alternatives necessary to permit informed public participation, and an informed and reasoned choice by the decision-making body (CEQA Guidelines Section 15126.6(a), (f)).

The range of alternatives must include alternatives that could feasibly attain most of the basic objectives of the project and could avoid or substantially lessen any of the significant effects of the project (CEQA Guidelines Section 15126.6(a)-(c)). CEQA generally defines "feasible" to mean an alternative that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, technological, and legal factors. In addition, the following may be taken into consideration when assessing the feasibility of alternatives: site suitability; economic viability; availability of infrastructure; general plan consistency; other plans or regulatory limitations; jurisdictional boundaries; and the ability of the proponent to attain site control (or the site is already owned by the proponent) (CEQA Guidelines Section 15126.6(f)(1)). If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR (CEQA Guidelines Section 15126.6(f)(2)(B)).

The description or evaluation of alternatives does not need to be exhaustive, and an EIR need not consider alternatives for which the effects cannot be reasonably determined and for which implementation is remote or speculative. An EIR need not describe or evaluate the environmental effects of alternatives in the same level of detail as the proposed project, but must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project (CEQA Guidelines Section 15126.6(d)).

The "no project" alternative must be evaluated. This analysis is required to include a discussion of the continuation of the existing conditions, as well as what could 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)). When the project is other than a land use or regulatory plan, the no project alternative is the circumstance under which the project does not proceed, and the property remains in its existing state (CEQA Guidelines Section 15126.6(e)(3)(B)).

CEQA also requires that an environmentally superior alternative be selected from among the alternatives. The environmentally superior alternative is the alternative with the fewest or least severe adverse environmental impacts. If the "no project" alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)).

6.2 Alternatives Selection

As noted above, the selection of alternatives for consideration in an EIR depends on whether the possible alternative can feasibly meet most of the basic objectives of the project and avoid or substantially lessen any significant impacts of the project. The Project objectives presented in Chapter 3, *Project Description,* and the significant unavoidable impacts of the Project identified in Chapter 4, *Environmental Setting, Impact, and Mitigation Measures* are listed below.

6.2.1 Project Objectives

The key objectives for the proposed Project are as follows:

- Create a world-class life science/office waterfront development of multiple buildings suitable for one or several major users, with amenities to serve employees, visitors, and members of the general public.
- Develop a site plan that preserves key view corridors and provides community benefits, including the creation of major new open spaces and Bay Trail connections that prioritize public access through the site and to the waterfront.
- Redevelop underutilized existing parcels and outdated structures and asphalt surfaces in a manner consistent with the City's General Plan vision for the Bayshore area as a regional recreation and business destination.
- Include well-designed, individual buildings of sufficient floor-plate size and design to accommodate a variety of building uses and phasing flexibility to ensure that the Project is responsive to market conditions and tenant demands, while providing community benefits that meet or exceed the City's requirements.

- Establish a development with sophisticated, unified architectural and landscape design and site planning consistent with City design review regulations and applicable General Plan policies, resulting in a distinctive project identity and strong sense of place and relationship to the waterfront context.
- Improve and enhance public access to the waterfront by extending the Bay Trail through the site and improving the waterfront and creek-side edges of the site through paving, wayfinding signage, street furniture, lighting, and other amenities.
- Promote public transit linkages and use of alternative modes of transportation by including shuttles and other Transportation Demand Management programs as well as bicycle and pedestrian access to and through the site, including safety enhancements to off-site bicycle and pedestrian infrastructure.
- Provide sufficient automobile parking to meet the demand of Project users consistent with City regulations and policies and with the aim to promote transit, electric vehicle, and other VMT-friendly travel.
- Incorporate sustainable and environmentally sensitive design and equipment, energy conservation features, water conservation and landscaping measures, and sustainable stormwater management features.
- Build shoreline infrastructure to contribute toward flood protection and sea level rise resiliency for the Project and the City.
- Provide a positive fiscal impact on the local economy through the creation of jobs, diversification of the types of employment in the City, enhancement of property values, increasing demand for nearby hotel uses, and generation of property tax and other development fees.

6.2.2 Summary of Significant and Unavoidable Environmental Effects of the Proposed Project

As described above, alternatives to the proposed Project must substantially lessen or avoid one or more of the significant Project and/or cumulative environmental impacts. There are no significant and unavoidable impacts identified for the Proposed Project. As summarized in Chapter 2, *Summary*, and addressed in detail by topic in Chapter 4, the Project would result in a range of potentially significant short-term construction and long-term operational environmental impacts, however, feasible mitigation is identified that would ensure these impacts would be mitigated to a less than significant level.

6.3 Alternatives Selected for Further Evaluation

The alternatives identified for detailed evaluation and designed to inform public participation and reasoned choice by decision-makers are:

Alternative 1: No Project (No Development)

Alternative 2: Life Science (80 Percent Maximum) / Office Use Development

Alternative 3: Reduced Size Life Science / Office Development

Table 6-1, below, provides a summary comparison of the principal differences in characteristics of the proposed Project and the alternatives, and the sections that follow describe each alternative, how its impacts would differ from those of the Project, and whether the alternative would or would not achieve most of the project's objectives.

6.3.1 Alternative 1: No Project - No Development

The No Project – No Development Alternative assumes that the proposed Project, including the life science / office buildings and parking structures, site circulation, sustainable infrastructure, and community improvements, would not be constructed and implemented. This would include not implementing Project-proposed sea level rise and flooding improvements (e.g., raising of the Project, and installation of sea and flood walls along the Bay shoreline and Easton Creek); proposed biological improvements (creation of improved shoreline natural area with native habitat); and proposed publicly accessible recreational amenities (including extension of the Bay Trail through the Project site).

Under this alternative, all existing development on the Project site, including buildings, surface parking lots, supporting infrastructure and landscaping would be retained. Existing and/or new tenant(s) would operate in the Project site buildings, consistent with current zoning regulations.

Since the Project development would not occur under this alternative, none of the proposed approvals required for the proposed Project, including, but not limited to, special permits from the City for height and floor area ratio (FAR), or resource agencies, would be required (or necessary).

6.3.2 Alternative 2: Life Science (80 Percent Maximum) / Office Use Development

This alternative assumes development of a life science and office development at the Project site that would be similar in total building size [1.42 million gross square feet (gsf)], massing, height, and configuration as that proposed under the Project. This alternative would maintain the same FAR as the Project (2.71). However, this alternative would limit the life science use portion of the development to up-to-80 percent of the total life science/office development square footage, with no limit on the office portion of the development. Additionally, this alternative assumes 5,000 gsf dedicated to restaurant use, same as that proposed under the Project.

Similar to the proposed Project, this alternative assumes the construction of three life science / office buildings and two parking structures, and supporting site circulation, sustainable infrastructure, and landscaping improvements. This would include implementation of similar sea level rise and flooding improvements; biological improvements; publicly-accessible recreational amenities; and operational TDM program as proposed under the Project.

This alternative is also assumed to require similar City approvals as those required for the proposed Project, including, but not limited to, special permits for height and floor area ratio (FAR); and additional approvals from applicable resources agencies.

TABLE 6-1
COMPARISON SUMMARY OF PROPOSED PROJECT AND ALTERNATIVES CHARACTERISTICS

	Proposed Project	Alternative 1: No Project - No Development	Alternative 2: Life Science (80 Percent Maximum) / Office Development	Alternative 3: Reduced Size Life Science / Office Development
Proposed Buildings	Three buildings; 1.42 million gsf; 11 stories	No new development	Three buildings; similar size, height and massing as Project	Three buildings; 1.278 million gsf; proportionally-reduced floor plates and/or height
Proposed Parking Structures	Two parking structures; 10 to 10½ levels plus two basement levels; 3,400 parking spaces	No new development	Two parking structures; similar size, height and parking capacity as Project	2 parking structures, proportionally-reduced size and parking capacity as Project (3,040)
Demolition of Existing Development	Yes	No	Yes	Yes
Employment (net new)	Up to 5,080 net new jobs[a]	No net increase	Up to 5,080 net new jobs[a]	Up to 4,564 net new jobs[a]
Potable Water Demand (net new)	Up to 90 MGY net new[b]	No net increase	Up to 77 MGY net new[c]	Up to 80.3 MGY net new[b]
Sea Level Rise / Flooding Improvements	Yes	None	Same as Project	Same as Project
Biological Improvements	Yes	None	Same as Project	Same as Project
Recreational Improvements	Yes	None	Same as Project	Same as Project
TDM Program	Yes	None	Same as Project	Same as Project

NOTES:
[a] Assumes 100 percent office use in worst-case scenario for employment generation estimate.
[b] Assumes 100 percent life science use in worst-case scenario for water demand estimate.
[c] Assumes 80 percent life science use / 20 percent office use in worst-case scenario for water demand estimate.

SOURCE: ESA, 2023

This alternative assumes an 80 percent life science / 20 percent office use split on environmental topics where the impacts of life science use are anticipated to be greater than that of office use (e.g., water demand). For those environmental topics where the impacts of office use would be anticipated to be greater than that of life science use (e.g., estimation of employment, traffic, etc.), this alternative assumes 100 percent office use of the buildings, similar to the approach taken for the analysis of the proposed Project in this EIR for those topics. This alternative is intended to represent a development with similar types of land uses as proposed under the Project but which would be of a land use mix that would result in a reduced water demand compared to the Project (see discussion under *Utilities and Services System*s, below).

6.3.3 Alternative 3: Reduced Size Life Science / Office Development

This alternative assumes a reduced size life science and office development at the Project site. For purposes of this alternative, it is assumed the overall size of the development would be approximately 1.278 million gsf, which represents a reduction of 10 percent (or approximately 142,000 gsf), compared to that proposed under the Project. This alternative would maintain a FAR of 2.44, less than the 2.71 FAR proposed under the Project. Similar to the Project, the buildings developed under this alternative would be designed to support either office or life science tenants, allowing flexibility in end use and range from an overall building program of 100 percent life science use to a 100 percent professional office use, or a combination thereof.

Given the reduction in size, it is assumed that the life science/office buildings developed under this alternative would be reduced in height and/or include reduced floor plates in proportion to the reduced square footage. Similarly, it is assumed the one or both parking structures would be reduced by height and/or reduced footprint, with proportionally-reduced parking capacity. This alternative assumes implementation of similar sea level rise and flooding improvements in compliance with existing code regulations. The Project is assumed to include similar biological and recreational improvements compared to those proposed under the Project. Lastly, the alternative would include a TDM program, as required by City code, similar to that for the proposed Project.

This alternative is assumed to seek any applicable required City approvals, including, but not limited to, special permits for height and FAR; and additional approvals from applicable resources agencies.

Similar to the approach taken for the proposed Project, this alternative assumes 100 percent life science use of the buildings on environmental topics where the impacts of life science use are anticipated to be greater than that of office use; and conversely, assumes 100 percent office use where the impacts of office use are anticipated to be greater than that of life science use. This alternative is intended to represent a development with similar types of land uses but with less overall land use development compared that proposed under the Project, and with overall reduced construction and operational effects commensurate with a smaller development.

Comparison of Effects of No Project - No Development Alternative to the Proposed Project

Aesthetics

No new development associated with the proposed Project would occur at the Project site under this alternative. As a result, this alternative would avoid the less than significant project or cumulative effects on scenic vistas, conflicts with applicable zoning and other regulations governing scenic quality, and effects on daytime or nighttime views associated with new sources of light and glare. In addition, this alternative would avoid any project and cumulative increases in wind speeds and shadow effects associated with the Project's proposed buildings on and in the immediate vicinity of the Project site.

Air Quality

No new construction or demolition activities associated with the proposed Project development would occur at the Project site under this alternative. Consequently, this alternative would avoid the significant but mitigable project and cumulative air quality effects associated with increases in construction–generated criteria pollutants that would occur under the proposed Project. In addition, since no increase in operational development on the Project site, and associated employment and traffic increases, associated with the proposed Project would occur under this alternative, it would avoid the less than significant project and cumulative impacts of the Project related to net increases of stationary and mobile operational criteria pollutant emissions. Furthermore, this alternative would avoid the less than significant project and cumulative impacts related to exposure of sensitive receptors to substantial pollutant concentrations associated with Project construction and operations. Lastly, the significant but mitigable project and cumulative impact associated with the Project's conflict with or obstruction of implementation of the *2017 Clean Air Plan* would not occur under this alternative.

Biological Resources

No new construction or demolition activities associated with the proposed Project development would occur at the Project site under this alternative. As a result, this alternative would avoid the significant but mitigable project and cumulative construction-related effects on special-status wildlife species associated with the Project, including special status fish, nesting birds and roosting bats; and avoid the less than significant construction-related effects on migratory bird movement. This alternative would similarly avoid the significant but mitigable project and cumulative construction-related effects on protected wetlands and sensitive natural communities (northern coastal salt marsh). In addition, this alternative would avoid any less than significant effects to migrating birds associated with potential bird strikes from new building exteriors and lighting. Lastly, potential effects, albeit less than significant, associated with loss of protected trees on the Project site, would also not occur under this alternative.

Cultural Resources

No building alteration or demolition activities associated with the proposed Project would occur at the Project site under this alternative. Furthermore, there are no eligible historic resources on

the Project site. As such, there would be no project and cumulative effects on historic resources associated with this alternative, same as under the Project. Since no ground disturbing construction activities associated with the proposed Project would occur at the Project site under this alternative, it would avoid the significant but mitigable project and cumulative impacts to previously unknown archaeological resources, human remains, and tribal cultural resources that would occur under the Project.

Energy

No construction or demolition activities associated with the proposed Project would occur at the Project site under this alternative. As a result, this alternative would avoid the construction energy use effects associated with the Project. In addition, no increase in operational development, and associated employment and traffic increases, associated with the proposed Project would occur under this alternative, and consequently this alternative would not result in an increase in operational energy use. As such, the alternative would avoid the less than significant project and cumulative impacts associated with consumption of energy resources, or conflict with a state or local plan for renewable energy or energy efficiency.

Geology and Soils

No ground disturbing construction activities or new building construction associated with the Project would occur under this alternative. As a result, this alternative would avoid the potentially significant but mitigable project impact associated with effects of seismic ground shaking, liquefaction, unstable or expansive soils, and construction-related erosion.

Greenhouse Gas Emissions

No new construction or demolition activities associated with the proposed Project would occur at the Project site under this alternative. In addition, no increase in operational development, and associated employment and traffic increases, associated with the proposed Project would occur under this alternative. Consequently, this alternative would avoid the significant but mitigable impact of increases in construction and operational greenhouse gas (GHG) emissions associated with the Project, and would not conflict with applicable plans, policies or regulations adopted for the purpose of reducing GHG emissions.

Hazards and Hazardous Materials

No new ground disturbance, demolition and construction activities associated with the proposed Project would occur at the Project site under this alternative. Accordingly, this alternative would avoid the significant but mitigable project and cumulative impacts with encountering subsurface contaminants associated with prior land uses during ground disturbing activities; and would avoid the less than significant impact associated with encountering hazardous building materials in existing buildings during demolition. In addition, this alternative would not increase operational development, and therefore would not involve the associated increases in hazardous materials use that would occur under the proposed Project. Accordingly, this alternative would avoid the less than significant project and cumulative impacts associated with routine transport, use, or disposal of hazardous materials during operation; and potential accidental release of

hazardous materials. Similar to the Project, this alternative would also not emit and handle hazardous materials within one-quarter mile of an existing or proposed school.

Hydrology and Water Quality

None of the ground disturbing activities associated with the proposed Project would occur at the Project site under this alternative, and as such, this alternative would not disturb any subsurface contaminants associated with prior land uses at the Project site. Accordingly, this alternative would avoid the significant but mitigable project and cumulative impacts related to the potential to violate water quality discharges requirements, degrade water quality or obstruct a water quality control plan; otherwise, this alternative would avoid the less than significant impacts associated with increases in construction-related siltation, flooding, or polluted runoff, or decrease groundwater supply or interfere with groundwater recharge associated with the Project during construction. This alternative would not provide the benefit of decreasing impervious surfaces or change any existing stormwater controls on the Project site that would occur under Project, and would also not have the potential to result in operational changes in the amount or quality of stormwater runoff generated at the Project site. Consequently, operation of this alternative would avoid those project and cumulative effects associated with interference of groundwater recharge, exceeding the capacity of stormwater drainage systems, or increasing sources of polluted runoff, albeit less than significant. Since this alternative would not raise the level of Project site, or involve installation of sea and flood walls along the Bay shoreline and Easton Creek as proposed under the Project, it would not provide those sea level rise and flooding protection benefits provided by the Project.

Land Use and Planning

No new development associated with the proposed Project would occur at the Project site under this alternative. As a result, potential project and cumulative impacts, albeit less than significant, associated with conflict with land use plans, policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect, associated with the Project would not occur under this alternative.

Noise and Vibration

No new construction or demolition activities associated with the proposed Project would occur at the Project site under this alternative. Consequently, this alternative would avoid the less than significant project and cumulative construction- and demolition-generated noise and vibration effects of the Project. Furthermore, no increase in permanent operational noise sources, and increase in operational traffic, associated with Project would occur under this alternative. As a result, this alternative would avoid the significant but mitigable project and cumulative impacts related to permanent increases in ambient noise levels from stationary noise sources in excess of applicable noise standards, and avoid the less than significant project and cumulative impacts associated with increases in traffic noise levels, that would be associated with the Project.

Population and Housing

This alternative would not displace any existing land uses at the Project site, or result in a net increase in the existing daytime population at the Project site. As a result, this alternative would avoid potential project and cumulative impacts, albeit less than significant, associated with inducement of population growth, and related new demand for housing, that would occur with the Project.

Public Services and Recreation

This alternative would not result in an increase in development or daytime population at the Project site. Consequently, this alternative would avoid the less than significant project and cumulative impacts associated with the need for new or altered fire and police protection and public school facilities, that would occur under the Project. Similarly, this alternative would avoid the less than significant project and cumulative impacts from increase in the use of existing neighborhood and regional parks or other existing on- and off-campus recreational facilities. However, this alternative would not provide those recreational improvements and enhancements to public access to the waterfront proposed under the Project (e.g., it would not extend the Bay Trail through the Project site, or provide on-site public plaza, seating areas, and nature overlook and play area).

Transportation

This alternative would not result in demolition and new construction at the Project site associated with the Project, and consequently, this alternative would avoid the less than significant construction-related disruptions to existing roadway, bicycle and/or pedestrian facilities in the Project vicinity. Since this alternative would not increase development and operational employment and associated traffic, it would avoid the less than significant project and/or cumulative impacts related to conflicts with programs, plans, ordinances or policies addressing the circulation system; increases in vehicle miles traveled (VMT); increases in hazard due to design features; and emergency access, that would be associated with the Project.

However, this alternative would not provide those on- and off-site transportation improvements proposed under the Project, including those that would improve circulation and/or safety, including extending the Bay Trail through the Project site; installing new sidewalks on the Project site frontage on Old Bayshore Highway and on Airport Boulevard, extending the striped bike lane across the full length of the Project site along Old Bayshore Highway, and installing a Class II buffered bike lane; and implementing bicycle-specific treatments at the Broadway/Old Bayshore Highway Boulevard intersection.

Utilities and Service Systems

This alternative would not result in new development or an increase in population and associated increases in utility demands at the Project site. With respect to water supply, this alternative would not increase water demand, and therefore would not result in any exceedance of the City's total projected commercial, industrial and institutional (CII) water demands.

This alternative would also not result in an increase in other public utility demands as the Project, including for wastewater treatment and solid waste disposal. As a result, project and/or cumulative impacts related to utilities and service systems under this alternative would be less than significant, as under the Project.

Relationship of No Project - No Development Alternative to Project Objectives

The No Project - No Development Alternative would not achieve any of the Project objectives, including, but not limited to, the creation of a life science/office development in proximity to major transportation corridors and high quality transit; provision of community benefits, including improving and enhancing access to the Project site; promoting public transit linkages and use of alternative modes of transportation and bicycle and pedestrian access; or providing flood protection and sea level rise resiliency with proposed shoreline infrastructure. As such, this alternative is considered undesirable.

6.3.4 Alternative 2: Life Science (80 Percent Maximum) / Office Use Development

Comparison of Effects of the Life Science (80 Percent Maximum) / Office Use Development Alternative to the Proposed Project

Aesthetics

The development under this alternative would be of a similar size, massing, height, and configuration as the proposed Project development. As a result, this alternative would have similar less than significant project and cumulative effects on scenic vistas, conflicts with applicable zoning and other regulations governing scenic quality, and effects on daytime or nighttime views associated with new sources of light and glare, as the Project. In addition, the buildings assumed under this alternative would be expected to have similar project and cumulative effects on wind speeds and shadow on and in the immediate vicinity of the Project site, as the Project.

Air Quality

Since this alternative would be of similar size and scale as the proposed Project, it is assumed to have similar type and amount of construction activities as the Project. Consequently, this alternative would involve similar significant but mitigable project and cumulative impacts associated with construction emissions of criteria pollutants, and TACs and associated health risks at sensitive receptors, as the Project, and would similarly require mitigation to reduce those effects to less-than-significant (e.g., with use of clean construction equipment and implementation of BAAQMD dust control measures). This alternative would also involve a similar amount of operational development as the Project. Conservatively assuming an all-office development for purposes of estimating worst-case emissions, this alternative would generate a similar amount of stationary and mobile emissions increases as under the Project. As such, project and cumulative impacts related to net increases of operational criteria pollutant emissions, and exposure of

sensitive receptors to substantial project and cumulative operational pollutant concentrations, under this alternative would be comparable to the Project, and would be similarly less than significant. Lastly, this alternative's project and cumulative conflict with or obstruction of implementation of the applicable *Clean Air Plan* would be comparable to the Project, and with mitigation would similarly be reduced to less than significant.

Biological Resources

This alternative would have similar construction activities compared to the Project. As a result, this alternative would have a similar significant but mitigable project and cumulative construction-related effects on special-status wildlife species, including special status fish, nesting birds and roosting bats, as the Project. This alternative would also have similar less than significant construction-related effects on migratory bird movement as the Project. In addition, this alternative would also have similar significant but mitigable project and cumulative construction-related effects on protected wetlands and northern coastal salt marsh, as the Project. This alternative would also be expected to have similar less than significant effects as the Project to migrating birds with potential bird strikes from new building exteriors and lighting with incorporation of bird-safe design elements into the alternative. Lastly, potential effects, albeit less than significant, associated with loss of protected trees on the Project site under this alternative would be comparable to the Project.

Cultural Resources

Building demolition activities associated with the alternative would be the same as under the Project. Since there are no eligible historic resources on the Project site, there would be no project and cumulative effects on historic resources associated with this alternative, same as under the Project. This alternative would have a similar amount of ground disturbing construction activities compared to that which would occur for the Project. As a result, potentially significant project and cumulative impacts to previously unknown archaeological resources, human remains or tribal cultural resources could occur under this alternative would require the same mitigation measures as those identified for the Project to mitigate the impacts to a less than significant level.

Energy

This alternative would have a comparable amount of construction activities as the Project and as a result, would have similar construction energy use effects compared to the Project. This alternative would also involve a similar amount of increase in operational development and associated employment and traffic increases as the Project. Consequently, this alternative would be expected to have comparable less than significant operational energy use as the Project, and similar to the Project, have a less than significant conflict with a state or local plan for renewable energy or energy efficiency.

Geology and Soils

This alternative would have a similar amount of ground disturbing activities and new building construction as the Project, and therefore, would have similar less potential to result in effects on geology, soils and seismicity. Accordingly, this alternative would have similar impacts as the

Project related to effects of seismic ground shaking, liquefaction, unstable or expansive or soils, and construction-related erosion from ground disturbance, and those effects would be similarly less than significant with compliance with applicable regulatory requirements, and implementation of geotechnical design recommendations and/or mitigation.

Greenhouse Gas Emissions

This alternative would have similar construction activities compared to the Project, and as a result, would result in similar construction-generated GHG emissions. This alternative would also involve similar a similar amount of new building space as the Project. Consequently, this alternative would have similar employment and traffic increases as the Project, and as a result, operational GHG emissions would be comparable to the emissions generated under the Project. As such, this alternative would have similar significant but mitigable impacts as the Project related to construction and operational GHG emissions. Similar to the Project, this alternative would not conflict with applicable plans, policies or regulations adopted for the purpose of reducing GHG emissions.

Hazards and Hazardous Materials

This alternative would result in a similar amount of ground disturbance, demolition and construction activities as the Project. Accordingly, this alternative would have similar significant but mitigable project and cumulative impacts with encountering subsurface contaminants associated with prior land uses during construction activities, as the Project; and similar less than significant impacts associated with encountering hazardous building materials in existing buildings during demolition. This alternative would result in an increase in operational development and uses similar to the Project, although with somewhat less total life science use, and therefore would involve increases in hazardous materials use similar to or somewhat less than that which would occur under the proposed Project. Accordingly, there would be expected to similarly be less than significant project and cumulative impacts under this alternative associated with routine transport, use, or disposal of hazardous materials during operation; potential accidental release of hazardous materials; and emitting and handling of hazardous materials within one-quarter mile of an existing or proposed school, as the Project.

Hydrology and Water Quality

Ground disturbing activities at the Project site under this alternative would be similar to the Project, and as such, this alternative would have a similar potential to disturb subsurface contaminants associated with prior land uses at the Project site. Accordingly, this alternative would have comparable significant but mitigable project and cumulative impacts related to the potential to violate water quality discharges requirements, degrade water quality or obstruct a water quality control plan; otherwise, this alternative would have similar less than significant impacts associated with increases in construction-related siltation, flooding, or polluted runoff, or decrease groundwater supply or interfere with groundwater recharge associated with Project construction. This alternative would provide the same benefit of decreasing impervious surface as the Project, and result in similar potential operational changes in the amount or quality of stormwater runoff at the campus site, as the Project. Consequently, this alternative would have

comparable less than significant project and cumulative operational effects associated with interference of groundwater recharge, exceeding the capacity of stormwater drainage systems, or increasing sources of polluted runoff, as the Project. It is assumed this alternative would raise the level of Project site, and install sea and flood walls along the Bay shoreline and Easton Creek similar to the Project, and as a result, this alternative would provide comparable sea level rise and flood protection benefits as those proposed under the Project.

Land Use and Planning

Under this alternative, similar land uses would be developed at the Project site as under the Project, although with somewhat less maximum life science use. As a result, potential project and cumulative impacts, albeit less than significant, associated with conflict with land use plans, policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect under this alternative, would be comparable to the Project.

Noise and Vibration

Construction and demolition activities that would occur at the Project site under this alternative would be similar to that of the Project. Consequently, this alternative would have similar less than significant project and cumulative construction- and demolition-generated noise and vibration effects as the Project. Increases in permanent operational noise sources, and maximum increases in traffic, that would occur under this alternative would also be similar to the Project. As a result, this alternative would have comparable significant but mitigable project and cumulative impacts related to permanent increases in ambient noise levels from stationary noise sources in excess of applicable noise standards, and similar less than significant project and cumulative impacts associated with increases in traffic noise levels, as under the Project.

Population and Housing

This alternative would displace the same existing land uses at the Project site, and would result in a similar maximum net increase in the existing daytime population at the Project site. As a result, this alternative would have comparable project and cumulative impacts, albeit less than significant, associated with inducement of population growth, and related new demand for housing, as the Project.

Public Services and Recreation

This alternative would result in a similar increase in development and maximum daytime population at the Project site as under the Project. Consequently, this alternative would have similar less than significant project and cumulative impacts associated with the need for new or altered fire and police protection and public school facilities, that would occur under the Project. Similarly, this alternative would have similar less than significant project and cumulative impacts from an increase in the use of existing neighborhood and regional parks or other existing on- and off-campus recreational facilities. This alternative is assumed to provide similar recreational on-site improvements and enhancements to public access to the waterfront as that proposed under the Project (e.g., extend the Bay Trail through the Project site, and provide a public plaza, seating areas, and nature overlook and play area).

Transportation

This alternative would result in demolition and new construction at the Project site similar to that proposed under the Project, and consequently, this alternative would have similar less than significant construction-related disruptions to existing roadway, bicycle and/or pedestrian facilities in the Project vicinity with implementation of a construction traffic control plan. Since this alternative would increase development and employment and associated traffic similar to worst-case (all office) scenario of the Project, it would result in comparable less than significant project and/or cumulative impacts related to conflicts with programs, plans, ordinances or policies addressing the circulation system; increases in VMT; increases in hazard due to design features; and emergency access, as the Project.

It is assumed this alternative would provide those on- and off-site transportation improvements proposed under the Project, including those that would improve circulation and/or safety, including extending the Bay Trail through the Project site; installing new sidewalks on the Project site frontage on Old Bayshore Highway and on Airport Boulevard, extending the striped bike lane across the full length of the Project site along Old Bayshore Highway, and installing a 7-foot Class II buffered bike lane; and bicycle-specific treatments at the Broadway/Old Bayshore Highway Boulevard intersection.

Utilities and Service Systems

With respect to water supply, as discussed in Section 4.15-1, *Utilities and Service Systems*, the proposed Project would be responsible for an 7.7 MGY exceedance of the City's total projected CII water demands for the year 2030. As analyzed in Section 4.15-1, Impact UTIL-2, during single dry and multiple dry years with implementation of the Bay-Delta Plan Amendment, the Project would contribute to a furtherance of the City's water supply shortfall, which would be a significant impact. Therefore, the proposed Project is responsible for mitigating the Project's proportionate impact by paying a one-time Development Offset Fee.

Based on the above, a Project alternative that would decrease the Project water demand by at least 7.7 MGY would ensure that the alternative's water demand would fall within the City's projected CII growth. An 80 percent life science / 20 percent office use split was assumed to estimate the worst-case water demand for this alternative. The resultant net new water demand associated with this alternative would be approximately 77 MGY, approximately 13 MGY less than the net new water demand generated by the proposed Project (90 MGY). Consequently, the entirety of this alternative's water demand would be included within the City's CII projected water demands (EKI, 2023). This alternative would therefore not contribute to a furtherance of the City's water supply shortfall during single dry and multiple dry years with implementation of the Bay-Delta Plan Amendment, and accordingly, would avoid the significant but mitigable Project impact on the City's demand and supply reliability.

This alternative would also result in a smaller associated increase in other public utility demands as the Project, including for wastewater treatment and solid waste disposal. As a result, project and/or cumulative impacts related to utilities and service systems under this alternative would be less than significant, as under the Project.

Relationship of Life Science (80 Percent Maximum) / Office Development Alternative to Project Objectives

This alternative would continue to allow for a substantial range in life science and office use (up to 80 percent life science, and up to 100 percent office, or mix thereof); would maintain the same total requested square footage as the proposed Project; assumes the same number, configuration and design of buildings and structured parking as proposed by the Project; and assumes the same sustainable infrastructure and community benefit improvements as those proposed under the Project would be implemented. As such, on balance, this alternative appears to substantially meet most of the Project's basic objectives. Moreover, as discussed above, this alternative would avoid the significant but mitigable Project impact on water supply.

6.3.5 Alternative 3: Reduced Size Life Science / Office Development

Comparison of Effects of the Reduced Size Life Science / Office Development to the Proposed Project

Aesthetics

The development under this alternative would be of a reduced size compared to the proposed Project development, including buildings with either a reduced height and/or footprint. As a result, this alternative would have incrementally less project and cumulative effects on scenic vistas, conflicts with applicable zoning and other regulations governing scenic quality, and effects on daytime or nighttime views associated with new sources of light and glare, compared to the Project, and similarly these effects would be less than significant. In addition, since the buildings under this alternative would be of a smaller mass and/or height than the Project buildings, have the potential to result in somewhat less project and cumulative effects on wind speeds and shadow on and in the immediate vicinity of the Project site, as the Project, and similarly these effects would be less than significant.

Air Quality

Since this alternative would be of a reduced size compared to the proposed Project, it would result in less overall construction activities than the Project. Consequently, this alternative would involve somewhat less significant but mitigable project and cumulative impacts associated with construction emissions of criteria pollutants, and TACs and associated health risks at sensitive receptors, as the Project, and would similarly require mitigation to reduce those effects to less-than-significant (e.g., with use of clean construction equipment and implementation of BAAQMD dust control measures). The reduced size alternative would involve proportionally less amount of operational development as the Project. Conservatively assuming an all-office development for purposes of estimating worst-case emissions, this alternative would generate less stationary and mobile emissions increases than the worst-case all office emissions scenario under the Project. As such, project and cumulative impacts related to net increases of operational criteria pollutant emissions, and exposure of sensitive receptors to substantial project and cumulative operational pollutant concentrations, under this alternative would be incrementally less than that associated

with the Project, and would be similarly less than significant. Lastly, this alternative's project and cumulative conflict with or obstruction of implementation of the applicable *Clean Air Plan* would be less than the Project, and with mitigation would similarly be reduced to less than significant.

Biological Resources

Since this alternative would be of a reduced size compared to the proposed Project, it would result in less overall construction activities than the Project. As a result, this alternative would somewhat less significant but mitigable project and cumulative construction-related effects on special-status wildlife species, including special status fish, nesting birds and roosting bats, than the Project. This alternative would similarly have less potential for construction-related effects on migratory bird movement as the Project, and similarly would be less than significant. In addition, this alternative would also have an incrementally less significant but mitigable project and cumulative construction-related effects on protected wetlands and northern coastal salt marsh, than the Project. Given the smaller building massing and/or heights under this alternative, it would likely result in incrementally less potential for adverse effects to migrating birds with potential bird strikes from new building exteriors and lighting compared to the Project, and with incorporation of bird-safe design elements the impact would similarly be less than significant. Lastly, potential effects, albeit less than significant, associated with loss of protected trees on the Project site under this alternative would be comparable to or less than the Project.

Cultural Resources

Building demolition activities associated with the alternative is assumed to be the same as under the Project. Since there are no eligible historic resources on the Project site, there would be no project and cumulative effects on historic resources associated with this alternative, same as under the Project. This alternative is assumed to have less ground disturbing construction activities compared to that which would occur for the Project. Potentially significant project and cumulative impacts to previously unknown archaeological resources, human remains or tribal cultural resources could occur under this alternative would require the same mitigation measures as those identified for the Project to mitigate the impacts to a less than significant level.

Energy

Since this alternative would be of a reduced size compared to the proposed Project, this alternative would have overall less construction activities than the Project and as a result, would have less construction energy use compared to the Project. This alternative would also involve a smaller increase in operational development and associated employment and traffic increases than the Project. Consequently, this alternative would be expected to have incrementally less operational energy use than the Project, and similar to the Project, have a less than significant conflict with a state or local plan for renewable energy or energy efficiency.

Geology and Soils

Since this alternative would be of a reduced size compared to the proposed Project, it would have the potential for less ground disturbing activities and new building construction than the Project, and therefore, would have somewhat less potential to result in effects on geology, soils and

seismicity. Accordingly, this alternative would have less impact than the Project related to effects of seismic ground shaking, liquefaction, unstable or expansive or soils, and construction-related erosion from ground disturbance, and those effects would be similarly less than significant with compliance with applicable regulatory requirements, and the implementation of geotechnical design recommendations and/or mitigation.

Greenhouse Gas Emissions

Since this alternative would be of a reduced size compared to the proposed Project, it would have less construction activities than the Project, and as a result, would result in less construction-generated GHG emissions. This alternative would involve a smaller amount of new building space than the Project. Consequently, this alternative would have less employment and traffic increases than the Project, and as a result, operational GHG emissions would be less than the emissions generated under the Project. As such, this alternative would have incrementally less significant but mitigable impacts than the Project related to construction and operational GHG emissions. Similar to the Project, this alternative would not conflict with applicable plans, policies or regulations adopted for the purpose of reducing GHG emissions.

Hazards and Hazardous Materials

This alternative would result in less ground disturbance than, but a similar amount of demolition activities as, the Project. Accordingly, this alternative would have incrementally less significant but mitigable project and cumulative impacts with encountering subsurface contaminants associated with prior land uses during construction activities, than the Project; and similar less than significant impacts associated with encountering hazardous building materials in existing buildings during demolition. This alternative would result in a smaller increase in operational development and uses than the Project, including somewhat less potential total life science use, and therefore would involve increases in hazardous materials use less than that which would occur under the proposed Project. Accordingly, there would be expected to similarly be less than significant project and cumulative impacts under this alternative associated with routine transport, use, or disposal of hazardous materials during operation; potential accidental release of hazardous materials; and emitting and handling of hazardous materials within one-quarter mile of an existing or proposed school.

Hydrology and Water Quality

Ground disturbing activities at the Project site under this alternative would be less than under the Project, and as such, this alternative would have less potential to disturb subsurface contaminants associated with prior land uses at the Project site. Accordingly, this alternative would have incrementally less significant but mitigable project and cumulative impacts related to the potential to violate water quality discharges requirements, degrade water quality or obstruct a water quality control plan, than the Project. Otherwise, this alternative would have less than significant impacts associated with increases in construction-related siltation, flooding, or polluted runoff. With a smaller development, this alternative could result in a similar or somewhat reduced benefit of decreased impervious surfaces at the Project site, but also have the potential to result in less changes in the amount or quality of stormwater runoff generated at the

Project site, compared to the Project. Consequently, this alternative could result in less or similar project and cumulative effects associated with interference of groundwater recharge, exceeding the capacity of stormwater drainage systems, or increasing sources of polluted runoff, as the Project, and these effects would be similarly less than significant. Since overall sea level rise improvements under this alternative would be similar to that proposed by the Project, this alternative would provide comparable sea level rise protection benefits as those proposed under the Project.

Land Use and Planning

Under this alternative, similar land uses would be developed at the Project site as under the Project, although the development would be of a reduced size compared to the Project. As a result, potential project and cumulative impacts, albeit less than significant, associated with conflict with land use plans, policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect under this alternative, would be less than the Project.

Noise and Vibration

Construction activities that would occur at the Project site under this alternative would be less than that of the Project. Consequently, this alternative would have less project and cumulative construction-generated noise and vibration effects than the Project, and the effects similarly would be less than significant. Increases in permanent operational noise sources, and maximum increases in traffic, that would occur under this alternative would also be less than the Project. As a result, this alternative would have incrementally less significant but mitigable project and cumulative impacts related to permanent increases in ambient noise levels from stationary noise sources in excess of applicable noise standards than the Project. This alternative would also have incrementally less project and cumulative impacts associated with increases in traffic noise levels, as under the Project, and similarly, the effects would be less than significant.

Population and Housing

This alternative would displace the same existing land uses at the Project site as under the Project. This alternative would result in a smaller maximum net increase in the existing daytime population at the Project site compared to the Project. As a result, this alternative would have incrementally less project and cumulative impacts associated with inducement of population growth, and related new demand for housing, as the Project, and the impact would similarly be less than significant.

Public Services and Recreation

This alternative would result in a smaller increase in development and maximum daytime population at the Project site compared to the Project. Consequently, this alternative would have incrementally less project and cumulative impacts associated with need for new or altered fire and police protection and public school facilities, than would occur under the Project, and the effects would similarly be less than significant. This alternative would also have incrementally less project and cumulative impacts from increasing the use of existing neighborhood and regional parks or other existing on- and off-campus recreational facilities, and these effects

would similarly be less than significant. This alternative is also assumed to provide the same extent of recreational improvements and enhancements to public access to the waterfront as that proposed under the Project.

Transportation

This alternative would result in less construction at the Project site than that proposed under the Project, and consequently, this alternative would have less construction-related disruptions to existing roadway, bicycle and/or pedestrian facilities in the Project vicinity, than the Project, and similarly, effects would be less than significant with implementation of a construction traffic control plan. The worst-case (all office) scenario for this alternative would result in less development and employment and associated traffic than the same worst-case scenario of the Project, and consequently generated incrementally less vehicle trip generation than the Project. However, the smaller project assumed under this alternative does not directly correlate to reduced VMT, since VMT is assessed based on a per-employee rate. When considering this alternative would have the same potential mix of land uses as the Project, would have similar TDM program, the ratio of parking would not change, then the resultant VMT for this alternative would be expected to be comparable to the Project. This alternative would be expected to result in incrementally less project and/or cumulative impacts related to conflicts with programs, plans, ordinances or policies addressing the circulation system; increases in hazard due to design features; and emergency access; and similar to the Project, and similarly, these effects would be less than significant. This alternative would provide similar on- and off-site transportation improvements as proposed under the Project, including those that would improve circulation and/or safety.

Utilities and Service Systems

As discussed in Section 4.15-1, *Utilities and Service Systems*, the proposed Project would be responsible for an 7.7 MGY exceedance of the City's total projected CII water demands for the year 2030. As analyzed in Section 4.15-1, Impact UTIL-2, during single dry and multiple dry years with implementation of the Bay-Delta Plan Amendment, the Project would contribute to a furtherance of the City's water supply shortfall, which would be a significant impact. Therefore, the proposed Project is responsible for mitigating the Project's proportionate impact by paying a one-time Development Offset Fee.

Based on the above, a Project alternative that would decrease the Project water demand by at least 7.7 MGY would ensure that the alternative's water demand would fall within the City's projected CII growth. This alternative assumes 100 percent life science use to estimate the worst-case water demand. The resultant net new water demand associated with this alternative would be approximately 80 MGY, approximately 10 MGY less than the net new water demand generated by the proposed Project (90 MGY). Consequently, the entirety of this alternative's water demand would be included within the City's CII projected water demands (EKI, 2023). This alternative would therefore not contribute to a furtherance of the City's water supply shortfall during single dry and multiple dry years with implementation of the Bay-Delta Plan Amendment, and accordingly, would avoid the significant but mitigable Project impact on the City's demand and supply reliability.

This alternative would also result in a smaller associated increase in other public utility demands as the Project, including for wastewater treatment and solid waste disposal. As a result, project and/or cumulative impacts related to utilities and service systems under this alternative would be less than significant, as with the Project.

Relationship of Reduced Size Life Science / Office Development Alternative to Project Objectives

This alternative would create a development with building space for approximately 1.278 million gsf, which would represents a reduction of 10 percent (or approximately 142,000 gsf) compared to that proposed under the Project, and allow for the same flexibility in the range in life science and office use (up to 100 percent life science or office use, or mix thereof); and includes similar sustainable infrastructure and community benefit improvements, as those proposed under the Project. As such, this alternative appears to substantially meet most of the Project's basic objectives. In addition, as discussed above, this alternative would avoid the significant but mitigable Project impacts on water supply, and incrementally reduce a number of other construction and operational environmental impacts.

6.4 Alternatives Considered but Dismissed from Detailed Evaluation

CEQA Guidelines Section 15126.6(c) requires an EIR to identify and briefly discuss any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process. In identifying alternatives for detailed evaluation, primary consideration was given to alternatives that could reduce significant impacts while still meeting most of the basic project objectives, and alternatives that did not reduce impacts or did not meet most of the basic project objectives were dismissed from detailed evaluation.

6.4.1 Off-Site Alternative

As discussed above under Section 6.1.1, *CEQA Requirements for Alternatives Analysis,* CEQA Guidelines Section 1512.6(f)(1) states that among the factors that may be taken into account includes site suitability, economic viability, availability of infrastructure, general plan consistency, jurisdictional boundaries, whether the proponent can reasonably acquire and control the site, or whether the site is already owned by the proponent. In addition, CEQA Guidelines Section 1512.6(f)(2) states that an alternative site/location should be considered when "significant effects of the project would be avoided or substantially lessened by putting the project in another location."

There is no other undeveloped land in Burlingame of an adequate size or available large, underutilized sites that are available with the appropriate land use controls that can be redeveloped as a life science/office campus similar in size and intensity to that proposed under the Project. In addition, the Project applicant indicates that it does not own any other similarly sized bayfront, transit proximate sites with similar land use designations/zoning in other jurisdictions that would allow development of a comparable project. In fact, the Project applicant adds that they have searched for several years to identify a Project site that meets key applicant criteria, including but

not limited to site size, development capacity, bayfront location, and proximity to transit, and has not identified other sites that would feasibly meet most of the basic Project objectives (DivcoWest, 2023). An off-site location would also not allow the Project applicant to realize the objective of providing bayfront community amenities, including the creation of new open space and Bay Trail connections. Lastly, many of the potentially significant impacts of the proposed Project would largely occur regardless of location, and as such, an offsite alternative would not reduce or avoid many of the identified environmental impacts of the Project at its proposed location.

In conclusion, an off-site alternative was considered for this analysis but rejected from further review because it would be infeasible, would not attain most of the basic Project objectives, and would not sufficiently reduce the Project impacts.

6.4.2 Different Land Use Alternative

Alternatives that would consist of land uses that are not consistent with applicable City General Plan land use designation and zoning were not considered. This includes potential residential use, as the Project site is not zoned for single-family residential or mixed uses with residential units. Because the proposed Project would not require amendments to the City General Plan or Zoning Ordinance, the City's land use and development policies are not in question, and it is not necessary or appropriate under CEQA for the EIR to consider alternative uses that would require such amendments.

Besides the proposed life science and office uses at the Project site, other permitted uses at the Project site include, but not limited to, hotels and motels, retail (e.g., entertainment establishments and restaurants), services such as banks and financial institutions, and commercial recreation and public parks. An alternative that would consist entirely of hotel uses was considered but rejected because the Project site would be larger than what the mid-Peninsula hotel market could economically absorb given the other existing hotels in the area. Furthermore, all of these potential alternate permitted uses would be inconsistent with the majority of the Project applicant's objectives.

6.4.3 Reduced Tier FAR Alternative

This potential alternative would involve a reduced size project such that it would achieve a City of Burlingame Tier 2 or lower development standard (maximum FAR 2.0), compared to the Tier 3 development standard proposed under the Project, as specified City Zoning Code, Section 23.12.030. As such, this potential alternative would have a building square footage of no more than 1,047,550 gsf in size, or at least 372,450 gsf (26 percent) less than the Project building square footage.

With this reduced size, this alternative would have both reduced construction and operational environmental impacts compared to the Project, commensurate with a smaller project. However, with a Tier 2 or lower development standard, this potential alternative would not be required to provide Tier 3 community benefits like the Proposed Project (the Project currently proposes several community benefits some of which would count toward meeting the Tier 3 requirements). As such, depending on the reduced tier, it is assumed two or more of these

proposed community benefits could be eliminated under this alternative. Similarly, with a substantially reduced size, the Project may not provide the same level of transportation improvements as proposed under the Project. Furthermore, a substantially reduced development would not allow the Project applicant to fully achieve the majority of stated Project objectives, including, but not limited to, redeveloping an underutilized site consistent with the City's General Plan for Bayshore area as a regional recreation and business destination; providing safety enhancements to off-site bicycle and pedestrian infrastructure; providing community benefits that meet or exceed City requirements; improving and enhancing public access to the waterfront; and contributing to toward flood protection and sea level rise resiliency for the City. Given these factors, a Reduced Tier FAR alternative was rejected from further review.

6.5 Summary Comparison of Alternatives

Table 6-2 provides a summary of comparison of impacts of the proposed Project and the Project alternatives, and indicates whether the impacts of the alternatives are more or less severe than those of the proposed Project. For more information about the methodology used to evaluate potential impacts of the Project and an explanation of the resulting impact conclusions, please see Chapter 4*, Environmental Setting, Impacts, and Mitigation Measures*.

6.6 Environmentally Superior Alternative

Section 15126.6(e)(2) of the CEQA Guidelines requires the identification of an environmentally superior alternative to the proposed project. If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

6.6.1 Alternative 1A: No Project - No Development Alternative

From the alternatives evaluated in this EIR, the environmentally superior alternative would be the No Project - No Development Alternative.

The No Project - No Development Alternative would not involve new demolition and construction at the Project site related to proposed Project. As such, the No Project - No Development Alternative would have substantially less overall environmental impacts that either the proposed Project or the other alternatives. The No Project - No Development Alternative would avoid 19 significant but mitigable project and/or cumulative impacts that would occur under the Project, including impacts related to generation of construction and operational air emissions, and conflict with the 2017 Clean Air Plan; potential impacts to special-status fish species, nesting birds and roosting bats during construction; potential impacts to protected wetlands and sensitive natural communities; potential to disturb unknown archaeological tribal resources, and human remains during construction excavation; generation of GHG emissions; potential to encounter hazardous materials associated with previous land uses in soils or groundwater during construction, and associated potential to degrade surface or groundwater quality or conflict with a water quality control plan; and furthering contribution to contribute to a shortfall in the City's water supply during single dry and multiple dry years with implementation of the Bay-Delta Plan Amendment.

TABLE 6-2
COMPARISON OF IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

Impact	Proposed Project	Alternative 1 No Project - No Development	Alternative 2: Life Science (80 Percent Maximum) / Office Development	Alternative 3: Reduced Size Life Science / Office Development
Section 4.1, Aesthetics				
Impact AES-1: The Project would not have a substantial adverse effect on a scenic vista.	LTS	-NI	=LTS	-LTS
Impact AES-2: The Project would be located in an urbanized area and would not conflict with applicable zoning and other regulations governing scenic quality.	LTS	-NI	=LTS	-LTS
Impact AES-3: The Project would not create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.	LTS	-NI	=LTS	-LTS
Impact C-AES-1: The Project, when combined with other past, present, or reasonably foreseeable projects, would not have a substantial adverse effect on a scenic vista or conflict with applicable zoning and other regulations governing scenic quality.	LTS	-NI	=LTS	-LTS
Impact C-AES-2: The Project, when combined with other past, present, or reasonably foreseeable projects, would not create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.	LTS	-NI	=LTS	-LTS
Section 4.2, Air Quality				
Impact AIR-1: During Project construction, the proposed Project would result in a cumulatively considerable net increase of criteria pollutants or their precursors for which the project region is non-attainment under an applicable federal or state ambient air quality standard (NOx, ROG, PM_{10}, and $PM_{2.5}$).	LTSM	-NI	=LTSM	-LTSM
Impact AIR-2: During Project operations (including Project construction phases that would overlap with Project operations), the proposed Project would result in a cumulatively considerable net increase of criteria pollutants or their precursors for which the project region is non-attainment under an applicable federal or state ambient air quality standard (NOx, ROG, PM_{10}, and $PM_{2.5}$).	LTSM	-NI	=LTSM	-LTSM
Impact AIR-3: Implementation of the proposed Project would not result in health risk impacts from exposure of sensitive receptors to substantial pollutant concentrations of diesel particulate matter emissions.	LTS	-NI	=LTS	-LTS
Impact AIR-4: Implementation of the proposed Project would not result in emissions (such as those leading to odors) that would affect a substantial number of people.	LTS	-NI	=LTS	-LTS
Impact AIR-5: Implementation of the Project could conflict with or obstruct implementation of the applicable air quality plan.	LTSM	-NI	=LTSM	-LTSM
Impact C-AIR-1: The Project in combination with past, present, and reasonably foreseeable future development in the project area could result in a cumulatively considerable net increase of criteria pollutants or their precursors for which the project region is non-attainment under an applicable federal or state ambient air quality standard (NOx, ROG, PM_{10}, and $PM_{2.5}$).	LTSM	-NI	=LTSM	-LTSM
Impact C-AIR-2: The Project, in combination with past, present, and reasonably foreseeable future development in the project area, would not contribute considerably to cumulative health risk impacts to sensitive receptors.	LTS	-NI	=LTS	-LTS

LTSM Less than Significant with Mitigation
LTS Less than Significant impact
NI No Impact

\- Lesser impact than that of the proposed Project
= Same (or similar) impact as that of the proposed Project
-/= Less or similar impact to that of the proposed Project
-/+ Less or greater impact as the proposed Project
=/+ Similar or greater impact to that of the proposed Project

TABLE 6-2 (CONTINUED)
COMPARISON OF IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

Impact	Proposed Project	Alternative 1 No Project - No Development	Alternative 2: Life Science (80 Percent Maximum) / Office Development	Alternative 3: Reduced Size Life Science / Office Development
Section 4.3, Biological Resources				
Impact BIO-1: Implementation of the proposed Project would not have a substantial adverse effect, either directly, indirectly, or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS (special-status fish, nesting birds, special-status roosting bats).	LTSM	-NI	=LTSM	-LTSM
Impact BIO-2: Implementation of the proposed Project would not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or have a substantial adverse effect an on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS.	LTSM	-NI	=LTSM	-LTSM
Impact BIO-3: Implementation of the proposed Project would not interfere substantially with the movement of a 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. (*Less than Significant*)	LTS	-NI	=LTS	-LTS
Impact BIO-4: Implementation of the proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	LTS	-NI	=LTS	-LTS
Impact C-BIO-1: Implementation of the proposed Project, in combination with past, present, and reasonably foreseeable future development, would not have a substantial adverse effect, either directly, indirectly, or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS (special-status fish, nesting birds, special-status roosting bats).	LTSM	-NI	=LTSM	-LTSM
Impact C-BIO-2: Implementation of the proposed Project, in combination with past, present, and reasonably foreseeable future development, would not have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means; would and would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS.	LTSM	-NI	=LTSM	-LTSM
Section 4.4, Cultural Resources, including Tribal Cultural Resources				
Impact CUL-1: The Project would not cause a substantial adverse change in the significance of a historical resource.	NI	=NI	=NI	=NI
Impact CUL-2: The Project may cause a substantial adverse change in the significance of an archaeological resource pursuant to Public Resources Code Section 15064.5.	LTSM	-NI	=LTSM	-LTSM
Impact CUL-3: The Project may disturb human remains, including those interred outside of designated cemeteries.	LTSM	-NI	=LTSM	-LTSM

LTSM Less than Significant with Mitigation
LTS Less than Significant impact
NI No Impact

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=/+ Similar or greater impact to that of the proposed Project

TABLE 6-2 (CONTINUED)
COMPARISON OF IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

Impact	Proposed Project	Alternative 1 No Project - No Development	Alternative 2: Life Science (80 Percent Maximum) / Office Development	Alternative 3: Reduced Size Life Science / Office Development
Section 4.4, Cultural Resources, including Tribal Cultural Resources (cont.)				
Impact CUL-4: The Project may cause a substantial adverse change to tribal cultural resources, as defined in Public Resources Code Section 20174.	LTSM	-NI	=LTSM	-LTSM
Impact C-CUL-1: The Project, when combined with other past, present, or reasonably foreseeable projects, would not result in a significant cumulative impact to historical resources or tribal cultural resources.	LTS	-NI	=LTS	-LTS
Impact C-CUL-2: The Project, when combined with other past, present, or reasonably foreseeable projects, would not result in a significant cumulative impact to archaeological resources, human remains, or tribal cultural resources.	LTSM	-NI	=LTSM	-LTSM
Section 4.5, Energy				
Impact ENE-1: Implementation of the Project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	LTS	-NI	=LTS	-LTS
Impact ENE-2: Implementation of the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	LTS	-NI	=LTS	-LTS
Impact C-ENE-1: The Project, combined with cumulative development in the Project site vicinity and citywide, would not result in significant cumulative energy impacts.	LTS	-NI	=LTS	-LTS
Section 4.6, 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 involving strong seismic ground shaking.	LTS	-NI	=LTS	-LTS
Impact GEO-2: The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.	LTS	-NI	=LTS	-LTS
Impact GEO-3: The Project would not result in substantial soil erosion or the loss of topsoil.	LTS	-NI	=LTS	-LTS
Impact GEO-4: The Project would not require development that would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	LTS	-NI	=LTS	-LTS
Impact GEO-5: The Project would not require development that would be located on expansive soil resulting in substantial direct or indirect risks to life or property.	LTS	-NI	=LTS	-LTS
Impact C-GEO-1: The Project, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on geology, soils, or paleontological resources.	LTS	-NI	=LTS	-LTS

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LTS Less than Significant impact
NI No Impact

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TABLE 6-2 (CONTINUED)
COMPARISON OF IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

Impact	Proposed Project	Alternative 1 No Project - No Development	Alternative 2: Life Science (80 Percent Maximum) / Office Development	Alternative 3: Reduced Size Life Science / Office Development
Section 4.7, Greenhouse Gas Emissions				
Impact GHG-1: Construction and operation of development proposed under the Project would generate GHG emissions, either directly or indirectly, that could conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions of GHGs and lead to a significant impact on the environment.	LTSM	-NI	=LTSM	-LTSM
Section 4.8, Hazards and Hazardous Materials				
Impact HAZ-1: The Project would not create a significant hazard to the public or the environment through the routine transport, use, disposal of hazardous materials; or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials.	LTSM	-NI	=LTSM	-LTSM
Impact HAZ-2: The Project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and could have the potential to create a significant hazard to the public or the environment.	LTSM	-NI	=LTSM	-LTSM
Impact HAZ-3: The Project would be located within an airport land use plan but would not result in a safety hazard or excessive noise for people residing or working in the project area or create a hazard to navigable airspace and/or operations at a public airport.	LTS	-NI	=LTS	-LTS
Impact HAZ-4: The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	-NI	=LTS	-LTS
Impact C-HAZ-1: The Project, in combination with past, present, and reasonably foreseeable future development would not result in a cumulatively significant impact related to hazards and hazardous materials.	LTSM	-NI	=LTSM	-LTSM
Section 4.9, Hydrology and Water Quality				
Impact HYD-1: Implementation of the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	LTSM	-NI	=LTSM	-LTSM
Impact HYD-2: Implementation of the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	LTS	-NI	=LTS	-LTS
Impact HYD-3: Implementation of 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 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.	LTS	-NI	=LTS	-LTS

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LTS Less than Significant impact
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TABLE 6-2 (CONTINUED)
COMPARISON OF IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

Impact	Proposed Project	Alternative 1 No Project - No Development	Alternative 2: Life Science (80 Percent Maximum) / Office Development	Alternative 3: Reduced Size Life Science / Office Development
Section 4.9, Hydrology and Water Quality (cont.)				
Impact HYD-4: Implementation of the Project would not result in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.	LTS	-NI	=LTS	-LTS
Impact HYD-5: Implementation of the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	LTSM	-NI	=LTSM	-LTSM
Impact C-HYD-1: Implementation of the Project, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on hydrology and water quality.	LTSM	-NI	=LTSM	-LTSM
Section 4.10, Land Use and Planning				
Impact LU-1: The Project would not physically divide an established community.	NI	-NI	=NI	-NI
Impact LU-2: The Project would not 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.	LTS	-NI	=LTS	-LTS
Impact C-LU-1: The Project, when combined with other past, present, or reasonably foreseeable projects, would not result in a significant cumulative land use and planning impact.	LTS	-NI	=LTS	-LTS
Section 4.11, Noise and Vibration				
Impact NOI-1: Construction activities under the Project would not generate a substantial temporary increase in ambient noise levels in the vicinity of the Project site in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	LTS	-NI	=LTS	-LTS
Impact NOI-2: Implementation of the Project would not generate substantial permanent increases in ambient noise levels in the vicinity of the Project site in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	LTS	-NI	=LTS	-LTS
Impact NOI-3: Construction activities for the Project and related improvements would not result in generation of excessive groundborne vibration or groundborne noise levels.	LTS	-NI	=LTS	-LTS
Impact NOI-4: The Project is located within an airport land use plan but would not expose people residing or working in the Project area to excessive noise levels?	LTS	-NI	=LTS	-LTS
Impact C-NOI-1: Implementation of the Project, combined with cumulative construction noise in the Project area, would not generate a substantial temporary increase in ambient noise levels from construction activity 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.	LTS	-NI	=LTS	-LTS

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TABLE 6-2 (CONTINUED)
COMPARISON OF IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

Impact	Proposed Project	Alternative 1 No Project - No Development	Alternative 2: Life Science (80 Percent Maximum) / Office Development	Alternative 3: Reduced Size Life Science / Office Development
Section 4.11, Noise and Vibration (cont.)				
Impact C-NOI-2: Implementation of the Project, combined with cumulative development in the project area, would not generate substantial permanent increases 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.	LTS	-NI	=LTS	-LTS
Impact C-NOI-3: Implementation of the Project, combined with cumulative construction in the Project area, would not result in generation of excessive groundborne vibration or groundborne noise levels.	LTS	-NI	=LTS	-LTS
Section 4.12, Population and Housing				
Impact POP-1: Implementation of the proposed Project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).	LTS	-NI	=LTS	-LTS
Impact C-POP-1: Implementation of the proposed project, in combination with other development, could induce substantial unplanned population growth in an area, either directly or indirectly.	LTS	-NI	=LTS	-LTS
Section 4.13, Public Services and Recreation				
Impact PSR-1: Implementation of the Project would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered fire protection and emergency medical response services facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection.	LTS	-NI	=LTS	-LTS
Impact PSR-2: Implementation of the Project would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection.	LTS	-NI	=LTS	-LTS
Impact PSR-3: Implementation of the Project would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools.	LTS	-NI	=LTS	-LTS
Impact PSR-4: Implementation of the Project would not 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.	LTS	-NI	=LTS	-LTS
Impact PSR-5: Implementation of the Project would include recreational facilities, but would not require the construction or expansion of recreational facilities which might have a substantially adverse physical effect on the environment.	LTS	-NI	=LTS	-LTS

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LTS Less than Significant impact
NI No Impact

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TABLE 6-2 (CONTINUED)
COMPARISON OF IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

Impact	Proposed Project	Alternative 1 No Project - No Development	Alternative 2: Life Science (80 Percent Maximum) / Office Development	Alternative 3: Reduced Size Life Science / Office Development
Section 4.13, Public Services and Recreation (cont.)				
Impact C-PSR-1: Implementation of the Project, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on public services that would require new or physically altered governmental facilities, construction of which could have significant physical environmental impacts.	LTS	-NI	=LTS	-LTS
Impact C-PSR-2: Implementation of the Project, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on parks and recreation.	LTS	-NI	=LTS	-LTS
Section 4.14, Transportation				
Impact TR-1: Implementation of the Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	LTS	-NI	=LTS	-LTS
Impact TR-2: Implementation of the Project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	LTS	-NI	=LTS	-LTS
Impact TR-3: Implementation of the Project would not substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	LTS	-NI	=LTS	-LTS
Impact TR-4: Implementation of the Project would not result in inadequate emergency access.	LTS	-NI	=LTS	-LTS
Impact C-TR-1: Implementation of the Project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not result in a cumulatively considerable contribution to a cumulative transportation impact.	LTS	-NI	=LTS	-LTS
Section 4.15, Utilities and Service Systems				
Impact UTIL-1: Implementation of the proposed Project would require or result in the construction of new or expanded water, wastewater treatment or storm water drainage, electric power, or telecommunications facilities, the construction or relocation of which would not cause significant environmental effects.	LTS	-NI	=LTS	-LTS
Impact UTIL-2: Sufficient City water supply would be available to serve the Project and reasonably foreseeable future development under normal years even if the Bay Delta Plan Amendment is implemented. However, the Project would contribute to a shortfall in the City's water supply during single dry and multiple dry years with implementation of the Bay-Delta Plan Amendment.	LTSM	-NI	-LTS	-LTS
Impact UTIL-3: The wastewater treatment provider would have adequate wastewater treatment capacity to serve the Project.	LTS	-NI	=LTS	-LTS

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LTS Less than Significant impact
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TABLE 6-2 (CONTINUED)
COMPARISON OF IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

Impact	Proposed Project	Alternative 1 No Project - No Development	Alternative 2: Life Science (80 Percent Maximum) / Office Development	Alternative 3: Reduced Size Life Science / Office Development
Section 4.15, Utilities and Service Systems (cont.)				
Impact UTIL-4: Construction and operation of the Project would not generate solid waste in excess of State or local standards or the capacity of local infrastructure and would comply with federal, state and local statutes and regulations related to solid waste.	LTS	-NI	=LTS	-LTS
Impact C-UTIL-1: Development under the proposed Project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the Project site, would not substantially contribute to cumulative impacts related to utilities and services systems.	LTS	-NI	=LTS	-LTS

SOURCE: Environmental Science Associates

LTSM Less than Significant with Mitigation
LTS Less than Significant impact
NI No Impact

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However, as discussed above under Section 6.3.1, this alternative would not achieve any of the Project objectives, including, but not limited to, the creation of a life science/office development in proximity to major transportation corridors and high quality transit; provision of community benefits, including improving and enhancing access to the Project site; promoting public transit linkages and use of alternative modes of transportation and bicycle and pedestrian access; or providing flood protection and sea level rise resiliency with proposed shoreline infrastructure. As such, this alternative is considered unrealistic, impractical and infeasible.

6.6.2 Reduced Size Life Science / Office Development Alternative

If the No Project Alternative is the environmentally superior alternative, CEQA Guidelines section 15126.6(e)(2) requires that the EIR identify another environmentally superior alternative among the remaining alternatives. Of the remaining alternatives that are not the No Project – No Development alternative: (i.e., Alternative 2: Life Science (80 Percent Maximum) / Office Development, and Alternative 3: Reduced Size Life Science / Office Development), on balance, the Reduced Size Life Science / Office Development is considered the environmentally superior alternative.

This alternative would involve a smaller development than that proposed under the Project, and would require less construction, and therefore, would result in less construction and operational effects. As such, the Reduced Size Life Science / Office Development would serve to incrementally reduce the severity of the 19 significant but mitigable project and/or cumulative impacts of the Project, and would avoid the significant but mitigable impact related to furthering contribution to a shortfall in the City's water supply during single dry and multiple dry years with implementation of the Bay-Delta Plan Amendment.

As discussed in Section 6.3.5, above, this alternative would result in a building size reduction of 10 percent compared to the proposed Project and allow for the same flexibility in the range in life science and office use; and includes similar sustainable infrastructure and community benefit improvements, as those proposed under the Project. As such, this alternative appears to substantially meet most of the Project's basic objectives.

6.7 References

DivcoWest, 2023. *Project Sponsor Response to Alternatives Data Request.* May 2, 2023.

EKI Environment & Water, Inc., *Technical Memorandum to Support the EIR Alternatives Analysis for 1200-1340 Old Bayshore Highway*. September 13, 2023.

CHAPTER 7
Report Preparation

7.1 City of Burlingame

Community Development Department, Planning Division

Kevin Gardiner, Community Development Director
Catherine Keylon, Senior Planner
Kelly Beggs, Contract Principal Planner, Good City Company

Other Departments

Scott Spansail, Assistant City Attorney
Andrew Wong, Senior Civil Engineer, Public Works Department
Martin Quan, Senior Civil Engineer, Public Works Department
Christine Crowl, Special Counsel, Jarvis, Fay & Gibson LLP

7.2 EIR Consultants

Environmental Science Associates (Prime Consultant)

Paul Mitchell, Project Director

Crescentia Brown, Project Manager

Steve Smith, Aesthetics, Land Use and Planning

Karl Heisler, Wind and Shadow

Chris Sanchez, Air Quality, Greenhouse Gas Emissions, Energy, Noise and Vibration

Joneil Manansala, Air Quality

Nick Reynoso, Noise and Vibration

Bailey Setzler, Greenhouse Gas Emissions

Brian Pittman, CWB, Biological Resources

Erika Wahlter, Biological Resources

Becky Urbano, Cultural Resources (Historic)

Amber Grady, Cultural Resources (Historic)

Heidi Koenig, RPA Cultural Resources (Archaeological and Tribal Cultural)

Ashleigh Sims, RPA Cultural (Archaeological and Tribal Cultural)

Michael Burns, CHG, CEG, PG, QSD, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality

Brandon Carroll, Geology and Soils, Hydrology and Water Quality

Matt Brennan, PhD, PE, Hydrology (Sea Level Rise)

Juliana Medan, Population and Housing

Jill Feyk-Miney, Public Services and Recreation, Utilities and Service Systems

Ryan Yasuda, Public Services and Recreation, Utilities and Service Systems, Effects Found Not to be Significant

Shadde Rosenblum, Transportation

Ron Teitel, Graphics

Lisa Bautista, Word Processing

Visual Simulations

PreVision Design

Water Supply Assessment

EKI Environment & Water

7.3 Applicant Consultants

Air Quality and Greenhouse Gas Emissions

Ramboll U.S. Consulting Inc.

Biological Resources

H.T. Harvey & Associates

Geotechnical

Cornerstone Earth Group

Historic Resources

South Environmental

Phase I Environmental Site Assessments

Blackstone Consulting LLC

Supplemental Environmental Materials

FirstCarbon Solutions

Transportation

Fehr & Peers Transportation Consultants