

Memo



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Date: October 13, 2023
To: City of Belvedere
From: Mike Parker and Tanya Jones
Subject: Final CEQA Investigation Memorandum for the Mallard Pointe Project

1.1 INTRODUCTION

The City of Belvedere (City) has received an application for design review and subdivision approval for the demolition of 22 residential units in nine duplex buildings and one fourplex building at 1-22 Mallard Road and the construction of 40 new residential units including six single-family units, five duplex buildings, one accessory dwelling unit (ADU), and a 23-unit apartment building (project). The General Plan land use designation is Medium Density Multi Family Residential (5-20 dwelling units/net acre), and the project will require waivers and a concession under State Density Bonus Law to several R-2 zoning requirements.

As detailed under Section 1.3, "Exemptions under CEQA," the City is reviewing available project information to determine whether the project meets the criteria for a categorical exemption under CEQA Guidelines Section 15332 for infill development projects. This memorandum documents Ascent's evaluation of the project circumstances and a recommendation for the CEQA review process. As part of our evaluation, application materials and technical studies provided by the applicant were reviewed, Ascent provided review comments on the studies and submitted memoranda identifying recommended revisions and inclusion of any other necessary information as it pertained to CEQA. Technical studies reviewed include the following and are also included as attachments to this memorandum:

- ▶ Attachment A: General Plan and Zoning Consistency
- ▶ Attachment B: Photo Simulations
- ▶ Attachment C: Air Quality and Greenhouse Gas Emissions Analysis
- ▶ Attachment D: Biological Site Assessment
- ▶ Attachment E: Historic Resource Evaluation
- ▶ Attachment F: Archaeological Resources Technical Report (Confidential)
- ▶ Attachment G: Preliminary Geotechnical Investigation
- ▶ Attachment H: Paleontological Records Search
- ▶ Attachment I: Phase I Environmental Site Assessment Report
- ▶ Attachment J: Stormwater Control Plan
- ▶ Attachment K: Preliminary Drainage Strategy
- ▶ Attachment L: Construction Noise Impacts Constraints Analysis
- ▶ Attachment M: Transportation Study
- ▶ Attachment N: Preliminary Utility Design Memo



1.2 PROJECT DESCRIPTION

1.2.1 Project Location and Setting

The project is located on a 2.8-acre site at 1-22 Mallard Road in the City of Belvedere within the Belvedere Lagoon neighborhood (Figure 1). Assessor's Parcel Numbers (APNs) for the project site include 060-072-27, 060-072-28 and 060-072-18. The site is adjacent to the Belvedere Lagoon to the north, existing residential uses to the east and west and Belvedere Park and City Hall to the south (across Community Road).

Originally built in 1951, the existing 22 units are spread through nine duplex buildings and one fourplex building; eight of the duplex buildings are adjacent to the Belvedere Lagoon, and one duplex building and the fourplex building are adjacent to Community Road. The existing unit mix includes 18 two-bedroom, one-bath units and four two-bedroom, two-bath units.

The Belvedere Lagoon neighborhood consists of about 275 small- to moderate-sized lots, ranging from around 5,000 to 12,000 square feet in size. They contain predominantly one- and two-story homes, which were mainly built in the 1950's and 1960's on artificial fill over underlying Bay mud, with some new homes replacing existing homes in recent years. Most of the lots in this area front on the waters of the Belvedere Lagoon, an artificial lagoon created by diking portions of San Francisco Bay. Tide gates and pumps control the flow of water between the Lagoon and the Bay. Some of this area may be subject to flooding during severe high intensity storms (City of Belvedere 2010). The Belvedere Lagoon neighborhood, including the project site, is in the VE Special Flood Hazard Area with an increased chance of flooding due to storm waves and tidal surges. Properties in the VE Zone are required to comply with the City's Floodplain Ordinance to reduce flood risk.

1.2.2 Local Planning Regulations

The project is within the City of Belvedere and subject to the City of Belvedere General Plan 2030 and Zoning Ordinance in effect on August 6, 2021, when the applicants filed a preliminary application which contained all required information. The project consists of three assessor parcels each of which are designated Medium Density Multifamily Residential (MFR) by the City's General Plan and zoned R-2.

GENERAL PLAN AND ZONING

The City of Belvedere General Plan 2030 land use designation for the project site is Medium Density Multifamily Residential (MFR). The Medium Density MFR land use designation allows for between 2 and 20 units per net acre and anticipates 13.5 to 54 persons per acre. Areas designated as Medium Density MFR primarily occur along the south/southeast boundary of the Belvedere Lagoon with some pockets also designated along the northern boundary of Belvedere Cove and at the intersection of Laurel and Bayview. There are 13.41 acres designated as Medium Density MFR in the City making up approximately 0.95 percent of the City's total designated land uses (City of Belvedere 2010).

The project site is zoned R-2, duplex residential zone. Permitted uses in the R-2 zone include single-family dwellings, accessory dwelling units, accessory uses to single-family dwellings, two-family dwellings and accessory uses, structures, facilities and uses related to any function of municipal government, and transitional and supportive housing facilities. Prohibited uses include any business, boarding house, rooming house, apartment court, apartment house, church, club building, hotel, rental office, or any other use (City of Belvedere 2020). The R-2 zoning also prescribes various additional development standards such as setbacks, lot coverage, floor area ratio, and height limits, as described in Attachment A.



Source: adapted by Ascent Environmental in 2020

Figure 1 Project Location

1.2.3 Project Components

Building and Site Design. The project involves the demolition of the existing 22 residential units and construction of 40 new residential units including six single-family units, five duplex buildings, one accessory dwelling unit (ADU), and a 23-unit apartment building. The ADU is proposed as a one-bedroom unit to be located above the attached garage of one of the single-family homes. The apartment building would be adjacent to Community Road and include two residential stories above a semi-subterranean parking structure. The apartment unit mix would include one-, two-, and three-bedroom units. The lagoon-fronting single-family homes and duplexes would be a mix of one- and two-story homes containing two, three, or four bedrooms. The project site plan is shown on Figure 2. The six single-family homes would all contain four bedrooms with one of the homes constructed with the above garage ADU. Of the ten duplex units, five would two-bedroom units and five would be three-bedroom units. Of the twenty-three apartment units, six would be one-bedroom units, twelve would be two-bedroom units, and five would be three-bedroom units.

Three of the apartment units would be deed-restricted below-market rate low-income units, and one would be deed-restricted to very low income households, providing four affordable units total¹. All of the affordable units must have two bedrooms to replace the existing units that will be demolished. In addition, the applicants state that one ADU and five one-bedroom apartment units would be affordable by design to moderate-income households, although rents would not be restricted.² On-site parking for 102 cars would be incorporated with 29 garage spaces in single-family homes and duplexes, 46 garage spaces in the apartment parking structure, and 27 unassigned or apron parking spaces. The project would also include 114 bicycle parking stalls.

Single-family and duplex homes would be situated along the Belvedere Lagoon, and the apartment building would be situated on the inland portion of the site. Pedestrian enhancements include wider sidewalks, new sidewalks, traffic calming features on Community Road, and crosswalks to improve the connection from Mallard Pointe and the neighboring properties to Community Park. Because the current width of Mallard Road does not comply with Fire Department requirements, it would be reconfigured and moved to accommodate the proposed site plan as well as widened to conform with City standards and provide emergency vehicle access. Mallard Road would remain a private street.

The applicants state that the architectural style of the apartment building is heavily influenced by other buildings in Belvedere designed by Albert Farr. The lagoon homes would include a mix of traditional and contemporary design as seen among other lagoon homes. The apartment building materials would include shingle and textured siding with a shingled roof. The proposed materials for the single-family and duplex homes include a mix of vertical board, smooth panel, and shingle siding, with weathered teak decks, concrete walls, and shingled roofs. An earth-tone color palette would be used throughout the project with variations in colors between buildings. The project would include drought-tolerant landscaping, permeable pavers, energy-efficient appliances, increased insulation, low-flow fixtures, solar panels, and electric vehicle charging stations.

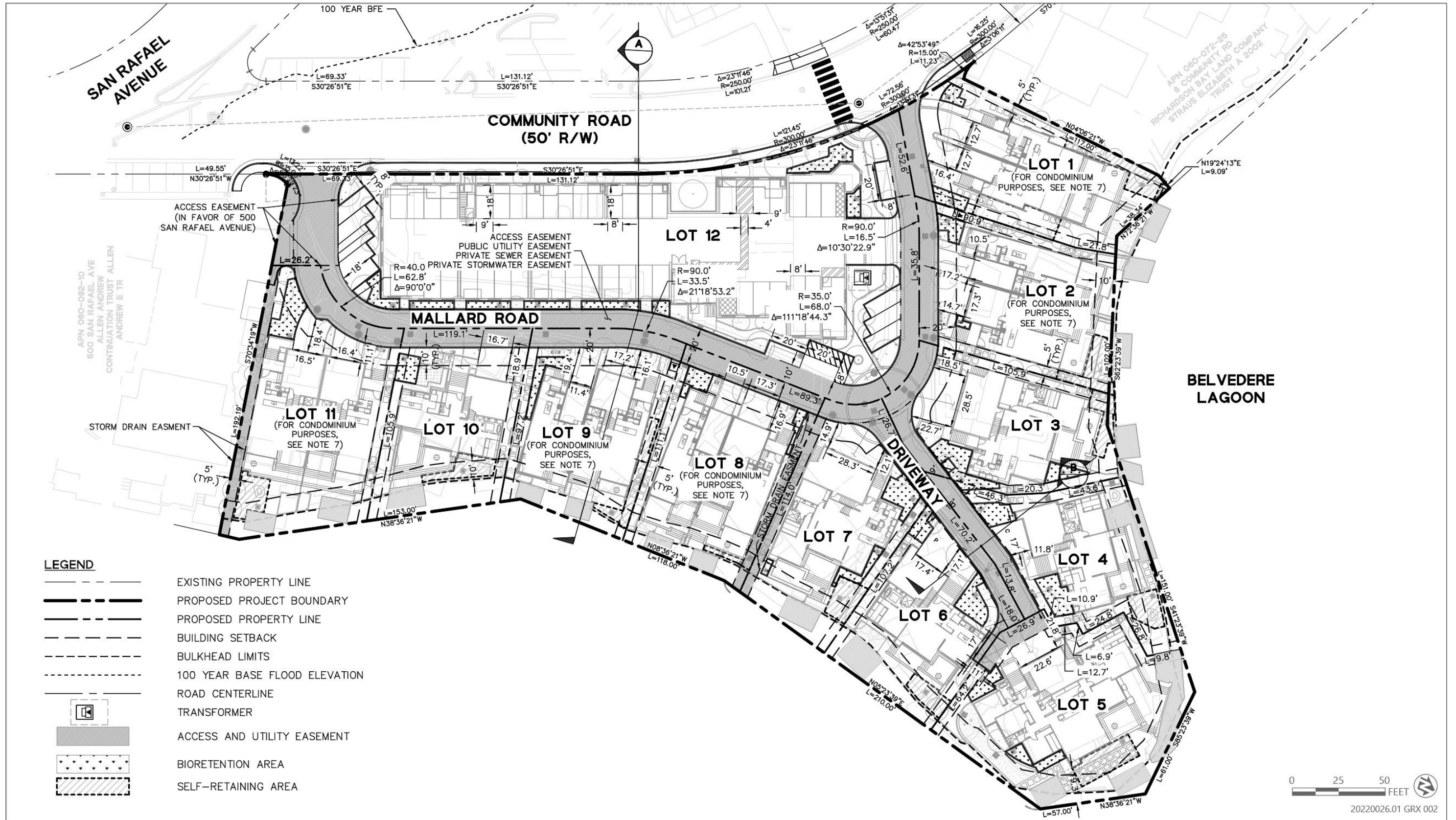
Foundation Design and Compliance with FEMA Standards. Most ground-disturbing activity would occur within the first 3 to 6 feet of fill soil below the ground surface. Shallow foundation systems would include finished-floor elevations using a concrete mat slab or post-tensioned slab-on-grade foundation system to support elevated interior floors above a crawl space. The project would be designed to balance the load of the new buildings so as not to incur new loading on the site. Construction methods for new residential units near the Lagoon could also include deeper foundation systems where Bay Mud underlies the site by more than 30 to 40 feet. In these instances, some of the single-family residences and duplexes may incorporate helical piles which would typically need to extend about 10 to 30 feet below the Bay Mud layer (Attachment G).

¹ Maximum income for a one-person low-income household in 2023 is \$104,400; for a two-person household, \$119,300. Maximum low-income rent for a two-bedroom apartment is \$2,362/month, including utilities. Maximum income for a one-person very low income household is \$65,250; \$74,600 for a two-person household. Maximum very low-income rent for a two-bedroom apartment is \$1,969/month, including utilities.

² Maximum income for a one-person moderate-income household in 2023 is \$147,000; for a two-person household, \$168,000. Maximum rent for a one-bedroom moderate-income apartment in 2023 would be \$3,850/month, including utilities.

The project has also been designed to comply with FEMA flood standards, with the first residential floor in each building raised to Base Flood Elevations plus one foot (11 feet above sea level). All parking on the site including the semi-subterranean garage is designed to meet FEMA standards. As described in the Preliminary Geotechnical Investigation (Attachment G), no additional fill would be brought onsite to meet FEMA requirements, as achievement of finished-floor elevations would use concrete mat slab or post-tensioned slab-on-grade foundation system to support the elevated interior floor above a crawl space. The Preliminary Geotechnical Investigation (Attachment G) also includes an alternative design involving a "traditional" continuous interconnected spread footing (or waffle slab) foundation that could be considered. The project would be designed to balance the load of the new buildings so as not to incur new loading at the site that could potentially induce differential settlement.

Proposed Docks. Docks would be provided for the homes fronting on the Belvedere Lagoon. Figures 4a and 4b provide greater detail on the location of existing and proposed docks. As shown on Figure 4b, on the easterly side of the project site, the existing docks would be removed and replaced with reconfigured docks, which would be located on portions of the Lagoon that are within the project's property. On the northwest part of the site, the existing docks are located on portions of the Lagoon owned by the Belvedere Lagoon Property Owners Association (BLPOA). Repairs or replacement of existing docks located on BLPOA property are proposed to comply with all City and BLPOA requirements and to occur within the same exact footprint of existing structures but would need to receive approval from the BLPOA. The project may also make repairs to the existing bulkhead as required but otherwise does not propose to modify the bulkhead or change its location.



Source: adapted by Ascent Environmental in 2023

Figure 2 Project Site Plan



Source: Image produced and provided by Guzzardo Partnership Inc. in 2022, adapted by Ascent Environmental in 2023

Figure 3 Landscape and Site Lighting Plan

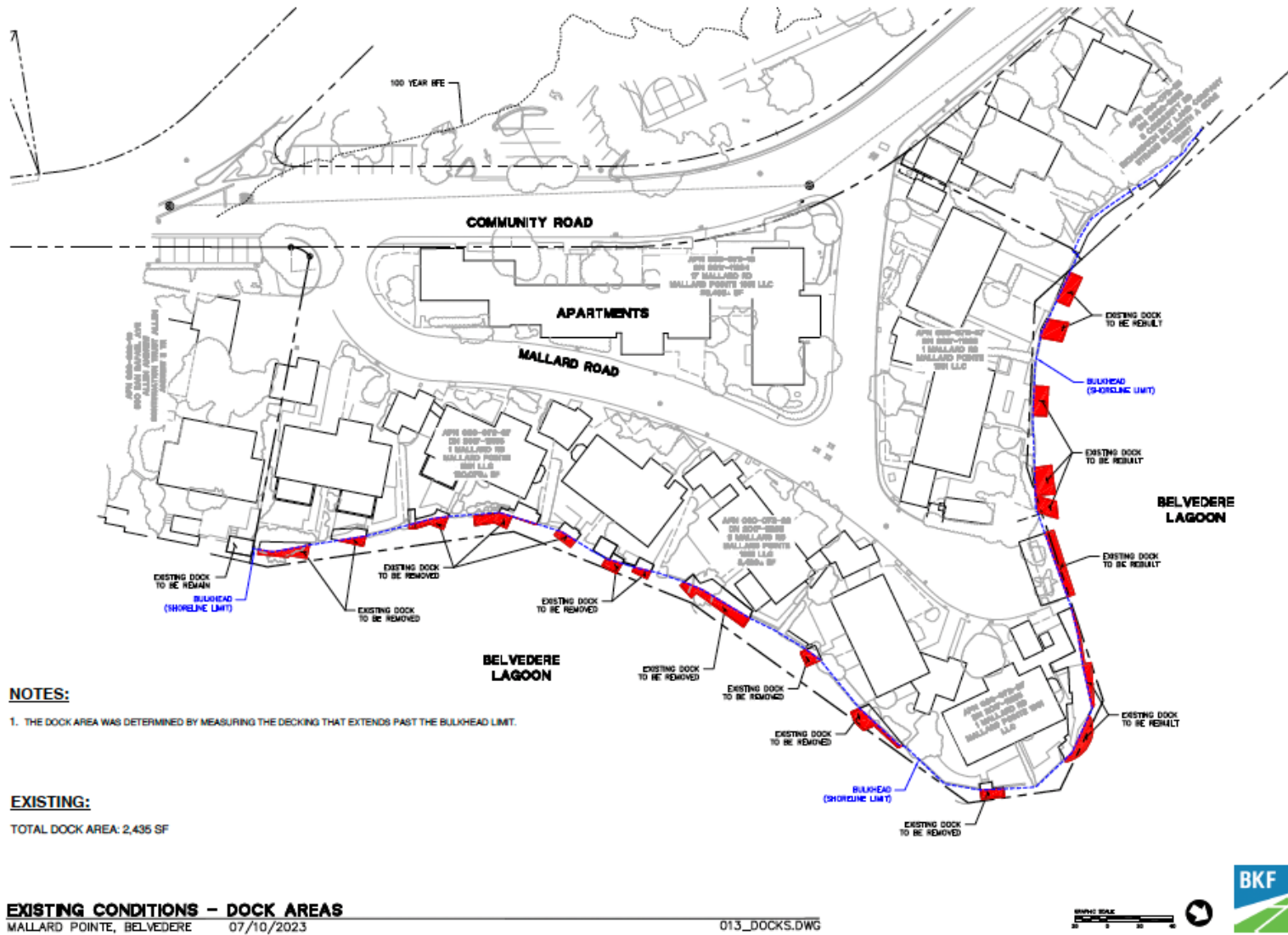


Figure 4a Existing Docks

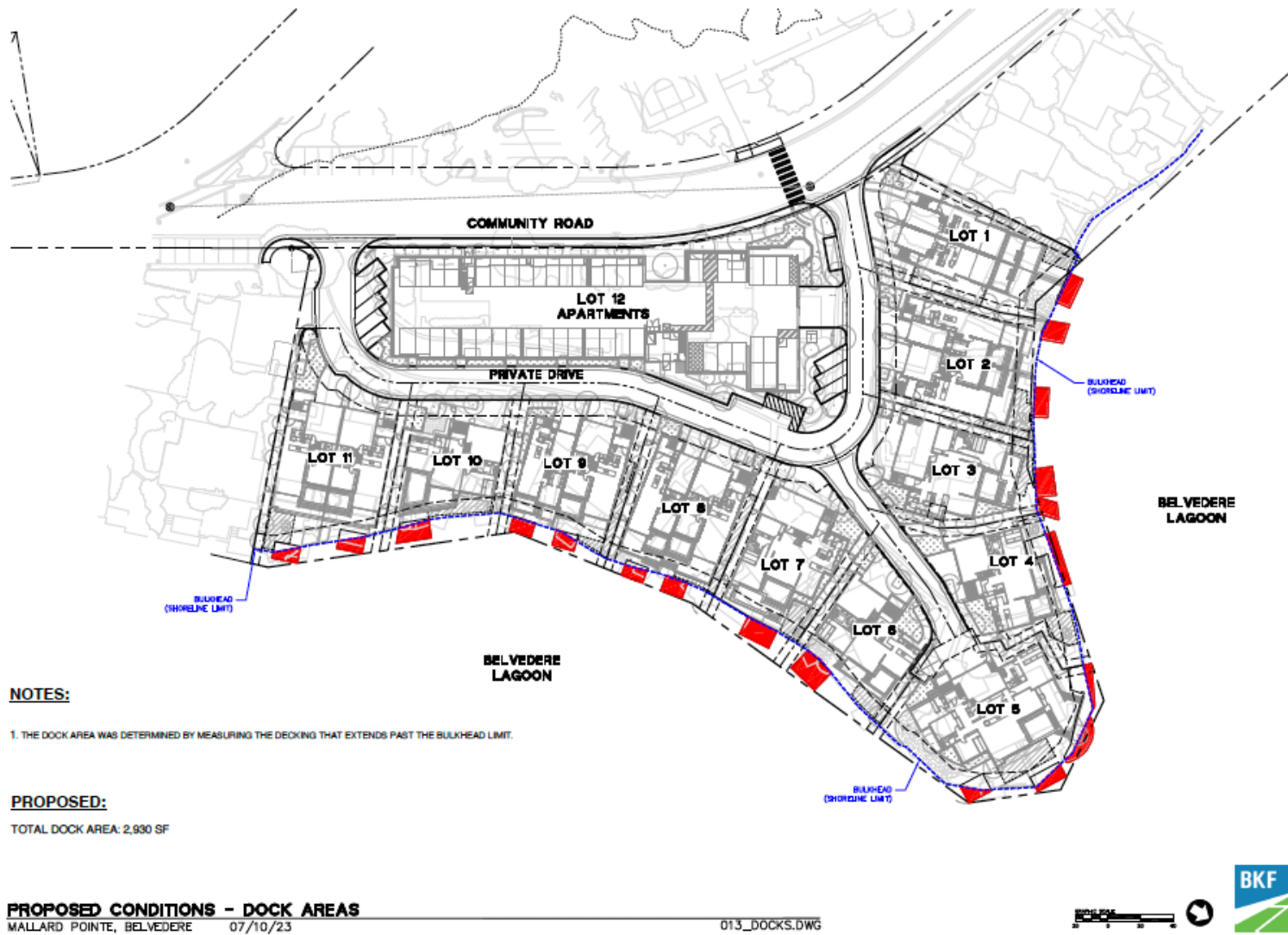


Figure 4b Proposed Docks

1.2.4 Affordable Housing/Density Bonus

Forty units are proposed on the 2.8-acre site, conforming to the site's Medium Density MFR General Plan designation of 20 units per acre. Of the 40 units, four are proposed to be restricted to lower income households (one for very low income households and three for low income households).

Because the project would include 10 percent lower income units, the project is entitled to a density bonus of 20 percent. The project does not seek to develop the additional density bonus units. However, because it is eligible for a density bonus, the applicants may apply for unlimited waivers of development standards, one concession, and reduced parking standards under State Density Bonus law.

Thus, the project seeks waivers for height, lot frontage, lot area per unit, side yard setback, apartment outdoor open space, lot coverage, signage, and construction time limits, as well as a concession from the prohibition on apartments in the R-2 zone (see Attachment A). The project also seeks to include tandem and uncovered spaces based on parking standards in the State Density Bonus Law. The applicant has submitted documentation for the requested concession and waivers. With approval of the concession and waivers, the project would be considered to comply with the applicable requirements of the R-2 zone.

1.2.5 Project Construction

Project construction is anticipated to occur during an approximately 20-21 month construction period (currently proposed from January 2024 through September 2025) and would result in the demolition of approximately 34,103 square feet of existing buildings and 55,480 square feet of pavement. Grading activities are anticipated to result in approximately 1,500 cubic yards of soil export. Construction equipment would include but not be limited to tractors/loaders/backhoes, bulldozers, graders, scrapers, pavers, paving equipment, industrial saws, forklifts, generators, and rollers. Off-site construction hauling and vendor trucks would utilize Beach Road, San Rafael Avenue, Community Road, and Leeward Road. Construction activities would occur between the hours of 8:00am and 5:00pm on weekdays. No construction would occur on weekends and City-recognized holidays in compliance with the City's construction regulations. The project application includes, and would also implement, a Construction Management Plan including noise control, traffic control, dust control, and recycling measures to minimize and reduce impacts from construction activities.

1.3 CLASS 32 CATEGORICAL EXEMPTION - INFILL DEVELOPMENT PROJECTS

1.3.1 Eligibility for Class 32 Categorical Exemption

Section 15332 of the CEQA Guidelines allows for the use of a categorical exemption for infill development, provided the contemplated development meets five criteria, which are listed below. The courts will affirm the City's factual determinations so long as they are supported by substantial evidence. The courts do not weigh conflicting evidence in reviewing the City's evidence. (See, e.g., *Protect Tustin Ranch v. City of Tustin* (2021) 70 Cal.App.5th 951, 960-961.)

"Substantial evidence" is defined in the CEQA Guidelines as "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached...Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." (CEQA Guidelines § 15384.) If facts and other substantial evidence support the City's conclusions, the courts will not review conflicting evidence that may contradict the City's conclusions. However,

if a court is interpreting the scope of a categorical exemption, the court will review this as a question of law, subject to de novo review. (*Walters v. City of Redondo Beach* (2016) 1 Cal.App.5th 809, 817.)

This memo discusses the evidence that may qualify the project for the Class 32 categorical exemption. This Section 1.3 summarizes the conclusions based on the available evidence and discusses the interpretation of the second criterion, while Sections 1.4 and 1.5 and Attachment A summarize the evidence provided regarding the project's eligibility for the Class 32 exemption.

1. The project must be consistent with the applicable general plan designation and all applicable general plan polices as well as with applicable zoning designation and regulations.

The project would conform to the density allowed by the Medium Density MFR General Plan designation in that the proposed density is 13.9 dwelling units per acre. Under the Housing Accountability Act, the project has been deemed consistent with other General Plan policies. See Attachment A for a further explanation.

As discussed above in Section 1.2.4, Affordable Housing/Density Bonus, because the project would include 10 percent lower income units, it is eligible for unlimited waivers of development standards, one concession, and reduced parking standards under State Density Bonus Law. Therefore, the project seeks waivers for height, lot frontage, lot area per unit, side yard setback, apartment outdoor open space, lot coverage, signage, and construction time limits, as well as a concession from the prohibition on apartments in the R-2 zone (see Attachment A). The project also seeks to include tandem and uncovered parking spaces based on parking standards in the State Density Bonus Law. The applicant has submitted documentation supporting the requested concession and waivers. With approval of the concession and waivers, the project would be considered to comply with the applicable requirements of the R-2 zone.

See attached General Plan and zoning consistency analysis (Attachment A).

2. The proposed development must occur within city limits on a project site of no more than five acres substantially surrounded by urban uses.

The project is located on a 2.8-acre site within the limits of the City of Belvedere with residential uses associated with the Belvedere Lagoon neighborhood and City Hall surrounding the project site on three sides.

One side of the project site (the longest side) fronts Belvedere Lagoon. Approximately 876 feet of the project's boundary occurs along Belvedere Lagoon which represents approximately 57 percent of the project boundary. The other approximately 638 feet of the project boundary abuts residential uses and Community Road. There is no definition in the Class 32 exemption of "urban uses," nor what is meant by "substantially surrounded," nor any reference to other definitions in the CEQA Guidelines.

If the Lagoon is considered an "urban use," then the site would be entirely surrounded by urban uses and would be eligible for the Class 32 exemption. According to the website of the Belvedere Lagoon Property Owners Association (BLPOA), which owns most of the Lagoon and is responsible for its maintenance and operation, approved uses of the lagoon include swimming, manually powered craft (such as canoes, paddleboats, rowboats) and sailboats (monohulls up to a maximum of 15 feet in length). The Belvedere Lagoon is also home to the Belvedere Sailing Society (BLPOA 2023). Although the Belvedere Lagoon is a water feature that historically connected to Richardson Bay, it has since been substantially modified by development of roads that isolated the lagoon from the Bay and installation of peninsulas and other geomorphic shaping. Hydrological connection to the Bay is now only provided via pumping. The Lagoon is maintained and operated as a human-made recreational water feature, including periodic dredging and application of algicides. Its entire bank is developed with structures, roads, and other infrastructure. Despite its historic origins as a piece of the Bay, the Lagoon has functioned for over 70 years as a human-made urban recreational water feature. This may allow the lagoon to be considered an "urban use." Additionally, CEQA's definition of "infill site" includes any site that has previously been developed for "qualified urban uses." (Public Resources Code Section 21061.3(b).) The project site is currently developed for residences; "qualified urban uses" include residences.

On the other hand, the definition of "qualified urban uses" in CEQA includes only "any residential, commercial, public institutional, transit or transportation passenger facility, or retail use, or any combination of those uses." (Public Resources Code Section 21072.) The Belvedere Lagoon is not a public facility, includes none of the listed uses, and so is not a "qualified urban use." "Substantially surrounded" is defined in the CEQA Guidelines to mean that at least 75 percent of the perimeter of the project site adjoins, or is separated only by an improved public right of way, from parcels that are developed with qualified urban uses. (Guidelines Section 21159.25(a)(2).) The Belvedere Lagoon occupies more than 25 percent of the perimeter of the site. The Lagoon is also considered to be a lake under the jurisdiction of the US Army Corps of Engineers, Regional Water Quality Control Board, and other state agencies. If the Belvedere Lagoon is not considered to be an "urban use," then the site would not qualify for the infill exemption.

In the only case to consider the definition of "urban uses," the Court of Appeal considered an urban use to be "characteristic of a city or a densely populated area." The Court characterized Balboa Park in the City of San Diego to be a "quintessential urban park, heavily landscaped, surrounded by a densely populated area, and containing urban amenities such as museums, theaters, and restaurants," and concluded it constituted an urban use. (Banker's Hill, Hillcrest, Park West Community Preservation Group v. City of San Diego (2006) 139 Cal.App.4th 249, 272.) Here, while the Lagoon is surrounded by developed properties and used for recreation by homeowners, it is not landscaped and does not contain urban amenities.

The project would qualify for the Class 32 exemption if the Lagoon is considered to be an "urban use," or if CEQA's definition of "infill site" (in Public Resources Code Section 21061.3) which is not specifically mentioned in the criteria for the Class 32 exemption but is used for other CEQA streamlining provisions, is used to help interpret how CEQA more broadly defines infill development.

3. The project site may have no value as habitat for endangered, rare, or threatened species.

As discussed in detail in Section 1.4.2 below, no natural vegetation communities or native plant habitats are present in the project area, and the project site (including the portion extending into the Lagoon) does not provide suitable habitat conditions for any special-status species known to occur in the region.

4. Approval of the project may not result in any significant effects relating to traffic, noise, air quality, or water quality.

Traffic. Projects generating Vehicle Miles Traveled per capita (VMT) 15 percent below that in the County or the City are considered to have an insignificant traffic impact. The City is currently utilizing the City VMT threshold in evaluating the environmental impacts of the housing element. Because the project would generate VMT more than 15 percent below the existing average City of Belvedere VMT per capita, the project would not have a significant VMT impact. Please see discussion in Section 1.4.7.

As discussed in Section 1.4.7 below, the project will improve pedestrian access, does not create any hazardous conditions, and will not impede emergency access.

Noise and Air Quality. The project would not result in any significant effects relating to noise or air quality, as discussed in detail in Sections 1.4.1, 1.4.3, and 1.4.5 below. Compliance with the City's permissible hours of construction and compliance with the recommendations in the engineering report to use helical piles would ensure that temporary increases in noise levels would not result in disruptive noise, and associated adverse effects, to nearby receptors. Operational traffic noise also would not result in a perceptible increase in noise. No activities during construction or operation are proposed that would substantially affect air quality.

Water Quality. As discussed in Section 1.4.4, "Hydrology and Water Quality," the project would reduce the amount of impervious surface on the site and would install bioretention basins to reduce the amount of runoff into the Belvedere Lagoon during storms. All runoff must also be treated through filtered bioswales. Because runoff from the site in the existing condition is entirely untreated and uncontrolled, this would improve the quality of stormwater flowing into

the Lagoon. In addition, standard erosion control measures are required to avoid water quality impacts during construction.

Any maintenance, replacement, removal, or construction of docks or repair of the bulkheads in the Lagoon will require authorization from the Regional Water Quality Control Board (RWQCB) and may require permits or authorization from the Army Corps of Engineers or California Department of Fish & Game. The General Requirements for Construction and Maintenance of Overwater Structures (Order No. R2-2018-0009) adopted by the RWQCB contain standard requirements that must be met to ensure that no water quality impacts are caused by dock construction.

5. **The site must be adequately served by all required utilities and public services.**

As discussed in Sections 1.4.6 and 1.4.8, the project site currently receives utility services from Marin Municipal Water District (MMWD), Sanitary District No. 5 of Marin County, and Pacific Gas & Electric (PG&E), and public services from the City of Belvedere, Tiburon Fire District, and Reed and Tamalpais School Districts. It is anticipated that the existing water and wastewater systems, as well as the natural gas and electricity lines providing service to the project site, will have capacity to service the project. Similarly, police, fire, parks, and other public services have adequate capacity to serve the project.

1.3.2 Exceptions to the Use of Categorical Exemptions

The City must also consider whether the project may fall under a list of exceptions to all classes of categorical exemptions, as detailed under Section 15300.2 of the CEQA Guidelines:

- (a) **Location.** Classes 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to be located -a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to apply in all instances, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.

This exception would not apply to a Class 32 exemption.

- (b) **Cumulative Impact.** All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.

No projects of the same type, in the same place, are currently proposed in the City of Belvedere or in downtown Tiburon. Therefore, no cumulative impacts would occur, and the project would not represent a cumulatively considerable contribution to cumulative impacts related to air quality, greenhouse gas emissions, biological resources, historic resources, hazardous materials, hydrology and water quality, noise, public services, transportation, and utilities and service systems. This exception does not apply.

- (c) **Significant Effect.** A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.

Section 1.5 below discusses this issue in detail and concludes that no unusual circumstances exist that are applicable to the project and no substantial evidence exists that the project will have a significant effect on the environment.

- (d) **Scenic Highways.** A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified EIR.

The project site is not located within or adjacent to a highway officially designated as a state scenic highway. Highway 101 is the nearest state scenic highway to the project site and the site is not visible from Highway 101. The

project would therefore have no effect on any scenic resources within any state scenic highway and this exception would not apply to the project.

- (e) **Hazardous Waste Sites.** A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.

The project is not located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code (Attachment I). Therefore, this exception would not apply to the project.

- (f) **Historical Resources.** A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

The project would not cause a substantial adverse change in the significance of a historical resource. The existing buildings at 1-22 Mallard Road are not listed on the California Register of Historical Resources (CRHR) nor on the City of Belvedere's historic register. A Historic Resource Evaluation (Attachment E) was conducted, and the report concluded that the buildings, constructed in two phases from 1951-1953 and 1954-1956, do not meet any CRHR or City of Belvedere criteria. The buildings are not directly associated with events or persons that have made a significant contribution to broad patterns of local or regional history; do not individually or collectively embody distinctive characteristics of a type, period, region or method of construction or represent the work of a master architect; and do not appear to have any potential to yield information of any historical importance. Therefore, the buildings at 1-22 Mallard Road are not resources for the purpose of CEQA, pursuant to Section 15064.5, and the project would not result in any impacts to historical resources.

1.4 DETAILED ENVIRONMENTAL ANALYSIS FOR CLASS 32 EXEMPTION

The following analysis provides a more detailed evaluation of the air quality, biological, noise, traffic, public services, utility, and water quality impacts applicable to the Class 32 categorical exemption for In-Fill Development Projects, based on the relevant checklist questions in Appendix N of the CEQA Guidelines. It also examines whether there are unusual circumstances applicable to the project. This section summarizes the substantial evidence supporting the project's eligibility for the Class 32 exemption.

1.4.1 Air Quality (CEQA Guidelines Section 15332(d))

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

Bay Area Air Quality Management District (BAAQMD) attains and maintains air quality conditions in the San Francisco Bay Area Air Basin (SFBAAB), including San Mateo County, through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. BAAQMD adopted an updated Clean Air Plan, titled the *2017 Clean Air Plan: Spare the Air, Cool the Climate* (BAAQMD 2017a). The *2017 Clean Air Plan* includes all feasible measures to reduce emissions of ozone precursors—reactive organic gases (ROG) and nitrogen oxides (NO_x)—and reduce transport of ozone and its precursors to neighboring air basins and includes efforts to reduce emissions of fine particulate matter and toxic air contaminants. According to BAAQMD guidance (BAAQMD 2017b), a project is considered to be consistent with the Clean Air Plan when it 1) supports the goals of the Clean Air Plan, 2) includes applicable control measures from the Clean Air Plan, and 3) would not disrupt or hinder implementation of any control measure included in the Clean Air Plan. In general, projects that result in emissions below BAAQMD CEQA thresholds of significance and that incorporate all feasible air quality plan control measures from the Clean Air Plan are considered to be consistent with the Clean Air Plan.

As discussed in the Air Quality and Greenhouse Gas Emissions Analysis prepared by First Carbon Solutions and included in Attachment C, the project would incorporate relevant control measures from the Clean Air Plan including building, energy, natural and working lands, stationary, and transportation control measures. In addition, the project would be consistent with the Medium Density Multi-Family Residential land use designation in the Belvedere General Plan. Thus, the project would be consistent with the growth projections in the Clean Air Plan and would not introduce land uses that would disrupt or hinder implementation of the Clean Air Plan. Lastly, the project would result in emissions during construction and operation that are far below BAAQMD CEQA thresholds of significance for each criteria pollutant. As such, because the project would be consistent with current land use designations, would be consistent with Clean Air Plan control measures, would not result in emissions above thresholds, the project would not conflict with or obstruct implementation of the applicable air quality plan. Therefore, this impact would be less than significant.

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

According to the BAAQMD 2022 CEQA Guidelines, to meet air quality standards for criteria air pollutant and air precursor impacts, the proposed project must not: 1) Contribute to CO concentrations that exceed the state ambient air quality standards; 2) Generate daily construction emissions of ROG, NO_x, or PM_{2.5} (exhaust) greater than 54 pounds per day or PM₁₀ exhaust emissions greater than 82 pounds per day; or 3) Generate operational emissions of ROG, NO_x, or PM_{2.5} greater than 10 tons per year, or 54 pounds per day, or PM₁₀ emissions greater than 15 tons per year, or 82 pounds per day.

The details regarding project construction and operational emissions modeling are provided in Attachment C.

Short-Term Construction-Related Criteria Air Pollutant and Precursor Emissions

Construction emissions were quantified using the CalEEMod (Version 2020.4.0) land use emission model. Emissions are based on a combination of project-specific information provided by the applicant and CalEEMod defaults. Emissions account for removal of existing buildings and pavement as well as construction of new uses. As summarized in Table 2 of Attachment C, the proposed project's construction emissions would not exceed BAAQMD significance thresholds.

BAAQMD has not established thresholds of significance for mass fugitive PM₁₀ and PM_{2.5} emissions. BAAQMD considers fugitive PM₁₀ and PM_{2.5} from earth moving activities to be less than significant with application of BAAQMD's Best Management Practices (BMP), also required by adopted BAAQMD rules (Regulation 6, Rule 1, Regulation 6, Rule 6, Rule 6-1). These measures are required of all projects in the Bay Area and include the following:

- ▶ All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day.
- ▶ All haul trucks transporting soil, sand, or other loose material offsite will be covered.
- ▶ All visible mud or dirt track-out onto adjacent public roads will 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, driveways, or driving surfaces shall be limited to 15 mph.
- ▶ All roadways, driveways, and sidewalks to be paved will be completed as soon as possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used.
- ▶ Post a publicly visible sign with the telephone number and the name of the person to contact at the lead agency regarding dust complaints. This person will respond and take corrective action within 48 hours. The phone number of the BAAQMD will also be visible to ensure compliance.

Because the project is subject to BAAQMD's construction BMPs, this impact during construction would be less than significant.

Long-Term Operation-Related Regional Criteria Air Pollutant and Precursor Emissions

Operational emissions were quantified using the CalEEMod (Version 2020.4.0) land use emission model. Emissions are based on a combination of project-specific information provided by the applicant and CalEEMod defaults. Emissions assume a 2025 operational year for the proposed uses. As summarized in Table 3 of Attachment C, the proposed project's operational emissions would not exceed BAAQMD significance thresholds. As such, this impact during operations would be less than significant.

Would the project expose sensitive receptors to substantial pollutant concentrations?

Criteria Air Pollutants and Precursors

The closest sensitive receptors (i.e., land uses/populations sensitive to air pollutants, including children, elderly, and those with preexisting serious health problems, including specific uses such as schools, health care facilities, residences, and recreational facilities) to the project site are the residential unit immediately adjacent to the proposed project's southern boundary, residences as close as 25 feet northwest of the project site, and Belvedere Park, which is approximately 35 feet southwest of the project site. The evaluation is based on the closest receptors because as the distance from the source of emissions increases, pollution concentrations substantially reduce; thus, if impacts are determined to be less than significant at the nearest receptors, impacts would be reduced at further distances.

As discussed above, project implementation would not result in emissions of criteria air pollutant or precursor emissions from construction or operation that exceed applicable BAAQMD thresholds of significance. Thus, project-generated criteria air pollutant and precursor emissions would not expose sensitive receptors to substantial pollutant concentrations. No significant impact would occur.

Toxic Air Contaminants

Diesel PM represents the primary toxic air contaminant (TAC) of concern for construction activities in the region (BAAQMD 2017a,b). The project would result in the short-term use of diesel-powered engines that would generate emissions (i.e., diesel PM) from the exhaust of off-road, heavy-duty diesel equipment during construction and application of architectural coatings, as well as on-road truck travel.

BAAQMD recommends an analysis of health risk and hazard impacts if sensitive receptors are within a 1,000-foot radius of a project site. Given the proximity of receptors, a quantitative health risk assessment (HRA) was performed and is included in Attachment C. As summarized in Table 5 of Attachment C, project construction would result in health risk below BAAQMD's cancer risk, chronic non-cancer hazard, and annual PM_{2.5} thresholds of significance at any receptor location. See Attachment C for a detailed description of this modeling. Additionally, as summarized in Table 6 of Attachment C, the cumulative impact of nearby emissions sources, which include permitted stationary sources, local roadways, local freeways, and rail lines, would be less than the BAAQMD's cumulative thresholds of significance. Thus, the cumulative health risk impacts from project construction would be less than significant.

Once operational, the project would not result in any new or additional sources of TACs in comparison to existing land uses. The project is residential in nature and would not result in any stationary sources or major sources of diesel truck traffic that are typically associated with substantial TAC-generating land uses. Emissions would be limited to passenger vehicle traffic and minor amounts of area sources, dispersed throughout the project area. Thus, project-generated TAC emissions would not be significant.

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

Project construction could expose existing nearby residents to odorous emissions from off-road equipment and the application of architectural coatings. However, such emissions would be short-term in nature and would dissipate rapidly with increasing distance from the source. Project operation would not involve any major odor sources. Thus, the project would not result in the exposure of odorous emissions adversely affecting a substantial number of people, and this impact would not be significant.

1.4.2 Biological Resources (CEQA Guidelines Section 15332(c))

Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

The project site is composed of developed urban habitat constructed on fill materials along the Belvedere Lagoon. FirstCarbon Solutions conducted a desktop review and field survey of the project site on November 5, 2021 and reviewed aerial photography to evaluate habitat on and near the project site for potential to support special-status plants and wildlife or other sensitive biological resources (Attachment D). No natural vegetation communities or native plant habitats are present in the project area, and the site does not provide suitable habitat conditions for any special-status species known to occur in the region. As discussed in the Biological Site Assessment prepared by FirstCarbon Solutions for the project and included in Attachment D, this conclusion is consistent with an evaluation of biological resources conducted by WRA for the area in 2008. The Belvedere Lagoon was found to be a low-quality habitat because the pumping station does not allow the safe passage of fish, and the Lagoon is regularly treated with dyes to control algae.

The land area is made up entirely of existing buildings, sidewalks, driveways, roadways, and landscaped ornamental vegetation. Trees were inventoried during the biological survey, and of the 48 trees on site, only four are native species (Coast live oak, *Quercus agrifolia*), and these do not represent a sensitive natural community type due to their location and spacing within an existing landscaped setting.

Special-status plant species known in the region were evaluated for potential to occur in the project area, and due to the fully developed nature and urban land use of the project site and adjacent areas, and use of herbicides in the Lagoon, no suitable habitat for sensitive or special-status plant species is present in the project area. Therefore, there would be no impact to special-status plants.

Special-status wildlife species assessed for potential to occur in the project area include Pallid bat (*Antrozous pallidus*), California red-legged frog (*Rana draytonii*), western pond turtle (*Emys marmorata*), and San Pablo Song Sparrow (*Melospiza melodia samuelis*). Potential for other nesting birds or roosting bats was also evaluated. The Belvedere Lagoon does not provide suitable habitat for freshwater aquatic species such as frogs or western pond turtle because it contains high salinity levels which can be toxic to frogs and pond turtles and does not contain viable upland habitat adjacent to the lagoon, which these species rely on for upland dispersal, breeding, and foraging. Sensitive bat species require hibernation and maternity roost areas that are relatively free from noise disturbance, and the well-maintained structures in the urban project area do not provide this type of habitat. Marsh habitat suitable for nesting by protected bird species such as San Pablo song sparrow does not exist along the Belvedere Lagoon due to the lack of dense emergent vegetation that they rely on for breeding, refugia, and foraging. Pumps on the Lagoon prohibit safe fish passage into the Lagoon from the San Francisco Bay so special-status fish species are not expected to occur in the project site. Therefore, there would be no impact on special-status fish or wildlife.

Although the project area does not provide suitable habitat for special-status bat or bird species, landscaped areas may provide suitable nesting habitat for common migratory or native resident bird species in trees, shrubs, and structures, and common bat species that are more tolerant of noise disturbance and presence of humans may roost in landscape trees in the project area. However, these species are not rare locally or in the region and the project would not have potential to cause a substantial loss of common bird nests or common bat roosts. The project would be implemented in accordance with laws regulating common bird nests. Therefore, potential impacts to common nesting birds and roosting bats would not be significant.

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

The project is located on the Belvedere Lagoon. No emergent wetland vegetation cover or upland riparian habitat suitable for riparian flora or fauna is present within the lagoon. Belvedere Lagoon does not provide riparian habitat because of the developed nature of the lagoon, heavy residential use, landscaping along the shore and lack of natural vegetation, and treatment of the lagoon with herbicides to control algal growth, which reduces viability of the aquatic habitat. Pumps on the lagoon do not allow for fish passage into the lagoon from the San Francisco Bay. No sensitive natural communities are present in the project area. Therefore, the project would not have a significant impact on any riparian habitat or other sensitive natural community.

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

The Belvedere Lagoon is considered a "lake" under the federal Clean Water Act and so is under the jurisdiction of the Army Corps of Engineers. It is also under the jurisdiction of the San Francisco Bay Area Regional Water Quality Control Board (RWQCB). The project does not propose to remove any part of the Lagoon, create a hydrological interruption, or take any other actions that would have a substantial adverse effect on the Lagoon. Docks proposed for maintenance, replacement, removal, or new construction, and repairs to the bulkheads would be required to obtain authorization from the RWQCB and may require permits or authorization from the Army Corps of Engineers or California Department of Fish & Game. RWQCB authorization would require compliance with the General Requirements for Construction and Maintenance of Overwater Structures (General Requirements). These specify discharge prohibitions (such as removal of creosote piles), discharge specifications (such as use of erosion and sediment best management practices), receiving water limitations, and other requirements, such as protection of eelgrass beds. Because of the use of herbicides in the Belvedere Lagoon, there are no eelgrass beds that would be affected by the docks. Compliance with standard regulatory requirements would ensure no impacts would occur to federally protected wetlands.

1.4.3 Greenhouse Gas Emissions (CEQA Guidelines Section 15332(d))

The Class 32 exemption does not specifically require that the greenhouse gas (GHG) emissions from the project be analyzed. However, because GHG emissions are considered an air pollutant by the Bay Area Air Quality Management District (BAAQMD), GHGs are considered an aspect of air quality.

Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

BAAQMD's CEQA Guidelines (2022) provide that a project consistent with a local GHG reduction strategy is considered not to have a significant impact. The City recently adopted its Climate Action Plan (CAP) in June 2022, which includes a range of strategy categories to guide the City's effort in reducing GHG emissions. The CAP lays out measures that will meet the 2030 target and put the City on a trajectory to meet the 2050 goal. The proposed project includes several design features that are consistent with strategies and actions from the CAP. Sustainability features would include drought tolerant landscaping, permeable pavers, energy-efficient appliances, increased insulation, low-flow fixtures, solar panels, and electric vehicle charging stations. Additionally, the project is consistent with the "Medium Density Multi-Family Residential" designation in the Belvedere General Plan and would promote infill development, which reduces vehicle trip lengths and promotes active forms of transportation. Therefore, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

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

As noted above, the proposed project would be consistent with the City's CAP and General Plan by incorporating sustainability measures and infill development. Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

1.4.4 Hydrology and Water Quality (CEQA Guidelines Section 15332(d))

Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality or conflict with or obstruct implementation of a water quality control plan?

The project site is greater than 1 acre in size and would therefore be required to comply with the California Construction General Permit Order 2022-0057-DWQ. This permit requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP) prior to construction which outlines best management practices (BMPs) that the project would implement in order to minimize impacts to water quality. The project would also comply with applicable City and County regulations such as the City of Belvedere urban runoff pollution prevention ordinance, grading and erosion control regulations including submission of an erosion control plan, and the Marin County Stormwater Pollution Prevention Program. In addition, the project would comply with the State Water Resources Control Board Phase II Stormwater National Pollutant Discharge Elimination System (NPDES) Permit for small MS4s. Provision E.12, "Post-Construction Stormwater Management Program," mandates municipalities to require specified features and facilities—to control pollutant sources, control runoff volumes, rates, and durations, and to treat runoff before discharge from the site—be included in development plans as conditions of issuing approvals and permits. The Bay Area Stormwater Management Agencies Association (BASMAA), through the BASMAA Phase II Committee, created the BASMAA Post-Construction Manual (BASMAA 2019) to assist applicants for development approvals to prepare submittals that demonstrate their project complies with the NPDES permit requirements. Pursuant to BASMAA Post-Construction Manual, this project is considered a "regulated" project and the applicant must submit a "Stormwater Control Plan" detailing the stormwater facilities that will be integrated into the planning, design, construction, operation, and maintenance for stormwater compliance. Compliance with existing regulations and implementation of on-site BMPs would require treatment of runoff before discharge from the site and ensure that there are no significant impacts to water quality.

Docks proposed for maintenance, replacement, removal, or new construction and repairs to the bulkheads would be required to obtain authorization from the RWQCB and may require permits or authorization from the Army Corps of Engineers or California Department of Fish & Game. RWQCB authorization would require compliance with the General Requirements for Construction and Maintenance of Overwater Structures (General Requirements). These specify discharge prohibitions (such as removal of creosote piles), discharge specifications (such as use of erosion and sediment best management practices), receiving water limitations, and other requirements, such as protection of eelgrass beds. Because of the use of herbicides in the Belvedere Lagoon, there are no eelgrass beds that would be affected by the docks or bulkhead repairs. Compliance with standard regulatory requirements would ensure no impacts to water quality would occur.

Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion, flooding, or polluted runoff?

The project site is built entirely on previously developed land, and no stream or river runs through the site. The project would include greenspaces and bioretention facilities and would decrease the amount of existing impervious area by 0.31 acres (Attachment J). Per the Stormwater Control Plan (Attachment J), the project would be designed to limit impervious surfaces to the extent practicable, integrate bioretention facilities and bioswales to treat runoff from the project site, and incorporate control measures in compliance with NPDES Permit for small MS4s, provision E.12, "Post-Construction Stormwater Management Program." The storm drain system would be redesigned to capture and convey the 10-year event through the project area and would reduce flooding at low points within Community Road (Attachment K). The project would also implement BMPs as required by the California Construction General Permit Order 2022-0057-DWQ, which would minimize the potential for substantial erosion, flooding, or water quality impacts. Because the existing runoff from the site is entirely uncontrolled and untreated, the project would be expected to improve the quality of runoff into the Lagoon.

1.4.5 Noise (CEQA Guidelines Section 15332(d))

Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

Temporary (Construction) Noise

Temporary increases in noise would occur during the construction period of the project and would cease when construction is complete. Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on each construction site and, therefore, would change the noise levels as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Based on published reference noise levels for typical construction equipment, noise levels for individual pieces can range from 55 dBA L_{max} to 85 dBA L_{max} , with driven and vibratory piles as high as 95 dBA L_{max} . The project will not use either driven or vibratory piles but only helical piles. According to FirstCarbon Solutions, the helical piles would have similar noise characteristics of Caisson drilling which is identified in the Noise Study. See Attachment L for a complete list of equipment and associated noise levels.

Based on a conservative assumption that three types of equipment (i.e., grader, loader, and tractor) would operate at the same time, construction noise levels could reach 88 dBA L_{max} and 86 dBA L_{eq} at the nearest sensitive receptor, a single-family home located 35 feet to the south and west of the project site.

These noise levels would result in a temporary increase in ambient noise levels in the project vicinity that could result in annoyance or sleep disturbance of nearby sensitive receptors if construction were to occur at night. The City's General Plan contains Policy N-1.3 to minimize noise due to construction impacts by enforcing the City's Municipal Code standards restricting construction to daytime hours between 8:00 a.m. and 5:00 p.m. on weekdays and prohibiting construction on weekends and holidays. The General Plan also requires that a noise control plan be reviewed as part of design review if pile driving or jack hammering is involved. The project application includes, and would also implement, a Construction Management Plan including noise control. Compliance with the City's permissible hours of construction and compliance with the noise control plan would ensure that temporary increases in noise levels would not result in disruptive noise, and associated adverse effects, to nearby receptors.

In addition to noise generated from the use of heavy-duty equipment, construction activities generate vehicle trips (e.g., worker commute, vendor delivery/hauling) that can increase noise on local roadways. Project construction could result in an increase of 71 daily trips. Regarding increases in noise, a doubling of the noise source is required to result in a perceptible (i.e., 3 dB) increase. Thus, the addition of 71 daily construction trips, when combined with an existing daily trip volume of 128 (Attachment L), would not double the existing traffic volumes; thus, would not result in a perceptible increase in noise. Further, it should be noted that when construction is complete, construction-related vehicular noise will also cease.

Permanent (Operational) Noise

Operational noise associated with land use projects can typically be described as either stationary or mobile. Stationary sources associated with land use projects could include mechanical building equipment (e.g., heating, ventilation, and air conditioning units [HVAC]) and mobile sources include traffic-generated roadway noise associated with increases in daily vehicle use.

Because the proposed project is replacing existing residential units with additional residential units, the project would not introduce new unique stationary sources, not already at the project site; thus, stationary noise would not be anticipated to increase over existing conditions.

Regarding increases in traffic, new residential units are directly associated with increases in daily vehicle use and the project would result in a net increase of 18 residential units. As shown in Table 2 of the transportation study prepared for the proposed project, project generated weekday daily trips would be 156 and weekend daily trips would be 173 (Attachment M). As described above, a doubling of a noise source (i.e., traffic volumes on a roadway) would need to occur in order for a perceptible (i.e., 3 dB) increase in noise to occur. Comparing project-generated trip volumes to the existing trip generation of the site, results in an increase in 28 weekday trips (22 percent increase) and 49 weekend trips (40 percent increase). As all new trips would be additive to existing volumes on nearby roads and considering that the incremental increases due to the project do not result in a doubling of trips generated by the project, combined with the fact that all trips would be distributed over more than one road/direction, increases in ADT from the project would not result in a perceptible increase in noise on nearby roadway segments.

Summary

Compliance with the City's permissible hours of construction and compliance with the approved noise control plan would ensure that temporary increases in noise levels would not result in disruptive noise, and associated adverse effects, to nearby receptors. Operational traffic noise would not result in a perceptible increase (i.e., 3 dB) in noise. Thus, project-generated temporary and long term increases in noise would not exceed applicable City standards or result in adverse effects to nearby receptors. This impact would be less than significant.

Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Vibration can result in structural damage to fragile buildings or disturbance to people in places where people sleep or where sensitive interior operations are occurring (e.g., laboratory). Project operation would not result in new vibration

sources; thus, this impact addresses construction-related vibration only. Regarding construction vibration, different equipment results in varying levels of vibration, with the greatest vibration levels occurring from the use of pile drivers. The project does not include use of driven piles and instead would use helical piles which produce significantly less vibration. According to First Carbon Solutions, the helical drill piles would produce similar groundborne vibration levels as Caisson drilling and would be less than use of vibratory rollers. Refer to Table 3 of Attachment L for a complete list of typical equipment and associated vibration levels.

The nearest off-site structure to the proposed project construction footprint is the residence to the south of the project boundary perimeter, approximately 20 feet from the nearest construction footprint where the heaviest construction equipment would potentially operate, assumed to be a vibratory roller. At this distance, groundborne vibration levels would range up to 0.14 peak-particle velocity in inches/second (in/sec PPV, unit of measurement used to evaluate vibration through the ground/structures), below the Federal Transit Administration's (FTA) Construction Vibration Impact Criteria of 0.2 in/sec PPV for this type of structure. As discussed above, construction would not occur during the sensitive hours of the night; thus, vibration would not result in sleep disturbance to nearby receptors. Project construction activities would not generate groundborne vibration or groundborne noise levels in excess of established standards and impacts to off-site receptors would be less than significant.

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?

Nearby airports include San Rafael and Oakland International, located 20 miles and 35 miles away, respectively. The project would not result in exposure of people to noise levels generated by airports. Therefore, no impact would occur.

1.4.6 Public Services (CEQA Guidelines Section 15332(e))

Would the project be adequately served by all required public services?

Fire and Police Protection

The Tiburon Fire District provides fire protection services to the city of Belvedere, the town of Tiburon, and the surrounding unincorporated area. There are two fire stations in the service area including Station 11 which is also the administrative headquarters located at 1679 Tiburon Boulevard and Station 10 located at 4302 Paradise Drive. The closest station to the project site is Station 11 located approximately 0.7 mile east of the project site. The Tiburon Fire District is a combination department with 21 career safety employees, one clerical and one finance officer, 13 volunteer firefighters, and 6 trainee firefighters. The Fire District's boundaries represent a diverse community with responsibility for commercial, residential, wildland/urban interface, and parts of the San Francisco Bay to Angel Island State Park (Tiburon Fire Protection District 2022). District apparatus by station is shown below in Table 1.

Table 1. District Apparatus by Station

Station 10	Station 11	Waterfront	Angel Island
<ul style="list-style-type: none"> ▶ 1 type 1 engine ▶ 1 ambulance ▶ 1 4x4 utility pick-up truck 	<ul style="list-style-type: none"> ▶ 1 type 1 engine ▶ 1 type 1 reserve engine ▶ 2 type 3 engines ▶ 1 medium duty rescue unit ▶ 1 Battalion Chief command vehicle ▶ 2 prevention vehicles 	<ul style="list-style-type: none"> ▶ 1 type 2 fireboat 	<ul style="list-style-type: none"> ▶ Patient transport utility vehicle

	<ul style="list-style-type: none"> ▶ 1 Chief's SUV ▶ 1 utility 4x4 pick-up truck ▶ 1 staff car 		
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Source: Tiburon Fire Protection District 2021

The Tiburon Fire District responded to a total of 1,827 calls in the 2020-2021 fiscal year with 71 percent (or 1,294 calls) related to rescue/EMS incidents. Fourteen percent (or 261 calls) were for service calls and 8 percent (or 142 calls) for false alarms (Tiburon Fire Protection District 2021). The average response times for the Tiburon Fire District are shown in Table 2. The Tiburon Fire District's objective is to respond to 90 percent of calls within eight minutes; 79 percent of 2020-2021 in-district calls were under 8 minutes; 66 percent were under seven minutes (Tiburon Fire Protection District 2021).

Table 2. Tiburon Fire Protection District Average Incident Response Time

Incident Type	Average Response Time in Minutes
Fire	5:26
Rescue/EMS	6:18
Overpressure/rupture	6:22
Hazardous Condition	6:36
Good Intent	6:51
False Alarm	6:58
Service Call	7:10

Source: Tiburon Fire Protection District 2021

The Belvedere Police Department is responsible for providing police protection within the City of Belvedere. The primary function of the police department is deterring crime, stopping crimes in progress, investigating crimes, and serving as first responders for emergencies and situations that threaten public safety. The Belvedere Police Department is located immediately across Community Road within approximately 450 feet of the project site at 450 San Rafael Avenue. The police department employs seven full time sworn officers.

Operation of the project would lead to a minor increased demand for fire and police protection services by increasing the number of residential units on the site as well as the permanent population. The project would construct 40 new residential units including six single-family units, five duplex buildings, one accessory dwelling unit, and a 23-unit apartment building and approximately 51 new residents³ on the project site. However, given the City's estimated population of approximately 2,080 (California Department of Finance 2022), the project would represent an approximate increase of two percent. Therefore, existing fire and police protection services are adequate to serve the project, and no new or expanded facilities would be required.

Schools, Parks, and Other Public Facilities

The Reed Union School District and Tamalpais Union High School District provide public education for the project site. Reed Union School District operates two elementary schools and one middle school which feed into Tamalpais Union High School District which operates one high school serving the project site including (City of Belvedere 2022a):

- ▶ Reed Elementary School (serving grades pre-kindergarten through second grade)
- ▶ Bel Aire Elementary School (serving grades three through five)

³ The estimated total number of residents is based on the Marin County Sanitation District No. 5 code 5.20.010 Sewer Design Criteria. The code assumes that the average single-family unit is 2.5 persons per residence (the code does not provide an assumption for multi-family units). For additional dwelling units (ADU), an assumption of 1 person per unit was applied.

- ▶ Del March Middle School (serving grades six through eight)
- ▶ Redwood High School (serving grades nine through twelve)

Table 3 displays enrollment by school provided by the California Department of Education for the 2022-2023 academic year.

Table 3. Enrollment by School

School	Grade Level	Enrollment
Reed Elementary School	Pre-Kindergarten – Second Grade	335
Bel Aire Elementary School	Third Grade – Fifth Grade	303
Del March Middle School	Sixth Grade – Eighth Grade	385
Redwood High School	Ninth Grade – Twelfth Grade	1,862

Source: Data Quest 2023a-d

Implementation of the project would involve demolition of the existing 22 residential units and construction of 40 new residential units including six single-family units, five duplex buildings, one accessory dwelling unit, and a 23-unit apartment building resulting in an increase in 18 new residential units on the project site. The ADU is proposed as a one-bedroom unit to be located above the attached garage of one of the single-family homes. Using the Reed Union School District's current student generation factor for detached and attached housing units to evaluate student population, the project would generate approximately 7 new students as outlined in Table 4. For residential developments within the Reed Union School District, no development fees would be required for the Tamalpais Union High School District as the elementary school students would feed into the high school district (O'Leary, pers. comm., 2022). Because the project would represent approximately a one percent increase in current elementary school enrollment, the project is not expected to result in an additional strain on school services that new or expanded facilities would be required. State law provides that payment of school fees mitigates the impacts of increased enrollment.

Table 4. Student Generation for the Project

Housing Type	Number of Existing Units On Site	Total Number of Units Proposed	Number of Additional New Units Proposed On Site	Student Generation Factor	Total Number of New Students Generated
Single-family attached and detached	22	40	18	0.364	7

Source: Woodard, pers. comm., 2023

As described in the city's General Plan Parks, Recreation, and Open Space Element (City of Belvedere 2010), existing open spaces in the City include water-related areas, parks, lanes, paths, and view areas. Exhibit 6 of the city's General Plan shows the location of parks, recreation, and open space within the city. The public park closest to the project is Belvedere Community Park located immediately across Community Road within approximately 450 feet of the project site adjacent to the police station. Other recreation and open space areas in the city include properties that contain public or private recreational use, including a beach, park, playground, boardwalk, esplanade, open walk, path, pier, wharf, or other facility for boats including (City of Belvedere 2010):

- ▶ Beaches and tidelots, including parts of Belvedere Cove
- ▶ The China Cabin
- ▶ Tom Price Park, a 1-acre park between Lagoon Road and Tiburon Boulevard
- ▶ Land Company Park, an 8,600-square-foot park in the traffic island at the intersection of Beach Road and San Rafael Avenue
- ▶ Centennial Park, a 5,265-square-foot public space along lower Hawthorne Lane
- ▶ Oak Mini-Park, a 1,162-square-foot public space at Oak Avenue and Buckeye Road
- ▶ Belvedere Way Mini-Park at the intersection of Belvedere Way and Belvedere Avenue
- ▶ Corinthian Island overlook at the southeast end of Corinthian Island
- ▶ Golden Gate Avenue cul-de-sac at the southeast end of Golden Gate Avenue
- ▶ Cliff and hillside areas above West Shore Road

Water-related open space areas include:

- ▶ The navigable open water areas within the City limits (both publicly and privately-owned)
- ▶ Cove Beach, the area along Beach Road between the China Cabin and the Tiburon town limit
- ▶ Parts of Belvedere Cove towards the tip of Belvedere Island
- ▶ The edge of Richardson Bay along San Rafael Avenue (Seawall)

Operation of the project would lead to an increased demand for public services including nearby park facilities by increasing the number of residential units on the site as well as the permanent population. The project would construct 40 new residential units including six single-family units, five duplex buildings, one accessory dwelling unit, and a 23-unit apartment building and approximately 51 new residents on the project site. However, given that the City's estimated population of approximately 2,080 (California Department of Finance 2022), the project would represent an approximate increase of two percent. Thus, any increased use of nearby park facilities as result of implementation of the project it is not anticipated to result in significant impacts to recreational facilities requiring the construction of new facilities. Additionally, all single-family and duplexes would comply with the R-2 zone open space requirement of 450 square feet per unit of private open space. The apartment building would provide 2,868 square

feet of private open space; however, is required to provide 10,350 square feet equating to a deficit of 7,482 square feet. As described above in Sections 1.2.4 and 1.4.8, as part of the State Density Bonus Law, the project is seeking a waiver for usable open space for the deficit. Nonetheless, because private open space does not substitute for the opportunities provided by the City's recreational facilities, the project is not expected to result in a need for new or expanded park and recreation facilities.

1.4.7 Transportation

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

As detailed in Section 1.2, "Project Description," the project would include the construction of pedestrian enhancements including wider sidewalks, new sidewalks, traffic calming features on Community Road, and crosswalks to further improve the connection from Mallard Pointe and the neighboring properties to Community Park. Additionally, the project would provide 114 on-site bicycle parking stalls and the surrounding bicycle network would remain unchanged with implementation of the project.

The project would close existing sidewalk gaps and provide on-site bicycle parking, thus improving the pedestrian network, increasing pedestrian safety, enhancing pedestrian access to local transit stops, and supporting and facilitating the use of bicycles for non-recreational uses. Therefore, the project would not conflict with any goal or policy in the Transportation and Circulation Element of the City of Belvedere General Plan.

Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?

State CEQA Guidelines Section 15064.3 was added on December 28, 2018, to address the determination of significance for transportation impacts. It requires that vehicle miles traveled (VMT) be used as the basis of transportation analysis instead of measures of traffic congestion (such as Level of Service). The change in the focus of transportation analysis is intended to shift the focus from congestion to reduction in greenhouse gas emissions, encouraging mixed-use and infill development, and other factors. State CEQA Guidelines Section 15064.3(b) identifies criteria for analyzing the transportation impacts of a project.

Section 15064.3(b)(1) addresses land use projects. The proposed project consists of the development of 40 residential units; thus, is considered a land use project. Section 15064.3(b)(1) provides that projects within one-half mile of either a "major" or "high quality" transit should be presumed to cause a less than significant transportation impact. As defined in PRC Section 21064.3, a "major transit stop" means a site containing an existing rail 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. PRC Section 21155(b) defines a "high-quality" transit corridor as a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours. Additionally, Section 15064.3(b)(1) also states that projects resulting in a decreased VMT in the project area as compared to existing conditions should also be presumed to have a less than significant effect.

A bus stop is located approximately one quarter mile from the project site; however, the headways of the transit service serving this stop have service intervals of longer than 15 minutes during peak commute hours and two major routes do not intersect there; thus, it is not a major transit stop or high-quality transit. Additionally, as shown in Figure 4, the Tiburon Ferry Terminal to the east of the project site is located more than one-half mile from the project site. Thus, the project is not close enough to a major transit stop or high-quality transit to qualify for Section 15064(b)(1)'s "less than significant VMT impact" presumption.



Sources: adapted by Ascent Environmental in 2023

Figure 4 Project Aerial Buffer

Section 15064.3(b)(4), "Methodology," explains that lead agencies, such as the City of Belvedere, have discretion to choose the most appropriate methodology to evaluate VMT subject to other applicable standards such as State CEQA Guidelines Section 15151 (standards of adequacy for EIR analyses). The VMT analysis here relies on the guidance provided in CEQA Guidelines Section 15064.3 and the OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory)* (OPR 2018).

The OPR Technical Advisory provides advice and recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. As detailed in the OPR Technical Advisory, a proposed residential project that is not at least 15 percent below existing VMT per capita may indicate a significant transportation impact. Therefore, for the purposes of this analysis a significant impact to VMT would occur if the proposed project generates VMT that is not at least 15 percent below existing VMT per capita. Additionally, the OPR Technical Advisory states that the existing VMT per capita may be measured as regional VMT per capita or as city VMT per capita.

The Mallard Pointe Transportation Study memo completed by Parisi Transportation Consulting (Attachment M) and peer-reviewed by Ascent, used the TAM Travel Demand Model to estimate VMT for the project based on existing and cumulative year VMT of the traffic analysis zone (TAZ) in which it is located (i.e., 19.0 and 11.3 VMT per resident, respectively). Under this approach, if existing city VMT per capita is used as the standard, the project would generate VMT more than 15 percent below the existing City of Belvedere VMT per resident (i.e., 24.9), representing a reduction of approximately 24 percent. Additionally, in the cumulative scenario (year 2040) the project would generate VMT more than 15 percent below the City of Belvedere VMT per resident (i.e., 17.2), representing a reduction of approximately 34 percent. However, the density and housing types being proposed (i.e., six single-family units, five duplex buildings, one accessory dwelling unit, and a 23-unit apartment building) differ considerably from the majority of the existing housing within the TAZ (i.e., single family detached); thus, their VMT generation characteristics could also differ. Therefore, it should be noted that a more refined analysis of the project-generated VMT could demonstrate even lower VMT per capita.

However, if County VMT is used as the standard, the project-generated VMT of 19.0 VMT per resident would not be 15 percent below the existing Marin County (regional) VMT per resident (i.e., of 15.8 VMT per resident) and in fact would exceed County VMT per resident. Therefore, depending on which baseline VMT per resident (i.e., city or county) the project generated VMT is compared to, the significance conclusion would differ. The City is currently using City VMT per capita to evaluate the environmental impacts of the Housing Element. Applying the same standard to Mallard Pointe, the project would generate VMT more than 15 percent below the existing City of Belvedere VMT per resident and therefore would not be considered to have a significant VMT impact.

The City elected to use City of Belvedere VMT as the standard in reviewing the Housing Element because of the City's remote geographic location on a peninsula away from the main County center and transit network connections (with limited ferry and bus service) and the City's predominantly residential character, compared to the rest of the County of Marin. Employment centers, schools, retail, and other services are limited or non-existent within the City limits, resulting in longer average home-based trip distances originating in Belvedere. Hence, the lengthy distances to the usual destinations from residences results in longer trips that are not typical of average County of Marin travel patterns. Measuring project VMT against the City of Belvedere VMT results in the most appropriate approach consistent with OPR guidelines.

Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

There are no sharp curves or dangerous intersections in the vicinity of the project. To the extent that construction vehicles may be considered "incompatible uses," the project is required to comply with the City of Belvedere *Construction Project Regulations* and *Contractor Guidelines* (City of Belvedere 2023a, b). These documents provide that, as a condition of most building permits, a Staging, Parking and Material Delivery Plan must be submitted to, and approved by the Police Chief or Public Works Manager. Additionally, the Contractor Guidelines include the

requirement that encroachment permits be obtained when working on City property or the City right of way, as well as employing the use of oversize vehicles, placement of debris boxes or parking of equipment on City streets. Finally, the Contractor Guidelines state that a minimum of 10 feet of paved way must be left clear and unobstructed for free passage of other vehicles.

In addition to the requirements described above, and as detailed in the Transportation Study, the applicant has completed and submitted a Construction Management Plan (CMP) to the City of Belvedere for review. The Transportation Study notes that the CMP includes proposed traffic control measures that will be implemented during construction and states that construction should be performed to not restrict emergency access. Moreover, the Transportation Study acknowledges that the roadway design has been reviewed and approved by the Tiburon Fire Protection District. Therefore, the project would not result in a substantial increase in transportation hazards during construction.

Mallard Road would provide primary access to, and internal circulation within the project site. As detailed in Section 1.2, "Project Description," because the current width of Mallard Road does not comply with Fire Department requirements, it would be reconfigured and moved to accommodate the proposed site plan as well as widened to conform with City standards and provide emergency vehicle access. As detailed in the Transportation Study, Mallard Road is shown on the proposed project plans as being 20 feet wide.

Further, all new roadway and pedestrian infrastructure improvements associated with the project would be subject to, and designed in accordance with, City design and safety standards. Therefore, the project would not increase transportation hazards.

Would the project result in inadequate emergency access?

As detailed above, the project is required to comply with the City of Belvedere *Construction Project Regulations* and *Contractor Guidelines* (City of Belvedere 2023a, b) which require that as a condition of most building permits, a Staging, Parking and Material Delivery Plan must be submitted to, and approved by the Police Chief or Public Works Manager. The *Contractor Guidelines* (City of Belvedere 2023b) require that a minimum of 10 feet of paved way must be left clear and unobstructed for free passage of other vehicles.

In addition to the requirements described above, and as detailed in the Transportation Study, the applicant has completed and submitted a Construction Management Plan (CMP) to the City of Belvedere for review. The applicant's Transportation Study notes that the CMP includes proposed traffic control measures that will be implemented during construction and states that construction should be performed to not restrict emergency access. Traffic control measures would include, but not limited to, flag persons will be used for traffic control on the public streets anytime traffic is slowed, stopped, or re-directed. No work will be undertaken on public right of way without the required Encroachment Permit, and no street closures or significant traffic disruption will be done without at least 24 hours prior notice to affected neighbors. Therefore, adequate emergency access will be provided during project construction.

Mallard Road would provide primary access to, and internal circulation within the project site. As detailed in Section 1.2, "Project Description," because the current width of Mallard Road does not comply with Fire Department requirements, it would be reconfigured and moved to accommodate the proposed site plan as well as widened to conform with City standards and provide emergency vehicle access. As detailed in the Transportation Study, Mallard Road is shown on the proposed project plans as being 20 feet wide. This meets the emergency vehicle minimum horizontal clearance requirement of 20 feet for roadways. Additionally, the Transportation Study notes that the primary site driveway is currently designed to be 18 feet wide, which exceeds the minimum width for a driveway in this location.

Further, emergency access to the project site would be subject to review by the City and the responsible emergency service agencies (e.g., Tiburon Fire Protection District). As noted in the Transportation Study, the Tiburon Fire

Protection District has reviewed and approved the roadway and driveway designs. Therefore, adequate emergency access would be provided during project operation.

1.4.8 Utilities and Service Systems (CEQA Guidelines Section 15332(e))

Would the project be adequately served by all required utilities?

Water Supply

The project site is currently connected to the City's existing water conveyance infrastructure and receives water supplies from Marin Municipal Water District (MMWD). Per the Utility Design Memo prepared for the project and included as Attachment N, the existing water utilities are owned and operated by MMWD and are located within Mallard Road. The water system is fed by a 6-inch water main along Community Road and the existing water mains within the project site are 4-inch cast iron pipe with sections of 4" asbestos cement pipe. Each apartment unit has its own separate 5/8" water meter.

With construction of the project, water utilities would be designed per MMWD standard specifications and details. The preliminary sizing of each meter would be per the 2019 California Plumbing Codes, Section 610.8 with final sizing to be determined by MMWD. The project proposes to reduce the number of buildings and water services in the project site from 22 to 18 (16 single family residences/duplexes plus one apartment building plus one ADU). The existing 22 building meters are 5/8-inch in size with an approximate total cross-sectional area of 6.8 square inches. Per the Utility Design Memo (Attachment N), the new 16 single family residences/duplex plus one ADU meters would be sized to 5/8-inch, while the apartment building would be sized to 1.5-inches, for a proposed total cross-sectional area of 6.7 square inches. Table 5 below shows a comparison of existing and proposed water service. With this reduction in cross-sectional area for water meters, it is expected that the existing water system would have capacity to service the project.

Table 5. Comparison of Existing and Proposed Water Service

	Units	Service Size (inches)	Total Cross Sectional Area (square inches)
Existing Condition	22	5/8	6.8
Proposed Project (16 single family residence/duplexes + 1 ADU + 1 apartment building)	17	5/8	6.7
	1	1.5	

Source: Attachment N

Wastewater Infrastructure

The existing wastewater infrastructure in the project site is a private system that discharges to the public sewer owned and maintained by Sanitary District No. 5 on Community Road. Each apartment has its own sewer lateral that connects to the private main in Mallard Road.

Per the Utility Design Memo (Attachment N), with construction of the project, wastewater infrastructure would be designed per the Marin County Sanitary District No.5 Code Title 5 Standard Specifications Chapter 5.20 Design Standards. The project proposes to build six single-family units, five duplex buildings, one accessory dwelling unit, and a 23-unit apartment building. There would be 17 dwelling units combined from the single-family units and duplexes (including the one ADU). The proposed apartment building would contribute an additional 23 dwelling units, totaling 40 dwelling units all together. A factor of 400 gallons per day will be applied to the 40 dwelling units,

which results in a total design flow of 0.02 CFS (10.8 GPM). Per the Sanitation District No.5 Standards, for areas less than 2,000 people, the unit design flow shall be 400 gallons per capita per day. The

sewer lines will be sized to a minimum of 6-inches. The District has confirmed that the existing wastewater system would have capacity to serve the project.

Solid Waste

Mill Valley Refuse Service is the approved solid waste and recyclable material and organic waste hauler for the city. The project would cause a temporary increase in the generation of solid waste as a result of construction and demolition activities. Compliance with 2019 California Building Code requirements would result in a reduction in the overall level of construction waste and demolition debris. Recyclable materials, including concrete, metals, wood, and various other recyclable materials, would be diverted to recycling facilities. Senate Bill 1383 became effective January 1, 2022 and is being implemented in the City of Belvedere under the Organics Reduction & Recycling Ordinance that is currently in effect. The ordinance requires residents (including Single family and Multi-family residents) and businesses to recycle their organic waste – all food scraps, food-soiled paper products, and yard waste (City of Belvedere 2022b).

The majority of landfilled waste would be delivered to the Redwood Landfill in Novato, California which is a 420-acre site of which 222.5 acres are dedicated to waste disposal. The remaining land supports composting, recycling, and reuse services and facilities operations. The Redwood Landfill is a Class III disposal facility for non-hazardous materials and accepts yard waste and residential food composting; metals and appliances recycling construction and demolition debris recycling, reuse, and disposal; and municipal solid waste. It is permitted to accept 2,310 tons of material per day (totaling 843,150 tons per year) (Waste Management 2022). Operation of the project would add an additional 18 new dwelling units combined from the single-family units, duplexes, apartment, and the one ADU) and approximately 51 new residents. Based on model outputs from the Air Quality and Greenhouse Gas Emissions Analysis (Attachment C), the project would generate approximately 26 tons of solid waste per year. This would be an increase of approximately of approximately 16 tons per year as compared to the existing uses, comprising approximately 0.002 percent of the site's yearly allocation. This would not result in a significant increase over existing solid waste generation and disposal within the region. In addition, compliance with state and local regulations would continue to reduce landfill contributions. Therefore, no significant impact on solid waste generation would occur, and the expansion of existing or construction of new solid waste facilities would not be necessary.

Gas and Electricity

The existing residential units at the project site currently receive natural gas and electricity supplies from Pacific Gas & Electric (PG&E). Existing distribution lines within adjacent roadway rights-of-way would not be modified as a result of project implementation, but the connections from the project site to the existing lines may be replaced/updated. As the sizing of utility distribution lines is based on land use designations and zoning and because the project would be consistent with existing land use and zoning for the site, the natural gas and electricity lines providing service to the project site are projected to have adequate capacity to service the site. Further, although the project would involve construction of 40 new residential units including six single-family units, five duplex buildings, one accessory dwelling unit, and a 23-unit apartment building and approximately 51 new residents on the project site, it would modernize structures onsite to be more energy efficient through conformance and compliance with LEED standards and CBC Title 24 Energy Code requirements. As a result, demand for energy supplies and natural gas and electricity service at the site are not anticipated to result in significant impacts and no new infrastructure would be required to adequately serve the project.

1.5 UNUSUAL CIRCUMSTANCES APPLICABLE TO THE PROJECT

A categorical exemption, such as the infill exemption, may not be used if there is a reasonable possibility that the project will have a significant effect on the environment due to "unusual circumstances." (Guidelines Section 15300.2(c).) Under *Berkeley Hillside Preservation v. City of Berkeley* (2015) 60 Cal.4th 1086, 1104-1107, the categorical exemption will not apply if:

1. The project presents unusual circumstances; and there is a fair argument that, because of the unusual circumstances, the project may have a significant environmental impact. The environmental impacts may be considered only if some project circumstance is unusual; or
2. There is substantial evidence that the project *will* have a significant environmental impact.

The City's determination will be upheld regarding these issues if the City has substantial evidence to support its findings.

The City has received correspondence stating that the project presents unusual circumstances because: (a) it is constructed on dredged, filled, and flooded marshland; (b) the project will require driven or cased piles; (c) the project is within a FEMA-designated Special Flood Hazard Area; and (d) the proposed apartment is five times as long as it is wide without architectural features to accommodate large differential settlements.

Construction on dredged, filled, and flooded marshland. The map prepared by the California Geological Survey entitled, *Geology of Ring Mountain and Tiburon Peninsula, Marin County, California* (David A. Bero, 2014) shows that the entire Belvedere Lagoon neighborhood, areas adjacent to San Rafael Avenue, and downtown Tiburon are all constructed on artificial fill, deposited on dredged, filled, and flooded marshland. Most residences in the Belvedere Lagoon have docks. The existing apartments in the City are all constructed on artificial fill. Construction on dredged, filled, and flooded marshland is not unusual in Belvedere.

Required use of driven or cased piles. The project's geotechnical report (Attachment G) states that driven piles and drilled piers are not recommended due to excessive noise and vibrations; helical piers, which create the least amount of noise and vibration, are likely the most feasible and cost-effective option for deep foundation support where required. Because of the presence of artificial fill, according to City staff, development in the Belvedere Lagoon neighborhood has frequently required the use of piles, and this construction technique is not unusual.

Location within a FEMA-designated flood area. Most of the residences located on the Belvedere Lagoon are also located within a Special Flood Hazard Area as shown on FEMA's Flood Maps. The site's location within a FEMA-designated Special Flood Hazard Area is not unusual in Belvedere. In addition, location in a flood hazard area is considered an impact of the environment on the project, which is not an environmental impact under CEQA. (*Calif. Bldg. Industry Ass'n v. Bay Area Air Quality Mgmt. Dist.* (2015) 62 Cal.4th 369.)

Apartment house configuration. The City does not have comparable data on the dimensions of other apartment houses and other large buildings constructed on fill in Belvedere and downtown Tiburon to determine if the dimensions of the apartment house are unusual. Even assuming that the dimensions of the apartment house are unusual, the effect of the fill and Bay mud on the apartment house is an impact of the environment on the project and is not an environmental impact under CEQA.

Because none of these project characteristics are "unusual," the project will qualify for the infill exemption unless there is substantial evidence that the project *will* have a significant environmental impact. The City has received correspondence stating that the geology of the site will result in significant environmental impacts. The section below examines whether there is substantial evidence that the project *will* result in significant geologic impacts.

Geology and Soils

Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)

As discussed in the Preliminary Geotechnical Investigation prepared by Miller Pacific Engineering group, included in this memorandum as Attachment G, under the Alquist-Priolo Earthquake Fault Zoning Act, the California Geological Survey produced 1:24,000 scale maps showing the locations of both active and potentially active faults, and defined zones within which special fault studies are required. The nearest known active fault to the project site is the San Andreas Fault which is located approximately 13.3 kilometers to the southwest of the project site. Since the project site is not located within an Alquist-Priolo Special Studies Zone, the probability that a fault surface rupture would occur in the development area is low (Attachment G). It is therefore unlikely that the project would cause potential substantial adverse effects due to earthquake fault rupture.

The geologic map entitled, *Geology of Ring Mountain and the Tiburon Peninsula*, shows a concealed fault, whose precise location is unknown near the project site, running under Richardson Bay and extending through the Belvedere Lagoon. However, there is no evidence that this fault is active. Therefore, impacts would be less than significant.

Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

As discussed in Attachment G, the project site would likely experience seismic ground shaking similar to other areas in the seismically active Bay Area. The intensity of ground shaking would depend on the characteristics of the causative fault, distance from the fault, the earthquake magnitude and duration, and site-specific geologic conditions. Structural failure and collapse of structures or non-structural building elements (such as light fixtures, shelves, cornices, etc.) can occur, presenting a hazard to building occupants and contents. The active faults that could most significantly affect the project site along with their maximum credible magnitude, closest distance to the center of the planning area, probable peak ground accelerations, and 84th percentile peak ground accelerations are summarized in Attachment G. To address these risks, structures would be designed in accordance with the provisions of the 2022 California Building Code, Belvedere General Plan, and City of Belvedere Building Code and in accordance with engineering recommendations in Attachment G. Incorporating these criteria into building designs would ensure that structures are able to withstand strong seismic ground shaking, greatly reducing the possibility of structural failure and building collapse. Therefore, impacts would be less than significant.

Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

As described in Attachment G, liquefaction refers to the sudden, temporary loss of soil shear strength during strong ground shaking. Liquefaction-related phenomena include liquefaction-induced settlement, flow failure, and lateral spreading. These phenomena can occur where there are saturated, loose, granular deposits. For the project, saturated granular layers were observed during field visits to the project site conducted by Miller Pacific Engineering Group. Additionally, the site is mapped by the Association of Bay Area Governments (ABAG) as being very highly susceptible to liquefaction. The Miller Pacific Engineering Group also performed a series of geotechnical tests confirming that several liquefiable layers of various thicknesses underlie the site at various depths between 30 and 50-feet below the ground surface (Attachment G). Risks from liquefaction can include building settling, cracked building foundations, slope erosion, retaining wall failure, damage to pile foundations, and damage to utilities.

To address these risks, the project would implement the recommendations of the Preliminary Geotechnical Investigation included in Attachment G. This would involve project design features to comply with building codes and address common and typical concerns. Shallow foundation systems will be designed to withstand up to 1.5-inches of total and 0.75-inches of liquefaction induced differential settlement over 30-feet. Deeper foundation systems, including the use of helical piles, would be required in areas where Bay Mud underlies the site by more than 30 to 40 feet, generally in the northwesterly part of the site where single-family homes and duplexes are proposed. Foundation systems in these areas would typically need to exceed about 10 to 30 feet below the Bay Mud layer. Any deep foundations would be designed to account for localized layers of reduced skin friction for seismic conditions. Flexible utility conduits and connections would also be used to reduce the likelihood of damage due to differential post-liquefaction settlements. Impacts would be less than significant.

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

Landslides are several forms of mass wasting that may include a wide range of ground movements, such as rockfalls, deep-seated slope failures, mudflows, and debris flows. Landslides generally occur on relatively steep slopes and/or on slopes underlain by weak materials. Because the project site lies on nearly level terrain, landslides are not considered a significant geologic hazard (Attachment G). Therefore, no impact would occur.

Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving result in substantial soil erosion or the loss of topsoil?

Sandy soils on moderately steep slopes or clayey soils on steep slopes are susceptible to erosion or topsoil loss when exposed to concentrated surface water flow. The potential for erosion or topsoil loss is increased when established vegetation is disturbed or removed during normal construction activity. When these phenomena occur, soil nutrients can become contaminated or depleted, and increased pollution and sedimentation can find its way into nearby water bodies. Furthermore, lands degraded by soil erosion are often less able to hold onto water, which can worsen flooding.

To control the effects of erosion and/or topsoil loss at the project site, careful attention would be paid to finished grades and the project civil engineer would design the site drainage system to collect surface water into a storm drain system that discharges water at appropriate locations (see Attachments J and K for the stormwater control plan and preliminary drainage strategy). Vegetation would also be reestablished on disturbed areas to minimize erosion. In addition, and as discussed above, erosion control measures during and after construction would be carried out in accordance with a prepared Storm Water Pollution Prevention Plan and would conform to the most recent version of the California Stormwater Quality Association, Stormwater Best Management Practice Handbook. Therefore, impacts would be less than significant.

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

As discussed in Attachment G, the project area is relatively flat and currently developed with existing residential structures and asphalt drive areas. The site is located over a relatively thick (from 10-to 70-foot deep) deposit of bay mud, a substance that can experience significant settlement when loads (fill or structures) are placed at points along its surface. Because the site was filled long ago (about 70 years ago), the bay mud has completed most of its primary consolidation settlement under the loads from the existing fill and structures in areas where bay mud thickness is less than 30 feet, generally the area proposed for the apartment house and the southerly portion of the site. In those portions of the site, 0 inches to 0.2 inches of additional settlement is expected from the existing fill. In the northerly part of the site underlain by more than 30 feet of Bay mud, the existing fill may result in 0.4 – 8.5 inches of additional

settlement, depending on the depth of the Bay mud. Smaller secondary compression settlements (up to several inches) are also still occurring across the entire site area. , Consequently, the project would implement the common and typical project design features recommended in the Preliminary Geotechnical Investigation included in Attachment G to minimize all future settlement. These include achieving required finish floor elevations without additional fill and use of lightweight materials, flexible utility connections and emergency shut-off valves. Shallow foundations may be used in areas underlain by less than 30 feet of Bay mud, and deep foundations using piles may be used in other areas. Neither driven piles nor traditional drilled piers are recommended, with helical piers the most feasible and cost-effective. With implementation of the recommendations included in Attachment G, impacts would be less than significant.

Would the project directly or indirectly cause potential substantial adverse effects, involving being located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

Soil expansion occurs when clay particles interact with water causing seasonal volume changes in the soil matrix. The clay soil swells when saturated and then contracts when dried. These volume changes may damage lightly loaded foundations, concrete slabs, pavements, retaining walls and other improvements. Because the project site is located on a previously developed surface, substantial effects from soil expansion are not anticipated. Any loose sandy surficial soil would be compacted as part of the site grading and building foundations would be properly designed to improve performance of structures over potentially expansive soils (Attachment G). Therefore, impacts would be less than significant.

Would the project directly or indirectly cause potential substantial adverse effects, involving 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?

As the project site is located in a developed urban area in the City of Belvedere, no septic tanks or alternative wastewater disposal systems would be required to manage wastewater. Therefore, no impact would occur.

Would the project directly or indirectly cause potential substantial adverse effects, involving directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

A paleontological records search was conducted for the project and can be found in Attachment H. The entire project site consists of Quaternary artificial fill over marine and marsh deposits, which are too young to contain fossils. In addition, surrounding half-mile search area also has various mostly metamorphic rocks of the Cretaceous–Jurassic Franciscan Complex. Vertebrate fossils are extremely rare in the Franciscan Complex. Thus, the paleontological potential and sensitivity are both considered to be very low. No known unique paleontological resources, sites, or unique geological features exist on or near the project site. Therefore, no impact would occur.

1.6 REFERENCES

BAAQMD. See Bay Area Air Quality Management District.

BASMAA. See Bay Area Stormwater Management Agencies Association.

Bay Area Air Quality Management District. 2017a. Final 2017 Clean Air Plan: Spare the Air, Cool the Climate. Adopted April 19, 2017. Available: <https://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>. Accessed February 16, 2023.

———. 2017b. California Environmental Quality Act – Air Quality Guidelines. May. Available: https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf. Accessed February 16, 2023.

- Bay Area Stormwater Management Agencies Association (BASMAA). 2019. BASMAA Post-Construction Manual. Design Guidance for Stormwater Treatment and Control for Projects in Marin, Sonoma, Napa, and Solano Counties. January 2019. Available:chrome-extension://efaidnbnmnibpcjpcglclefindmkaj/https://www.marincounty.org/~//media/files/departments/pw/mcstoppp/development/basmaa-postconstruction-manual.pdf?la=en . Access September 13, 2023.
- Belvedere Lagoon Property Owners' Association (BLPOA). 2023. The Beauty of the Belvedere Lagoon. Available: <https://belvederelagoon.org/>. Accessed September 12, 2023.
- BLPOA. *See* Belvedere Lagoon Property Owners' Association.
- CAL FIRE. *See* California Department of Forestry and Fire Protection.
- California Department of Forestry and Fire Protection. 2007. Marin County Fire Hazard Severity Zone in State Responsibility Area. Adopted November 7, 2007. Available: https://osfm.fire.ca.gov/media/6707/fhszs_map21.pdf. Accessed July 29, 2022.
- California Department of Finance. 2022. E-4 Population Estimates for Cities, Counties, and the State, 2021-2022 with 2020 Census Benchmark. Available: <https://dof.ca.gov/forecasting/demographics/estimates/e-4-population-estimates-for-cities-counties-and-the-state-2021-2022-with-2020-census-benchmark/>. Accessed December 15, 2022.
- California Regional Water Quality Control Board, San Francisco Bay Region. General Requirements for Overwater Structures. Order No. R2-2018-0009.
- California Regional Water Quality Control Board, San Francisco Bay Region. Email dated October 2, 2023 from Holly Garber.
- California Geological Survey, Geology of Ring Mountain and Tiburon Peninsula, Marin County, California (David A. Bero, 2014)
- City of Belvedere. 2010. General Plan 2030. June 9, 2010. Available: https://www.cityofbelvedere.org/DocumentCenter/View/1776/Vol-1_--Goals-Policies-and-Actions?bidId=. Accessed June 23, 2022.
- . 2020. Title 19 Zoning. Last updated October 2020. Available: <https://www.cityofbelvedere.org/DocumentCenter/View/281/Title-19---Zoning?bidId=>. Accessed June 23, 2022.
- . 2022a. Schools. Available: <https://www.cityofbelvedere.org/156/Schools>. Accessed December 15, 2022.
- . 2022b. Solid Waste, Recyclable Materials and Organic Waste. Available <https://www.cityofbelvedere.org/458/Solid-Waste-Recyclable-Materials-and-Org>. Accessed December 20, 2022.
- . 2023a. Construction Project Regulation Information. Available: Building Resources | Belvedere, CA - Official Website ([cityofbelvedere.org](https://www.cityofbelvedere.org)). Accessed February 13, 2023.
- . 2023b. Contractor Guidelines. Available: Building Resources | Belvedere, CA - Official Website ([cityofbelvedere.org](https://www.cityofbelvedere.org)). Accessed February 13, 2023.
- CountyOffice.org. 2022. Belvedere Police Department in Belvedere, California. Available: <https://www.countyoffice.org/belvedere-police-department-belvedere-ca-ce9/>. Accessed December 15, 2022.
- Data Quest. 2023a. 2022-23 Enrollment by Grade Redwood High Report (21-65482-2132587). Available: <https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=21654822132587&aggllevel=school&year=2022-23>. Accessed September 13, 2023.
- . 2023b. 2022-23 Enrollment by Grade Bel Aire Elementary School Report (21-65424-6024616). Available: <https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=21654256024616&aggllevel=school&year=2022-23>. Accessed September 13, 2023.

———. 2023c. 2022-23 Enrollment by Grade Del Mar Middle Report (21-65425-6024632). Available: <https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=21654256024632&aggllevel=school&year=2022-23>. Accessed September 13, 2023.

———. 2023d. 2022-23 Enrollment by Grade Reed Elementary Report (21-65425-6024657). Available: <https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=21654256024657&aggllevel=school&year=2022-23>. Accessed September 13, 2023.

Governor’s Office of Planning and Research (OPR). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. December 2018. Available: file:///C:/Users/tanya.jones/Downloads/20190122-743_Technical_Advisory.pdf. Accessed February 16, 2023.

O’Leary, Mary. Executive Assistant to the Superintendent and Board of Trustees. Tamalpais Union High School District, Larkspur, CA. December 19, 2022—Email regarding student generation factors.

OPR. See Governor’s Office of Planning and Research.

Partner Engineering and Science, Inc. 2020. Phase I Environmental Site Assessment Report. Prepared for Thompson Dorfman Partner, LLC. August 18, 2020.

Tiburon Fire Protection District. 2021. 2021 Annual Comprehensive Financial Report. Available: <https://www.tiburonfire.org/finance/>. Accessed December 13, 2022.

———. 2022. Fire Protection and Emergency Medical Services for the Tiburon Peninsula. Available: <https://www.tiburonfire.org/>. Accessed December 13, 2022.

Waste Management. 2022. Redwood Landfill. Available <https://redwoodlandfill.wm.com/about-us/index.jsp>. Accessed: December 20, 2022.

Woodard, Keith. Executive Assistant to Superintendent Dr. Kimberly McGrath. Reed Union School District, Tiburon, CA. January 26, 2023—Email regarding student generation factors.

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