

## Appendix A

# Initial Study



**550 O’Farrell Street Initial Study**  
Planning Department Case No. 2017-004557ENV

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004557ENV

**A. PROJECT DESCRIPTION**

The proposed 550 O'Farrell Street project is described in detail **in chapter 2, Project Description**, of the *draft environmental impact report* (DEIR) to which this *initial study* is attached. As noted in chapter 2, the DEIR evaluates the proposed project, which includes retained elements of the existing 550 O'Farrell Street structure, and a project variant that would involve complete demolition of the existing building and construction of a new building. This will provide decision-makers with the option of choosing either the retained elements design of the proposed project or the complete demolition/new building design of the project variant. This initial study, therefore, evaluates, as appropriate, the potential environmental impacts of both the proposed project and the project variant.

**B. PROJECT SETTING**

The setting and existing site land use characteristics for the proposed project and project variant are provided in DEIR **section 2.D, Project Setting**.

**C. COMPATIBILITY WITH EXISTING ZONING AND PLANS**

	<i>Applicable</i>	<i>Not Applicable</i>
Discuss any variances, special authorizations, or changes proposed to the planning code or zoning map, if applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Discuss any conflicts with any adopted plans and goals of the City or region, if applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Discuss any approvals and/or permits from city departments other than the planning department or the Department of Building Inspection, or from regional, state, or federal agencies.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

In accordance with California Environmental Quality Act (CEQA) Guidelines section 15125(d), this section discusses potential inconsistencies of the proposed project with applicable local plans and policies, as well as conflicts with regional policies (if applicable). Inconsistencies with existing plans and policies do not, in and of themselves, indicate a significant physical environmental

effect within the meaning of CEQA. To the extent that adverse physical environmental impacts may result from such inconsistencies, these impacts are analyzed below under the specific environmental topic sections in **section E, Evaluation of Environmental Effects**, and in DEIR **chapter 3, Environmental Setting and Impacts**. DEIR **chapter 2, section F, Required Approvals** discusses authorizations, approvals, and permits.

## **Local Plans and Policies**

### **Proposed Project and Project Variant**

#### *San Francisco General Plan*

The San Francisco General Plan (general plan), which provides general policies and objectives to guide land use decisions, contains ten elements (Commerce and Industry, Recreation and Open Space, Housing, Community Facilities, Urban Design, Environmental Protection, Transportation, Air Quality, Community Safety, and Arts) that set forth goals, policies, and objectives for the physical development of the city.

The 2014 Housing Element seeks to ensure adequate housing for current and future San Franciscans through objectives and policies that address the city's growing housing demand, focusing on strategies that can be accomplished with the city's limited land supply. In general, the housing element supports projects that increase the city's housing supply (both market-rate and affordable housing), especially in areas that are close to the city's job centers and are well-served by transit. The proposed project and the project variant would construct a mixed-use residential building with 111 and 116 residential units, respectively, and would not conflict with any objectives or policies in the housing element.

One general plan element expressly applicable to planning considerations associated with the proposed project and project variant is the urban design element. Objectives of the general plan's urban design element that are applicable to the proposed project and project variant include emphasis of the characteristic pattern, which gives to the city and its neighborhood an image, sense of purpose, and a means of orientation; conservation of resources that provide a sense of nature, continuity with the past, and freedom from overcrowding; and moderating major new development to complement the city pattern, the resources to be conserved, and the neighborhood environment.

The proposed project would include partial demolition of an existing parking garage on the project site and would retain elements of the existing facade. The project variant would involve complete demolition of the existing building. This existing building has been determined to be an individually significant historic architectural resource as a good example of Gothic Revival architecture. As such, the garage has been determined to be eligible to be listed in the California Register of Historical Resources under Criterion 3 (Architecture). Constructed in 1924, the existing building is also listed as a contributor to the National Register-listed Uptown Tenderloin Historic District for its character-defining features, which include the building façade. For these

reasons, the proposed project and project variant may be inconsistent with policy 2.4 of the urban design element, which calls for the preservation of notable landmarks and areas of historic, architectural, or aesthetic value. The physical environmental impacts that could result from this conflict are discussed in the DEIR **section 3.B, Historic Architectural Resources**, which evaluates impacts on historic architectural resources.

As previously stated, a conflict between the proposed project or the project variant and a general plan policy does not, in itself, indicate a significant effect on the environment within the context of CEQA. To the extent that adverse physical environmental impacts may result from such conflicts, these impacts are analyzed below under the specific environmental topic sections in **section E, Evaluation of Environmental Effects**, and in DEIR **chapter 3, Environmental Setting and Impacts**. In general, potential conflicts with the general plan are considered by the appropriate decision-makers, normally the San Francisco Planning Commission (planning commission), independent of the environmental review process. Thus, in addition to considering inconsistencies that affect environmental issues, the planning commission considers other potential inconsistencies with the general plan, independent of the environmental review process, as part of the decision to approve or disapprove a proposed project. Any potential conflict not identified in this environmental document would be considered in that context and would not alter the physical environmental effects of the proposed project or project variant that are analyzed in this initial study.

### *Priority Policies*

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added section 101.1 to the planning code to establish eight priority policies. These policies, and the subsection of section E of this initial study addressing the environmental issues associated with the policies, are:

- (1) preservation and enhancement of neighborhood-serving retail uses;
- (2) protection of neighborhood character;
- (3) preservation and enhancement of affordable housing (Topic 3, Population and Housing, Question 2b, with regard to housing supply and displacement issues);
- (4) discouragement of commuter automobiles (Topic 1, Land Use and Planning, Question 1b; Topic 6, Transportation and Circulation, Questions 6a and 6b);
- (5) protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership;
- (6) maximization of earthquake preparedness (Topic 16, Geology and Soils, Questions 16a through 16e);
- (7) landmark and historic building preservation (Topic 4, Cultural Resources, Question 4a and 4b); and
- (8) protection of open space (Topic 11, Shadow, Question 11a; Topic 12, Recreation, Questions 12a and 12b; and Topic 14, Public Services).

Prior to issuing a permit for any project that requires an initial study under CEQA; prior to issuing a permit for any demolition, conversion, or change of use; and prior to taking any action that requires a finding of consistency with the general plan, the City is required to find that the proposed project or legislation is consistent with the priority policies. As noted above, the consistency of the proposed project or project variant with the environmental topics associated with the priority policies is discussed in **section E, Evaluation of Environmental Effects**, providing information for use in the case report for the proposed project. The case report and approval motions for the project will contain the planning commission's comprehensive analysis and findings regarding consistency of the proposed project with the priority policies.

As discussed above, the garage building at 550 O'Farrell Street is a contributor to the Uptown Tenderloin Historic District and has been determined to be individually eligible for listing on the California Register under Criterion 3 as a good example of a Gothic Revival-style garage structure in San Francisco. The proposed project, which includes retained elements of the existing 550 O'Farrell Street façade, and the project variant, which includes complete demolition of the existing building, would not be in conformance with the U.S. Secretary of the Interior's Standards and would result in a significant adverse impact to the historic resource.

For purposes of this initial study, impacts on historic architectural resources are identified as potentially significant. Project effects on historic resources and consistency with priority policy no. 7, landmark and historic building preservation, are analyzed in the DEIR, which discusses the significance of the proposed project's or project variant's impacts on historic resources. Mitigation measures and alternatives to reduce impacts that are found to be significant are also discussed in the DEIR.

### *San Francisco Planning Code*

The planning code, which incorporates by reference the City's zoning maps, governs permitted uses, densities, and the configuration of buildings in San Francisco. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless either the proposed action conforms to the planning code, or an exception is granted pursuant to provisions of the planning code.

### Land Use Controls

The project site is located in an RC-4 (Residential-Commercial, High Density) Zoning District and the North of Market Residential Special Use District Subarea No. 1. As stated in planning code section 209.3, the RC-4 zoning district is composed of high-density dwellings, with compatible commercial uses on the ground floor to protect and enhance neighborhoods with mixed-use character.

Section 249.5 of the planning code outlines the goals, allowable uses, and additional land use controls in the special use district. Section 249.5 encourages new infill housing at a compatible

scale and efforts to preserve buildings of architectural and historic importance and prohibits hotels and other incompatible uses. Within the RC-4 zoning district and the special use district, retail uses on the ground floor with residential uses above, as proposed by the project, are permitted.

The project sponsor would seek approval of a conditional use authorization to construct a building exceeding a height of 50 feet in an RC zoning district (planning code section 253) and exceeding a height of 80 feet in an 80-T-130-T height and bulk district (planning code section 263.7) and to exceed building bulk limits (planning code section 270); the project would seek to increase the maximum allowed diagonal dimension at the setback height established pursuant to section 132.2 from 125 feet to 134 feet. Section 249.5(c)(4) states density allowances of one dwelling unit for each 125 square feet of lot area. Based on the lot area, 93 dwelling units are allowable under section 249.5(c)(4). The dwelling unit density may be increased to the proposed 111 units (proposed project) and 116 units (project variant) in accordance with planning code section 207(c)(1), which excludes on-site affordable units from the density calculation if the project contains at least 20 percent on-site affordable housing.

#### Affordable Housing

The proposed project or project variant would comply with the City's Residential Inclusionary Affordable Housing Program requirements (planning code sections 415, et seq.) for new residential development with 10 or more units, by including the applicable required number of units per current legislation. At this time, the requirement is 25 percent on-site below-market-rate units, payment of an Affordable Housing Fee based on 33 percent below market rate units, or a combination of the above within the North of Market Special Use District. The proposed project and the project variant would provide a combination of 20 percent on-site units, 22 or 23 units, respectively (20 percent of the total number of units), and payment of a partial Affordable Housing Fee in compliance with planning code requirements.

#### Height and Bulk Controls

The project site is within an 80-130-T Height and Bulk District. This district allows for an 80-foot base height limit, with special exceptions from the base height of 80 feet up to 130 feet. The proposed project or project variant would be 130 feet high, measured from the top of the curb to the top of the roof. Mechanical screening and rooftop elements such as elevator penthouses are exempt from the building height limit per section 260(b)(1)(B). The exempt rooftop elements would extend the building height to up to 146 feet. As noted above, the proposed project or project variant would seek to increase the maximum allowed diagonal dimension of 125 feet at the setback height, established in section 132.2, to 134 feet.

#### Street Trees

Planning code section 138.1(c)(1) requires that the project sponsor shall plant and maintain street trees as set forth in article 16, sections 805(a) and (d) and 806(d) of the Public Works Code. Sections

805(a) and (d) and 806(d) require that for every 20 feet of property frontage along each street, one 24-inch box tree be planted, with any remaining fraction of 10 feet or more of frontage requiring an additional tree. The project site has an 86-foot frontage along O'Farrell Street, and would require four street trees under the code. There are no existing trees on or adjacent to the property. The proposed project or project variant would comply with section 138.1(c)(1) by planting three new street trees along the project sidewalks on O'Farrell Street; a fourth tree would not be feasible because of a sidewalk electrical vault proposed with the project or variant. The proposed project or project variant would request a waiver under the code to install three trees plus payment of an in-lieu fee.

### Rear Yard and Open Space Requirements

Planning code section 134 requires a rear yard equivalent to 25 percent of total lot depth at all residential levels; however, section 134(g) permits the zoning administrator to approve a reduction in rear yard requirements in the North of Market Residential Special Use District if the open space can be provided elsewhere on site and if the new structure will not impede the midblock open space pattern. The proposed project or project variant would not provide a rear yard meeting the technical requirements of the planning code on the basement and ground floor levels and would require approval to do so by the zoning administrator.

Planning code section 135 requires either 36 square feet of private open space for each dwelling unit or shared, common open space in the amount of 48 square feet per dwelling unit. The proposed project would be required to provide 48 square feet of open space per dwelling unit. The proposed project would provide 480 square feet of private open space and 5,650 square feet of common open space. The project variant would provide 480 square feet of private open space and 5,650 square feet of common open space.

### Parking and Loading

According to planning code section 151.1, one off-street parking space is permitted for every two dwelling units and for every 500 square feet of retail use. The proposed project and the project variant would not include off-street parking spaces.

Planning code section 155.2 requires new buildings containing more than 100 dwelling units to provide one secure (*class 1*) bicycle parking space for each unit for the first 100 units, and one secure space for each four units above that, along with one *class 2* space for each 20 units.<sup>1</sup> Therefore, the proposed project, with 111 residential units, would require at least 103 class 1 spaces and 6 class 2 spaces. The project variant, with 116 units, would require at least 104 class 1

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<sup>1</sup> Planning code section 155.1(a) defines *class 1 spaces* as "spaces in secure, weather-protected facilities intended for use as long-term, overnight, and work-day bicycle storage by dwelling unit residents, nonresidential occupants, and employees." *Class 2 spaces* are "spaces located in a publicly-accessible, highly visible location intended for transient or short-term use by visitors, guests, and patrons to the building or use."

spaces and 6 class 2 spaces. The approximately 1,300 square feet of ground-floor active space, if used as retail space, would require two class 2 bicycle spaces; class 1 spaces are not required.

Both the proposed project and project variant would provide 156 class 1 spaces (bicycle locker or dedicated space in a secure room) located at the basement and first floor levels. The proposed project and project variant would also provide eight class 2 (publicly accessible bicycle rack) bicycle parking spaces on the O'Farrell Street sidewalk. The project sponsor would be required to work with the San Francisco Municipal Transportation Authority (SFMTA) Bike Parking Program to coordinate the installation of on-street bicycle racks and ensure that the proposed bicycle racks meet the SFMTA's bicycle parking guidelines.

In addition to the general plan, planning code and zoning maps, and the accountable planning initiative, other local plans and policies that are relevant to the proposed project are discussed below.

- The *San Francisco Sustainability Plan* is a blueprint for achieving long-term environmental sustainability by addressing specific environmental issues including but not limited to air quality, climate change, energy, ozone depletion, and transportation. The goal of the San Francisco Sustainability Plan is to enable the people of San Francisco to meet their present needs without sacrificing the ability of future generations to meet their own needs.
- The *Climate Action Plan for San Francisco: Local Actions to Reduce Greenhouse Emissions* is a local action plan that examines the causes of global climate change and the human activities that contribute to global warming, provides projections of climate change impacts on California and San Francisco based on recent scientific reports, presents estimates of San Francisco's baseline greenhouse gas (GHG) emissions inventory and reduction targets, and describes recommended actions for reducing the City's GHG emissions. The 2013 Climate Action Strategy is an update to this plan.
- The *Transit First Policy* (City Charter, section 8A.115) is a set of principles that underscore the City's commitment to prioritizing travel by transit, bicycle, and on foot over travel by private automobile. These principles are embodied in the objectives and policies of the transportation element of the general plan. All City boards, commissions, and departments are required by law to implement Transit First principles in conducting the City's affairs.
- The *Transportation Demand Management Program* (planning code, section 169) enacted in 2017 aims to reduce vehicle miles traveled (VMT) generated by new development projects. The program is designed to work with developers to provide more on-site amenities that will encourage smarter travel by facilitating greater access to pedestrian, bicycle, and public transit. The City's ultimate goal is to achieve at least 50 percent sustainable travel by the year 2040. Compliance with the TDM program is being phased in. Projects with development applications submitted after September 5, 2016, and prior to January 1, 2018, need to meet 75 percent of the applicable target. After January 1, 2018, projects must fully comply.
- The *San Francisco Bicycle Plan* is a citywide bicycle transportation plan that identifies short-term, long-term, and other minor improvements to San Francisco's bicycle route network. The

overall goal of the bicycle plan is to make bicycling an integral part of daily life in San Francisco.

- The *San Francisco Better Streets Plan* consists of illustrative typologies, standards, and guidelines for the design of San Francisco's pedestrian environment with the central focus of enhancing the livability of the city's streets.
- *Transportation Sustainability Fee Ordinance (Article 4, section 411)* requires that development projects that filed environmental review applications on or after July 22, 2015, but have not yet received approval, pay 100 percent of the applicable Transportation Sustainability Fee (TSF). TSF funds may be used to improve transit services and pedestrian and bicycle facilities.
- Properties subject to *San Francisco Public Health Code Article 22A*, also known as the Maher Ordinance, includes properties throughout the city where there is potential to encounter hazardous materials, primarily industrial zoning districts, sites with industrial uses or underground storage tanks, sites with historic bay fill, and sites in close proximity to freeways or underground storage tanks. The overarching goal of the Maher Ordinance is to protect public health and safety by requiring appropriate handling, treatment, disposal and, when necessary, remediation of contaminated soils that are encountered in the building construction process. Projects that would disturb 50 cubic yards or more of soil located on sites with known or suspected soil or groundwater contamination are subject to this ordinance.

The proposed project and project variant have been reviewed in the context of these local plans and policies and would not obviously or substantially conflict with them. Staff reports and approval motions prepared for the decision-makers would include a comprehensive project analysis and findings regarding the consistency of the proposed project with applicable local plans and policies.

### *Regional Plans and Policies*

There are several regional planning agencies whose environmental, land use, and transportation plans and policies consider the growth and development of the nine-county San Francisco Bay Area. Some of these plans and policies are advisory, and some include specific goals and provisions that must be considered when evaluating a project under CEQA. The regional plans and policies that are relevant to the proposed project are discussed below.

- The principal regional planning documents and the agencies that guide planning in the nine-county Bay Area include *Plan Bay Area*, the region's first Sustainable Communities Strategy, developed in accordance with Senate Bill 375 and adopted jointly by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) on July 18, 2013 and updated July 2017.<sup>2</sup> *Plan Bay Area* is a long-range

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<sup>2</sup> Plan Bay Area 2040. Metropolitan Transportation Commission. Adopted July 26, 2017. Website accessed February 25, 2020. <https://www.planbayarea.org/previous-plan/plan-bay-area-2040>



land use and transportation plan that covers the period from 2010 to 2040. The plan calls for concentrating housing and job growth around transit corridors, particularly within areas identified by local jurisdictions as Priority Development Areas. In addition, the plan specifies strategies and investments for maintaining, managing, and improving the region's multi-modal transportation network and proposes transportation projects and programs to be implemented with reasonably anticipated revenue. *Plan Bay Area* will be updated in August 2019; the long-range plan will cover the period ending 2050.

*Plan Bay Area* includes the population and employment forecasts from ABAG's *Projections 2013*, an advisory policy document used to assist in the development of local and regional plans and policy documents, and MTC's 2040 *Regional Transportation Plan*, which is a policy document that outlines transportation projects for highway, transit, rail, and related uses through 2040 for the nine Bay Area counties.

- The *Regional Housing Needs Plan* for the San Francisco Bay Area: 2014–2022 reflects projected future population growth in the Bay Area region as determined by ABAG and addresses housing needs across income levels for each jurisdiction in California. All of the Bay Area's 101 cities and nine counties are given a share of the Bay Area's total regional housing need. The Bay Area's regional housing need is allocated to each jurisdiction by the California Department of Housing and Community Development and finalized through negotiations with ABAG.
- The Bay Area Air Quality Management District (air district) *2017 Clean Air Plan* updates the *2010 Clean Air Plan*, in accordance with the requirements of the California Clean Air Act, to implement feasible measures to reduce ozone and provide a control strategy to reduce ozone, particulate matter (PM), air toxics, and GHG emissions throughout the region.
- The San Francisco Regional Water Quality Control Board's *Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan)* is a master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the state, including surface waters and groundwater, and includes implementation programs to achieve water quality objectives.
- The State Water Resources Control Board's (the state water board's) *San Francisco Bay/Sacramento-San Joaquin Delta Estuary* (Bay Delta Plan) establishes water quality objectives to maintain the health of rivers and waterbodies in the Bay-Delta ecosystem.

The proposed project and project variant have been reviewed against these regional plans and policies. Due to the relatively small size and infill nature of the proposed project, there would be no anticipated conflicts with regional plans. Therefore, the proposed project would not obviously or substantially conflict with regional plans or policies.

## D. SUMMARY OF ENVIRONMENTAL EFFECTS

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Land Use/Planning              | <input type="checkbox"/> Greenhouse Gas Emissions      | <input type="checkbox"/> Hydrology and Water Quality        |
| <input type="checkbox"/> Aesthetics                     | <input type="checkbox"/> Wind                          | <input type="checkbox"/> Hazards and Hazardous Materials    |
| <input type="checkbox"/> Population and Housing         | <input type="checkbox"/> Shadow                        | <input type="checkbox"/> Mineral Resources                  |
| <input checked="" type="checkbox"/> Cultural Resources  | <input type="checkbox"/> Recreation                    | <input type="checkbox"/> Energy                             |
| <input type="checkbox"/> Tribal Cultural Resources      | <input type="checkbox"/> Utilities and Service Systems | <input type="checkbox"/> Agriculture and Forestry Resources |
| <input type="checkbox"/> Transportation and Circulation | <input type="checkbox"/> Public Services               | <input type="checkbox"/> Wildfire                           |
| <input type="checkbox"/> Noise                          | <input type="checkbox"/> Biological Resources          | <input type="checkbox"/> Mandatory Findings of Significance |
| <input type="checkbox"/> Air Quality                    | <input type="checkbox"/> Geology and Soils             |   |

This initial study evaluates the proposed 550 O'Farrell Street project and the project variant to determine whether it would result in significant environmental impacts. All items on the initial study checklist below that have been checked "Less than Significant with Mitigation Incorporated," "Less-than-Significant Impact," "No Impact," or "Not Applicable" indicate that, upon evaluation, staff has determined that the proposed project could not have a significant adverse environmental effect relating to that topic. A discussion is included for those issues checked "Less than Significant with Mitigation Incorporated" and "Less-than-Significant Impact" and for most items checked "No Impact" or "Not Applicable." For all of the items checked "Not Applicable" or "No Impact" without discussion, the conclusions regarding potential significant adverse environmental effects are based upon field observation, staff experience and expertise on similar projects, and/or standard reference material available within the San Francisco Planning Department (planning department), such as the planning department's Transportation Impact Analysis Guidelines for Environmental Review, or the California Natural Diversity Data Base and maps, published by the California Department of Fish and Wildlife. Items on the initial study checklist that have been checked "Potentially Significant" are discussed in the DEIR prepared for this project. For each checklist item, the evaluation has considered the impacts of the proposed project and project variant both individually and cumulatively.

### **Effects Found to be Potentially Significant**

Potential individual and cumulative environmental effects for the topic below were determined to be “Potentially Significant.”

- Cultural Resources (historical architectural resources only)

The proposed project and project variant are analyzed in greater depth in the DEIR, to which this initial study is attached.

### **Effects Found to be Not Applicable, Not Significant, or Not Significant with Identified Mitigation Measures**

Potential individual and cumulative environmental effects for the topics below were determined to be less than significant, reduced to less than significant with mitigation measures identified in this initial study and agreed upon by the project sponsor, or would result in no physical environmental impact.

- Land Use and Land Use Planning (all topics);
- Aesthetics (all topics);
- Population and Housing (all topics);
- Cultural Resources (archeological resources; human remains);
- Tribal Cultural Resources (all topics);
- Transportation and Circulation (all topics);
- Noise (all topics);
- Air Quality (all topics);
- Greenhouse Gas Emissions (all topics);
- Wind (all topics);
- Shadow (all topics);
- Recreation (all topics);
- Utilities and Service Systems (all topics);
- Public Services (all topics);
- Biological Resources (all topics);
- Geology and Soils (all topics);
- Hydrology and Water Quality (all topics);
- Hazards and Hazardous Materials (all topics);
- Mineral Resources (all topics);
- Energy (all topics);
- Agriculture and Forestry Resources (all topics); and
- Wildfire (all topics).

Impacts and mitigation measures associated with these topics are discussed below and in **section F, Mitigation Measures** p. 143 of this initial study. These topics require no further environmental analysis in the DEIR. The project sponsor has agreed to implement the mitigation measures identified in this section as part of the implementation of the proposed project, if approved.

### **Cumulative Impact Analysis**

CEQA Guidelines require that the environmental document disclose the cumulative impacts of a project. Furthermore, CEQA Guidelines section 15355 defines “cumulative impacts” as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

The discussion of cumulative impacts should reflect the severity of impact and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for effects attributable to the project alone (CEQA Guidelines, section 15130 (b)). The discussion of cumulative impacts should be guided by the standards of practicality and reasonableness and should focus on the cumulative impacts on which the identified other projects contribute, rather than the attributes of other projects that do not contribute to the cumulative impact.

In this initial study, cumulative impacts are analyzed for each environmental topic and the proposed project’s and project variant’s contribution to a cumulative impact, if any, is discussed. Cumulative impact analysis in San Francisco generally may employ a list-based approach or a projections-based approach, depending on which approach best suits the individual resource topic being analyzed.

A list-based approach refers to “...a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside of the control of the agency” (CEQA Guidelines, section 15130(b)(1)(A)). For topics such as construction impacts, cultural resources; localized transit, bicycle, pedestrian and vehicle circulation; shadow; and wind, the analysis typically considers large, individual projects that are anticipated in the project area and the extent of the affected setting where possible similar impacts may arise and combine with those of the proposed project.

The cumulative analyses for each environmental topic section may consider a somewhat different list of nearby projects that is appropriately tailored to the particular environmental topic based on the potential for combined localized environmental impacts; however, typically list-based cumulative context considers cumulative projects within a ¼-mile radius of the project site.

**Table 1: Cumulative Projects within ¼ mile of Project Site** lists relevant projects considered in this initial study. (DEIR **section 3.B, Historic Architectural Resources** includes a separate table listing proposed, ongoing, and completed projects in the Uptown Tenderloin Historic District, for the purpose of evaluating potential cumulative effects on the historic district.)

A projections-based approach refers to “a summary of projections contained in an adopted local, regional, or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions” (CEQA Guidelines section 15130(b)(1)(B)). The transportation analysis relies on a citywide growth projection model for overall transit capacity utilization that also encompasses many individual development and transportation projects anticipated in the project vicinity.

The analysis of cumulative impacts involves the following steps: determining the cumulative context or geographic scope and location of the cumulative projects relative to the affected resource’s setting; assessing the potential for project impacts to combine with those of other projects, including the consideration of the nature of the impacts and the timing and duration of implementation of the proposed and cumulative projects; a determination of the significance of the cumulative impact; and, in cases where a significant cumulative impact is identified, an assessment as to whether the project’s contribution to a significant cumulative effect is considerable. CEQA does not prescribe the use of one specific approach to analyzing cumulative impacts. The rationale used to determine an appropriate list of projects or projection in an individual project’s cumulative analysis is explained in the discussion of cumulative impacts for each environmental topic in this initial study.

**Table 1: Cumulative Projects within ¼ mile of Project Site**

Address	Distance from Project Site (feet)	Case File No.	Building Permit Status	Construction Timeline (approximate months)	Height (Stories)	Dwelling Units	Retail/ Commercial (sf)	Hotel Units	Institutional (sf)
450-480 O'Farrell Street/530-534 Jones Street	260	2013.1535PRJ/ENV	Filed (approved by planning department)	18	13	176	6,200	0	13,595 (church)
651-655 Geary Street	0	2014.0482PRJ/ENV BPA# 201706219947	Issued (demolition complete; new construction not commenced)	18	13	47	738	0	0
955 Post Street	980	2015-015950PRJ/ENV	No permit application filed (under planning department review)	Unknown	9	94	7,700	0	0
57 Taylor Street (111 Turk Street)	1,225	2015-007525PRJ/ENV	No permit application filed (under planning department review)	Unknown	12	77 (group housing)	11,000	0	0
820 Post Street	615	2016-015997PRJ/ENV	Filed (approved by planning department)	18	8	12	1,150	0	0
736 Hyde Street	875	2016-014870PRJ/ENV	Filed (approved by planning department)	15	5	9	0	0	0
433 Mason Street	1,050	2016-014360PRJ/ENV	No permit application filed (under planning department review)	21	14	0	2,100	211	0
<b>Total Land Uses</b>						<b>415</b>	<b>28,888</b>	<b>211</b>	<b>13,595</b>

Source: San Francisco Planning Department, May 2020

## E. EVALUATION OF ENVIRONMENTAL EFFECTS

### *Aesthetics and Parking*

In accordance with CEQA section 21099, Modernization of Transportation Analysis for Transit Oriented Projects, aesthetics and parking shall not be considered in determining if a project has the potential to result in significant environmental effects, provided the project meets all of the following three criteria:

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

The proposed project and project variant meets each of the above criteria; therefore, this initial study does not consider aesthetics and the adequacy of parking in determining the significance of project impacts under CEQA.<sup>3</sup> Public Resources Code sections 21099(d)(2) and 21099(e) state that a lead agency maintains the authority to consider aesthetic impacts pursuant to local design review ordinances or other discretionary powers, that aesthetics impacts do not include impacts on historic or cultural resources, and that public agencies maintain the authority to establish or adopt thresholds of significance that are more protective of the environment. As such, there will be no change in the planning department's methodology related to design review and historical review.

### *Automobile Delay and Vehicle Miles Traveled*

CEQA section 21099(b)(1) requires that the State Office of Planning and Research (OPR) develop revisions to the CEQA Guidelines establishing criteria for determining the significance of transportation impacts of projects that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." CEQA section 21099(b)(2) states that upon certification of the revised guidelines for determining transportation impacts pursuant to section 21099(b)(1), automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment under CEQA. Consequently, new CEQA Guidelines section 15064.3, Determining the Significance of Transportation Impacts, effective January 2019, requires lead agencies to adopt VMT metrics by July 1, 2019.

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<sup>3</sup> San Francisco Planning Department, *Eligibility Checklist: CEQA section 21099 – Modernization of Transportation Analysis for 550 O'Farrell Street*, January 21, 2020. This document (and all other documents cited in this report, unless otherwise noted), is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400 as part of Case File no. 2017-004557ENV.

On March 3, 2016, in anticipation of the future certification of the revised CEQA Guidelines, the planning commission adopted OPR's recommendation to use the VMT metric instead of automobile delay to evaluate the transportation impacts of projects (Resolution 19579).

## E.1 Land Use and Planning

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>1. LAND USE AND PLANNING. Would the project:</b>					
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Impact LU-1: The proposed project or project variant would not physically divide an established community. (Less than Significant)**

### Proposed Project and Project Variant

Land use impacts are considered to be significant if the proposed project would physically divide an established community. The proposed project or the project variant would be developed within the boundaries of an existing site (assessor's block/lot 0318/009) and therefore, would not create an impediment to the passage of persons or vehicles. Accordingly, the proposed project or the project variant would not disrupt or divide the physical arrangement of the existing neighborhood. In addition, because the proposed project or the project variant would establish a mixed-use building in proximity to other similar mixed-use structures and would not introduce an incompatible land use to the area, the project or the project variant would not divide an established community. Therefore, the proposed project or the project variant would result in less-than-significant impacts related to physically dividing an established community, and no mitigation measures are necessary.

**Impact LU-2: The proposed project or project variant would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)**

The 11,808-square-foot project site is on a block bounded by O'Farrell Street to the south, Geary Street to the north, Jones Street to the east, and Leavenworth Street to the west. The site is within



San Francisco's Downtown/Civic Center neighborhood. The project site is currently occupied by an existing two-story-over-basement parking garage.

#### Proposed Project and Project Variant

The proposed 550 O'Farrell Street Project would provide 111 new housing units in the North of Market Special Use District in a currently underused parcel. The project variant would provide 116 new housing units. The proposed project and the project variant would be consistent with the general plan, including the housing element, which calls for mixed-use, high-density development near transit. The proposed project and the project variant would not provide on-site parking and would support transit trips, consistent with the general plan's transportation element. The RC-4 zoning district and North of Market Residential Special Use District encourage the development of a transit-oriented, high-density, mixed-use neighborhood adjacent to downtown.

The proposed project or the project variant would intensify the use of the project site but would not alter the general land use pattern of the immediate area, which already includes nearby buildings with commercial uses on the ground floor and residential uses above. Buildings along O'Farrell Street are mostly 4- to 12-story (60- to 140-foot-tall) hotel or residential buildings with commercial uses on the ground level. The 31-story (488-foot-tall) Hilton Hotel is two blocks east at O'Farrell Street and Taylor Street. The proposed 13-story building massing would be in keeping with the 12- to 19-story (130- to 348-foot-tall) buildings approximately two and three blocks east and west of the project site along O'Farrell Street. Therefore, the proposed project or the project variant would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect and no mitigation measures are necessary.

**Impact C-LU-1: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative land use impact. (Less than Significant)**

#### Proposed Project and Project Variant

The cumulative context for land use effects are typically localized within the immediate vicinity of the project site or at the neighborhood level. Cumulative development in the project vicinity (within a 1/4-mile radius of the project site) includes the projects identified in Table 1: Cumulative Projects within ¼ mile of Project Site, p. 14. These projects, both individually and in combination with the proposed project, would not result in the physical division of an established community, either by constructing a physical barrier to neighborhood access, removing a means of access, altering the established street grid, or permanently closing any streets or sidewalks. Furthermore, these projects would not conflict with any adopted environmental plan or policy, including the

air district's 2017 Clean Air Plan,<sup>4</sup> and the City's Strategies to Address Greenhouse Gas Emissions (GHG Reduction Strategy) as discussed in **section E.8, Air Quality**, and **section E.9, Greenhouse Gas Emissions**, respectively.

Therefore, the proposed project or the project variant, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative land use impact.

## E.2 Aesthetics

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
<b>2. AESTHETICS.</b> Except as provided in Public Resources Code section 21099, would the project:					
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

As noted above, in accordance with Senate Bill 743 and CEQA section 21099, Modernization of Transportation Analysis for Transit Oriented Projects, aesthetics and parking shall not be

<sup>4</sup> Bay Area Air Quality Management District, 2017 *Clean Air Plan: Spare the Air, Cool the Climate*, April 2017, <http://www.baaqmd.gov/plans-and-climate/air-quality-plans/plans-under-development>, accessed December 11, 2017.

considered in determining if a project has the potential to result in significant environmental effects, provided the project meets all of the following three criteria:

- The project is in a transit priority area;
- The project is on an infill site; and
- The project is residential, mixed-use residential, or an employment center.

The proposed project and the project variant meet each of the above three criteria and thus, this checklist does not consider aesthetics or parking in determining the significance of project impacts under CEQA.<sup>5</sup>

As also noted above, CEQA section 21099(d)(2) states that a lead agency maintains the authority to consider aesthetic impacts pursuant to local design review ordinances or other discretionary powers and that aesthetic impacts do not include impacts on historic or cultural resources. DEIR **chapter 2, section A, Project Description** includes illustrative text and figures for the proposed project and the project variant. DEIR **chapter 3, section B, Historic Architectural Resources**, discusses impacts on historic cultural resources, and changes in the architectural conditions at the site.

### E.3 Population and Housing

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>3. POPULATION AND HOUSING. Would the project:</b>					
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing units, necessitating the construction of replacement housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<sup>5</sup> San Francisco Planning Department, Eligibility Checklist: CEQA section 21099 – Modernization of Transportation Analysis for 550 O’Farrell Street, January 21, 2020.

**Impact PH-1: The proposed project or project variant would not induce substantial unplanned population growth either directly or indirectly. (Less than Significant)**

**Proposed Project and Project Variant**

The planning department's principal resources for planning anticipated population growth in San Francisco includes Plan Bay Area, an advisory document used to assist in the development of local and regional plans, which includes population and employment forecasts for the Bay Area's nine counties. Plan Bay Area contains housing and employment projections anticipated to occur in San Francisco through 2040. The plan calls for an increasing percentage of Bay Area growth to occur as infill development in areas with highly accessible transit and where services necessary to daily living are provided in proximity to housing and jobs. With its abundant transit service and mixed-use neighborhoods, San Francisco is expected to accommodate an increasing share of future regional growth. In the last few years, the supply of housing has not met the demand for housing within San Francisco. In July 2013, the ABAG projected regional housing needs in the Regional Housing Need Plan for the San Francisco Bay Area: 2014–2022. ABAG's projected housing need in San Francisco for 2014–2022 is 28,869 dwelling units, consisting of 6,234 dwelling units within the very low income level (0–50 percent), 4,639 within the low income level (51–80 percent), 5,460 within the moderate income level (81–120 percent), and 12,536 within the above-moderate income level (120 percent plus).<sup>6</sup> As part of the planning process for Plan Bay Area, San Francisco identified Priority Development Areas, which are existing neighborhoods near transit that are appropriate places to concentrate future growth. The project site is in the Downtown-Van Ness-Geary Priority Development Area.<sup>7</sup>

A project would be considered growth-inducing if its implementation would result in substantial population increases and/or new development that might not occur if the project were not approved and implemented. As discussed in DEIR **chapter 2, Project Description**, the proposed project would intensify the use of the site by developing 111 new dwelling units, or 116 new dwelling units with the project variant, and approximately 1,300 square feet of new active ground-floor uses. The proposed 111 dwelling units would provide housing for approximately 255 persons, and the project variant, with 116 dwelling units, would provide housing for approximately 267 new residents. Both the proposed project and the project variant would help meet the demand for housing.<sup>8</sup>

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<sup>6</sup> ABAG, Regional Housing Need Plan for the San Francisco Bay Area: 2014–2022. Available online at [http://planbayarea.org/pdf/final\\_supplemental\\_reports/Final\\_Bay\\_Area\\_2014-2022\\_RHNA\\_Plan.pdf](http://planbayarea.org/pdf/final_supplemental_reports/Final_Bay_Area_2014-2022_RHNA_Plan.pdf), accessed January 14, 2019.

<sup>7</sup> ABAG, Plan Bay Area, Priority Development Area Showcase. Available online at <http://gis.abag.ca.gov/website/PDAShowcase/>, accessed January 14, 2019.

<sup>8</sup> The population calculation is based on Census 2010 data. While the census data estimates 1.46 persons per household in Census Tract 123.02, the citywide average of 2.3 persons per household is used for this analysis as it is a conservative estimate (i.e., provides a higher estimate of impacts).

While the addition of 255 to 267 people would be noticeable to residents of immediately adjacent properties, those numbers would not result in a substantial increase to the population of the larger neighborhood or the City and County of San Francisco. The 2017 U.S. Census indicates that the residential population in Census Tract 123.02 (where the project site is located) is approximately 2,507 persons.<sup>9</sup> The proposed project and project variant would increase the population within Census Tract 123.02 by approximately 1 percent. The population of San Francisco is projected to increase by approximately 280,490 persons for a total of 1,085,730 persons by 2040.<sup>10</sup> The residential population introduced as a result of the proposed project or the project variant would constitute approximately 0.03 percent of projected citywide growth. This population increase would be accommodated within the planned growth for San Francisco. Overall, the introduction of 111 to 116 new dwelling units to the project site would not directly induce substantial population growth.

The proposed project's and project variant's active ground-floor space could include retail uses. Such uses would not likely offer sufficiently high wages such that they would be anticipated to attract new employees to San Francisco or nearby communities. Therefore, it can be anticipated that most of the employees would already live in San Francisco (or nearby communities). The existing commercial parking garage currently employs four people. Project implementation would eliminate these positions but could realize a net gain of an additional employee by including 1,300 gross square feet of potential ground-floor retail space. Based on the total size of the retail uses on the project site, the new businesses would employ approximately five full-time employees.<sup>11</sup> The project would also employ about three persons for leasing, management, and maintenance services.<sup>12</sup>

The proposed project or the project variant also would not indirectly induce substantial population growth in the project area because it would be located on an infill site in an urbanized area and would not involve any extensions to area roads or other infrastructure that could enable additional development in currently undeveloped areas.

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<sup>9</sup> The population estimate is based on data from the 2010 Census for Census Tract 123.02 (ACS 2017-5-year data). Available online at <https://censusreporter.org/profiles/14000US06075012302-census-tract-12302-san-francisco-ca/>, accessed January 14, 2019.

<sup>10</sup> ABAG, Plan Bay Area, p. 40. Available online at [http://files.mtc.ca.gov/pdf/Plan\\_Bay\\_Area\\_FINAL/Plan\\_Bay\\_Area.pdf](http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf), accessed January 19, 2019.

<sup>11</sup> The estimated number of employees is based on Planning Department Transportation Impact Analysis Guidelines for Environmental Review (October 2002) (SF Guidelines) and assumes an average of one employee per 350 square feet of retail/restaurant, yielding approximately five employees. The employee generation rate for office use is one employee per 276 square feet. The employee generation rate for restaurant and for retail is the same.

<sup>12</sup> Email from Kabir Seth, Presidio Bay Ventures to Paula DeMichele and Michael Rice, TRC Solutions. February 2, 2019.

For the above reasons, the additional residents and employees associated with the proposed project or project variant would have a less-than-significant impact related to unplanned population growth, both directly and indirectly.

**Impact PH-2: The proposed project or project variant would not displace a substantial number of existing housing units, people, or employees, or create demand for additional housing elsewhere. (Less than Significant)**

**Proposed Project and Project Variant**

The proposed project and the project variant would displace four employees currently working in the existing parking garage but would employ a total of up to eight employees with the establishment of potential retail space and building services. Therefore, the project would result in a net increase of four new, permanent jobs. As discussed above, it is anticipated that people employed by the retail operator and residential uses would already live within the city or in nearby communities, and thus would not generate a demand for additional housing elsewhere.

As no residential units are currently located on the project site, the proposed project and the project variant would not displace existing housing units or residents. The proposed project and project variant would add 111 to 116 net new units on site, including up to 22 to 23 affordable inclusionary rental units, respectively, and would not permanently displace existing units. For these reasons, the proposed project and project variant would have a less-than-significant impact related to the displacement of housing units, people, or employees.

**Impact C-PH-1: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would not induce, either directly or indirectly, substantial unplanned population growth, displace substantial people or housing units, or necessitate the construction of replacement housing. (Less than Significant)<sup>13</sup>**

**Proposed Project and Project Variant**

As noted above, *Plan Bay Area* is the current regional transportation plan and Sustainable Communities Strategy. The Plan was adopted by MTC and ABAG in July 2013 and revised in 2017,<sup>14</sup> and contains housing and employment projections anticipated to occur in San Francisco through 2040.

As stated above, San Francisco's population is expected to increase by 280,490 persons for a total of 1,085,730 persons by 2040. The City's projected housing growth between 2015 and 2040 is

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<sup>13</sup> Additional environmental impacts related to cumulative growth with regard to specific resources can be found in section E.6, Transportation and Circulation, section E.7, Noise, section E.8, Air Quality, section E.12, Recreation, section E.13, Utilities and Service Systems, and section E.14, Public Services.

<sup>14</sup> Plan Bay Area 2040. Metropolitan Transportation Commission. Adopted July 26, 2017. Website accessed February 25, 2020. <https://www.planbayarea.org/previous-plan/plan-bay-area-2040>

84,910 units. San Francisco has approved 70,963 dwelling units as of 2018. In combination with past, present, and reasonably foreseeable future projects, the proposed project (or project variant) and cumulative projects within a 1/4-mile radius of the project site would account for approximately 0.4 percent of this projected citywide population growth.<sup>15</sup> Employment growth resulting from the proposed project (or project variant) and cumulative projects in the area would similarly account for only a minor fraction of projected citywide employment growth. Moreover, this population and employment growth has been anticipated and accounted for in ABAG's and the City's projections, and therefore, the proposed project (or project variant), in combination with past, present, and reasonably foreseeable future projects would not induce substantial unplanned population and employment growth, displace substantial people or housing units, or necessitate the construction of replacement housing. For these reasons, the proposed project (or project variant), in combination with other past, present, and reasonably foreseeable future projects, would have less-than-significant cumulative population and housing impacts.

#### E.4 Cultural Resources

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>4. CULTURAL RESOURCES. Would the project:</b>					
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5, including those resources listed in article 10 or article 11 of the San Francisco Planning Code?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<sup>15</sup> New residents generated by cumulative projects in Table 1 = 415 new dwelling units x 2.3 persons per household (San Francisco average) = 954 persons.  
Proposed project plus cumulative projects contribution to citywide population growth by 2040 = (255 + 954 new project residents/280,490 new citywide residents) x 100 = 0.4 percent  
Project variant's contribution to citywide population growth by 2040 = (267 + 954 new project variant residents/280,490 new citywide residents) x 100 = 0.4 percent

Pursuant to CEQA Guidelines sections 15064.5(a)(1) and 15064.5(a)(2), historical resources are buildings or structures that are listed or are eligible for listing in the California Register of Historical Resources or are identified in a local register of historical resources, such as Articles 10 and 11 of the planning code. The existing building, constructed in 1924, is a contributory building to the Uptown Tenderloin Historic District (UTHD or district), as listed in the National Register for Historic Places and has been previously determined to also be individually eligible for listing on the California Register of Historical Resources.<sup>16,17</sup>

**Impact CR-1: The proposed project could cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines section 15064.5 or resources listed in Article 10 or Article 11 of the San Francisco Planning Code. (Potentially Significant)**

The proposed project would demolish most of the 550 O'Farrell Street building but would retain elements of the building's façade incorporated into the lower floors of the O'Farrell Street frontage. Demolition of most of the existing building would have a significant adverse effect on an individually significant historic resource. The DEIR evaluates the proposed project impacts on the individually significant historic architectural resource.

**Impact CR-2: The project variant could cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines section 15064.5 or resources listed in Article 10 or Article 11 of the San Francisco Planning Code. (Potentially Significant)**

The project variant would demolish the 550 O'Farrell Street building and develop a new building on the site. This would have a significant adverse effect on an individually significant historic resource. The DEIR evaluates the project variant impacts on the individually significant historic architectural resource.

**Impact CR-3: Development at 550 O'Farrell Street under the proposed project or project variant could cause a substantial adverse change in the significance of the Uptown Tenderloin Historic District. (Potentially Significant)**

The 550 O'Farrell Street building is a contributor to the National Register-listed Uptown Tenderloin Historic District. The proposed project would demolish most of the 550 O'Farrell Street building but would retain elements of the building's façade incorporated into the lower floors of the O'Farrell Street frontage and construct a 13-story building. The project variant would demolish the 550 O'Farrell Street building and construct a 13-story building. These changes (partial demolition, full demolition, and new construction) could cause a substantial adverse change in the significance of the Uptown Tenderloin Historic District. The DEIR evaluates the

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<sup>16</sup> Treanor HL/Carey & Co. Inc., *Historic Resource Evaluation—Part 1, 550 O'Farrell Street*, San Francisco California, September 1, 2017, and *Historic Resource Evaluation—Part 2*, July 29, 2019.

<sup>17</sup> San Francisco Planning Department, *Preservation Team Review Form, 550 O'Farrell Street*, October 2, 2018.



proposed project impacts and the project variant impacts on the Uptown Tenderloin Historic District.

**Impact CR-4: The proposed project or project variant would generate excessive groundborne vibration or groundborne noise levels that could damage historic resources. (Less than Significant with Mitigation)**

Proposed Project and Project Variant

**Section E.7, Noise** of this Initial Study, pp. 48-68, analyzes potential groundborne vibration and noise impacts of proposed project or project variant construction. As discussed in that section, project construction would generate vibration levels that would be capable of cosmetically damaging the adjacent buildings to the west and east. The project sponsor would implement **Mitigation Measure M-NO-2: Construction Vibration Controls** to reduce potential vibration impacts on adjacent buildings to a less-than-significant level

**Impact CR-5: The proposed project or project variant could potentially cause a substantial adverse change in the significance of an archeological resource, or could potentially disturb human remains, if present. (Less than Significant with Mitigation)**

Proposed Project and Project Variant

A preliminary archeological review determined that there are no known or suspected resources on or near the project site, or any water sources in the vicinity. The project site has been assessed as having low sensitivity for the presence of buried prehistoric archeological resources, but is on the margin of an area assessed as having moderate prehistoric archeological sensitivity.

The project site and vicinity were fully developed by 1869. The 1906 earthquake and fire destroyed all development on the site. The existing garage, constructed in 1924, appears to have been the first subsequent development. The excavation for its basement almost certainly destroyed any historic archeological features or deposits that might have survived the earthquake, and it is unlikely that any historic features would be present at depth greater than the existing basement. However, there may be the potential for a buried prehistoric archeological deposit, which could include human remains, to be present in the dune sands that underlie the existing garage, and to be destroyed by project excavations, which would extend deeper than the existing garage foundation. If such a resource were present, the project and project variant could have potentially significant impacts on archeological resources, including impacts on human remains.<sup>18</sup>

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<sup>18</sup> San Francisco Planning Department, Preliminary Archeological Review, 550 O'Farrell Street, Case File No. 2017-004557ENV, November 13, 2018, updated April 29, 2020. The PAR cites the 550 O'Farrell Street project excavation plans, dated November 5, 2018, and Rollo & Ridley, Preliminary Geotechnical Investigation, 550 O'Farrell Street, San Francisco, California. September 18, 2018.

To reduce the potential for impacts to archeological resources that might be discovered during construction to less-than-significant levels, the project sponsor would be required to incorporate **Mitigation Measure M-CR-5: Accidental Discovery**.

#### **Mitigation Measure M-CR-5: Accidental Discovery**

The following mitigation measure is required to avoid any potential adverse effect from the proposed project on accidentally discovered buried or submerged historical resources as defined in *CEQA Guidelines* Section 15064.5(a) and (c), on tribal cultural resources as defined in *CEQA Statute* Section 21074, and on human remains and associated or unassociated funerary objects. The project sponsor shall distribute the Planning Department archeological resource "ALERT" sheet to the project prime contractor; to any project subcontractor (including demolition, excavation, grading, foundation, pile driving, etc. firms); or utilities firm involved in soils disturbing activities within the project site. Prior to any soils disturbing activities being undertaken each contractor is responsible for ensuring that the "ALERT" sheet is circulated to all field personnel including, machine operators, field crew, pile drivers, supervisory personnel, etc.

A preconstruction training shall be provided to all construction personnel performing or managing soils disturbing activities by a qualified archeologist prior to the start of soils disturbing activities on the project. The training may be provided in person or using a video and include a handout prepared by the qualified archeologist. The video and materials will be reviewed and approved by the ERO. The purpose of the training is to enable personnel to identify archeological resources that may be encountered and to instruct them on what to do if a potential discovery occurs. Images of expected archeological resource types and archeological testing and data recovery methods should be included in the training.

The project sponsor shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) to the ERO confirming that all field personnel have received copies of the Alert Sheet and have taken the preconstruction training.

Should any indication of an archeological resource be encountered during any soils disturbing activity of the project, the project Head Foreman and/or project sponsor shall immediately notify the ERO and shall immediately suspend any soils disturbing activities in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken.

If the ERO determines that an archeological resource may be present within the project site, the project sponsor shall retain the services of an archeological consultant from the pool of qualified archeological consultants maintained by the Planning Department archeologist. The archeological consultant shall advise the ERO as to whether the

discovery is an archeological resource, retains sufficient integrity, and is of potential scientific/historical/cultural significance. If an archeological resource is present, the archeological consultant shall identify and evaluate the archeological resource. The archeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require, if warranted, specific additional measures to be implemented by the project sponsor. The ERO may also determine that the archeological resources is a tribal cultural resource and will consult with affiliated Native Americans tribal representatives, if warranted, as detailed under M-TCR-1 for this project.

Measures might include: preservation in situ of the archeological resource; an archeological monitoring program; an archeological testing program; and an interpretative program. If an archeological monitoring program, archeological testing program, or an interpretative program is required, it shall be consistent with the Environmental Planning (EP) division guidelines for such programs and reviewed and approved by the ERO. The ERO may also require that the project sponsor immediately implement a site security program if the archeological resource may be at risk from vandalism, looting, or other damaging actions.

The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and federal laws. This shall include immediate notification of the Medical Examiner of the City and County of San Francisco and, in the event of the Medical Examiner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission, which will appoint a Most Likely Descendant (MLD). The MLD will complete his or her inspection of the remains and make recommendations or preferences for treatment within 48 hours of being granted access to the site (Public Resources Code section 5097.98). The ERO also shall be notified immediately upon the discovery of human remains.

The project sponsor and ERO shall make all reasonable efforts to develop a Burial Agreement ("Agreement") with the MLD, as expeditiously as possible, for the treatment and disposition, with appropriate dignity, of human remains and associated or unassociated funerary objects (as detailed in CEQA Guidelines section 15064.5(d)). The Agreement shall take into consideration the appropriate excavation, removal, recordation, scientific analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. If the MLD agrees to scientific analyses of the remains and/or associated or unassociated funerary objects, the archeological consultant shall retain possession of the remains and associated or unassociated funerary objects until completion of any such analyses, after which the remains and associated or unassociated funerary objects shall be reinterred or curated as specified in the Agreement.

Nothing in existing State regulations or in this mitigation measure compels the project sponsor and the ERO to accept treatment recommendations of the MLD. However, if the ERO, project sponsor and MLD are unable to reach an Agreement on scientific treatment of the remains and associated or unassociated funerary objects, the ERO, with cooperation of the project sponsor, shall ensure that the remains and/or mortuary materials are stored securely and respectfully until they can be reinterred on the property, with appropriate dignity, in a location not subject to further or future subsurface disturbance.

Treatment of historic-period human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity, additionally, shall follow protocols laid out in the project's archeological treatment documents, and in any related agreement established between the project sponsor, Medical Examiner and the ERO.

The archeological consultant shall submit a Draft Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken. The Draft FARR shall include a curation and deaccession plan for all recovered cultural materials. The Draft FARR shall also include an Interpretation Plan for public interpretation of all significant archeological features.

Copies of the Draft FARR shall be sent to the ERO for review and approval. Once approved by the ERO, the consultant shall also prepare a public distribution version of the FARR. Copies of the FARR shall be distributed as follows: California Archeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning Department shall receive one bound and one unlocked, searchable PDF copy on CD of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of public interest in or the high interpretive value of the resource, the ERO may require a different or additional final report content, format, and distribution than that presented above.

Implementation of **Mitigation Measure M-CR-5** would ensure that archeological resources that might be encountered during project excavations would be identified promptly and would require that appropriate archeological treatment is implemented to preserve the important information represented by the resources. Those steps would ensure that project excavations would not cause a substantial adverse change in the significance of archeological resources that could be encountered during construction, and that the project's potential impact would be less than significant.

**Impact C-CR-1: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, could contribute to cumulative adverse changes in historic resources in the Uptown Tenderloin Historic District. (Potentially Significant)**

Proposed Project and Project Variant

The DEIR, **chapter 3, Environmental Setting and Impacts, section 3.B, Historic Architectural Resources**, evaluates potential cumulative impacts on historic resources in the Uptown Tenderloin Historic District. Such impacts could result from partial or full demolition of the 550 O'Farrell Street building, a contributor to the district, and from new construction on the site.

**Section E.7, Noise** of this initial study, pp. 48-68, analyzes potential cumulative groundborne vibration and noise impacts. As discussed in that section, the proposed project or project variant and cumulative project construction could result in significant cumulative vibration impacts on historic resources, to which the proposed project or project variant would make a substantial contribution. However, the proposed project or project variant would be required to implement **Mitigation Measure M-NO-2: Construction Vibration Controls**, which would reduce its contribution to these impacts to less-than-significant levels.

**Impact C-CR-2: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would not contribute to cumulative adverse changes in archeological resources or human remains. (Less than Significant)**

Proposed Project and Project Variant

As noted above, the proposed project and project variant would have potentially significant impacts on archeological resources, including impacts on human remains, which would be mitigated to a less-than-significant level by the inclusion of **Mitigation Measure M-CR-5**. These impacts are generally site-specific and limited to a project's construction area; the proposed project therefore would not contribute to cumulative adverse impacts on such resources.

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## E.5 Tribal Cultural Resources

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>5. TRIBAL CULTURAL RESOURCES.</b> Would the project:					
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

**Impact TCR-1: The proposed project or project variant could cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074. (Less than Significant with Mitigation)**

### Proposed Project and Project Variant

CEQA section 21074.2 requires the lead agency to consider the effects of a project on tribal cultural resources. As defined in section 21074, tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed or determined to be eligible for listing on the national, state, or local register of historic resources. Pursuant to CEQA section 21080.3.1(d), on April 2, 2019, the planning

department contacted Native American individuals and organizations for the San Francisco area, providing a description of the project and requesting comments on the identification, presence, and significance of tribal cultural resources in the project vicinity.<sup>19</sup> During the 30-day comment period, no Native American tribal representatives contacted the planning department to request consultation. Based on prior Native American consultation, the planning department considers all prehistoric archeological resources to be potential tribal cultural resources.

The project site has been assessed as having low sensitivity for the presence of buried prehistoric resources, but it is on the margin of a higher sensitivity area, as discussed above. Project excavations would exceed the depth of prior excavation, and would be within dune sands, which hold the potential to harbor buried archeological deposits. On this basis, there is the potential for project excavation to encounter archeological resources that are also tribal cultural resources. The project impact, if it occurred, would be potentially significant.

To reduce the potential for impacts to tribal cultural resources to less-than-significant levels, the project sponsor would be required to incorporate **Mitigation Measure M-TCR-1: Tribal Cultural Resources Archeological Resource Preservation Plan and/or Interpretive Program**

**Mitigation Measure M-TCR-1: Tribal Cultural Resources Archeological Resource Preservation Plan and/or Interpretive Program**

In the event of the discovery of an archeological resource of Native American origin, the Environmental Review Officer (ERO), the project sponsor, and the tribal representative, shall consult to determine whether preservation in place would be feasible and effective. If it is determined that preservation-in-place of the tribal cultural resource (TCR) would be both feasible and effective, then the archeological consultant shall prepare an archeological resource preservation plan (ARPP), which shall be implemented by the project sponsor during construction.

If the ERO in consultation with the project sponsor and the tribal representative determines that preservation-in-place of the TCR is not a sufficient or feasible option then archeological data recovery shall be conducted, as detailed under M-CR-5 for this project. In addition, the project sponsor shall prepare an interpretive program of the TCR in consultation with affiliated Native American tribal representatives. The plan shall identify proposed locations for installations or displays, the proposed content and materials of those displays or installation, the producers or artists of the displays or installation, and a long-term maintenance program. The interpretive program may include artist installations, preferably by local Native American artists, oral histories with local Native Americans, artifacts displays and interpretation, and educational panels or other informational displays. Upon

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<sup>19</sup> San Francisco Planning Department, *Tribal Notification Regarding Tribal Cultural Resources and CEQA – 550 O'Farrell Street*, 2017-004557ENV, April 2, 2019.

approval by the ERO and prior to project occupancy, the interpretive program shall be implemented by the project sponsor.

Implementation of **Mitigation Measure M-TCR-1** would require the appropriate involvement of concerned Native Americans in the treatment of tribal cultural resources discovered during construction and ensure that any such resource would be preserved, or that the information it represents would be preserved and interpreted to the public. Those steps would ensure that project excavations would not cause a substantial adverse change in the significance of tribal cultural resources that could be encountered during construction, and that the project's potential impact would be less than significant with mitigation.

**Impact C-TCR-1: The proposed project or project variant, in combination with reasonably foreseeable future projects, would not result in significant cumulative impacts to tribal cultural resources. (Less than Significant)**

#### Proposed Project and Project Variant

Project-related impacts on tribal cultural resources are site-specific and generally limited to a project's construction area. As noted above, Native American tribal representatives for the San Francisco area were contacted and asked to comment on the identification, presence, and significance of tribal cultural resources in the project vicinity; none of these representatives contacted the planning department to request consultation. For these reasons, the proposed project or project variant, in combination with other reasonably foreseeable future projects, would not have a significant cumulative impact on tribal cultural resources.

## E.6 Transportation and Circulation

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>6. TRANSPORTATION AND CIRCULATION— Would the project:</b>					
a) Involve construction that would require a substantially extended duration or intensive activity, the effects of which would create potentially hazardous conditions for people walking, bicycling, or driving, or public transit operations; or interfere with emergency access or accessibility for people walking or bicycling; or substantially delay public transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
b) Create potentially hazardous conditions for people walking, bicycling, or driving or public transit operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Interfere with accessibility of people walking or bicycling to and from the project site, and adjoining areas, or result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially delay public transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Cause substantial additional vehicle miles travelled or substantially induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow travel lanes) or by adding new roadways to the network?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Result in a loading deficit, the secondary effects of which would create potentially hazardous conditions for people walking, bicycling, or driving; or substantially delay public transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Result in a substantial vehicular parking deficit, the secondary effects of which would create potentially hazardous conditions for people walking, bicycling, or driving; or interfere with accessibility for people walking or bicycling or inadequate access for emergency vehicles; or substantially delay public transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Setting

The roadway network surrounding the project site is generally an east-west and north-south grid, and several streets in proximity to the project site are one-way. Vehicle and pedestrian access to the project site is on O'Farrell Street. O'Farrell Street, one-way eastbound, is designated a major arterial in the general plan transportation element. The street has three travel lanes; the southernmost lane is a bus/taxi-only lane. On-street parallel parking is provided along both sides of the street.

On the north side of the project block, Geary Street, one-way westbound, is designated a major arterial in the transportation element. The street has two travel lanes; the northernmost lane is a bus/taxi-only lane. Leavenworth Street, on the west side of the block, is one-way northbound. Jones Street, on the east side of the block, is one-way southbound, and is a secondary arterial street.

The project site is well served by public transit. The following Muni transit lines operate within a 1/4 mile of the project site: 2-Clement, 3-Jackson, 8-Bayshore and 8Bx-Bayshore Express, 27-Bryant, 30-Stockton, 38-Geary and 38R-Geary Rapid, and 45-Union/Stockton. The closest transit stops at Leavenworth and O'Farrell streets serve the 38-Geary (eastbound on O'Farrell Street) and 27-Bryant (northbound on Leavenworth Street). BART and Muni Metro subway service is available at the Civic Center or Powell Street stations.

### *Vehicle Miles Traveled in the San Francisco Bay Area*

Many factors affect travel behavior. These factors include density, diversity of land uses, design of the transportation network, access to regional destinations, distance to high-quality transit, development scale, demographics, and transportation demand management. Typically, low-density development at a great distance from other land uses, located in areas with poor access to non-private vehicular modes of travel, generates more automobile travel compared to development located in urban areas, where a higher density, mix of land uses, and travel options other than private vehicles are available.

Given these travel behavior factors, San Francisco has a lower vehicle miles traveled (VMT) ratio than the nine-county San Francisco Bay Area region. In addition, some areas of the city have lower VMT ratios than other areas of the city. These areas of the city can be expressed geographically through transportation analysis zones. Transportation analysis zones are used in transportation planning models for transportation analysis and other planning purposes. The zones vary in size from single city blocks in the downtown core, multiple blocks in outer neighborhoods, to even larger zones in historically industrial areas like the Hunters Point Shipyard.

The San Francisco County Transportation Authority (transportation authority) uses the San Francisco Chained Activity Model Process (SF-CHAMP) to estimate VMT by private automobiles and taxis for different land use types. Travel behavior in SF-CHAMP is calibrated based on observed behavior from the California Household Travel Survey 2010-2012, Census data regarding automobile ownership rates and county-to-county worker flows, and observed vehicle counts and transit boardings. SF-CHAMP uses a synthetic population, which is a set of individual actors that represents the Bay Area's actual population, who make simulated travel decisions for a complete day. The transportation authority uses tour-based analysis for residential uses, which examines the entire chain of trips over the course of a day, not just trips to and from a project. For retail uses, the transportation authority uses trip-based analysis, which counts VMT from

individual trips to and from the project (as opposed to entire chain of trips). A trip-based approach, as opposed to a tour-based approach, is necessary for retail projects because a tour is likely to consist of trips stopping in multiple locations, and the summarizing of tour VMT to each location would overestimate VMT.<sup>20,21</sup> For residential uses, existing regional average daily VMT per capita is 17.2. For retail uses, existing regional average daily VMT per capita is 14.8.

San Francisco 2040 cumulative conditions were projected using a SF-CHAMP model run, applying the same methodology as outlined above for existing conditions, but also incorporated residential and job growth estimates and reasonably foreseeable transportation infrastructure improvements through 2040. For residential development, the projected 2040 regional average daily work-related VMT per capita is 16.1. For retail development, the projected 2040 regional average daily work-related VMT per employee is 14.6.

### ***VMT Analysis***

Land use projects may cause substantial additional VMT. The following discussion identifies thresholds of significance and screening criteria used to determine if a land use project would result in significant impacts under the VMT metric.

For residential projects, a project would generate substantial additional VMT if it exceeds regional VMT per capita minus 15 percent.<sup>22</sup> As documented in the OPR *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA* (Proposed Transportation Impact Guidelines), a 15-percent threshold below existing development is “both reasonably ambitious and generally achievable.”<sup>23</sup> This approach is consistent with CEQA section 21099 and the thresholds of significance for other land uses recommended in OPR’s Proposed Transportation Impact Guidelines. For mixed-use projects, each proposed land use is evaluated independently, per the significance criteria described above.

OPR’s *Proposed Transportation Impact Guidelines* provide screening criteria to identify types, characteristics, or locations of land use projects that would not exceed these VMT thresholds of significance. OPR recommends that if a project or land use proposed as part of the project meets any of the screening criteria, then VMT impacts are presumed to be less than significant for that

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<sup>20</sup> To state another way: a tour-based assessment of VMT at a retail site would consider the VMT for all trips in the tour, for any tour with a stop at the retail site. If a single tour stops at two retail locations, for example, a coffee shop on the way to work and a restaurant on the way back home, both retail locations would be allotted the total tour VMT. A trip-based approach allows us to apportion all retail-related VMT to retail sites without double-counting.

<sup>21</sup> San Francisco Planning Department, Executive Summary: Resolution Modifying Transportation Impact Analysis, Appendix F, Attachment A, March 3, 2016.

<sup>22</sup> OPR, *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*, <http://www.opr.ca.gov/ceqa/updates/sb-743/>, accessed December 19, 2017. See page III: 20.

<sup>23</sup> *Ibid.*

land use and a detailed VMT analysis is not required. The screening criteria applicable to the proposed project and their implementation in San Francisco are described below:

- **Map-Based Screening for Residential, Office, and Retail Projects.** OPR recommends mapping areas where VMT falls below the applicable land use threshold. Accordingly, the Transportation Authority has developed maps depicting existing VMT levels in San Francisco for residential, office, and retail land uses based on the SF-CHAMP 2012 base-year model run. The planning department uses these maps and associated data to determine whether a proposed project is located in an area of the city that is below the applicable VMT threshold(s).
- **Proximity to Transit Stations.** OPR recommends that residential, retail, and office projects, as well as projects that are a mix of these uses, proposed within a 1/2 mile of an existing major transit stop (as defined by CEQA section 21064.3) or an existing stop along a high-quality transit corridor (as defined by CEQA 21155) would not result in a substantial increase in VMT. However, this presumption would not apply if the project would: (1) have a floor area ratio of less than 0.75; (2) include more parking for use by residents, customers, or employees of the project than required or allowed, without a conditional use authorization; or (3) be inconsistent with the applicable *Sustainable Communities Strategy*.<sup>24</sup>
- **Small Projects Screening Criterion.** OPR recommends that lead agencies may generally assume that a project would not have significant VMT impacts if the project would either: (1) generate fewer trips than the level for studying consistency with the applicable congestion management program, or (2) where the applicable congestion management program does not provide such a level, fewer than 100 vehicle trips per day. The Transportation Authority's Congestion Management Program, December 2015, does not include a trip threshold for studying consistency. Therefore, the planning department uses a screening criterion of 100 vehicle trips per day, whereby a project that would generate vehicle trips equal to or below this threshold would not generate a substantial increase in VMT.

### ***Induced Automobile Travel Analysis***

Transportation projects may substantially induce additional automobile travel. The following identifies thresholds of significance and screening criteria used to determine if transportation projects would result in significant impacts by inducing substantial additional automobile travel.

Pursuant to OPR's Proposed Transportation Impact Guidelines, a transportation project would substantially induce automobile travel if it would generate more than 2,075,220 VMT per year. This threshold is based on the fair share VMT allocated to transportation projects required to

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<sup>24</sup> A project is considered to be inconsistent with the Sustainable Communities Strategy if development is located outside areas contemplated for development in the Sustainable Communities Strategy.

achieve California’s long-term GHG emissions reduction goal of 40 percent below 1990 levels by 2030.

OPR’s Proposed Transportation Impact Guidelines includes a list of transportation project types that would not likely lead to a substantial or measurable increase in VMT. If a project fits within the general types of projects (including combinations of types) described in the Transportation Impact Guidelines, then it is presumed that VMT impacts would be less than significant and a detailed VMT analysis is not required. The following types of transportation projects included in the Transportation Impact Guidelines are applicable to the subject project’s proposed removal of 119 off-street parking spaces by demolishing a public garage and constructing a mixed-use building

- Other Minor Transportation Projects:
  - Removal of off- or on-street vehicular parking space(s)

## Travel Demand

Localized trip generation of the proposed project and the project variant were calculated using a trip-based analysis and information included in the 2019 *Transportation Impact Analysis Guidelines for Environmental Review* (SF Guidelines) developed by the planning department.<sup>25,26</sup> The proposed project or the project variant would generate up to an estimated 1,140 person trips (inbound and outbound) on a weekday daily basis, consisting of up to 257 person trips by auto (167 vehicle trips accounting for vehicle occupancy), up to 66 person trips by transportation network company (TNC) or taxi (44 vehicle trips accounting for vehicle occupancy), up to 314 transit trips and five trips by private shuttle, up to 35 bicycle trips and up to 464 walk trips. During the p.m. peak hour, the proposed project or project variant would generate up to an estimated 70 daily person-trips, consisting of up to 17 person trips by auto (11 vehicle trips accounting for vehicle occupancy data), up to four person trips by transportation network company (TNC) or taxi (three vehicle trips accounting for vehicle occupancy), up to 19 transit trips, up to two bicycle trips, and up to 28 walk trips. **Table 2: Proposed Project Trip Generation** and **Table 3: Project Variant Trip Generation** below presents these trip characteristics.

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<sup>25</sup> All trip generation data cited herein was calculated using the San Francisco Planning Department’s Travel Demand Tool, <https://sftraveldemand.sfcta.org/>, accessed January 21, 2020.

<sup>26</sup> Trip calculations are conservative (overestimates) because they do not subtract trips associated with existing uses from proposed uses.

**Table 2: Proposed Project Trip Generation**

Mode	Total Daily Person Trips	P.M. Peak-Hour Person Trips	Total Vehicle Trips**	P.M. Peak-Hour Vehicle Trips
Auto	246	16	161	11
TNC/Taxi*	63	4	42	3
Transit	303	18		
Private Shuttle	5	0		
Walk	449	27		
Bike	33	2		
<b>TOTALS</b>	<b>1,099</b>	<b>68</b>	<b>203</b>	<b>13</b>

Note: Totals may not add up due to rounding

\* TNC refers to transportation network company trips (e.g., Uber).

\*\*Total vehicle trips account for occupancy per vehicle, including private vehicles and TNC/taxi vehicles.

Source: San Francisco Planning Department, November 2019

**Table 3: Project Variant Trip Generation**

Mode	Total Daily Person Trips	P.M. Peak-Hour Person Trips	Total Vehicle Trips**	P.M. Peak-Hour Vehicle Trips
Auto	257	17	167	11
TNC/Taxi*	66	4	44	3
Transit	314	19		
Private Shuttle	5	0		
Walk	464	28		
Bike	35	2		
<b>TOTALS</b>	<b>1,140</b>	<b>70</b>	<b>211</b>	<b>14</b>

Notes: Totals may not add up due to rounding

\* TNC refers to transportation network company trips (e.g., Uber).

\*\*Total vehicle trips account for average occupancy per vehicle, including private vehicles and TNC/taxi vehicles.

Source: San Francisco Planning Department, November 2019

## Impact Analysis

**Impact TR-1: The proposed project or the project variant would not involve construction that would require a substantially extended duration or intensive activity, the effects of which would create potentially hazardous conditions for people walking, bicycling, or driving, or public transit operations; or interfere with emergency access or accessibility for people walking or bicycling; or substantially delay public transit. (Less than Significant)**

### Proposed Project and Project Variant

Construction of the proposed project or the project variant would last approximately 21 months. Construction staging would occur primarily on O'Farrell Street. During the construction period, there would be a flow of construction-related trucks to and from the project site, which could

result in a temporary reduction in the capacities of local streets. In addition, construction activities would generate construction worker trips to and from the project site and temporary demand for parking and public transit. However, the temporary demand for public transit would not be expected to exceed the capacity of local or regional transit service. Temporary traffic lane closures would also be coordinated with the applicable City agencies to minimize the impacts on local traffic. In general, lane and sidewalk closures are subject to review and approval by San Francisco Public Works (public works) and the City's Transportation Advisory Staff Committee, which consists of representatives from the City's fire, police, public works, and public health departments as well as the SFMTA and Port of San Francisco.

Construction of the proposed project or the project variant would maintain circulation for people walking and would not disrupt or substantially delay vehicles and people bicycling on O'Farrell Street. Construction activities would be required to meet City rules and guidance so that work can be done safely and with the least possible interference for people walking, bicycling, or taking transit and/or transit operations, as well as for other vehicles. Thus, proposed project or project variant construction would not result in potentially hazardous conditions. For the reasons described, the proposed project's or project variant's construction-related transportation impacts would be less than significant.

**Impact TR-2: The proposed project or project variant would not create hazardous conditions for people walking, bicycling, or driving, or public transit operations. (Less than Significant)**

**Proposed Project and Project Variant**

The proposed project and the project variant would remove the driveways serving the existing garage on the site. The proposed project or project variant (with new residential and retail uses) would add up to approximately 211 daily vehicle trips (up to 14 vehicle trips during the p.m. peak period) to the transportation network, including private vehicle trips and taxi and transportation network company (TNC) vehicle trips.<sup>27</sup> These trips would be dispersed to various streets within the project vicinity and are not expected to result in substantial queuing at intersections east or west of the project site. Therefore, the proposed project and project variant would not create hazardous conditions for people walking, bicycling, or driving, or for public transit operations and impacts would be less than significant.

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<sup>27</sup> All trip generation data cited herein was calculated using the San Francisco Planning Department's Travel Demand Tool, <https://sftraveldemand.sfcta.org/>, accessed January 21, 2020.

**Impact TR-3: The proposed project or project variant would not interfere with accessibility of people walking or bicycling to or from the project site and adjoining areas, or result in inadequate emergency access. (Less than Significant)**

#### Proposed Project and Project Variant

##### *Pedestrian Facilities*

Trips generated by the proposed project would include walk trips to and from the proposed residential uses and potential ground-floor retail uses or residential amenity uses,<sup>28</sup> plus walk trips to and from transit stops. The proposed project or project variant would generate up to about 464 daily pedestrian trips to and from the project site, including 28 pedestrian trips during the weekday p.m. peak hour. The sidewalk along O'Farrell Street is about 15 feet wide and currently meets pedestrian demand. In addition, there are pedestrian curb ramps, crosswalks, and signals at the nearest intersections to facilitate pedestrian crossing. As a result, the existing sidewalks at the site and within the project vicinity would be able to accommodate the additional project-generated pedestrian trips without becoming substantially overcrowded or unsafe.

In addition, the proposed project and the project variant would remove two existing curb cuts (26 feet wide and 28 feet wide). Furthermore, project-generated or project variant-generated vehicle traffic (up to 211 daily vehicle trips and 14 daily vehicle trips during the p.m. peak period) would be dispersed among multiple streets within the project vicinity and therefore, would not be expected to result in substantial conflicts with pedestrians on O'Farrell Street or other streets in the project vicinity. As a result, proposed project and project variant-related impacts on pedestrian facilities would be less than significant.

##### *Bicycle Facilities*

The proposed project or project variant would add up to approximately 35 daily person trips by bicycle and up to two bicycle trips during the peak p.m. period. Implementation of the proposed project or the project variant would not alter the existing street grid or result in other physical changes that would affect bicycle routes and lanes. The nearest bicycle routes are on Post and Sutter streets with marked shared travel lanes. In addition, the proposed project and the project variant would include 156 class 1 bicycle parking spaces in bicycle storage rooms on the ground floor and in the basement of the proposed building and eight class 2 bicycle parking spaces located on the O'Farrell Street sidewalk in front of the project site. For these reasons, project or project variant-generated bicycle trips would not have a significant impact on existing bicycle facilities.

The proposed project or project variant would also generate up to 211 daily vehicle trips (14 vehicle trips during the p.m. peak period). While the project and variant would increase the

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<sup>28</sup> The proposed project or project variant would have 1,300 sf of ground floor space that would be retail or residential amenity uses as defined in the planning code.



amount of vehicle traffic along O'Farrell Street and other streets in the project vicinity, the expected magnitude of this increase on any one street would not be substantial enough to result in conflicts with cyclists or affect overall bicycle circulation or the operations of bicycle facilities. As noted above, the nearest designated bicycle routes are on Post and Sutter streets. Therefore, impacts related to bicycle travel would be less than significant.

### ***Emergency Access***

Emergency vehicle access is currently provided along O'Farrell Street, which fronts the project site. Emergency access would remain unchanged from existing conditions. In addition, the proposed project would not close off any existing streets or entrances to public uses. Therefore, the proposed project and the project variant would have a less-than-significant impact on emergency access.

### **Impact TR-4: The proposed project or project variant would not result in substantial public transit delays. (Less than Significant)**

#### **Proposed Project and Project Variant**

Based on Northeast Muni Screenline data, the existing peak-hour capacity utilization of lines serving the site is approximately 66 and 67 percent during the a.m. and p.m. peak hours, respectively.<sup>29, 30</sup>

The proposed project or project variant would generate up to approximately 314 daily transit trips (19 trips during the p.m. peak hour).<sup>31</sup> These transit trips would be distributed among the multiple transit lines serving the project vicinity (described previously in this section) and would be accommodated by their existing capacity (66 to 67 percent), which is well below the SFMTA capacity utilization performance standard of 85 percent.<sup>32</sup> For these reasons, the proposed project and the project variant would not result in unacceptable levels of transit service or cause

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<sup>29</sup> San Francisco Planning Department, *Memorandum: Transit Data for Transportation Impact Studies*, May 15, 2015.

<sup>30</sup> Typically, the planning department assesses transit impacts through a screenline analysis, which assumes that there are identifiable corridors or directions of travel that are served by a grouping of transit lines. Therefore, an individual line would be combined with other transit lines in a corridor and corridors combined into a screenline in determining significance. The project site, 550 O'Farrell Street, is served by transit lines included within the Northeast Muni Screenline.

<sup>31</sup> All trip generation data cited herein was calculated using the San Francisco Planning Department's Travel Demand Tool, <https://sftraveldemand.sfcta.org/>, accessed January 21, 2020.

<sup>32</sup> The SFMTA uses a capacity utilization performance standard of 85 percent for transit vehicle loads. In other words, SFMTA local transit lines should operate at or below 85 percent capacity utilization. The planning department, in preparing and reviewing transportation impact studies, has similarly used the 85-percent capacity utilization standard as a threshold of significance for determining peak period transit demand impacts on the SFMTA lines. By contrast, regional transit agencies use a 100 percent capacity utilization standard, and therefore, the planning department uses a 100-percent capacity utilization as a threshold of significance for determining peak period transit demand impacts on regional transit.

a substantial increase in delays or operating costs such that significant adverse impacts in transit service could result. Thus, impacts on transit service would be less than significant.

**Impact TR-5: The proposed project or project variant would not cause substantial additional vehicle miles traveled or substantially induce additional automobile travel. (Less than Significant)**

**Proposed Project and Project Variant**

***VMT Analysis***

The existing average daily VMT per capita for residential uses is 2.3 for San Francisco traffic analysis zone (TAZ) 711, which is about 84 percent below the applicable screening criterion (existing regional average VMT per capita minus 15 percent) of 14.6. In addition, the existing average daily VMT per retail employee, at 7.1 for TAZ 711, is about 44 percent below the applicable screening criterion (existing regional average VMT per retail employee minus 15 percent) of 12.6. Therefore, the proposed project and variant would meet the Map-Based Screening criteria for residential and retail uses. See **Table 4: Daily Vehicle Miles Traveled** below, which includes VMT for the TAZ in which the project site is located: 711. The project site also meets the Proximity to Transit Stations screening criteria because it is a 1/2 mile from two BART stations (Civic Center and Powell Street) and within a 1/4 mile of Muni stops with peak service intervals of less than 15 minutes (38 Geary, 38-R Geary Rapid, 9-San Bruno, and 9R-San Bruno Rapid). In addition, the proposed project and the project variant would have a floor area ratio greater than 0.75, would not include off-street parking, and would be consistent with the Sustainable Communities Strategy.<sup>33</sup> Because the proposed project and the project variant would meet one or more of the screening criteria, it would not result in a substantial increase in VMT and as a result, its impacts related to VMT would be less than significant.

**Table 4: Daily Vehicle Miles Traveled**

Land Use	Existing			Cumulative 2040		
	Bay Area Regional Average	Bay Area Regional Average Minus 15%	TAZ 711	Bay Area Regional Average	Bay Area Regional Average Minus 15%	TAZ 711
<b>Households (Residential)</b>	17.2	14.6	2.3	16.1	13.7	1.9
<b>Employment (Retail)</b>	14.8	12.6	7.1	14.6	12.4	7.0

Source: San Francisco Planning Department, April 2019

<sup>33</sup> San Francisco Planning Department, *Eligibility Checklist: CEQA Section 21099 – Modernization of Transportation Analysis for 550 O’Farrell Street*, January 21, 2020.

### *Induced Automobile Travel Analysis*

A project would have a significant effect on the environment if it would substantially induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow lanes) or by adding new roadways to the network. OPR's Proposed Transportation Impact Guidelines includes a list of transportation project types that would not likely lead to a substantial or measurable increase in VMT. If a project fits within the general types of projects (including combinations of types), then it is presumed that VMT impacts would be less than significant and a detailed VMT analysis is not required.

The proposed project and project variant would not include features that would increase physical roadway capacity. The only modifications the proposed project and project variant would make to the streetscape would be the removal of two existing curb cuts (26 feet wide and 28 feet wide), addition of three new street trees, and installation of eight class 2 bicycle parking spaces on the O'Farrell Street sidewalk. As described above, the proposed project and project variant would permanently remove 119 off-street vehicle parking spaces, however, this removal would qualify as a minor transportation project that would not substantially induce automobile travel.<sup>34</sup> Thus, the proposed project and the project variant would not result in a significant impact with respect to induced automobile travel.

**Impact TR-6: The proposed project or project variant would not result in a loading deficit, the secondary effects of which would create potentially hazardous conditions for people walking, bicycling, or driving, or substantially delay public transit. (Less than Significant)**

#### **Proposed Project and Project Variant**

The project site frontage on O'Farrell Street includes an existing approximately 22-foot-long yellow curb commercial loading space. The proposed project and the project variant would not be required to provide, and would not include, on-street or off-street loading. Commercial activities related to the active ground-floor space would use the existing commercial curb loading space or other commercial curb loading spaces in the vicinity. Passenger loading activities associated with the proposed new residential units would be accommodated by existing white curb passenger loading spaces along O'Farrell Street in the project vicinity. Therefore, the proposed project and project variant would not result in a substantial loading deficit, such that hazardous conditions would be created for people walking, bicycling, or driving, or public transit would be substantially delayed. Loading impacts would be less than significant.

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<sup>34</sup> *Ibid.*

**Impact TR-7: The proposed project or project variant would not result in secondary effects associated with a substantial vehicle parking deficit. (Less than Significant)**

**Proposed Project and Project Variant**

The proposed project and project variant would demolish the existing 119-space parking garage at the site and would not provide new on-site off-street parking spaces. However, this reduction in off-street parking would not constitute a substantial vehicle parking deficit. Moreover, the proposed project or project variant would be located on an infill site in a transit-rich area with many alternatives to travel by private vehicle. Therefore, secondary effects associated with motorists searching for available parking would not create potentially hazardous conditions for people walking, bicycling, or driving; or interfere with accessibility for people walking or bicycling or create inadequate access for emergency vehicles; or substantially delay public transit.

**Cumulative Impacts**

Cumulative impacts related to transit, traffic, pedestrian, bicycle and emergency access impacts, construction impacts, and VMT are discussed below. Transportation impacts of the proposed project or project variant would not be cumulatively considerable, and these impacts would be less than significant.

**Impact C-TR-1: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects in the project vicinity, would not involve construction that would require a substantially extended duration or intensive activity, the effects of which would create potentially hazardous conditions for people walking, bicycling, or driving, or public transit operations; or interfere with emergency access or accessibility for people walking or bicycling; or substantially delay public transit. (Less than Significant)**

There are currently seven active development projects within the project vicinity (see **Table 1: Cumulative Projects within ¼ mile of Project Site**, p. 14), in addition to the proposed project (or project variant) at 550 O'Farrell Street. Construction of these projects would not be extensive in duration (ranging from 15 to 21 months) or substantially intensive in activity. During construction of these projects, there would be a flow of construction-related trucks to and from the project vicinity, which could result in a temporary reduction in the capacities of local streets. In addition, construction activities would generate construction worker trips to and from the project sites leading to temporary increases in the demand for parking and public transit. However, this temporary increase in demand for public transit would not be expected to exceed the capacity of local or regional transit service. Furthermore, each project would be required to coordinate with the applicable City agencies to minimize impacts on local traffic. Lane and sidewalk closures are subject to review and approval by public works and the City's Transportation Advisory Staff Committee, which consists of representatives from the City's fire, police, public works, and public health departments as well as the SFMTA and Port of San Francisco. Therefore, construction of the proposed project (or project variant) and cumulative projects in the area would not substantially interfere with pedestrian circulation or substantially

disrupt or delay vehicles and people bicycling on local streets. Moreover, all construction activities would be required to comply with City regulations designed to ensure the safety of people walking, bicycling, driving, or taking public transit. Thus, construction of the proposed project or project variant, in combination with cumulative construction activities would not result in potentially hazardous conditions for people walking, bicycling, or driving, or for public transit operations. Nor would it interfere with emergency access or accessibility for people walking or bicycling, or substantially delay public transit.

**Impact C-TR-2: The proposed project or project variant, in combination with cumulative development, would not create hazardous conditions for people walking, bicycling, or driving, or public transit operations. (Less than Significant)**

The proposed project (or the project variant) and cumulative development projects in the area would add daily (including peak period) vehicle trips to the transportation network, including private vehicle trips and taxi and transportation network company (TNC) vehicle trips. However, these trips would account for a minor fraction of existing traffic volumes in the area and would be dispersed to various streets within the project vicinity. As a result, substantial increases in queuing at nearby intersections and conflicts with pedestrians and cyclists would be unlikely. Therefore, the proposed project and project variant, in combination with cumulative development, would not create hazardous conditions for people walking, bicycling, or driving, or for public transit operations and impacts would be less than significant.

**Impact C-TR-3: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects in the project vicinity would not result in a considerable contribution to cumulative impacts related to accessibility for bicycles or pedestrians, or for emergency access conditions (Less than Significant)**

There would be a general increase in vehicle, bicycle, and pedestrian traffic in the project vicinity, with implementation of the proposed project (or project variant) and nearby cumulative development projects. However, the existing sidewalks and bicycle routes in the area would be able to accommodate this future growth, thereby ensuring that pedestrian and bicycle accessibility to the project site and adjoining areas would be maintained. The proposed project (or project variant) and cumulative development in the area would also not cause substantial changes to existing emergency access conditions on nearby sites or streets. As previously discussed, increased vehicle trips induced by the proposed project (or project variant) and cumulative development in the area would not be substantial compared to existing traffic volumes. Therefore, the proposed project, in combination with past, present, and reasonably foreseeable developments in the project vicinity, would have less-than-significant cumulative impacts on bicycle or pedestrian accessibility, or on emergency access conditions.

**Impact C-TR-4: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects in the project vicinity, would not result in substantial public transit delays. (Less than Significant)**

As discussed above, based on Northeast Muni Screenline data, the existing peak-hour capacity utilization of lines serving the site and vicinity is approximately 66 and 67 percent during the a.m. and p.m. peak hours, respectively. The proposed project or project variant and cumulative development would generate additional daily transit trips that would be distributed among the multiple transit lines serving the project vicinity and would be accommodated by their existing capacity (66 to 67 percent), which is well below the SFMTA capacity utilization performance standard of 85 percent. For these reasons, the proposed project or the project variant in combination with past, present, and reasonably foreseeable future projects, would not result in unacceptable levels of transit service or cause a substantial increase in delays or operating costs such that significant adverse impacts in transit service could result. Thus, cumulative impacts on transit service would be less than significant.

**Impact C-TR-5: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects in the project vicinity, would not result in a considerable contribution to cumulative impacts related vehicle miles travelled (VMT), or by traffic induced by increasing roadway capacity. (Less than Significant)**

VMT by its nature is a cumulative impact. The amount of driving induced by past, present, and reasonably foreseeable future projects contributes to cumulative environmental impacts associated with VMT. While no single project would be sufficient in size to prevent the region or state from meeting its VMT reduction goals, a project's individual VMT would contribute to cumulative VMT impacts. Project-level VMT and induced automobile travel screening thresholds are based on levels at which new projects are not anticipated to conflict with state and regional long-term GHG emission reduction targets and statewide VMT per capita reduction targets set for 2020. As noted above under Impact TR-5, the proposed project or project variant would not exceed the project-level thresholds for VMT and induced automobile travel. In addition, the proposed project or project variant would not exceed the project-level projected 2040 thresholds for VMT, shown in **Table 4: Daily Vehicle Miles Traveled** above. For TAZ 711, projected 2040 average daily residential VMT per capita is 1.9 and projected average daily VMT per retail employee is 7.0. These values are approximately 86 and 44 percent below the projected 2040 screening thresholds (regional average daily VMT per capita less 15 percent or per employee less 15 percent) of 13.7 and 12.4 for residential and retail uses, respectively. Therefore, the proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant impact on cumulative regional VMT.

In addition, the proposed project or project variant would not include features that would increase physical roadway capacity. Therefore, the proposed project or the project variant would not make a substantial contribution to any reasonably foreseeable cumulative induced traffic

impacts, including physical roadway capacity, and would have less-than-significant cumulative traffic impacts.

**Impact C-TR-6: The proposed project or project variant, in combination with cumulative development, would not result in a loading deficit, the secondary effects of which would create potentially hazardous conditions for people walking, bicycling, or driving, or substantially delay public transit. (Less than Significant)**

Passenger loading activities associated with the proposed project or project variant would be accommodated by existing white curb passenger loading spaces along O'Farrell Street in the project vicinity. Loading activities connected with cumulative development in the vicinity would also be expected to be accommodated at existing curb zones, or by applicable project-specific planning code requirements for off-street loading facilities. Therefore, the proposed project and project variant, in combination with cumulative development, would not result in a substantial loading deficit, such that hazardous conditions would be created for people walking, bicycling, or driving, or that public transit would be substantially delayed. Cumulative loading impacts would be less than significant.

**Impact TR-7: The proposed project or project variant, in combination with cumulative development, would not result in secondary effects associated with a substantial vehicle parking deficit. (Less than Significant)**

The proposed project and project variant would demolish the existing 119-space parking garage at the site and would not provide new on-site off-street parking spaces. However, this reduction in off-street parking would not constitute a substantial vehicle parking deficit. Cumulative development in the vicinity would be in a transit-rich area with many alternatives to private vehicle travel. Therefore, secondary effects associated with cumulative development and motorists searching for available parking would not create potentially hazardous conditions for people walking, bicycling, or driving. Cumulative development would not interfere with accessibility for people walking or bicycling or create inadequate access for emergency vehicles; or substantially delay public transit. Cumulative impacts associated with secondary effects of parking deficits would be less than significant.

## E.7 Noise

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>7. NOISE. Would the project:</b>					
a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generate excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not located in the vicinity of or within an area covered by an airport land use plan, within two miles of a public airport or a public use airport, or in the vicinity of a private airstrip. Therefore, topic E.7(c) is not applicable to the proposed project.

## Setting

### Noise

Noise is generally defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health. Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, hotels, and residences are considered to be more sensitive to noise intrusion than are commercial or industrial activities. Because noise is an environmental pollutant that can interfere with human activities, evaluation of noise is necessary when considering the environmental impacts of a proposed project.

Sound is mechanical energy (vibration) transmitted by pressure waves over a medium such as air or water. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient (existing) sound level. Although the decibel (dB) scale, a logarithmic scale, is used to quantify sound intensity, it does not accurately describe how sound



intensity is perceived by human hearing. The perceived loudness of sound is dependent upon many factors, including sound pressure level and frequency content. The human ear is not equally sensitive to all frequencies in the entire spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive in a process called A-weighting, written as dBA and referred to as A-weighted decibels. There is a strong correlation between A-weighted sound levels and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.

With respect to how humans perceive and react to changes in noise levels, a 1-dBA increase is imperceptible, a 3-dBA increase is barely perceptible, a 5-dBA increase is clearly noticeable, and a 10-dBA increase is subjectively perceived as approximately twice as loud.<sup>35</sup> These subjective reactions to changes in noise levels were developed on the basis of test subjects' reactions to changes in the levels of steady-state pure tones or broadband noise and to changes in levels of a given noise source. These statistical indicators are thought to be most applicable to noise levels in the range of 50 to 70 dBA, as this is the usual range of voice and interior noise levels.

Because decibels are logarithmic units, sound pressure levels cannot be added or subtracted through ordinary arithmetic. On the dB scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, their combined sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one source produces a sound pressure level of 70 dBA, two identical sources would combine to produce 73 dBA. The combined sound level of any number of sources can be determined using decibel addition.

#### Noise-Sensitive Receptors

A noise and vibration analysis was prepared for the proposed project and project variant.<sup>36</sup> Noise-sensitive receptors within 300 feet of the 550 O'Farrell Street project site include: four buildings east and west of the site, three buildings on O'Farrell Street south of the project site, and three buildings north of the site on Geary Street, shown on **Figure 1: Site Plan Showing Nearby Sensitive Receptors**.

#### **Vibration**

Vibration is like noise such that noise involves a source, a transmission path, and a receptor. While related to noise, vibration differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception

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<sup>35</sup> Egan, David M. 2007. *Architectural Acoustics*. J. Ross Pub., 2007.

<sup>36</sup> Illingworth & Rodkin, Inc., 550 O'Farrell Street Project Noise and Vibration Assessment, March 2020.

to vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system that is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities (PPV) in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV.

#### *Vibration-Sensitive Receptors*

Historic buildings are more susceptible to vibration as compared to buildings with modern construction. Historic buildings adjacent to the project site include 540 O'Farrell Street and 570 O'Farrell Street, shown on **Figure 1: Site Plan Showing Nearby Sensitive Receptors** above. In addition, two other buildings on the north side of O'Farrell Street, three on the south side of O'Farrell Street, and three on the south side of Geary Street are considered noise- and vibration-sensitive structures.

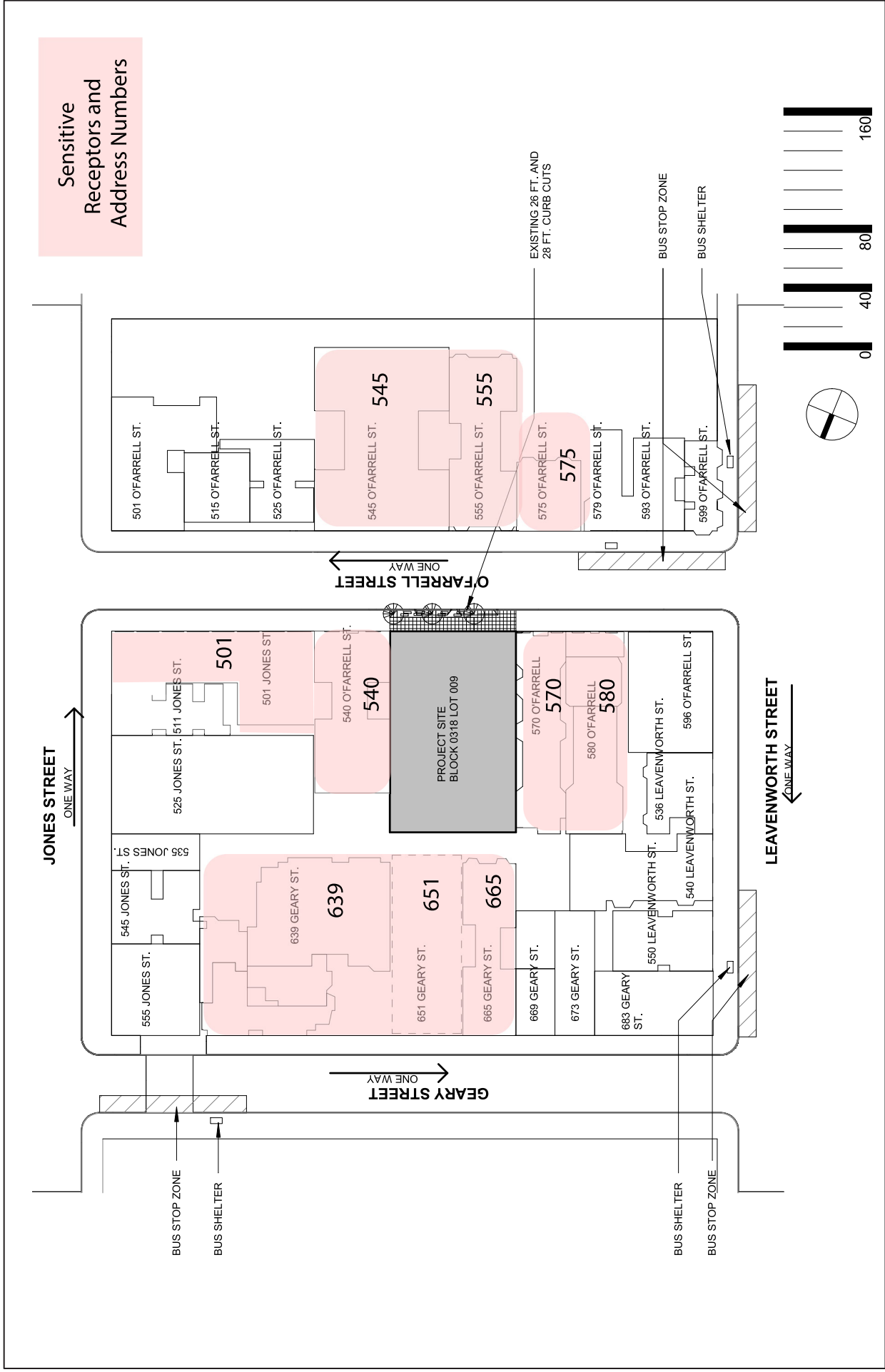
#### ***Ambient Noise Levels***

Areas which are not urbanized are relatively quiet, while areas which are more urbanized are noisier as a result of roadway traffic, industrial activities, and other human activities. Ambient noise levels can also affect the perceived desirability or livability of a development.

Noise measurements were conducted between May 21 and May 24, 2019 to establish the existing baseline noise conditions near the project site. These results are detailed below under the Impact Analysis discussion. The main sources of noise at the project site are from traffic on O'Farrell and Geary streets.

#### **Analytical Methodology**

In accordance with the requirements of CEQA, the noise analysis evaluates the proposed project's noise sources to determine the impact of the proposed project on the existing ambient noise environment. This analysis does not analyze the impact of the existing ambient noise environment on the proposed project's residents. However, as discussed in the noise and vibration assessment prepared for the proposed project, existing building code regulations are in place to ensure adequate interior noise levels are achieved for a proposed project.



SOURCE: BRICK INC and ILLINGWORTH & RODKIN

## 550 O'FARRELL STREET PROJECT

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**FIGURE 1: Site Plan Showing Nearby Sensitive Receptors**

Results from the long-term site measurements were used to provide baseline noise conditions at nearby sensitive receptors and within the project site vicinity. For the purpose of this analysis, potential sensitive receptors were determined by reviewing San Francisco Planning Department records.

### *Construction Noise*

Article 29 of the San Francisco Police Code regulates noise. Section 2907 of article 29 provides the following limitations for construction equipment:

“(a) Except as provided for in Subsections (b), (c), and (d) hereof, it shall be unlawful for any person to operate any powered construction equipment if the operation of such equipment emits noise at a level in excess of 80 dBA when measured at a distance of 100 feet from such equipment, or an equivalent sound level at some other convenient distance.”

However, the police code does not specify quantitative noise limits for impact equipment or combined noise impacts from the simultaneous operation of multiple pieces of construction equipment. Therefore, the quantitative evaluation of daytime construction noise effects is based on criteria in the Federal Transit Administration (FTA) guidelines for residential land uses, which is 90 dBA  $L_{eq}$ .<sup>37</sup> The planning department also evaluates whether construction noise would result in an increase of 10 dBA over existing noise levels (“Ambient + 10 dBA”) at sensitive receptors, which generally represents a perceived doubling of loudness. The quantitative analysis typically evaluates the noise levels from the simultaneous operation of multiple pieces of construction equipment. The quantitative criteria above are only part of the evaluation of construction noise. The evaluation also considers the duration and intensity of any quantitative noise exceedance. In addition, nighttime construction noise is assessed, if applicable, to determine whether sleep disturbance would occur (if construction noise would exceed 45 dBA at residential interiors, assuming windows closed, for prolonged periods of time). The nighttime construction noise analysis also considers the frequency and duration of nighttime construction activities. All of the above factors are evaluated to determine whether a significant construction noise impact would occur.

The Federal Highway Administration Roadway Construction Noise Model (RCNM) was used to determine noise generated from construction activities. The RCNM is used as the Federal Highway Administration’s national standard for predicting construction noise. The RCNM analysis includes the calculation of noise levels ( $L_{max}$ <sup>38</sup> and  $L_{eq}$ ) at incremental distances for a variety of construction equipment. The spreadsheet inputs include acoustical use factors,  $L_{max}$  values, and  $L_{eq}$  values at various distances depending on the ambient noise measurement

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<sup>37</sup> Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. [https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123\\_0.pdf](https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf). Accessed August 29, 2019.

<sup>38</sup> The maximum sound level measured during the measurement period.

location. Construction noise levels were calculated for each phase of construction based on the equipment list provided by the project sponsor. Given the limited extent and duration of nighttime construction activities, the potential for nighttime construction noise to result in sleep disturbance is analyzed qualitatively.

### ***Construction Vibration***

Vibration from construction equipment is analyzed at the surrounding buildings and compared to the applicable Caltrans building damage criteria to determine whether construction activities would generate vibration at levels that could result in building damage.<sup>39</sup> The Caltrans criteria establish a vibration threshold of 0.25 in/sec PPV (defined above), for historic buildings exposed to continuous or frequent intermittent vibration events. Given the limited extent and duration of nighttime construction activities, the potential for vibration effects to result in sleep disturbance are analyzed qualitatively.

### ***Operational Noise***

Project-generated traffic would result in a significant noise impact if the proposed project increases the ambient noise levels by 5 dBA Ldn where noise levels are within the city's "Satisfactory" category per the general plan's land use compatibility chart for community noise, which is 60 dBA Ldn. If existing noise levels are above the "Satisfactory" category, project-generated traffic noise that results in an increase of 3 dBA Ldn would be considered significant. Because the ambient noise levels near the project site exceed 60 dBA Ldn, the significance threshold used to analyze project-generated traffic noise for this project is 3 dBA Ldn.

Anticipated noise increases from future project-related traffic was estimated using predicted vehicle traffic generated from the 550 O'Farrell Street project (see **section E.6, Transportation and Circulation**, Travel Demand).

In addition, the proposed project would require one diesel emergency backup generator, required by the building code to ensure life safety requirements are met. Given the limited operation, noise from the generator is analyzed qualitatively for the potential to increase ambient noise levels.

Noise from the proposed project's mechanical and HVAC systems would operate regularly and are therefore analyzed for compliance with sections 2909(a) and (d) of the noise ordinance. Section 2909 "Noise Limits" states the following:

"(a) Residential Property Noise Limits.

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<sup>39</sup> California Department of Transportation, Transportation and Construction Vibration Guidance Manual, Table 19, April 2020, [http://www.dot.ca.gov/hq/env/noise/pub/TCVGM\\_Sep13\\_FINAL.pdf](http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf), accessed May 2, 2020.

- (1) No person shall produce or allow to be produced by any machine, or device, music or entertainment or any combination of same, on residential property over which the person has ownership or control, a noise level more than five dBA above the ambient at any point outside of the property plane.
- (d) Fixed Residential Interior Noise Limits. In order to prevent sleep disturbance, protect public health and prevent the acoustical environment from progressive deterioration due to the increasing use and influence of mechanical equipment, no fixed noise source may cause the noise level measured inside any sleeping or living room in any dwelling unit located on residential property to exceed 45 dBA between the hours of 10:00 p.m. to 7:00 a.m. or 55 dBA between the hours of 7:00 a.m. to 10:00 p.m. with windows open except where building ventilation is achieved through mechanical systems that allow windows to remain closed.”

The proposed project, or project variant, would not include sources of vibration during operations. Therefore, no operational vibration assessment is required.

## Impacts

The following analysis relies on the previously noted noise and vibration assessment prepared for the proposed project.<sup>40</sup>

### **Impact NO-1: The proposed project or project variant would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Less than Significant with Mitigation)**

Ambient noise levels in the project vicinity are typical of noise levels found in San Francisco, which are dominated by vehicular traffic, including cars, Muni buses, and emergency vehicles. The existing traffic noise levels are above 70 A-weighted decibels (dBA) ( $L_{dn}$ ) on O’Farrell Street.<sup>41,42,43</sup> The noise assessment included on-site noise monitoring, with measured noise levels along the southern property boundary (O’Farrell Street) typically ranging from 64 to 75 dBA  $L_{eq}$ , and nighttime noise levels ranging from 57 to 64 dBA  $L_{eq}$ . Along the east, north, and west property lines, short-term noise levels were 56 to dBA  $L_{eq}$ . The day-night average noise level

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<sup>40</sup> Illingworth & Rodkin, Inc., *550 O’Farrell Street Project Noise and Vibration Assessment*, March 2020

<sup>41</sup> San Francisco General Plan, Environmental Protection Element, Map 1, Background Noise Levels – 2009, [http://generalplan.sfplanning.org/images/16.environmental/ENV\\_Map1\\_Background\\_Noise%20Levels.pdf](http://generalplan.sfplanning.org/images/16.environmental/ENV_Map1_Background_Noise%20Levels.pdf), accessed February 5, 2019.

<sup>42</sup> The dBA, or A-weighted decibel, refers to a scale of noise measurement that approximates the range of sensitivity of the human ear to sounds of different frequencies. On this scale, the normal range of human hearing extends from about 0 dBA to about 140 dBA. A 10-dBA increase in the level of a continuous noise represents a perceived doubling of loudness.

<sup>43</sup> The DNL or  $L_{dn}$  is the  $L_{eq}$ , or Energy Equivalent Level of the A-weighted noise level over a 24-hour period with a 10-dB penalty applied to noise levels between 10 p.m. to 7 a.m.  $L_{eq}$  is the level of a steady noise that would have the same energy as the fluctuating noise level integrated over the time period of interest.

ranged from 70 to 71 dBA  $L_{dn}$ . The noise assessment identified noise- and vibration-sensitive receptors within the site vicinity, which are shown on **Figure 1: Site Plan Showing Nearby Sensitive Receptors**, p. 51.

Proposed Project and Project Variant.

### Construction Noise

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive receptors, or when construction lasts over extended periods of time.

The following construction noise analysis applies to both the proposed project and to the project variant.

Proposed project (and project variant) construction would span approximately 21 months and would be conducted in three phases: (1) demolition, (2) excavation and shoring, and (3) construction. Demolition would last approximately 1 month, excavation and shoring approximately 2 months, and construction approximately 18 months. Heavy construction equipment, such as excavators, tractors, loaders, backhoes, and rollers would be used for the project. In addition, a crane, air compressors, concrete saws, generators, mixers, forklifts, and welders would be used. Pile driving is not currently proposed as the project would use a mat slab foundation system. Construction activities would not occur at night (between 8:00 p.m. of any day and 7:00 a.m. of the following day).

During each stage of construction, there would be a different mix of equipment operating, and noise levels would vary by stage and vary within stages, based on the amount of equipment in operation and the location at which the equipment is operating. **Table 5: Construction Noise Levels at 50 Feet (dBA)** summarizes the construction noise levels based on construction equipment assumptions provided by the project applicant. The maximum instantaneous noise levels ( $L_{max}$ ) and average noise level ( $L_{eq}$ ) are shown for each type of equipment. The average noise level for the construction phase ( $L_{eq}$ ) was calculated assuming the operation of the two loudest pieces of construction equipment simultaneously. Construction noise levels decrease by 6 dBA with each doubling of distance between the noise source and receptor. **Table 6: Construction Noise Levels at Nearest Residential Land Uses (dBA  $L_{eq}$ )** summarizes the hourly average noise levels expected at the nearest receptors during project construction activities.

**Table 5: Construction Noise Levels at 50 Feet (dBA)**

Construction Phase	Equipment Type	Equipment L <sub>max</sub>	Equipment L <sub>eq</sub>	Construction Phase L <sub>eq</sub>
Demolition	Air Compressors	78	74	85
	Concrete/Industrial Saws	90	83	
	Excavators	81	77	
	Tractors/Loaders/Backhoes	84	80	
	Generator Sets	81	78	
Excavation & Shoring	Excavators	81	77	82
	Rollers	80	73	
	Tractors/Loaders/Backhoes	84	80	
Building Construction	Air Compressors	78	74	80
	Cement and Mortar Mixers	80	77	
	Cranes	81	73	
	Forklifts	75	68	
	Generator Sets	81	78	
	Welders	74	70	

Source: Illingworth & Rodkin, Inc., March 2020

**Table 6: Construction Noise Levels at Nearest Residential Land Uses (dBA L<sub>eq</sub>)**

Construction Phase	L <sub>eq</sub> at 50 feet	L <sub>eq</sub> at 40 feet <sup>1</sup>	L <sub>eq</sub> at 90 feet <sup>2</sup>	L <sub>eq</sub> at 120 feet <sup>3</sup>	Exceeds 90 dBA L <sub>eq</sub> Threshold for Residences?	Exceeds Ambient by 10 dBA or more? <sup>4</sup>
Demolition	85	87	80	77	No	Yes
Excavation & Shoring	82	84	77	74	No	Yes
Building Construction	80	82	75	72	No	Yes

**Notes:**

1. Represents buildings immediately adjacent to the site (540 and 570 O'Farrell Street).
2. Represents buildings north and east of the site (639, 665 Geary Street, and 501 Jones Street).
3. Represents buildings south of the site (545, 555, 575, and 580 O'Farrell Street).
4. Ambient daytime L<sub>eq</sub> is 64 to 75 dBA at southern property line.

Source: Illingworth & Rodkin, Inc., March 2020.

Construction activities generate considerable amounts of noise, especially during earth-moving activities and during the construction of the building's foundation when heavy equipment is used. The highest noise levels would be generated during grading, excavation, and foundation construction. The hauling of excavated materials and construction materials would generate truck trips on local roadways, as well. Noise-sensitive residential and commercial land uses surround the site. As shown in **Table 6: Construction Noise Levels at Nearest Residential Land Uses (dBA L<sub>eq</sub>)**, during project construction, construction noise levels would generally fall within the range of 72 to 87 dBA L<sub>eq</sub> at the nearest receptors. Construction noise levels would not exceed the FTA's 90 dBA L<sub>eq</sub> threshold established for daytime construction activities but would



exceed the background noise level at sensitive receptor locations by more than 10 dBA. Therefore, the proposed project would result in a significant construction noise impact.

Section 2907 of the Police Code states that, “it shall be unlawful for any person to operate any powered construction equipment if the operation of such equipment emits noise at a level in excess of 80 dBA when measured at a distance of 100 feet from such equipment, or an equivalent sound level at some other convenient distance.” Based on the data in **Table 5: Construction Noise Levels at 50 Feet (dBA)**, the operation of concrete saws would have the potential to exceed the 86 dBA at 50 feet (or equivalent 80 dBA at 100 feet) noise limit for construction equipment (as specified in section 2907 of the police code) by up to 6 dBA. However, section 2907 does not apply to impact tools and equipment when properly muffled, or pavement breakers and jackhammers when equipped with acoustical shields or shrouds.

To reduce construction noise impacts to less-than-significant levels, the project sponsor would be required to incorporate **Mitigation Measure M-NO: Construction Noise Controls**.

#### **Mitigation Measures M-NO-1: Construction Noise Controls**

The project sponsor shall develop a set of site-specific noise attenuation measures under the supervision of a qualified acoustical consultant to ensure that maximum feasible noise attenuation will be achieved for the duration of construction activities. Prior to commencement of demolition and construction activities, the project sponsor shall submit the construction noise control plan to the San Francisco Planning Department for review and approval. Noise attenuation measures shall be implemented to meet a goal of not increasing noise levels from construction activities by more than 10 dBA above the ambient noise level at sensitive receptor locations. Noise measures may include, but are not limited to, those listed below.

1. Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment.
2. Use “quiet” models of air compressors and other stationary noise sources where technology exists.
3. Locate stationary equipment as far away as possible from adjacent land uses and/or construct temporary noise barriers, where feasible, to screen such equipment. Temporary noise barrier fences would provide a 5-dBA noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receptor and if the barrier is constructed in a manner that eliminates any cracks or gaps.
4. Unnecessary idling of internal combustion engines should be strictly prohibited.
5. The construction staging area should be located on O’Farrell Street and as far as feasible from noise-sensitive receptors. Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.

6. Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.
7. Where feasible, temporary power service from local utility companies should be used instead of portable generators.
8. Locate cranes as far from adjoining noise-sensitive receptors as possible.
9. During final grading, substitute graders for bulldozers, where feasible. Wheeled heavy equipment are quieter than track equipment and should be used where feasible.
10. Substitute nail guns for manual hammering, where feasible.
11. Avoid the use of hydra break rams and hoe rams during demolition.
12. Avoid the use of concrete saws, circular saws, miter/chop saws, and radial arm saws near the adjoining noise-sensitive receptors. Where feasible, shield saws with a solid screen with material having a minimum surface density of 2 pounds per square foot (e.g., such as 3/4-inch plywood).
13. During interior construction, the exterior windows facing noise-sensitive receptors should be closed.
14. During interior construction, locate noise-generating equipment within the building to break the line-of-sight to the adjoining receptors.
15. The contractor shall prepare a detailed construction schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.
16. Designate a Construction Manager who shall:
  - a. Clearly post his/her name and phone number(s) on signs visible during each phase of the construction program.
  - b. Notify area residents of construction activities, schedules, and impacts.
  - c. Receive and act on complaints about construction noise disturbances.
  - d. Determine the cause(s) and implement remedial measures as necessary to alleviate potentially significant problems related to construction noise.
  - e. Request night noise permits from the San Francisco Department of Building Inspection if any activity, including deliveries or staging, is anticipated outside work hours that has the potential to exceed noise standards. If such activity is required in response to an emergency or other unanticipated conditions, night noise permits shall be requested as soon as feasible for any ongoing response activities.
  - f. Notify the planning department's Development Performance Coordinator at the time that night noise permits are requested or as soon as possible after emergency/unanticipated activity causing noise with the potential to exceed noise standards has occurred.
17. The Noise Control Plan shall be reviewed and approved by the San Francisco Planning Department prior to implementation. Noise monitoring shall be completed by a qualified noise consultant.

18. A noise monitoring log report shall be prepared by the construction manager or other designated person(s) on a weekly basis and shall be made available to the planning department when requested. The log shall include any complaints received, whether in connection with an exceedance or not, as well as any complaints received through calls to 311 or the Department of Building Inspection if the contractor is made aware of them (for example, via a Department of Building Inspection notice, inspection, or investigation). Any weekly report that includes an exceedance or for a period during which a complaint is received should be submitted to the Development Performance Coordinator within 3 business days following the week in which the exceedance or complaint occurred. A report also shall be submitted to the planning department at the completion of each construction phase. The report shall document exceedances of threshold levels, if reported, and corrective action(s) taken.

As shown in **Table 6: Construction Noise Levels at Nearest Residential Land Uses (dBA Leq.)**, p. 56, construction noise would exceed one of the City's construction noise criterion - 10 dB above the ambient noise level, analyzed under a scenario of the two loudest pieces of equipment operating simultaneously. (**Table 6: Construction Noise Levels at Nearest Residential Land Uses (dBA Leq.)** also notes that construction noise levels would not exceed the FTA criterion of 90 dBA Leq.) However, such exceedances would be temporary and intermittent in nature. Construction noise would also be limited to the extent feasible through compliance with police code sections 2907 and 2908, prohibiting construction equipment noise greater than 80 dBA at 100 feet away from the source. Implementation of **Mitigation Measure M-NO-1** would require shielding or muffling of construction equipment, locating equipment away from residential uses, as feasible, and other construction noise-reduction measures. Those steps would ensure that project-related construction activities would not expose individuals to temporary increases in noise levels substantially greater than ambient levels and this impact would be less than significant.

## Proposed Project and Project Variant

### Operational Noise

The proposed project and project variant would include residential uses, which are common uses in the neighborhood. These uses would not generate groundborne vibration or noise levels in excess of established standards and would not expose nearby sensitive receptors to substantial permanent, temporary, or periodic increases in ambient noise levels. Vehicular traffic makes the largest contribution to ambient noise levels throughout most of San Francisco.

Generally, traffic would have to double in volume to produce a noticeable 3 dBA increase in the ambient noise level in the project vicinity.<sup>44</sup> The proposed project or project variant would add up to about 211 daily vehicle trips and up to 14 peak-hour (p.m.) vehicle trips in the project vicinity. This increase in vehicle trips would not cause p.m. traffic volumes to double on nearby streets and as a result, project-generated traffic noise would not have a noticeable effect on ambient noise levels in the project site vicinity.

Mechanical building equipment, such as elevators and heating, ventilation, and air conditioning (HVAC) systems, would also create operational noise. Those noise sources would be subject to the San Francisco Noise Ordinance (article 29 of the San Francisco Police Code). Section 2909(d) of the noise ordinance establishes maximum noise levels for fixed noise sources (e.g., mechanical equipment) of 55 dBA (from 7 a.m. to 10 p.m.) and 45 dBA (from 10 p.m. to 7 a.m.) inside any sleeping or living room in any dwelling unit located on residential property to prevent sleep disturbance. The proposed project's mechanical and HVAC systems would be required to meet these noise ordinance standards.

Furthermore, section 2909 of the noise ordinance regulates noise levels at residential and commercial properties. Noise at residential properties are limited to no more than 5 dBA above the ambient noise level at the property plane.<sup>45</sup> The proposed project's operational noise would be required to meet these noise standards. The health department and police department may investigate and take enforcement action in response to noise complaints.

Proposed project and project variant rooftop equipment would include a cooling tower, exhaust fans, heat pumps, and an emergency generator, which would be enclosed in a generator room. The remainder of the roof-top equipment would be acoustically screened by metal panels, which would cause most of the noise to be projected upward and away from neighboring properties. Based on manufacturers' data, the cooling tower would produce a noise level of 57 dBA at 50 feet and the garage exhaust fan would produce a noise level of 72 dBA at 5 feet (or 52 dBA at 50 feet). The combined noise level resulting from the operation of this equipment would be calculated to be 58 dBA at 50 feet. The mechanical equipment screen would provide a minimum of 5 dBA of noise reduction where the line of sight from receptors to the equipment is interrupted by the barrier, assuming that the screen is solid over the face and at the base of the barrier. Receptors to the west and east of the project site are in buildings that are six stories or less in height. A minimum of 11 dBA of additional acoustical attenuation would be provided by the building itself for adjacent receptors to the west and east, as those receptors would have a very limited to no direct view of the equipment proposed on the roof of the new building. Noise levels would be 45

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<sup>44</sup> United States Department of Transportation, Federal Highway Administration, *Highway Traffic Noise: Analysis and Abatement Guidance*, December 2011, p. 9. Available online at [http://www.fhwa.dot.gov/environment/noise/regulations\\_and\\_guidance/analysis\\_and\\_abatement\\_guidance/revguidance.pdf](http://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguidance.pdf), accessed February 5, 2019.

<sup>45</sup> Property plane means a vertical plane including the property line that determines the property boundaries in space.

dBA or lower at the nearest receptors to the west and east, 47 dBA at the nearest property line to the south, and 45 dBA at the nearest property line to the north. Operational noise levels due to roof-top mechanical equipment would not exceed ambient noise conditions by 5 dBA, nor would this equipment produce noise levels that would exceed 45 dBA inside the nearest residences between the hours of 10:00 p.m. to 7:00 a.m. or 55 dBA between the hours of 7:00 a.m. to 10:00 p.m. with windows open.

Given that the proposed project's or project variant's vehicle trips would not cause a doubling of traffic volumes on nearby streets and that proposed mechanical equipment and other noise-generating activities would comply with the noise ordinance, operational noise from the proposed project or project variant would not result in a noticeable increase in ambient noise levels. Therefore, operation of the proposed project or project variant would not generate a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

### **Impacts on Proposed Sensitive Uses (For Informational Purposes)**

In the *California Building Industry Association v. Bay Area Air Quality Management District* case decided in 2015,<sup>46</sup> the California Supreme Court held that CEQA does not generally require lead agencies to consider how existing environmental conditions might impact a project's users or residents, except where the project would significantly exacerbate an existing environmental condition. Accordingly, the significance criteria above related to exposure of persons to noise levels in excess of standards in the general plan or noise ordinance, exposure of persons to excessive groundborne vibration or groundborne noise levels, and people being substantially affected by existing noise levels are relevant only to the extent that a project significantly exacerbates the existing noise environment. As discussed above, the proposed project would not significantly exacerbate existing noise conditions; however, the following is provided for informational purposes.

Residential units in the proposed project or project variant would be subject to the noise insulation requirements in both the California Building Code and the San Francisco Building Code. The 2013 California Building Code requires that interior noise levels from outside sources not exceed 45 dBA (Ldn or CNEL) in any habitable room (rooms for sleeping, living, cooking, and eating, but excluding bathrooms, closets, and the like) or a residential unit, except for residential additions to structures constructed before 1974. The building code also mandates that walls and floor/ceiling assemblies separating dwelling units from each other or from public or service areas have a sound transmission class of at least 50, meaning they can reduce noise by a minimum of 50 dB.

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<sup>46</sup> *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369. Opinion Filed December 17, 2015. Case No. S213478. Available at: <http://www.courts.ca.gov/33098.htm>.

The San Francisco Building Code was amended in 2015 to incorporate language included in section 1207.4 (interior noise standards) of the state building code. San Francisco's current section 1207.6.2 accordingly reads the same as section 1207.4 of the state building code. The San Francisco Building Code also includes a requirement that residential structures in "noise critical areas, such as in proximity to highways, county roads, city streets, railroads, rapid transit lines, airports, nighttime entertainment venues, or industrial areas," be designed to exceed the code's quantitative noise reduction requirements, and specifies, "[p]roper design to accomplish this goal shall include, but not be limited to, orientation of the residential structure, setbacks, shielding, and sound insulation of the building" (section 1207.6.1). Section 1207.7 requires submittal of an acoustical report along with a project's building permit application to demonstrate compliance with the building code's interior noise standards.

While the proposed project and project variant would include residential uses that would place sensitive receptors in the vicinity of a noisy environment, compliance with Title 24 standards and the San Francisco Building Code would ensure that appropriate insulation is included in the project to meet the 45-dBA interior noise standard in the San Francisco Building Code. Furthermore, the proposed project and project variant does not include features or uses that would significantly exacerbate the existing noise environment. Operational noise impacts would be less than significant.

**Impact NO-2: The proposed project or project variant would generate excessive groundborne vibration or groundborne noise levels. (Less than Significant with Mitigation)**

**Proposed Project and Project Variant**

**Construction Vibration**

The proposed project's construction activities would last approximately 21 months and would occur over three phases: demolition, excavation and shoring, and construction. As previously described, heavy construction equipment, such as front loaders, backhoes, drilling equipment, tractors, graders, and trucks would be used for the project, as well as cranes and pumps and limited use of generators.

**Table 7: Vibration Levels for Construction Equipment at Various Distances** below identifies vibration-sensitive receptors within the site vicinity.

<b>Equipment</b>		<b>PPV at 5 ft.<sup>1</sup> (in/sec)</b>	<b>PPV at 25 ft.<sup>2</sup> (in/sec)</b>	<b>PPV at 35 ft.<sup>3</sup> (in/sec)</b>	<b>PPV at 60 ft.<sup>4</sup> (in/sec)</b>	<b>PPV at 75 ft.<sup>5</sup> (in/sec)</b>
Clam shovel drop		<b>1.186</b>	0.202	0.140	0.077	0.060
Hydromill (slurry wall)	in soil	0.047	0.008	0.006	0.003	0.002
	in rock	0.100	0.017	0.012	0.006	0.005
Vibratory Roller		<b>1.233</b>	0.210	0.145	0.080	0.063
Hoe Ram		<b>0.523</b>	0.089	0.061	0.034	0.027

**Table 7: Vibration Levels for Construction Equipment at Various Distances**

Equipment	PPV at 5 ft. <sup>1</sup> (in/sec)	PPV at 25 ft. <sup>2</sup> (in/sec)	PPV at 35 ft. <sup>3</sup> (in/sec)	PPV at 60 ft. <sup>4</sup> (in/sec)	PPV at 75 ft. <sup>5</sup> (in/sec)
Large bulldozer	<b>0.523</b>	0.089	0.061	0.034	0.027
Caisson drilling	<b>0.523</b>	0.089	0.061	0.034	0.027
Loaded trucks	<b>0.446</b>	0.076	0.052	0.029	0.023
Jackhammer	0.206	0.035	0.024	0.013	0.010
Small bulldozer	0.018	0.003	0.002	0.001	0.001

**Notes:**

<sup>1</sup>. Represents buildings immediately adjacent to the site (540 and 570 O'Farrell Street).

<sup>2</sup>. Represents buildings north of the site (639, 651, and 665 Geary Street).

<sup>3</sup>. Represents building west of the site (580 O'Farrell Street).

<sup>4</sup>. Represents building east of the site (501 Jones Street).

<sup>5</sup>. Represents buildings south of the site (545 and 555 O'Farrell Street).

Vibration levels are highest close to the source, and then attenuate with increasing distance at the rate  $(D_{ref}/D)^{1.1}$ , where D is the distance from the source in feet and  $D_{ref}$  is the reference distance of 25 feet.

**Bold** values indicate an exceedance of the 0.25 in/sec PPV criteria established for historic and old buildings.

Source: Transit Noise and Vibration Impact Assessment Manual, Table 7-4, Federal Transit Administration, Office of Planning and Environment, U.S. Department of Transportation, September 2018, as modified by Illingworth & Rodkin, Inc., June 2019.

**Table 7: Vibration Levels for Construction Equipment at Various Distances** above presents typical vibration levels from construction equipment at 25 feet. Jackhammers typically generate vibration levels of 0.035 in/sec PPV and drilling typically generates vibration levels of 0.09 in/sec PPV at 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. **Table 7: Vibration Levels for Construction Equipment at Various Distances** above also presents construction vibration levels at various distances from the construction equipment. Calculations were made to estimate vibration levels at distances of 5 feet from project construction areas, to represent adjacent buildings to the west and east, as well as distances of 25, 35, 60, and 75 feet from the site to represent other nearby buildings.

Project construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may generate substantial vibration in the immediate vicinity of historic properties adjoining the site. Some activities would occur at distances of about 5 feet, and at this distance, vibration levels due to construction are conservatively calculated to reach up to 1.2 in/sec PPV, which would exceed the 0.25 in/sec PPV threshold for historic buildings.

The U.S. Bureau of Mines has analyzed the effects of blast-induced vibration on buildings in USBM RI 8507,<sup>47</sup> and these findings have been applied to vibrations emanating from construction equipment on buildings.<sup>48</sup> These studies indicate an approximate 20-percent probability of “threshold damage” (referred to as cosmetic damage elsewhere in this report) at vibration levels of 1.2 in/sec PPV or less and no observations of “minor damage” or “major damage” were made at vibration levels of 1.2 in/sec PPV or less.

Based on these data, cosmetic or threshold damage would be manifested in the form of hairline cracking in plaster, the opening of old cracks, the loosening of paint or the dislodging of loose objects, assuming a maximum vibration level of 1.2 in/sec PPV. However, minor damage (e.g., hairline cracking in masonry or the loosening of plaster) or major structural damage (e.g., wide cracking or shifting of foundation or bearing walls) would not occur at the nearest buildings to the site, assuming a maximum vibration level of 1.2 in/sec PPV.

Heavy vibration-generating construction equipment, such as vibratory rollers or clam shovel drops, would have the potential to produce vibration levels of 0.25 in/sec PPV or more at historic buildings within 20 feet of the project site.

At those locations, and in other surrounding areas where vibration would not be expected to cause cosmetic damage, vibration levels may still be perceptible. However, as with any type of construction, perceptible vibration would be anticipated. Given the intermittent and short duration of the phases that have the highest potential of producing vibration (use of jackhammers and other high-power tools), the use of administrative controls, such as notifying neighbors of scheduled construction activities and scheduling construction activities with the highest potential to produce perceptible vibration during hours with the least potential to affect nearby businesses, would minimize annoyance due to perceptible vibration at nearby sensitive receptors.

In summary, project construction would generate vibration levels exceeding the threshold of 0.25 in/sec PPV at historic properties within 20 feet of the site. Such vibration levels would be capable of cosmetically damaging the adjacent buildings to the west and east (i.e., 540 and 570 O’Farrell Street). Therefore, the project sponsor would implement **Mitigation Measure M-NO-2: Construction Vibration Controls**, below, to reduce potential vibration impacts on adjacent buildings to a less-than-significant level.

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<sup>47</sup> Siskins, D.E., M.S. Stagg, J.W. Kopp, and C.H. Dowding, Structure Response and Damage Produced by Ground Vibration from Surface Mine Blasting, RI 8507, Bureau of Mines Report of Investigations, U.S. Department of the Interior Bureau of Mines, Washington, D.C., 1980.

<sup>48</sup> Dowding, C.H., Construction Vibrations, Prentice Hall, Upper Saddle River, 1996.



## **Mitigation Measure M-NO-2: Construction Vibration Controls**

The project sponsor shall retain the services of a qualified structural engineer or vibration consultant and preservation architect that meet the Secretary of the Interior's Historic Preservation Professional Qualification Standards to conduct a Pre-Construction Assessment at historic properties within 20 feet of the site.

Prior to any demolition or ground-disturbing activity, a Pre-Construction Assessment shall be prepared to establish a baseline and shall contain written and photographic descriptions of the existing condition of the visible exteriors from public rights-of-way of the adjacent buildings and in interior locations upon permission of the owners of the adjacent properties. The Pre-Construction Assessment shall determine specific locations to be monitored and include annotated drawings of the buildings to locate accessible digital photo locations and locations of survey markers and/or other monitoring devices to measure vibrations. The Pre-Construction Assessment shall be submitted to the planning department along with the Demolition and Site Permit Applications.

The structural engineer and/or vibration consultant in consultation with the preservation architect shall develop, and the project sponsor shall implement, a Vibration Management and Monitoring Plan to protect nearby historic buildings against damage caused by vibration or differential settlement caused by vibration during project construction activities. In this plan, the maximum vibration level not to be exceeded at each building shall be 0.25 in/sec, or a level determined by the site-specific assessment made by the structural engineer and/or the vibration consultant in coordination with the preservation architect for the project. The Vibration Management and Monitoring Plan shall document the criteria used in establishing the maximum vibration level for the project. The plan shall include pre-construction surveys and continuous vibration monitoring throughout the duration of the major construction project activities that would require heavy-duty equipment to ensure that vibration levels do not exceed the established standard. The Vibration Management and Monitoring Plan shall be submitted to planning department preservation staff prior to issuance of any demolition or construction permits. The plan shall include, but not be limited to, these measures:

1. The project sponsors shall incorporate into construction specifications for the proposed project a requirement that the construction contractor(s) use all feasible means to avoid damage to the adjacent buildings including, but not limited to, staging of equipment and materials as far as possible from adjacent buildings to limit damage; using techniques during demolition, excavation, shoring, and construction that create the minimum feasible vibration; maintaining a buffer zone when possible between heavy equipment and adjacent contributing resource(s); enclosing construction scaffolding to avoid damage from falling objects or debris; and ensuring appropriate security to minimize risks of vandalism and fire.

2. Vibration levels from heavy construction equipment known to produce high vibration levels (e.g., loaded trucks, large drills, tracked vehicles, vibratory rollers, hoe rams) shall be monitored during operation.
3. Place operating equipment on the construction site as far as possible from vibration-sensitive receptors.
4. Use smaller equipment to minimize vibration levels below the limits.
5. Avoid using vibratory rollers and tampers near sensitive areas.
6. Select demolition methods not involving impact tools.
7. Modify/design or identify alternative construction methods to reduce vibration levels below the limits.
8. Avoid dropping heavy objects or materials.

Should vibration levels be observed in excess of the standard, or if damage to adjacent buildings is observed, construction shall be halted and alternative techniques put in practice, to the extent feasible. The structural engineer and/or vibration consultant and the historic preservation consultant shall conduct regular periodic inspections of digital photographs, survey markers, and/or other monitoring devices during ground-disturbing activity at the project site. The buildings shall be protected to prevent further damage and remediated to pre-construction conditions as shown in the Pre-Construction Assessment with the consent of the building owner. Any remedial repairs shall not require building upgrades to comply with current San Francisco Building Code standards. A final report on the vibration monitoring shall be submitted to planning department preservation staff prior to the issuance of a Certificate of Occupancy.

### **Operational Vibration**

As previously described, the proposed project, or project variant, would not include any operational sources of vibration. Therefore, this impact would be less than significant.

### **Cumulative Impacts**

**Impact C-NO-1: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, could result in significant cumulative impacts related to noise. (Less than Significant with Mitigation)**

Cumulative projects proposed within 160 feet of the project site could produce noise levels during construction that could contribute to noticeably higher construction noise levels at nearby sensitive receptors. Construction noise levels from projects located further than 160 feet from the site would not measurably contribute to construction noise levels generated on site.

Of the seven cumulative development projects described in **Table 1: Cumulative Projects within ¼ mile of Project Site**, p. 14, there is only one project located within 160 feet of the project site, the proposed 651 Geary Street project, immediately north of the project site. Cumulative noise

increases associated with project construction could result if this project were to be constructed at the same time and affect the same sensitive receptors bordering the two sites. Given the project similarities, it is reasonable to assume that the construction of the 651 Geary Street project could produce similar noise levels as the construction of the proposed project or project variant. Assuming this were the case, the relative increase in noise levels resulting from the simultaneous construction of the two projects, as opposed to the construction of a single project only, would be about 3 dBA  $L_{eq}$ , with cumulative construction noise levels exceeding the background noise level at sensitive receptor locations by more than 10 dBA.<sup>49</sup> This would constitute a significant cumulative impact, to which the proposed project or project variant would make a considerable cumulative contribution. However, as discussed previously, the proposed project or project variant would be required to implement **Mitigation Measure M-NO-1**, which would reduce its contribution to insubstantial levels. Therefore, with implementation of **Mitigation Measure M-NO-1**, the proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would result in less-than-significant cumulative impacts related to construction noise.

In addition, the proposed project, in combination with the cumulative projects, would not result in a doubling of existing traffic volumes in the vicinity. The proposed project or project variant would add up to approximately 11 vehicle trips during the p.m. peak period. The 450-474 O'Farrell Street project would add approximately 98 vehicle trips during the p.m. peak period.<sup>50</sup> The remaining cumulative development projects in the vicinity, being of smaller scale, would not increase this value substantially. Therefore, in total, cumulative development within the project vicinity would likely add less than 200 new vehicle trips during the p.m. peak period. Therefore, the proposed project, in combination with cumulative development in the vicinity, would not double existing traffic volumes. Furthermore, these additional vehicle trips would be distributed along the local street network. Therefore, in combination with reasonably foreseeable cumulative projects, the project would not result in significant cumulative traffic noise impacts.

Moreover, the proposed project's mechanical equipment and the mechanical equipment associated with reasonably foreseeable cumulative projects would be required to comply with the noise ordinance. Therefore, cumulative impacts related to fixed noise sources would be less than significant.

Overall, with implementation of **Mitigation Measure M-NO-1**, the proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would result in less-than-significant cumulative impacts related to construction and operational noise.

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<sup>49</sup> Illingworth & Rodkin, Inc., *550 O'Farrell Street Project Noise and Vibration Assessment*, March 2020

<sup>50</sup> *450-474 O'Farrell Street/532 Jones Street Project*, Final Environmental Impact Report, 2013.1535ENV, certified June 28, 2018

**Impact C-NO-2: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, could result in significant cumulative impacts related to vibration. (Less than Significant with Mitigation)**

The proposed project, or project variant, would not include any operational sources of vibration. Similarly, the cumulative projects in the vicinity would not include any operational sources of vibration. Therefore, cumulative impacts related to operational sources of vibration would be less than significant.

As discussed under Impact NO-2, construction of the proposed project (or project variant) would generate vibration levels exceeding 0.25 in/sec PPV at historic properties within 20 feet of the site, which would be capable of cosmetically damaging the adjacent historic buildings to the west and east (i.e., 540 and 570 O'Farrell Street). Of the seven cumulative projects in the project vicinity, the adjacent 651 Geary Street project is the only project whose construction activities has the potential to overlap with that of the proposed project or project variant. Cumulative vibration level increases associated with project construction could result if this project were to be constructed at the same time and affect the same sensitive receptors bordering the two sites. Given the project similarities, it is reasonable to assume that the construction of the 651 Geary Street project could produce similar vibration levels as the construction of the proposed project or project variant. Together, these vibration level increases could produce a significant cumulative impact, to which the proposed project or project variant would make a considerable cumulative contribution. However, as previously discussed, the proposed project or project variant would be required to implement **Mitigation Measure M-NO-2: Construction Vibration Controls**, which would reduce its contribution to insubstantial levels. Therefore, with implementation of **Mitigation Measure M-NO-2**, the proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would result in less-than-significant cumulative impacts related to vibration.

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## E.8 Air Quality

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>8. AIR QUALITY. Would the project:</b>					
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal, state, or regional ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Setting

### Overview

The Bay Area Air Quality Management District, or air district, is the regional agency with jurisdiction over the nine-county San Francisco Bay Area Air Basin (air basin), which includes San Francisco, Alameda, Contra Costa, Marin, San Mateo, Santa Clara, and Napa counties and portions of Sonoma and Solano counties. The air district is responsible for attaining and maintaining air quality in the air basin within federal and state air quality standards, as established by the Federal Clean Air Act and the California Clean Air Act, respectively. Specifically, the air district has the responsibility to monitor ambient air pollutant levels throughout the air basin and to develop and implement strategies to attain the applicable federal and state standards. The Federal and California Clean Air Acts require plans to be developed for areas that do not meet air quality standards, generally. The most recent air quality plan, the *2017 Clean Air Plan*, was adopted by the air district on April 19, 2017. The *2017 Clean Air Plan* updates the most recent Bay Area ozone plan, the *2010 Clean Air Plan*, in accordance with the requirements of the State Clean Air Act to implement all feasible measures to reduce ozone; provide a control strategy to reduce ozone, PM, air toxics, and GHGs in a single, integrated plan; and establish emission control measures to be adopted or implemented. The *2017 Clean Air Plan* contains the following primary goals:

- Protect air quality and health at the regional and local scale: attain all state and national air quality standards, and eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants; and
- Protect the climate: reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

The 2017 *Clean Air Plan* represents the most current applicable air quality plan for the air basin. Consistency with this plan is the basis for determining whether the proposed project would conflict with or obstruct implementation of air quality plans.

### ***Criteria Air Pollutants***

In accordance with the Federal and State Clean Air Acts, air pollutant standards are identified for the following six criteria air pollutants: ozone, carbon monoxide (CO), PM, nitrogen dioxide, sulfur dioxide (SO<sub>2</sub>), and lead. These air pollutants are termed criteria air pollutants because they are regulated by developing specific public health- and welfare-based criteria as the basis for setting permissible levels. In general, the air basin experiences low concentrations of most pollutants when compared to federal or state standards. The air basin is designated as either in attainment<sup>51</sup> or unclassified for most criteria pollutants with the exception of ozone, PM<sub>2.5</sub>, and PM<sub>10</sub>, for which these pollutants are designated as non-attainment for either the state or federal standards. By its very nature, regional air pollution is largely a cumulative impact in that no single project is sufficient in size to, by itself, result in non-attainment of air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality impacts. If a project's contribution to cumulative air quality impacts is considerable, then the project's impact on air quality would be considered significant.<sup>52</sup>

Land use projects may contribute to regional criteria air pollutants during the construction and operational phases of a project. **Table 8: Criteria Air Pollutant Significance Thresholds** identifies air quality significance thresholds followed by a discussion of each threshold.<sup>53</sup> Projects that would result in criteria air pollutant emissions below these significance thresholds would not violate an air quality standard, contribute substantially to an air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants within the air basin.

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<sup>51</sup> "Attainment" status refers to those regions that are meeting federal and/or state standards for a specified criteria pollutant. "Non-attainment" status refers to regions that do not meet federal and/or state standards for a specified criteria pollutant. "Unclassified" status refers to regions where there is not enough data to determine the region's attainment status for a specified criteria air pollutant.

<sup>52</sup> Bay Area Air Quality Management District, California Environmental Quality Act Air Quality Guidelines, May 2017, p. 2-1.

<sup>53</sup> Ibid. p. 2-2.

**Table 8: Criteria Air Pollutant Significance Thresholds**

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO <sub>x</sub>	54	54	10
PM <sub>10</sub>	82 (exhaust)	82	15
PM <sub>2.5</sub>	54 (exhaust)	54	10
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	

Source: Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, 2017.

**Ozone Precursors.** As discussed previously, the air basin is currently designated as non-attainment for ozone and PM. Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO<sub>x</sub>). The potential for a project to result in a cumulatively considerable net increase in criteria air pollutants, which may contribute to an existing or projected air quality violation, are based on the State and Federal Clean Air Acts emissions limits for stationary sources. To ensure that new stationary sources do not cause or contribute to a violation of an air quality standard, air district regulation 2, rule 2 requires that any new source that emits criteria air pollutants above a specified emissions limit must offset those emissions. For ozone precursors ROG and NO<sub>x</sub>, the offset emissions level is an annual average of 10 tons per year (or 54 lbs. per day).<sup>54</sup> These levels represent emissions below which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants.

Although this regulation applies to new or modified stationary sources, land use development projects result in ROG and NO<sub>x</sub> emissions as a result of increases in vehicle trips, architectural coating, and construction activities. Therefore, the above thresholds can be applied to the construction and operational phases of land use projects and those projects that result in emissions below these thresholds would not be considered to contribute to an existing or projected air quality violation or result in a considerable net increase in ROG and NO<sub>x</sub> emissions. Due to the temporary nature of construction activities, only the average daily thresholds are applicable to construction phase emissions.

**Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>).**<sup>55</sup> The air district has not established an offset limit for PM<sub>2.5</sub>. However, the emissions limit in the Federal New Source Review for stationary sources in nonattainment areas is an appropriate significance threshold. For PM<sub>10</sub> and PM<sub>2.5</sub>, the emissions

<sup>54</sup> Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 17.

<sup>55</sup> PM<sub>10</sub> is often termed “coarse” PM and is made of particulates that are 10 microns in diameter or smaller. PM<sub>2.5</sub>, termed “fine” PM, is composed of particles that are 2.5 microns or less in diameter.

limit under New Source Review is 15 tons per year (82 lbs. per day) and 10 tons per year (54 lbs. per day), respectively. These emissions limits represent levels below which a source is not expected to have an impact on air quality.<sup>56</sup> Similar to ozone precursor thresholds identified above, land use development projects typically result in PM emissions as a result of increases in vehicle trips, space heating and natural gas combustion, landscape maintenance, and construction activities. Therefore, the above thresholds can be applied to the construction and operational phases of a land use project. Again, because construction activities are temporary in nature, only the average daily thresholds are applicable to construction-phase emissions.

**Fugitive Dust.** Fugitive dust emissions are typically generated during construction phases. Studies have shown that the application of best management practices at construction sites significantly control fugitive dust<sup>57</sup> and individual measures have been shown to reduce fugitive dust by anywhere from 30 to 90 percent.<sup>58</sup> The air district has identified a number of best management practices to control fugitive dust emissions from construction activities.<sup>59</sup> The City's Construction Dust Control Ordinance (ordinance 176-08, effective July 30, 2008) requires a number of measures to control fugitive dust and the best management practices employed in compliance with the City's Construction Dust Control Ordinance are an effective strategy for controlling construction-related fugitive dust.

**Other Criteria Pollutants.** Regional concentrations of CO in the Bay Area have not exceeded the state standards in the past 11 years and SO<sub>2</sub> concentrations have never exceeded the standards. The primary source of CO emissions from development projects is vehicle traffic. Construction-related SO<sub>2</sub> emissions represent a negligible portion of the total basin-wide emissions and construction-related CO emissions represent less than 5 percent of the Bay Area total basin-wide CO emissions. As discussed previously, the Bay Area is in attainment for both CO and SO<sub>2</sub>. Furthermore, the air district has demonstrated, based on modeling, that to exceed the California ambient air quality standard of 9.0 parts per million (eight-hour average) or 20.0 parts per million (one-hour average) for CO, project traffic in addition to existing traffic would need to exceed 44,000 vehicles per hour at affected intersections (or 24,000 vehicles per hour where vertical and/or horizontal mixing is limited). Therefore, given the Bay Area's attainment status and the limited CO and SO<sub>2</sub> emissions that could result from development projects, the proposed project would not result in a cumulatively considerable net increase in CO or SO<sub>2</sub> emissions, and quantitative analysis is not required.

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<sup>56</sup> Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 16.

<sup>57</sup> Western Regional Air Partnership. 2006. *WRAP Fugitive Dust Handbook*. September 7, 2006. This document is available online at [http://www.wrapair.org/forums/dej/fdh/content/FDHandbook\\_Rev\\_06.pdf](http://www.wrapair.org/forums/dej/fdh/content/FDHandbook_Rev_06.pdf), accessed February 16, 2012.

<sup>58</sup> Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017, p. D-47.

<sup>59</sup> *Ibid.*



### ***Local Health Risks and Hazards***

In addition to criteria air pollutants, individual projects may emit toxic air contaminants (TACs). TACs collectively refer to a diverse group of air pollutants that are capable of causing chronic (i.e., of long duration) and acute (i.e., severe but short-term) adverse effects to human health, including carcinogenic effects. Human health effects of TACs include birth defects, neurological damage, cancer, and mortality. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another.

Unlike criteria air pollutants, TACs do not have ambient air quality standards but are regulated by the air district using a risk-based approach to determine which sources and pollutants to control as well as the degree of control. A health risk assessment is an analysis in which human health exposure to toxic substances is estimated and considered together with information regarding the toxic potency of the substances to provide quantitative estimates of health risks.<sup>60</sup>

Air pollution does not affect every individual in the population similarly, and some groups are more sensitive to adverse health effects than others. Land uses such as residences, schools, children's daycare centers, hospitals, and nursing and convalescent homes are considered to be the most sensitive to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress or, as in the case of residential receptors, their exposure time is greater than that for other land uses. Therefore, these groups are referred to as sensitive receptors. Exposure assessment guidance typically assumes that residences would be exposed to air pollution 24 hours per day, 7 days a week, for 30 years.<sup>61</sup> Therefore, assessments of air pollutant exposure to residents typically result in the greatest adverse health outcomes of all population groups.

Exposures to fine PM (PM<sub>2.5</sub>) are strongly associated with mortality, respiratory diseases, and lung development in children, and other endpoints such as hospitalization for cardiopulmonary disease.<sup>62</sup> In addition to PM<sub>2.5</sub>, diesel particulate matter (DPM) is also of concern. The California Air Resources Board (California air board) identified DPM as a toxic air contaminant in 1998, primarily based on evidence demonstrating cancer effects in humans.<sup>63</sup> The estimated cancer risk

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<sup>60</sup> In general, a health risk assessment is required if the air district concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggest a potential public health risk. The applicant is then subject to a health risk assessment for the source in question. Such an assessment generally evaluates chronic, long-term effects, estimating the increased risk of cancer as a result of exposure to one or more TACs.

<sup>61</sup> California Office of Environmental Health Hazard Assessment, Air Toxics Hot Spot Program Risk Assessment Guidelines, February 2015. Pp. 4-44, 8-6.

<sup>62</sup> SFDPH, Assessment and Mitigation of Air Pollutant Health Effects from Intra-Urban Roadways: Guidance for Land Use Planning and Environmental Review, May 2008.

<sup>63</sup> California Air Resources Board, Fact Sheet, "The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines," October 1998.

from exposure to diesel exhaust is much higher than the risk associated with any other TAC routinely measured in the region.

In an effort to identify areas of San Francisco most adversely affected by sources of TACs, San Francisco partnered with the air district to conduct a citywide health risk assessment based on an inventory and assessment of air pollution and exposures from mobile, stationary, and area sources within San Francisco. Areas with poor air quality, termed the “Air Pollutant Exposure Zone,” were identified based on health-protective criteria that consider estimated cancer risk, exposures to fine PM, proximity to freeways, and locations with particularly vulnerable populations. The project site is located within an Air Pollutant Exposure Zone. Each of the Air Pollutant Exposure Zone criteria is discussed below.

**Excess Cancer Risk.** The Air Pollution Exposure Zone includes areas where modeled cancer risk exceeds 100 incidents per million persons exposed. These criteria are based on United States Environmental Protection Agency (EPA) guidance for conducting air toxic analyses and making risk management decisions at the facility and community-scale level.<sup>64</sup> As described by the air district, the EPA considers a cancer risk of 100 per million to be within the “acceptable” range of cancer risk. Furthermore, in the 1989 preamble to the benzene National Emissions Standards for Hazardous Air Pollutants rulemaking,<sup>65</sup> the EPA states that it “...strives to provide maximum feasible protection against risks to health from hazardous air pollutants by (1) protecting the greatest number of persons possible to an individual lifetime risk level no higher than approximately one in one million and (2) limiting to no higher than approximately one in ten thousand (100 in one million) the estimated risk that a person living near a plant would have if he or she were exposed to the maximum pollutant concentrations for 70 years.” The 100 per one million excess cancer cases is also consistent with the ambient cancer risk in the most pristine portions of the Bay Area based on air district regional modeling.<sup>66</sup>

**Fine Particulate Matter (PM<sub>2.5</sub>).** In April 2011, the EPA published Policy Assessment for the Particulate Matter Review of the National Ambient Air Quality Standards, “Particulate Matter Policy Assessment.” In this document, EPA staff concludes that the then-current federal annual PM<sub>2.5</sub> standard of 15 micrograms/cubic meter (µg/m<sup>3</sup>) should be revised to a level within the range of 13 to 11 µg/m<sup>3</sup>, with evidence strongly supporting a standard within the range of 12 to 11 µg/m<sup>3</sup>. The Air Pollutant Exposure Zone for San Francisco is based on the health protective PM<sub>2.5</sub> standard of 11 µg/m<sup>3</sup>, as supported by the EPA’s Particulate Matter Policy Assessment, although lowered to 10 µg/m<sup>3</sup> to account for uncertainty in accurately predicting air pollutant concentrations using emissions modeling programs.

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<sup>64</sup> Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 67.

<sup>65</sup> 54 Federal Register 38044, September 14, 1989.

<sup>66</sup> Bay Area Air Quality Management District, *Clean Air Plan*, May 2017, p. D-43.

**Proximity to Freeways.** According to the California air board, studies have shown an association between the proximity of sensitive land uses to freeways and a variety of respiratory symptoms, asthma exacerbations, and decreases in lung function in children. Siting sensitive uses in close proximity to freeways increases both exposure to air pollution and the potential for adverse health effects. As evidence shows that sensitive uses in an area within a 500-foot buffer of any freeway are at an increased health risk from air pollution,<sup>67</sup> parcels that are within 500 feet of freeways are included in the Air Pollutant Exposure Zone.

**Health Vulnerable Locations.** Based on the air district's evaluation of health vulnerability in the Bay Area, those zip codes (94102, 94103, 94105, 94124, and 94130) in the worst quintile of Bay Area health vulnerability scores as a result of air pollution-related causes were afforded additional protection by lowering the standards for identifying parcels in the Air Pollutant Exposure Zone to: (1) an excess cancer risk greater than 90 per one million persons exposed, and/or (2) PM<sub>2.5</sub> concentrations in excess of 9 µg/m<sup>3</sup>.<sup>68</sup>

The above citywide health risk modeling was also used as the basis in approving amendments to the San Francisco Building and Health Codes, referred to as the Enhanced Ventilation Required for Urban Infill Sensitive Use Developments or Health Code, article 38 (ordinance 224-14, effective December 8, 2014) (article 38). The purpose of article 38 is to protect the public health and welfare by establishing an Air Pollutant Exposure Zone and imposing an enhanced ventilation requirement for all urban infill sensitive use development within the Air Pollutant Exposure Zone. In addition, projects within the Air Pollutant Exposure Zone require special consideration to determine whether the project's activities would add a substantial amount of emissions to areas already adversely affected by poor air quality.

## **Construction Impacts**

Project-related air quality impacts fall into two categories: short-term impacts from construction and long-term impacts from project operation. The following discussion addresses construction-related air quality impacts resulting from the proposed project.

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<sup>67</sup> California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005. Available online at: <http://www.arb.ca.gov/ch/landuse.htm>.

<sup>68</sup> San Francisco Planning Department and San Francisco Department of Public Health, *2014 Air Pollutant Exposure Zone Map (Memo and Map)*, April 9, 2014. These documents are part of San Francisco Board of Supervisors File No. 14806, Ordinance No. 224-14; Amendment to Health Code Article 38.

**Impact AQ-1: The proposed project's or project variant's construction activities would generate fugitive dust and criteria air pollutants, but would not violate an air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants. (Less than Significant)**

#### Proposed Project and Project Variant

Construction activities (short-term) typically result in emissions of ozone precursors and fine PM in the form of dust (fugitive dust) and exhaust (e.g., vehicle tailpipe emissions). Emissions of ozone precursors and fine PM are primarily a result of the combustion of fuel from on-road and off-road vehicles. However, ROG's are also emitted from activities that involve painting, other types of architectural coatings, or asphalt paving. Proposed project or project variant construction would span approximately 21 months, with the demolition and shoring and grading phases each lasting approximately 1 to 2 months each, and the building construction phase lasting approximately 18 months. The proposed project or project variant would include an estimated 4.5-foot-deep excavation along the front half of the building (accounting for the existing garage basement depth) to a total depth of 16 feet below sidewalk grade, and an approximately 11-foot-deep excavation along part of the north end of the existing basement. This would remove enough soil for the new mat slab foundation. Up to approximately 2,205 cubic yards of soil would be removed from the proposed project site. The excavated material would be exported off site. About 500 cubic yards of material would be imported to backfill part of the existing basement space at the north end of the site. Alternatively, the proposed project or the project variant would not backfill any of the existing basement space and would instead extend the 11-foot-deep excavation to the north property line, creating an additional 1,110 cubic yards of soil to be removed from the site. Total excavation would then be about 3,300 cubic yards. That space would be developed into additional tenant storage or other service space. In addition, the proposed project or the project variant would backfill about 330 cubic yards at the east end of the existing sidewalk vault.

During the project's approximately 21-month construction period, construction activities would have the potential to result in emissions of ozone precursors and fine PM, as discussed below.

#### *Fugitive Dust*

Project-related demolition, excavation, grading, and other construction activities may cause wind-blown dust that could contribute PM into the local atmosphere. Depending on exposure, adverse health effects can occur due to this PM in general and also due to specific contaminants, such as lead or asbestos, that may be constituents of soil. Although there are federal standards for air pollutants and implementation of state and regional air quality control plans, air pollutants continue to have impacts on human health throughout the country. California has found that PM exposure can cause health effects at lower levels than national standards. The current health burden of PM demands that, where possible, public agencies take feasible available actions to reduce sources of PM exposure. According to the California air board, reducing PM<sub>2.5</sub>

concentrations to state and federal standards of 12 µg/m<sup>3</sup> in the San Francisco Bay Area would prevent between 200 and 1,300 premature deaths.<sup>69</sup>

In response, the San Francisco Board of Supervisors approved the Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) with the intent of reducing the quantity of dust generated during site preparation, demolition, and construction work to protect the health of the general public and of on-site workers, minimize public nuisance complaints, and to avoid orders to stop work by the Department of Building Inspection.

The Construction Dust Control Ordinance requires that all site preparation work, demolition, or other construction activities within San Francisco that have the potential to create dust or to expose or disturb more than 10 cubic yards or 500 square feet of soil comply with specified dust control measures, whether or not the activity requires a permit from the Department of Building Inspection. The Director of the Department of Building Inspection may waive this requirement for activities on sites less than a half-acre that are unlikely to result in any visible wind-blown dust.

In compliance with the Construction Dust Control Ordinance, the project sponsor and the contractor responsible for construction activities at the project site would be required to use the following practices to control construction dust on the site or other practices that result in equivalent dust control that are acceptable to the director. Dust suppression activities may include watering all active construction areas sufficiently to prevent dust from becoming airborne; increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour (mph). During excavation and dirt-moving activities, contractors shall wet sweep or vacuum the streets, sidewalks, paths, and intersections where work is in progress at the end of the workday. Inactive stockpiles (where no disturbance occurs for more than 7 days) greater than 10 cubic yards or 500 square feet of excavated material, backfill material, import material, gravel, sand, road base, and soil shall be covered with a 10-millimeter (0.01 inch) polyethylene plastic (or equivalent) tarp, braced down, or use other equivalent soil stabilization techniques. San Francisco ordinance 175-91 restricts the use of potable water for soil compaction and dust-control activities undertaken in conjunction with any construction or demolition project occurring within the boundaries of San Francisco, unless permission is obtained from the San Francisco Public Utilities Commission (SFPUC). Non-potable water must be used for soil compaction and dust-control activities during project construction and demolition. The SFPUC operates a recycled water truck-fill station at the Southeast Water Pollution Control Plant that provides recycled water for these activities at no charge.

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<sup>69</sup> California Air Resources Board, Methodology for Estimating Premature Deaths Associated with Long-term Exposure to Fine Airborne Particulate Matter in California, Staff Report, Table 4c, October 24, 2008.

Compliance with the regulations and procedures set forth by the Dust Control Ordinance would ensure that potential dust-related air quality impacts would be reduced to a less-than-significant level.

### ***Criteria Air Pollutants***

As discussed above, construction activities would result in emissions of criteria air pollutants from the use of off- and on-road vehicles and equipment. To assist lead agencies in determining whether short-term construction-related air pollutant emissions require further analysis as to whether the project may exceed the criteria air pollutant significance thresholds shown in **Table 8: Criteria Air Pollutant Significance Thresholds** above, the air district, in its *CEQA Air Quality Guidelines* (May 2017), developed screening criteria. If a proposed project meets the screening criteria, then construction of the project would result in less-than-significant criteria air pollutant impacts. A project that exceeds the screening criteria may require a detailed air quality assessment to determine whether criteria air pollutant emissions would exceed significance thresholds. The *CEQA Air Quality Guidelines* note that the screening levels are generally representative of new development on greenfield<sup>70</sup> sites without any form of mitigation measures taken into consideration. In addition, the screening criteria do not account for project design features, attributes, or local development requirements that could also result in lower emissions.

The proposed project would include an approximately 104,960-square-foot mixed-use building with 111 residential dwelling units and 1,300 square feet of retail or residential amenity space. The project variant would include an approximately 106,515-square-foot mixed-use building with 116 residential dwelling units and 1,300 square feet of retail or residential amenity space. The size of the proposed project and project variant would be below the air district's criteria air pollutant construction screening size for high-rise apartments (249 dwelling units). The retail space would also be below the air district's criteria air pollutant construction screening criteria of 227,000 square feet. The proposed excavation and export of up to about 3,300 cubic yards of material for the project construction and import of about 500 cubic yards of backfill material would be below the screening criterion of 10,000 cubic yards. Thus, quantification of construction-related criteria air pollutant emissions would not be required, and the proposed project's construction activities would result in a less-than-significant criteria air pollutant impact.

**Impact AQ-2: The proposed project's or project variant's construction activities would generate toxic air contaminants, including diesel particulate matter, which would expose sensitive receptors to substantial pollutant concentrations. (Less than Significant with Mitigation)**

### **Proposed Project and Project Variant**

The project site is located within the Air Pollutant Exposure Zone described above. Sensitive receptors are located in close proximity to the project site, including high-density residences at

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<sup>70</sup> A greenfield site refers to agricultural or forest land or an undeveloped site earmarked for commercial, residential, or industrial projects.

540, 555, 601, and 631 O'Farrell Street; the Orange Village Hostel at 411 O'Farrell Street; a senior center at 481 O'Farrell Street; and senior housing at 477 O'Farrell Street. Other high-density residential uses are directly north of the site at 639 and 665 Geary Street.

With regards to construction emissions, off-road equipment (which includes construction-related equipment) is a large contributor to DPM emissions in California; although since 2007, the California air board has found the emissions to be substantially lower than previously expected.<sup>71</sup>

Newer and more refined emission inventories have substantially lowered the estimates of DPM emissions from off-road equipment such that off-road equipment is now considered the sixth largest source of DPM emissions in California.<sup>72</sup> For example, revised PM emission estimates for the year 2010, which DPM is a major component of total PM, have decreased by 83 percent from previous 2010 emissions estimates for the air basin.<sup>73</sup> Approximately half the reduction in emissions can be attributed to the economic recession and half to updated methodologies used to better assess construction emissions.<sup>74</sup>

Additionally, a number of federal and state regulations are requiring cleaner off-road equipment. Specifically, both the EPA and California air board have set emissions standards for new off-road equipment engines, ranging from Tier 1 to Tier 4. Tier 1 emission standards were phased in between 1996 and 2000 and Tier 4 Interim and Final emission standards for all new engines were phased in between 2008 and 2015. To meet the Tier 4 emission standards, engine manufacturers will be required to produce new engines with advanced emission-control technologies. Although the full benefits of these regulations will not be realized for several years, the EPA estimates that by implementing the federal Tier 4 standards, NO<sub>x</sub> and PM emissions will be reduced by more than 90 percent.<sup>75</sup>

In addition, construction activities do not lend themselves to analysis of long-term health risks because of their temporary and variable nature. As explained in the air district's *CEQA Air Quality Guidelines*:

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<sup>71</sup> California Air Resources Board, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements*, p.1 and p. 13 (Figure 4), October 2010.

<sup>72</sup> California Air Resources Board, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements*, October 2010.

<sup>73</sup> California Air Resources Board, "In-Use Off-Road Equipment, 2011 Inventory Model," Query accessed online, April 2, 2012, [http://www.arb.ca.gov/msei/categories.htm#inuse\\_or\\_category](http://www.arb.ca.gov/msei/categories.htm#inuse_or_category).

<sup>74</sup> California Air Resources Board, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements*, October 2010.

<sup>75</sup> EPA, "Clean Air Nonroad Diesel Rule: Fact Sheet," May 2004.

“Due to the variable nature of construction activity, the generation of TAC emissions in most cases would be temporary, especially considering the short amount of time such equipment is typically within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations. Concentrations of mobile-source diesel PM emissions are typically reduced by 70 percent at a distance of approximately 500 feet (ARB 2005). In addition, current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. This results in difficulties with producing accurate estimates of health risk.”<sup>76</sup>

Therefore, project-level analyses of construction activities tend to produce overestimated assessments of long-term health risks. However, within the Air Pollutant Exposure Zone, as discussed above, additional construction activity may adversely affect populations that are already at a higher risk for adverse long-term health risks from existing sources of air pollution.

The proposed project or the project variant would require construction activities for the approximately 21-month construction period. Project construction activities would result in short-term emissions of DPM and other TACs. The project site is located in an area that already experiences poor air quality and project construction activities would generate additional air pollution, affecting nearby sensitive receptors and resulting in a significant impact. Implementation of **Mitigation Measure M-AQ-2, Construction Emissions Minimization**, would reduce the magnitude of this impact to a less-than-significant level. While emission reductions from limiting idling, educating workers and the public, and properly maintaining equipment are difficult to quantify, other measures, specifically the requirement for equipment with Tier 2 engines and Level 3 Verified Diesel Emission Control Strategy (VDECS) can reduce construction emissions by 89 to 94 percent compared to equipment with engines meeting no emission standards and without a VDECS.<sup>77</sup> Emissions reductions from the combination of Tier 2 equipment with level 3 VDECS is almost equivalent to requiring only equipment with Tier 4 Final engines. Therefore, compliance with **Mitigation Measure M-AQ-2** would reduce construction emissions impacts on nearby sensitive receptors to a less-than-significant level.

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<sup>76</sup> Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017, pp. 8-7.

<sup>77</sup> PM emissions benefits are estimated by comparing off-road PM emission standards for Tier 2 with Tier 1 and 0. Tier 0 off-road engines do not have PM emission standards, but the EPA's *Exhaust and Crankcase Emissions Factors for Nonroad Engine Modeling – Compression Ignition* has estimated Tier 0 engines between 50 horsepower (hp) and 100 hp to have a PM emission factor of 0.72 g/hp-hr and greater than 100 hp to have a PM emission factor of 0.40 g/hp-hr. Therefore, requiring off-road equipment to have at least a Tier 2 engine would result in between a 25-percent and 63-percent reduction in PM emissions, as compared to off-road equipment with Tier 0 or Tier 1 engines. The 25-percent reduction comes from comparing the PM emission standards for off-road engines between 25 hp and 50 hp for Tier 2 (0.45 g/bhp-hr) and Tier 1 (0.60 g/bhp-hr). The 63-percent reduction comes from comparing the PM emission standards for off-road engines above 175 hp for Tier 2 (0.15 g/bhp-hr) and Tier 0 (0.40 g/bhp-hr). In addition to the Tier 2 requirement, California air board Level 3 VDECSs are required and would reduce PM by an additional 85 percent. Therefore, the mitigation measure would result in between an 89-percent (0.0675-g/bhp-hr) and 94-percent (0.0225-g/bhp-hr) reduction in PM emissions, as compared to equipment with Tier 1 (0.60 g/bhp-hr) or Tier 0 engines (0.40 g/bhp-hr).



## Mitigation Measure M-AQ-2: Construction Emissions Minimization

The project sponsor or the project sponsor's Contractor shall comply with the following:

### A. *Engine Requirements.*

1. All off-road equipment greater than 25 hp and operating for more than 20 total hours over the entire duration of construction activities shall have engines that meet or exceed either EPA or California air board Tier 2 off-road emission standards and have been retrofitted with a California air board Level 3 VDECs. Equipment with engines meeting Tier 4 Interim or Tier 4 Final off-road emission standards automatically meet this requirement.
2. Where access to alternative sources of power are available, portable diesel engines shall be prohibited.
3. Diesel engines, whether for off-road or on-road equipment, shall not be left idling for more than 2 minutes, at any location, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment (e.g., traffic conditions, safe operating conditions). The Contractor shall post legible and visible signs in English, Spanish, and Chinese, in designated queuing areas and at the construction site to remind operators of the 2-minute idling limit.
4. The Contractor shall instruct construction workers and equipment operators on the maintenance and tuning of construction equipment and require that such workers and operators properly maintain and tune equipment in accordance with manufacturer specifications.

### B. *Waivers.*

1. The planning department's Environmental Review Officer or designee (ERO) may waive the alternative source of power requirement of subsection (A)(2) if an alternative source of power is limited or infeasible at the project site. If the ERO grants the waiver, the Contractor must submit documentation that the equipment used for on-site power generation meets the requirements of subsection (A)(1).
2. The ERO may waive the equipment requirements of subsection (A)(1) if: a particular piece of off-road equipment with a California air board Level 3 VDECS is technically not feasible; the equipment would not produce desired emissions reduction due to expected operating modes; installation of the equipment would create a safety hazard or impaired visibility for the operator; or, there is a compelling emergency need to use off-road equipment that is not retrofitted with a California air board Level 3 VDECS. If the ERO grants the waiver, the Contractor must use the next cleanest piece of off-road equipment, according to **Table 9: Off-Road Equipment Compliance Step-down Schedule** below.

**Table 9: Off-Road Equipment Compliance Step-down Schedule**

Compliance Alternative	Engine Emission Standard	Emissions Control
1	Tier 2	California air board Level 2 VDECS
2	Tier 2	California air board Level 1 VDECS
3	Tier 2	Alternative Fuel*

\* Alternative fuels are not a VDECS.

C. *Construction Emissions Minimization Plan.* Before starting on-site construction activities, the Contractor shall submit a Construction Emissions Minimization Plan (Plan) to the ERO for review and approval. The Plan shall state, in reasonable detail, how the Contractor will meet the requirements of section A.

1. The Plan shall include estimates of the construction timeline by phase, with a description of each piece of off-road equipment required for every construction phase. The description may include but is not limited to equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), hp, engine serial number, and expected fuel usage and hours of operation. For VDECS installed, the description may include technology type, serial number, make, model, manufacturer, California air board verification number level, and installation date and hour meter reading on installation date. For off-road equipment using alternative fuels, the description shall also specify the type of alternative fuel being used.
2. The project sponsor shall ensure that all applicable requirements of the Plan have been incorporated into the contract specifications. The Plan shall include a certification statement that the Contractor agrees to comply fully with the Plan.
3. The Contractor shall make the Plan available to the public for review on site during working hours. The Contractor shall post at the construction site a legible and visible sign summarizing the Plan. The sign shall also state that the public may ask to inspect the Plan for the project at any time during working hours and shall explain how to request to inspect the Plan. The Contractor shall post at least one copy of the sign in a visible location on each side of the construction site facing a public right-of-way.

D. *Monitoring.* After the start of Construction Activities, the Contractor shall submit quarterly reports to the ERO documenting compliance with the Plan. After completion of construction activities and prior to receiving a final certificate of occupancy, the project sponsor shall submit to the ERO a final report summarizing construction activities, including the start and end dates and duration of each construction phase, and the specific information required in the Plan.

## Operational Impacts

Land use projects typically result in emissions of criteria air pollutants and toxic air contaminants primarily from an increase in motor vehicle trips. However, land use projects may also result in criteria air pollutants and toxic air contaminants from combustion of natural gas, landscape maintenance, use of consumer products, and architectural coating. The following discussion addresses air quality impacts resulting from operation of the proposed project.

**Impact AQ-3: During project operations, the proposed project or project variant would result in emissions of criteria air pollutants, but not at levels that would violate an air quality standard, contribute to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants. (Less than Significant)**

### Proposed Project and Project Variant

As discussed above in Impact AQ-1, the air district, in its *CEQA Air Quality Guidelines* (May 2017), has developed screening criteria to determine whether a project requires an analysis of project-generated criteria air pollutants. If all the screening criteria are met by a proposed project, then the lead agency or applicant does not need to perform a detailed air quality assessment.

The proposed project or project variant would include up to 106,515 square feet of mixed-use building space, including 111 to 116 residential dwelling units and approximately 1,300 square feet of retail space. The proposed project or project variant would add up to 211 daily vehicle trips (14 p.m. peak-hour vehicle trips) in the project vicinity. The proposed project or project variant would be below the criteria air pollutant operational screening size for high-rise apartments (510 dwelling units) and/or relevant commercial uses (5,000 square feet) identified in the air district's *CEQA Air Quality Guidelines*. Thus, quantification of project-generated criteria air pollutant emissions is not required, and the proposed project would not exceed any of the significance thresholds for criteria air pollutants and would result in a less-than-significant impact with respect to criteria air pollutants.

**Impact AQ-4: The proposed project or project variant would generate toxic air contaminants, including diesel particulate matter, exposing sensitive receptors to substantial air pollutant concentrations. (Less than Significant with Mitigation)**

### Proposed Project and Project Variant

As previously discussed, the project site is located within the Air Pollutant Exposure Zone. Sensitive receptors are located in close proximity to the project site, including high-density residences at 540, 555, 601, and 631 O'Farrell Street; the Orange Village Hostel at 411 O'Farrell Street; a senior center at 481 O'Farrell Street; senior housing at 477 O'Farrell Street, and high-density residential uses at 639 and 665 Geary Street.

## Sources of Toxic Air Contaminants

Individual projects result in emissions of toxic air contaminants primarily as a result of an increase in vehicle trips. The air district considers roads with less than 10,000 vehicles per day “minor, low-impact” sources that do not pose a significant health impact even in combination with other nearby sources and recommends that these sources be excluded from the environmental analysis. The proposed project’s or project variant’s up to 167 daily vehicle trips would be well below this level and would be distributed among the local roadway network; therefore, an assessment of project-generated toxic air contaminants resulting from vehicle trips is not required and the proposed project would not generate a substantial amount of toxic air contaminant emissions that could affect nearby sensitive receptors.

The proposed project and project variant would also include a backup emergency generator that would be installed on the roof within the enclosed mechanical penthouse structure. Emergency generators are regulated by the air district through their New Source Review (Regulation 2, Rule 5) permitting process. The project applicant would be required to obtain applicable permits to operate an emergency generator from the air district. Although emergency generators are intended only to be used in periods of power outages, monthly testing of the generator would be required. The air district limits testing to no more than 50 hours per year. Additionally, as part of the permitting process, the air district would limit the excess cancer risk from any facility to no more than ten per one million population and requires any source that would result in an excess cancer risk greater than one per one million population to install Best Available Control Technology for Toxics. However, because the project site is located in an area that already experiences poor air quality, the proposed emergency back-up generator has the potential to expose sensitive receptors to substantial concentrations of diesel emissions, a known toxic air contaminant, resulting in a significant air quality impact. Implementation of Mitigation Measure M-AQ-4, Best Available Control Technology for Diesel Generators, would reduce the magnitude of this impact to a less-than-significant level by reducing emissions by 89 to 94 percent compared to equipment with engines that do not meet any emission standards and without a VDECS. Therefore, although the proposed project or project variant would add a new source of toxic air contaminants within an area that already experiences poor air quality, implementation of M-AQ-4 would reduce this impact to a less-than-significant level.

### **M-AQ-4. Best Available Control Technology for Diesel Generators.**

The project sponsor shall ensure that the backup diesel generator meet or exceed one of the following emission standards for PM: (1) Tier 4-certified engine, or (2) Tier 2- or Tier 3-certified engine that is equipped with a California air board Level 3 VDECS. A non-VDECs may be used if the filter has the same PM reduction as the identical California air board-verified model and if the air district approves of its use. The project sponsor shall submit documentation of compliance with the air district’s New Source Review permitting process (Regulation 2, Rule 2, and Regulation 2, Rule 5) and the emission

standard requirement of this mitigation measure to the planning department for review and approval prior to issuance of a permit for a backup diesel generator from any City agency.

### **Siting Sensitive Land Uses**

The proposed project and variant would include development of 111 to 116 residential units and is considered a sensitive land use for purposes of air quality evaluation. For sensitive use projects within the Air Pollutant Exposure Zone as defined by article 38, such as the proposed project, article 38 requires that the project sponsor submit an Enhanced Ventilation Proposal for approval by the health department that achieves protection from PM<sub>2.5</sub> (fine PM) equivalent to that associated with a Minimum Efficiency Reporting Value 13 MERV filtration. The Department of Building Inspection will not issue a building permit without written notification from the Director of Public Health that the applicant has an approved Enhanced Ventilation Proposal.

In compliance with article 38, the project sponsor has submitted an initial application to the health department.<sup>78</sup> The regulations and procedures set forth by article 38 would reduce exposure of sensitive receptors to substantial pollutant concentrations.

### **Impact AQ-5: The proposed project or project variant would not conflict with, or obstruct implementation of the 2017 Clean Air Plan. (Less than Significant)**

#### **Proposed Project and Project Variant**

The most recently adopted air quality plan for the air basin is the *2017 Clean Air Plan*. The *2017 Clean Air Plan* is a road map that demonstrates how the San Francisco Bay Area will achieve compliance with the state ozone standards as expeditiously as practicable and how the region will reduce the transport of ozone and ozone precursors to neighboring air basins. In determining consistency with the *2017 Clean Air Plan*, this analysis considers whether the project would: (1) support the primary goals of the *2017 Clean Air Plan*, (2) include applicable control measures from the *2017 Clean Air Plan*, and (3) avoid disrupting or hindering implementation of control measures identified in the *2017 Clean Air Plan*.

The primary goals of the *2017 Clean Air Plan* are to: (1) protect air quality and health at the regional and local scale; (2) eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants; and (3) protect the climate by reducing GHG emissions. To meet the primary goals, the *2017 Clean Air Plan* recommends specific control measures and actions. These control measures are grouped into various categories and include stationery and area source measures, mobile source measures, transportation control measures, land use measures, and energy and climate measures. The *2017 Clean Air Plan* recognizes that to a great extent,

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<sup>78</sup> Application for Article 38 Site Assessment, 550 O'Farrell Street, September 18, 2018. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2017-004557ENV.

community design dictates individual travel mode, and that a key long-term control strategy to reduce emissions of criteria pollutants, air toxics, and GHGs from motor vehicles is to channel future Bay Area growth into vibrant urban communities where goods and services are close at hand, and people have a range of viable transportation options. To this end, the *2017 Clean Air Plan* includes 85 control measures aimed at reducing air pollution in the air basin.

The measures most applicable to the proposed project and project variant are energy and climate control measures. The proposed project's impact with respect to GHGs are discussed in section E.9, Greenhouse Gas Emissions, which demonstrates that the proposed project would comply with the applicable provisions of the City's Greenhouse Gas Reduction Strategy.

The compact development of the proposed project and project variant and high availability of viable transportation options ensure that residents could bicycle, walk, and ride transit to and from the project site instead of taking trips via private automobile. These features ensure that the proposed project or project variant would avoid substantial growth in automobile trips and VMT. The proposed project or project variant would add up to 211 new vehicle trips, which would result in a negligible increase in air pollutant emissions. Furthermore, the proposed project and project variant would be generally consistent with the general plan, as discussed in section C. Transportation control measures that are identified in the *2017 Clean Air Plan* are implemented by the general plan and the planning code, for example, through the City's Transit First Policy, bicycle parking requirements, and transit impact development fees. Compliance with these requirements would ensure the project includes relevant transportation control measures specified in the *2017 Clean Air Plan*. Therefore, the proposed project and project variant would include applicable control measures identified in the *2017 Clean Air Plan* to meet the *2017 Clean Air Plan's* primary goals.

Examples of a project that could cause the disruption or delay of *2017 Clean Air Plan* control measures are projects that would preclude the extension of a transit line or bike path, or projects that propose excessive parking beyond parking requirements. The proposed project or project variant would add 111 to 116 residential units and 1,300 square feet of retail space to a dense, walkable urban area near a concentration of regional and local transit service. It would not preclude the extension of a transit line or a bike path or any other transit improvement, and thus would not disrupt or hinder implementation of control measures identified in the *2017 Clean Air Plan*.

For the reasons described above, the proposed project and project variant would not interfere with implementation of the *2017 Clean Air Plan*, and because the proposed project and project variant would be consistent with the applicable air quality plan that demonstrates how the region will improve ambient air quality and achieve the state and federal ambient air quality standards, this impact would be less than significant.

**Impact AQ-6: The proposed project or project variant would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. (Less than Significant)**

#### Proposed Project and Project Variant

Typical odor sources of concern include wastewater treatment plants, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing facilities, fiberglass manufacturing facilities, auto body shops, rendering plants, and coffee-roasting facilities. During construction, diesel exhaust from construction equipment would generate some odors. However, construction-related odors would be temporary and would not persist upon project completion. Observation indicates that the project site is not substantially affected by sources of odors, as noted during a site visit on September 13, 2018.<sup>79</sup> Additionally, the proposed project or project variant would include between 111 and 116 residential units and 1,300 square feet of retail space and therefore, would not create a significant source of new odors. Therefore, odor impacts would be less than significant.

#### Cumulative Impacts

**Impact C-AQ-1: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future development in the project area would contribute to cumulative air quality impacts. (Less than Significant with Mitigation)**

#### Proposed Project and Project Variant

As discussed above, regional air pollution is by its very nature largely a cumulative impact. Emissions from past, present, and reasonably foreseeable future projects contribute to the region's adverse air quality on a cumulative basis. No single project by itself would be sufficient in size to result in regional nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative adverse air quality impacts.<sup>80</sup> The project-level thresholds for criteria air pollutants are based on levels by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants. Therefore, because the proposed project's or project variant's construction (Impact AQ-1) and operational (Impact AQ-3) emissions would not exceed the project-level thresholds for criteria air pollutants, neither would result in a cumulatively considerable contribution to regional air quality impacts.

As previously noted, the proposed project or project variant would generate new emissions related to construction vehicle trips, construction equipment operations, and the proposed new building's emergency backup diesel generator within an area already adversely affected by air quality, resulting in a considerable contribution to cumulative health risk impacts on nearby sensitive receptors. This would be a significant cumulative impact. The proposed project or

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<sup>79</sup> TRC, 550 O'Farrell Street Site Visit - September 13, 2018 Notes, September 13, 2018.

<sup>80</sup> Bay Area Air Quality Management District, CEQA Air Quality Guidelines, May 2017, p. 2-1.

project variant would be required to implement **Mitigation Measure M-AQ-2, Construction Emissions Minimization**, which could reduce construction period emissions by as much as 94 percent and **Mitigation Measure M-AQ-4, Best Available Control Technology for Diesel Generators**, which requires best available control technology to limit emissions from the project's emergency back-up generator. Implementation of these mitigation measures would reduce the project's contribution to cumulative air quality impacts to a less-than-significant level. Furthermore, compliance with article 38 would ensure that new sensitive receptors are not substantially affected by existing or proposed sources of toxic air contaminants.

## E.9 Greenhouse Gas Emissions

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>9. GREENHOUSE GAS EMISSIONS.</b> <b>Would the project:</b>					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Greenhouse gas (GHG) emissions and global climate change represent cumulative impacts. GHG emissions cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the combination of GHG emissions from past, present, and future projects have contributed and will continue to contribute to global climate change and its associated environmental impacts.

The air district has prepared guidelines and methodologies for analyzing GHGs. These guidelines are consistent with CEQA Guidelines sections 15064.4 and 15183.5, which address the analysis and determination of significant impacts from a proposed project's GHG emissions. CEQA Guidelines section 15064.4 allows lead agencies to rely on a qualitative analysis to describe GHG emissions resulting from a project. CEQA Guidelines section 15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of GHGs and describes the required contents of such a plan. Accordingly, San Francisco has prepared Strategies



to Address Greenhouse Gas Emissions,<sup>81</sup> which presents a comprehensive assessment of policies, programs, and ordinances that collectively represent San Francisco’s qualified GHG reduction strategy in compliance with the CEQA guidelines. These GHG reduction actions have resulted in a 36-percent reduction in GHG emissions in 2017 compared to 1990 levels,<sup>82</sup> exceeding the year 2020 reduction goals outlined in the air district’s 2017 Clean Air Plan,<sup>83</sup> Executive Order S-3-05,<sup>84</sup> and Assembly Bill 32 (also known as the Global Warming Solutions Act).<sup>85,86</sup>

Given that the City has met the state and region’s 2020 GHG reduction targets and San Francisco’s GHG reduction goals are consistent with, or more aggressive than, the long-term goals established under order S-3-05, order B-30-15, and Senate Bill 32, the City’s GHG reduction goals are consistent with order S-3-05, order B-30-15, Assembly Bill 32, Senate Bill 32, and the 2017 Clean Air Plan. Therefore, proposed projects that are consistent with the City’s GHG reduction strategy would be consistent with the aforementioned GHG reduction goals, would not conflict with these plans or result in significant GHG emissions, and would therefore, not exceed San Francisco’s applicable GHG threshold of significance.

The following analysis of the proposed project’s or project variant’s impact on climate change focuses on the project contribution to cumulatively significant GHG emissions. Because no individual project could emit GHGs at a level that could result in a significant impact on the global climate, this analysis is in a cumulative context, and this section does not include an individual project-specific impact statement.

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<sup>81</sup> San Francisco Planning Department, Strategies to Address Greenhouse Gas Emissions in San Francisco, November 2010, [http://sfmea.sfplanning.org/GHG\\_Reduction\\_Strategy.pdf](http://sfmea.sfplanning.org/GHG_Reduction_Strategy.pdf), and 2017 Greenhouse Gas Reduction Strategy Update, July 2017, [http://sfmea.sfplanning.org/GHG/GHG\\_Strategy\\_October2017.pdf](http://sfmea.sfplanning.org/GHG/GHG_Strategy_October2017.pdf), accessed June 28, 2019.

<sup>82</sup> San Francisco Department of the Environment, San Francisco’s Carbon Footprint (2017), June 2019, <https://sfenvironment.org/carbonfootprint>, accessed June 28, 2019.

<sup>83</sup> Bay Area Air Quality Management District, 2017 Clean Air Plan, April 19, 2017, <http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>, accessed June 28, 2019.

<sup>84</sup> Office of the Governor, Executive Order S-3-05, June 1, 2005, <https://web.archive.org/web/20060922231000/http://gov.ca.gov/index.php?/executive-order/1861/>, June 28, 2019.

<sup>85</sup> Office of the Governor, Assembly Bill 32, September 27, 2006, [http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=200520060AB32](http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200520060AB32), accessed June 28, 2019.

<sup>86</sup> Executive Order S-3-05, Assembly Bill 32, and the air district’s 2017 Clean Air Plan (continuing the trajectory set in the 2010 Clean Air Plan) set a target of reducing GHG emissions to below 1990 levels by 2020.

**Impact C-GG-1: The proposed project or project variant would generate greenhouse gas emissions, but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing greenhouse gas emissions. (Less than Significant)**

#### Proposed Project and Project Variant

Individual projects contribute to the cumulative effects of climate change by directly or indirectly emitting GHGs during construction and operational phases. Direct operational emissions include GHG emissions from new vehicle trips and area sources (natural gas combustion). Indirect emissions include emissions from electricity providers; energy required to pump, treat, and convey water; and emissions associated with waste removal, disposal, and landfill operations.

The proposed project and project variant would increase the intensity of use of the site by developing 111 and 116 new dwelling units, respectively, and approximately 1,300 square feet of new retail or residential amenity uses. The proposed project or project variant would not include on-site parking. Therefore, the proposed project and project variant would contribute to annual long-term increases in GHGs as a result of increased vehicle trips (mobile sources) and residential and commercial operations that result in an increase in energy use, water use, wastewater treatment, and solid waste disposal. Construction activities would also result in temporary increases in GHG emissions.

The proposed project or project variant would be subject to regulations adopted to reduce GHG emissions as identified in the GHG reduction strategy. As discussed below, compliance with the applicable regulations would reduce the proposed project's or project variant's GHG emissions related to transportation, energy use, waste disposal, wood burning, and use of refrigerants.

Compliance with the City's transportation management programs, Transportation Sustainability Program, bicycle parking requirements, low-emission car parking requirements, and car-sharing requirements, as applicable, would reduce the proposed project's transportation-related emissions. These regulations reduce GHG emissions from single-occupancy vehicles by promoting the use of alternative transportation modes with zero or lower GHG emissions on a per capita basis.

The proposed project or project variant would be required to comply with the energy efficiency requirements of the City's Green Building Code, Stormwater Management Ordinance, Water Efficient Irrigation Ordinance, Commercial Water Conservation Ordinance, and Residential Energy Conservation Ordinance, which would promote energy and water efficiency, thereby reducing the proposed project's or project variant's energy-related GHG emissions.

The proposed project's or project variant's waste-related emissions would be reduced through compliance with the City's Recycling and Compositing Ordinance, Construction and Demolition Debris Recovery Ordinance, Construction and Demolition Debris Recycling Requirements, and

Green Building Code requirements. These regulations reduce the amount of materials sent to a landfill, reducing GHGs emitted by landfill operations. These regulations also promote reuse of materials, conserving their embodied energy,<sup>87</sup> and reducing the energy required to produce new materials.

Compliance with the City's street tree-planting requirements would serve to increase carbon sequestration. Other regulations, including the air district's wood-burning regulations would reduce emissions of GHGs and black carbon, respectively. Regulations requiring low-emitting finishes would reduce *volatile organic compounds*.<sup>88</sup> Thus, the proposed project or project variant was determined to be consistent with San Francisco's GHG reduction strategy.<sup>89</sup>

The project sponsor is required to comply with these regulations, which have proven effective as San Francisco's GHG emissions have measurably decreased when compared to 1990 emissions levels, demonstrating that the City has met and exceeded Executive Order S-3-05, Assembly Bill 32, and the 2017 Clean Air Plan GHG reduction goals for the year 2020. Furthermore, the City has exceeded its 2017 GHG reduction goal of reducing GHG emissions to 25 percent below 1990 levels by 2017. Other existing regulations, such as those implemented through Assembly Bill 32, will continue to reduce a proposed project's contribution to climate change. In addition, San Francisco's local GHG reduction targets are consistent with the long-term GHG reduction goals of Executive Order S-3-05, Executive Order B-30-15, Assembly Bill 32, Senate Bill 32, and the 2017 Clean Air Plan.<sup>90</sup> Therefore, because the proposed project or project variant would be consistent with the City's GHG reduction strategy, it would also be consistent with the GHG reduction goals of Executive Order S-3-05, Executive Order B-30-15, Assembly Bill 32, Senate Bill 32, and the 2017 Clean Air Plan, would not conflict with these plans, and therefore, would not exceed San Francisco's applicable GHG threshold of significance. As such, the proposed project and project variant would result in a less-than-significant impact with respect to GHG emissions. No mitigation measures are necessary.

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<sup>87</sup> Embodied energy is the total energy required for the extraction, processing, manufacture, and delivery of building materials to the building site.

<sup>88</sup> While not a GHG, volatile organic compounds are precursor pollutants that form ground-level ozone. Increased ground-level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing volatile organic compound emissions would reduce the anticipated local effects of global warming.

<sup>89</sup> San Francisco Planning Department, *Greenhouse Gas Analysis: Compliance Checklist for 550 O'Farrell Street*, May 11, 2020.

<sup>90</sup> The San Francisco Department of the Environment is developing a plan to meet carbon neutrality goals to be consistent with statewide Executive Order B-55-18, signed in September 2018.

## E.10 Wind

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>10. WIND.</b> Would the project:					
a) Create wind hazards in publicly accessible areas of substantial pedestrian use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Impact WI-1: The proposed project or project variant would not create wind hazards in publicly accessible areas of substantial pedestrian use. (Less than Significant)**

### Proposed Project and Project Variant

The proposed project or the project variant would include the construction of a 13-story residential and commercial-use building. The project would reach 130 feet in height (146 feet in height to the top of the elevator penthouse). The building's parapet wall would be 2 feet in height, the mechanical and stair penthouse would be 10 feet in height, and the elevator penthouse would be 16 feet above the roofline, respectively. The project site is adjacent to two buildings that are three and six stories tall. With the proposed project, pedestrian areas of interest would include nearby public sidewalks and the main entrances. The proposed project or project variant 130-foot-tall building would be greater than 80 feet in height and could affect ground-level wind currents on and around the project site. Therefore, a screening-level wind study was prepared to determine if detailed wind-tunnel testing would be required to evaluate project effects on ground-level wind conditions.

The Screening-Level Wind Analysis Report, prepared by Rowan William Davies Inc. in August 2018,<sup>91</sup> reviewed potential wind impacts of the proposed project. An addendum reviewed wind effects of the current design of the proposed project and the project variant.<sup>92</sup> Those findings are presented below.

### Existing Climate and Wind Conditions

The difference in atmospheric pressure between two points on the earth causes air masses to move from the area of higher pressure to the area of lower pressure. This movement of air masses results in wind currents. Meteorological data from the United States Weather Bureau and the air district show that winds from the northwest, west-northwest, west, and west-southwest, reflecting the persistence of sea breezes, are the most prevalent in San Francisco. Average wind speeds are highest during the summer and lowest during the winter with the strongest peak

<sup>91</sup> Rowan William Davies Inc., 550 O'Farrell Street Screening-Level Wind Analysis. August 14, 2018.

<sup>92</sup> Rowan William Davies Inc., 550 O'Farrell Street Screening-Level Wind Analysis-Addendum March 3, 2020.

winds occurring in the winter. Typically, the highest wind speeds occur during the mid-afternoon, and the lowest wind speeds occur during the early morning.

### **Buildings and Wind Speed**

The direction and speed of wind currents can be altered by natural features of the land or by buildings and structures. Groups of buildings clustered together tend to act as obstacles that reduce wind speeds; the heights, massing, and orientations or profiles of the buildings are some of the factors that can affect wind speeds. When a building is much taller than those around it, rather than a similar height, it can intercept and redirect winds downward that might otherwise flow overhead. The massing of a building can affect wind speeds. In general, slab-shaped buildings have the greatest potential to accelerate ground-level winds, while buildings that have unusual shapes or are more geometrically complex tend to have lesser effects. The orientation or profile of a building is another factor that can affect wind speeds. When the wide face of a building, as opposed to its narrow face, is oriented toward the prevailing wind direction, the building has more surface area to intercept and redirect winds down to ground level.

Existing buildings surrounding the site are predominantly mid- to high-rise ranging in heights from 3 to 14 stories. The taller buildings closest to the proposed site are located at the intersections of Leavenworth and Geary streets to the northwest of the site, on Geary Street to the northeast of the site, and south of the site across O'Farrell Street. The dense surroundings reduce the exposure of the streets to the prevailing winds to a large extent; however, the taller buildings could cause downwashing, redirection, and acceleration of winds. Overall, wind speeds around the existing site are expected to comply with the planning code's 11 mph comfort criterion (discussed below). However, wind speeds are expected to exceed the comfort criterion at the intersection of Leavenworth at Geary and O'Farrell streets due to downwashing and acceleration of the prevailing winds.

### **Wind Speed, Pedestrian Comfort, and Wind Hazards**

The comfort of pedestrians varies under different conditions of sun exposure, temperature, clothing, and wind speed. Winds up to 4 mph have no noticeable effect on pedestrian comfort. With winds from 4 to 8 mph, wind is felt on the face. Winds from 8 to 13 mph will disturb hair, cause clothing to flap, and extend a light flag mounted on a pole. Winds from 13 to 19 mph will raise loose paper, dust, and dry soil, and will disarrange hair. With winds from 19 to 26 mph, the force of the wind will be felt on the body. With 26- to 34-mph winds, umbrellas are used with difficulty, hair is blown straight, walking steadily is difficult, and wind noise is unpleasant. Winds over 34 mph increase difficulty with balance, and gusts can be hazardous and can blow people over.

Planning code section 148, Reduction of Ground-level Wind Currents in C-3 Districts, requires buildings in C-3 districts to be shaped so as not to cause ground-level wind currents to exceed defined comfort and hazard criteria. The comfort criteria require that wind speeds not exceed,

more than 10 percent of the time, 11 mph in substantial pedestrian use areas, and 7 mph in public seating areas. The hazard criterion requires that buildings not cause equivalent wind speeds to reach or exceed the hazard level of 26 mph, as averaged from a single full hour of the year. The hazard criterion is based on winds that are measured for one hour and averaged corresponding to a one-minute average of 36 mph to distinguish between the wind comfort conditions and hazardous winds. The planning code defines these wind speeds in terms of equivalent wind speeds, which are average wind speed (mean velocity), adjusted to include the level of gustiness and turbulence. Although section 148 does not apply to the project site, for the purposes of evaluating wind impacts under CEQA, the section 148 wind hazard criterion is used to determine if the proposed project would have significant impacts.

Given the size, location, and features of the proposed project or the project variant, the wind study and the addendum concluded that the project would not be expected to alter existing wind conditions substantially. However, a slight increase in wind speeds may occur directly around the proposed building on O'Farrell Street. The report determined that wind conditions would not exceed the wind hazard criterion at any street-level pedestrian areas near the project site. Therefore, because the proposed project would not be expected to cause any exceedance of the wind hazard criterion in any public pedestrian areas near the project site, it would have a less-than-significant wind impact.

**Impact C-WI-1: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative wind impact. (Less than Significant)**

#### Proposed Project and Project Variant

The wind report reviewed potential cumulative development in the project vicinity. For purposes of evaluating cumulative conditions, five projects within 1,600 feet of the project site were considered: 651 Geary Street, 736 Hyde Street, 824 Hyde Street, 955 Post Street, and 611 Jones Street. The 13-story 651 Geary Street project would be upwind of the proposed project; the wind report concluded that wind effects of that project would affect Geary Street, but would not affect street-level conditions on O'Farrell Street. The other cumulative projects would not affect conditions near the project site because of their size or location. For these reasons, the proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative wind impact.

## E.11 Shadow

Topics:	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
<b>11. SHADOW. Would the project:</b>					
a) Create new shadow that substantially and adversely affects the use and enjoyment of publicly accessible open spaces?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Impact SH-1: The proposed project or project variant would not create new shadow that substantially and adversely affects the use and enjoyment of publicly accessible open space. (Less than Significant)**

### Proposed Project and Project Variant

In 1984, San Francisco voters approved an initiative known as “Proposition K, The Sunlight Ordinance,” which was codified as planning code section 295 in 1985. Planning code section 295 generally prohibits new structures above 40 feet in height that would cast additional shadows on an open space that is under the jurisdiction of the San Francisco Recreation and Park Commission between one hour after sunrise and one hour before sunset, at any time of the year, unless that shadow would not result in a significant adverse effect on the use of the open space. Public open spaces that are not under the jurisdiction of the recreation and park commission, as well as private open spaces open to the public, are not subject to planning code section 295, but are also assessed for shadow impacts under CEQA. In addition, schoolyards associated with schools participating in the Shared Schoolyard Project, and open space managed by San Francisco Public works, are also assessed for shadow effects under CEQA.

Implementation of the proposed project or project variant would result in the construction of a building exceeding 40 feet in height. The planning department prepared a preliminary shadow fan analysis to determine whether the proposed project would have the potential to cast new shadow on nearby parks or open spaces.<sup>93</sup> The shadow fan analysis determined that the project, as proposed at 130 feet and 146 feet (including elevator penthouse), would not cast shadow on any nearby public parks or open spaces.

The proposed project or project variant would shade portions of streets, sidewalks, and private properties in the project vicinity at various times of the day throughout the year. Shadows on streets and sidewalks would be transitory in nature, would not substantially affect the use of the sidewalks, and would not increase shadows above levels that are common and generally expected in a densely developed urban environment. As such, shadows on streets and sidewalks

<sup>93</sup> San Francisco Planning Department, 550 O’Farrell Street - Shadow Fan, April 26, 2018.

would not be significant effects under CEQA. Although occupants of nearby properties may regard the increase in shadow as undesirable, the limited increase in shading of private properties as a result of the proposed project would not be considered a significant impact under CEQA.

For these reasons, the proposed project or project variant would not create new shadow in a manner that substantially and adversely affects outdoor recreation facilities or other public areas, and this impact would be less than significant.

**Impact C-SH-1: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative shadow impact. (Less than Significant)**

#### Proposed Project and Project Variant

As discussed above, the proposed project or project variant would not shade any nearby public parks or open spaces. Therefore, the proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would contribute to a significant cumulative shadow impact.

## E.12 Recreation

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>12. RECREATION. Would the project:</b>					
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Impact RE-1: The proposed project or project variant would not result in a substantial increase in the use of existing parks and recreational facilities, or the deterioration of such facilities. The proposed project would not include the demolition or construction of recreation facilities, or require the construction or expansion of recreational facilities. (Less than Significant)**

There are several parks and open spaces located within a half mile of the project site. These include Boeddeker Park at Eddy and Jones streets, the Tenderloin Children's Recreation Center



on Ellis Street between Leavenworth and Hyde streets, and Sgt. John Macaulay Park, at Larkin and O'Farrell streets, each located between two and three blocks from the project site.

The proposed project or project variant would add approximately 255 to 267 residents to the project site. Given the size of the project, it is anticipated that these existing recreational facilities would be able to accommodate the relatively minor increase in demand for recreational resources that would be generated by the project residents without causing deterioration of these facilities or requiring their expansion. Therefore, the proposed project or project variant would not increase the use of existing recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. Furthermore, project-related construction activities would occur within the boundaries of the project site, which does not include any existing recreational resources. For these reasons, the proposed project or project variant would have a less-than-significant impact on recreational facilities and resources.

Planning code section 135 requires residential developments in RC-4 zoning districts to provide 36 square feet of private open space per dwelling unit or 48 square feet of common open space per dwelling unit. With the proposed project or project variant, four dwelling units would include private patios as open space. The proposed project and the project variant would exceed open space requirements by including 5,650 square feet of common open space, the equivalent of the requirement for 117 residential units. The project or project variant would meet planning code open space requirements.

**Impact C-RE-1: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact on recreational facilities or resources. (Less than Significant)**

**Proposed Project and Project Variant**

Cumulative development in the project vicinity would result in an intensification of land uses and a cumulative increase in the demand for recreational facilities and resources. The City has accounted for such growth as part of the Recreation and Open Space Element of the City's general plan.<sup>94</sup> In addition, San Francisco voters passed two bond measures, in 2008 and 2012, to fund the acquisition, planning, and renovation of the City's network of recreational resources. As discussed above, there are several parks and open spaces located within a half mile of the project site. As described in **section E.3, Population and Housing**, the proposed project would add approximately 255 to 267 new residents to the area, which could incrementally increase demand for open space in the project vicinity and the city in general. However, similar to the proposed project, any future residential development would be required to provide common and/or private open space, as defined in the planning code. Furthermore, the additional population that would

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<sup>94</sup> San Francisco Planning Department, San Francisco General Plan, Recreation and Open Space Element, April 2014, pp. 20-36. Available online at [http://www.sf-planning.org/ftp/General\\_Plan/Recreation\\_OpenSpace\\_Element\\_ADOPTED.pdf](http://www.sf-planning.org/ftp/General_Plan/Recreation_OpenSpace_Element_ADOPTED.pdf), accessed February 4, 2019.

be added to the project area as a result of project implementation would represent a very small proportion of the residents of the Tenderloin neighborhood. Future residents of reasonably foreseeable cumulative development projects in the vicinity (Table 1: Cumulative Projects within ¼ mile of Project Site, p. 14) would also use some of the same public parks, open spaces, and recreation facilities as the residents of the proposed project.

Future planned development in the project vicinity would result in an intensification of land uses compared to existing conditions, and a cumulative increase in the demand for recreational facilities and resources. The City has accounted for such growth as part of the Recreation and Open Space Element of the general plan. Although the proposed project or project variant, in combination with cumulative development projects (Table 1: Cumulative Projects within ¼ mile of Project Site, p. 14) would add up to an additional 267 permanent residents to the project site, the number of new residents would not be large enough so as to substantially increase demand for, or use of, either neighborhood parks and recreational facilities (discussed above) or citywide facilities, such as Golden Gate Park, such that substantial physical deterioration would be expected. It is expected that these existing recreational facilities would be able to accommodate the increase in demand for recreational resources generated by nearby cumulative development projects. For these reasons, the proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable impact on recreational facilities or resources.

### E.13 Utilities and Service Systems

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>13. UTILITIES AND SERVICE SYSTEMS.</b>					
<b>Would the project:</b>					
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project site is within an urban area that is served by utility service systems, including water, wastewater and stormwater collection and treatment, electricity, natural gas, telecommunications, and solid waste collection and disposal. The proposed project would add new daytime and nighttime population to the site that would increase the demand for utilities and service systems on the site, but not in excess of amounts expected and provided for in the project area.

**Impact UT-1: The proposed project or project variant would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which would cause a significant environmental effect (Less than Significant).**

#### Proposed Project and Project Variant

The project site is served by the city's combined sewer system, which handles both sewage and stormwater runoff. The Southeast Water Pollution Control Plant (Southeast Plant) provides wastewater and stormwater treatment and management for the east side of the city, including the project site. Stormwater discharges from city buildings, including the existing garage, are treated to standards specified in San Francisco's National Pollutant Discharge Elimination System (NPDES) permit, which is described in **section E.17, Hydrology and Water Quality**. No new sewer or stormwater facilities or construction would be needed to serve the proposed project.

The project site is currently covered with impervious surfaces; proposed construction and development would not create any additional impervious surfaces that would substantially

increase total stormwater volume discharged through the combined sewer system. As described in DEIR **chapter 2, Project Description**, the proposed project and project variant would include an approximately 2,000-sf landscaped rear yard and would therefore reduce impervious surface area over existing conditions. While both the proposed project and project variant would add sewage flows in the area, stormwater and wastewater treatment and collection would not exceed existing capacity of the combined system.

Because the project site is fully developed at present, new development would not result in an increase in stormwater runoff. However, the project would be required to comply with the City's Stormwater Design Guidelines, and thus would be required to reduce the total stormwater runoff volume and peak stormwater runoff rate, compared to existing conditions. The project would be required to reduce operational impacts on water and waste water quality as required by the San Francisco Industrial Waste Ordinance (Article 4.2 of the Public Works Code), to meet the Regional Water Quality Control Board requirements. Further, the project would be required to comply with article 4.1, order number 158170 of the public works code, which prohibits increases in sewage and wastewater discharge for new development and therefore, would not result in expansion or relocation of existing infrastructure treatment facilities or expansion of existing ones.

It is expected that the project or variant would increase demand for utility services in the area. However, the project site is located within a developed area served by existing electric power, natural gas, and telecommunications and it would not necessitate the construction of new power generation, natural gas, or telecommunications infrastructure.

Although the proposed project or project variant would add new residents and employees to the project site, this additional population is not beyond the growth projections included in long-range plans for the city's wastewater system. Therefore, the incremental increase in the demand for wastewater treatment would not require construction of new wastewater treatment facilities or expansion of existing facilities. Therefore, the project or project variant would not require relocation or construction of facilities for any of those services.

**Impact UT-2: Sufficient water supplies are available to serve the proposed project or project variant and reasonably foreseeable future development in normal, dry, and multiple dry years unless the Bay Delta Plan Amendment is implemented; in that event the SFPUC may develop new or expanded water supply facilities to address shortfalls in single and multiple dry years but this would occur with or without the proposed project or project variant. Impacts related to new or expanded water supply facilities cannot be identified at this time or implemented in the near term; instead, the SFPUC would address supply shortfalls through increased rationing, which could result in significant cumulative effects, but the project would not make a considerable contribution to impacts from increased rationing. (Less than Significant)**

## Proposed Project and Project Variant

### *Water Supply*

In June 2016, the SFPUC adopted the 2015 Urban Water Management Plan for the City and County of San Francisco.<sup>95</sup> The plan estimates that current and projected water supplies will be sufficient to meet future retail demand<sup>96</sup> through 2035 under normal year, single dry-year, and multiple dry-year conditions; however, if a multiple dry-year event occurs, the SFPUC would implement water use and supply reductions through its drought response plan and a corresponding retail water shortage allocation plan.

In December 2018, the state water board adopted amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, which establishes water quality objectives to maintain the health of our rivers and the Bay-Delta ecosystem (the Bay-Delta Plan Amendment).<sup>97</sup> The state water board has stated that it intends to implement the Bay-Delta Plan Amendment by 2022, assuming all required approvals are obtained by that time. Implementation of the Bay-Delta Plan Amendment would result in a substantial reduction in the SFPUC's water supplies from the Tuolumne River watershed during dry years, requiring rationing to a greater degree in San Francisco than previously anticipated to address supply shortages not accounted for in the 2015 Urban Water Management Plan.

The SFPUC has prepared a memorandum discussing future water supply scenarios given adoption of the Bay-Delta Plan Amendment.<sup>98</sup> As discussed in the SFPUC memorandum, implementation of the plan amendment is uncertain for several reasons and whether, when, and the form in which the Bay-Delta Plan Amendment would be implemented, and how those amendments could affect SFPUC's water supply, is currently unknown. The SFPUC memorandum estimates total shortfalls in water supply (that is, total retail demand minus total retail supply) to retail customers through 2040 under three increasingly supply-limited scenarios:

1. Without implementation of the Bay-Delta Plan Amendment wherein the water supply and demand assumptions contained in the 2015 Urban Water Management Plan and the 2009 Water Supply Agreement as amended would remain applicable.

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<sup>95</sup> San Francisco Public Utilities Commission, 2015 Urban Water Management Plan for the City and County of San Francisco, June 2016, <https://sfwater.org/index.aspx?page=75>, accessed June 3, 2019.

<sup>96</sup> "Retail" demand represents water the SFPUC provides to individual customers within San Francisco. "Wholesale" demand represents water the SFPUC provides to other water agencies supplying other jurisdictions.

<sup>97</sup> State Water Resources Control Board Resolution no. 2018-0059, Adoption of Amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and Final Substitute Environmental Document, December 12, 2018, [https://www.waterboards.ca.gov/plans\\_policies/docs/2018wqcp.pdf](https://www.waterboards.ca.gov/plans_policies/docs/2018wqcp.pdf), accessed June 3, 2019.

<sup>98</sup> Memorandum from Steven R. Ritchie, SFPUC to Lisa Gibson, ERO, San Francisco Planning Department, Environmental Planning Division, May 31, 2019.

2. With implementation of a voluntary agreement between the SFPUC and the state water board that would include a combination of flow and non-flow measures that are designed to benefit fisheries at a lower water cost, particularly during multiple dry years, than would occur under the Bay-Delta Plan Amendment.
3. With implementation of the Bay-Delta Plan Amendment as adopted.

As estimated in the SFPUC memorandum, water supply shortfalls during dry years would be lowest without implementation and highest with implementation of the Bay-Delta Plan Amendment. Shortfalls under the proposed voluntary agreement would be between those with and without implementation of the Bay-Delta Plan Amendment.<sup>99</sup>

Under these three scenarios, the SFPUC would have adequate water to meet total retail demands through 2040 in normal years.<sup>100</sup> For single dry and multiple (years 1, 2, and 3) dry years of an extended drought, the SFPUC memorandum estimates that shortfalls of water supply relative to demand would occur both with and without implementation of the Bay-Delta Plan Amendment. Without implementation of the plan amendment, shortfalls would range from approximately 3.6 to 6.1 million gallons per day (mgd) or a 5 to 6.8-percent shortfall during dry years through the year 2040.

With implementation of the Bay-Delta Plan Amendment, shortfalls would range from 12.3 mgd (15.6 percent) in a single dry year to 36.1 mgd (45.7 percent) in years seven and eight of the 8.5-year design drought based on 2025 demand levels and from 21 mgd (23.4 percent) in a single dry year to 44.8 mgd (49.8 percent) in years seven and eight of the 8.5-year design drought based on 2040 demand.

The proposed project or project variant does not require a water supply assessment under the California Water Code. Under sections 10910 through 10915 of the California Water Code, urban water suppliers like the SFPUC must prepare water supply assessments for certain large “water demand” projects, as defined in CEQA Guidelines section 15155.<sup>101</sup> The proposed mixed-use

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<sup>99</sup> On March 26, 2019, the SFPUC adopted Resolution No. 19-0057 to support its participation in the voluntary agreement negotiation process. To date, those negotiations are ongoing under the California Natural Resources Agency. The SFPUC submitted a proposed project description that could be the basis for a voluntary agreement to the state water board on March 1, 2019. As the proposed voluntary agreement has yet to be accepted by the state water board as an alternative to the Bay-Delta Plan Amendment, the shortages that would occur with its implementation are not known with certainty; however, if accepted, the voluntary agreement would result in dry year shortfalls of a lesser magnitude than under the Bay-Delta Plan Amendment.

<sup>100</sup> Based on historic records of hydrology and reservoir inflow from 1920 to 2017, current delivery and flow obligations, and fully implemented infrastructure under the 2018 Phased Water System Improvement Program Variant, normal, or wet years occurred 85 out of 97 years. This translates into roughly 9 normal or wet years out of every 10 years. Conversely, system-wide rationing is required roughly one out of every 10 years. This frequency is expected to increase as climate change intensifies.

<sup>101</sup> Pursuant to CEQA Guidelines section 15155(1), “a water-demand project” means:

(A) A residential development of more than 500 dwelling units.

residential project or project variant would result in up to 116 residential units and 1,300 square feet of retail/commercial land use; as such it does not qualify as a “water-demand” project as defined by CEQA Guidelines section 15155(a)(1) and a water supply assessment is not required and has not been prepared for the project.

While a water supply assessment is not required, the following discussion provides an estimate of the project’s or project variant’s maximum water demand in relation to the three supply scenarios. No single development project alone in San Francisco would require the development of new or expanded water supply facilities or require the SFPUC to take other actions, such as imposing a higher level of rationing across the city in the event of a supply shortage in dry years. Therefore, a separate project-only analysis is not provided for this topic. The following analysis instead considers whether the proposed project or project variant in combination with both existing development and projected growth through 2040 would require new or expanded water supply facilities, the construction or relocation of which could have significant cumulative impacts on the environment. It also considers whether a high level of rationing would be required that could have significant cumulative impacts. It is only under this cumulative context that development in San Francisco could have the potential to require new or expanded water supply facilities or require the SFPUC to take other actions, which in turn could result in significant physical environmental impacts related to water supply. If significant cumulative impacts could result, then the analysis considers whether the project or project variant would make a considerable contribution to the cumulative impact.

Based on guidance from the California Department of Water Resources and a citywide demand analysis, the SFPUC has established 50,000 gallons per day as an equivalent project demand for projects that do not meet the definitions provided in CEQA Guidelines section 15155(a)(1).<sup>102</sup> The development proposed by the project or project variant would represent 23 percent of the 500-unit limit and 0.3 percent of the 500,000 square feet of commercial space provided in section 15155(1)(A) and (B), respectively. In addition, the proposed project or project variant would incorporate water-efficient fixtures as required by Title 24 of the California Code of Regulations

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- (B) A shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
  - (C) A commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor area.
  - (D) A hotel or motel, or both, having more than 500 rooms.
  - (E) An industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
  - (F) A mixed-use project that includes one or more of the projects specified in subdivisions (a)(1)(A), (a)(1)(B), (a)(1)(C), (a)(1)(D), (a)(1)(E), and (a)(1)(G) of this section.
  - (G) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.

<sup>102</sup> Memorandum, from Steven R. Ritchie, Assistant General Manager, Water Enterprise, SFPUC to Lisa Gibson, ERO, San Francisco Planning Department – Environmental Planning, May 31, 2019.

and the city's Green Building Ordinance. It is therefore reasonable to assume that the proposed project or project variant would result in an average daily demand of less than 50,000 gallons per day of water.

The SFPUC has prepared estimates of total retail demand in five-year intervals from 2020 through 2040.<sup>103</sup> Assuming the proposed project or project variant would demand no more than 50,000 gallons of water per day (or 0.05 mgd). At most, the proposed project's or project variant's water demand would represent a small fraction of the total projected retail water demand, ranging from 0.07 to 0.06 percent between 2020 and 2040. As such, the project's water demand is not substantial enough to require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.

Sufficient water supplies are available to serve the proposed project or project variant and reasonably foreseeable future development in normal, dry, and multiple dry years unless the Bay-Delta Plan Amendment is implemented. As indicated above, the proposed project or project variant's maximum demand would represent less than 0.06 percent of the total retail demand in 2040 when implementation of the Bay-Delta Plan Amendment would result in a retail supply shortfall of up to 49.8 percent in a multi-year drought. The SFPUC has indicated that it is accelerating its efforts to develop additional water supplies and explore other projects that would increase overall water supply resilience in the case that the Bay-Delta Plan Amendment is implemented. The SFPUC has identified possible projects that it will study, but it has not determined the feasibility of the possible projects, has not made any decision to pursue any particular supply projects, and has determined that the identified potential projects would take anywhere from 10 to 30 years or more to implement. The potential impacts that could result from the construction and/or operation of any such water supply facility projects cannot be identified at this time. In any event, under such a worst-case scenario, the demand for the SFPUC to develop new or expanded dry-year water supplies would exist regardless of whether the proposed project or project variant is constructed.

Given the long lead times associated with developing additional water supplies, in the event the Bay-Delta Plan Amendment were to take effect sometime after 2022 and result in a dry-year shortfall, the expected action of the SFPUC for the next 10 to 30 years (or more) would be limited to requiring increased rationing. As discussed in the SFPUC memorandum, the SFPUC has established a process through its Retail Water Shortage Allocation Plan for actions it would take under circumstances requiring rationing. The level of rationing that would be required of the proposed project is unknown at this time. Both direct and indirect environmental impacts could result from high levels of rationing. However, the small increase in potable water demand attributable to the project or project variant compared to citywide demand would not substantially affect the levels of dry-year rationing that would otherwise be required throughout the city. Therefore, the proposed project or project variant would not make a considerable

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<sup>103</sup> San Francisco Public Utilities Commission, 2015 Urban Water Management Plan for the City and County of San Francisco, June 2016. This document is available at <https://sfwater.org/index.aspx?page=75>.



contribution to a cumulative environmental impact caused by implementation of the Bay-Delta Plan Amendment.

**Impact UT-3: The proposed project or project variant would not increase demand for wastewater treatment services such that its wastewater treatment provider would have inadequate capacity to serve the project's or variant's projected demand in addition to the provider's existing commitments. (Less than Significant)**

#### Proposed Project and Project Variant

As discussed under Impact UT-1 above, the project site is served by San Francisco's combined sewer system, which handles both sewage and stormwater runoff. The Southeast Water Pollution Control Plant provides wastewater and stormwater treatment and management for the east side of the city, including the project site. No new sewer or stormwater facilities or construction would be needed to serve the proposed project or project variant. The proposed project and project variant would meet the wastewater pre-treatment requirements of the SFPUC, as required by the San Francisco Industrial Waste Ordinance to meet Regional Water Quality Control Board requirements. The proposed project and project variant would add residential units and retail uses to the project site, which would incrementally increase the demand for wastewater and stormwater treatment services, but not in excess of amounts expected and provided for in the project area.

Because the project site is currently entirely covered with impervious surfaces and the proposed project or project variant would not create any additional impervious surfaces, changes in the total stormwater volume discharged through the combined sewer system would be negligible. As discussed in **section E.16, Geology and Soils** and **section E.17, Hydrology and Water Quality**, construction dewatering activities would be unlikely because no onsite groundwater was encountered 25 feet below ground surface. Should dewatering be found to be necessary, however, the Bureau of Systems Planning, Environment, and Compliance division of the SFPUC must be notified of projects necessitating dewatering. The SFPUC may require water analysis before discharge to the combined sewer system. The project would be required to obtain a Batch Wastewater Discharge Permit from the SFPUC Wastewater Enterprise Collection System Division prior to any dewatering activities. While the proposed project or project variant would add to sewage flows in the area, it would not cause collection treatment capacity of the sewer system in the city to be exceeded. In light of the above, the proposed project or project variant would not exceed wastewater treatment requirements of the Regional Water Quality Control Board and would not require the construction of new wastewater/stormwater treatment facilities or expansion of existing ones. Because the project site is fully developed at present, new development could not result in an increase in stormwater runoff. However, the project or project variant would be required to comply with the City's Stormwater Management Requirements and Design Guidelines, and the Stormwater Management Ordinance (see Impact UT-1) would be required to reduce the total stormwater runoff volume and peak stormwater runoff rate by 25 percent, compared to existing conditions. The proposed project or project variant would

incorporate Low Impact Design approaches and best management practices, such as rainwater reuse, landscape planters, rain gardens, and green roofs. The SFPUC would review and approve the project's stormwater compliance strategy. Therefore, the proposed project or project variant would not substantially increase the demand for wastewater and would result in a less-than-significant impact on wastewater treatment and storm drainage facilities.

**Impact UT-4: The proposed project or project variant would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs, would not impair the attainment of solid waste reduction goals, and construction and operation of the proposed project would comply with all applicable statutes and regulations related to solid waste. (Less than Significant)**

#### Proposed Project and Project Variant

In September 2015, the City approved an Agreement with Recology, Inc. for the transport and disposal of the City's municipal solid waste at the Recology Hay Road Landfill in Solano County. The City began disposing its municipal solid waste at Recology Hay Road Landfill in January 2016, and that practice is anticipated to continue for approximately nine years, with an option to renew the agreement thereafter for an additional six years. Reports filed by the San Francisco Department of the Environment show that the city generated approximately 870,000 tons of waste material in 2000. By 2010, that figure decreased to approximately 455,000 tons. Waste diverted from landfills is defined as recycled or composted. San Francisco has a goal of 75-percent landfill diversion by 2010, and 100 percent by 2020.<sup>104</sup> As of 2012, 80 percent of San Francisco's solid waste was being diverted from landfills, indicating that San Francisco met the 2010 diversion target.<sup>105</sup> The proposed project or project variant would comply with San Francisco's Construction and Demolition Debris Recovery Ordinance, which requires mixed construction and demolition debris be transported by a registered transporter and taken to a registered facility that must recover for reuse or recycling and divert from landfill at least 65 percent of all received construction and demolition debris. The San Francisco Green Building Code requires certain projects to submit a recovery plan to the department of the environment demonstrating recovery or diversion of at least 75 percent of all demolition debris. San Francisco's Mandatory Recycling and Composting Ordinance no. 100-09 requires all properties and everyone in the city to separate their recyclables, compostable materials, and landfill trash. Further, the proposed project or project variant would comply with provisions of the California Integrated Waste Management Act of 1989, which requires municipalities to adopt an integrated waste management plan to establish objectives, policies, and programs relative to waste disposal, management, source reduction, and recycling. The proposed project or project variant would also comply with the

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<sup>104</sup> San Francisco Department of the Environment, Zero Waste Frequently Asked Questions. Available online at: <http://sfenvironment.org/article/zero-waste-frequently-asked-questions-faqs>. Accessed February 7, 2019.

<sup>105</sup> Office of the Mayor, Mayor Lee Announces San Francisco Reaches 80 Percent Landfill Waste Diversion, October 2012. Available online at: <http://www.sfmayor.org/index.aspx?recordid=113&page=846>. Accessed February 7, 2019.

Construction and Demolition Recovery Ordinance, Green Building Code, and Mandatory Recycling and Composting Ordinance requirements.

Although the proposed project or project variant would incrementally increase total waste generation from the city, the increasing rate of diversion through recycling and other methods would result in a decreasing share of total waste that requires deposition into the landfill. Given this net reduction in landfill waste and the City's recent agreement for disposal of municipal solid waste at the Recology Hay Road Landfill in Solano County, the solid waste generated by project construction and operation would not result in the landfill exceeding its permitted capacity.

Solid waste generated from the project's construction and operation would comply with statutes and regulations for solid waste disposal, and no associated impacts related to compliance with solid waste regulations would occur.

Because the proposed project or project variant would comply with all applicable local, state, and federal laws and regulations pertaining to solid waste, the project's impact on solid waste generation would be less than significant.

**Impact C-UT-1: The proposed project or project variant in combination with reasonably foreseeable cumulative development would not result in any significant effects related to utilities or service systems. (Less than Significant)**

#### Proposed Project and Project Variant

The proposed project or project variant would not substantially impact utility supplies in the existing service area. Cumulative development in the project site vicinity would incrementally increase demand on citywide utilities and service systems, but not beyond levels anticipated and planned for by public service providers. Future development projects in the site vicinity would be subject to the same water conservation, wastewater discharge, construction demolition and debris, and recycling and composting regulations applicable to the proposed project.

As explained in the analysis above, existing service management plans for water, wastewater, and solid waste disposal account for anticipated citywide growth. Furthermore, all projects in San Francisco would be required to comply with the same regulations described above, which reduce stormwater, potable water, and waste generation.

Nearby development would not contribute to a cumulatively substantial effect on the utility infrastructure within the project area. Furthermore, existing services would accommodate anticipated growth in the surrounding area and the region. For these reasons, the proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on utilities and service systems.

## E.14 Public Services

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>14. PUBLIC SERVICES. Would the project:</b>					
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services such as fire protection, police protection, schools, parks, or other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project's and project variant's impacts on parks are discussed in **section E.12, Recreation**. Impacts on other public services are discussed below.

**Impact PS-1: The proposed project or project variant would not significantly increase the demand for police services, and would not result in substantial adverse impacts associated with the provision of such services. (Less than Significant)**

### Proposed Project and Project Variant

The proposed project or project variant would result in more intensive use of the project site than currently exists, and thus would likely incrementally increase police service calls in the project area. Police protection is provided by the Tenderloin Police Station located at 301 Eddy Street, approximately two blocks south of the project site. Although the proposed project or project variant could increase the number of calls received from the area or the level of regulatory oversight that must be provided as a result of the increased concentration of activity on site, the increase in service calls would not be substantial in light of the existing demand for police protection services. The Tenderloin Police Station would accommodate a minor increase in demand for police services and crime prevention in the area. Meeting the additional service demand of the project would not require the construction of new police facilities. Hence, the proposed project or project variant would have a less-than-significant impact on police services.

**Impact PS-2: The proposed project or variant would not significantly increase demand for fire protection services, and would not result in substantial adverse impacts associated with the provision of such service. (Less than Significant)**

**Proposed Project and Project Variant**

The proposed project or project variant would result in more intensive use of the project site than currently exists, and thus, as with police service calls, would likely incrementally increase fire service calls in the project area. The project site receives fire protection services from the San Francisco Fire Department. Fire stations located nearby include Station 3 at 1067 Post Street (at the corner of Polk and Post streets, approximately five blocks northwest of the project site) and Station 1 at 935 Folsom (at Fifth Street, approximately eight long blocks southeast of the project site). Although the proposed project or project variant would increase the number of calls received from the area, the increase in service calls would not be substantial in light of existing demand for fire protection services. Furthermore, the proposed project or project variant would be required to comply with all applicable building and fire codes, which establish requirements pertaining to fire protection systems, including but not limited to the provision of state-mandated smoke alarms, fire alarms, and sprinkler systems, fire extinguishers, required number and location of egress with appropriate distance separation, and emergency response notification systems. Because the proposed project or project variant would be required to comply with all applicable building and fire codes, and the proposed project or project variant would result in an incremental increase in demand for service and oversight, it would not result in the need for new fire protection facilities and therefore, would not result in significant impacts on the physical environment. Hence, the proposed project or project variant would have a less-than-significant impact on fire protection services.

**Impact PS-3: The proposed project or project variant could potentially generate increased enrollment in San Francisco schools, but this increase would not result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to provide acceptable school facilities and services. (Less than Significant)**

**Proposed Project and Project Variant**

The San Francisco Unified School District (SFUSD) maintains a property and building portfolio that has capacity for 63,400 students.<sup>106</sup> Between 2000 and 2010, overall enrollment in the SFUSD experienced a large decline but the district has experienced a gradual increase in enrollment during the past decade.<sup>107</sup> Total enrollment in the district increased to about 52,763 in the 2017-

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<sup>106</sup> This analysis was informed, in part, by a Target Enrollment Survey the San Francisco Unified School District performed of all schools in 2010.

<sup>107</sup> San Francisco Unified School District, *San Francisco Bay Area Planning and Urban Research (SPUR) Forum Presentation, Growing Population, Growing Schools*, August 31, 2016. Online at:

2018 school year.<sup>108</sup> In addition, for the 2018–2019 school year, approximately 4,502 students enrolled in public charter schools that are operated by other organizations but located in school district facilities.<sup>109</sup> Thus, even with increasing enrollment, the SFUSD currently has more classrooms district-wide than needed.<sup>110</sup> However, the net effect of housing development across San Francisco is expected to increase enrollment by 5,000 students by 2030 with an estimated increase of up to 5,000 more public school students by 2040.<sup>111</sup> Therefore, eventually enrollment is likely to exceed the capacity of current SFUSD facilities.<sup>112</sup>

SFUSD works with the planning department and other city agencies to develop public school student enrollment projections and inform its facility planning. As SFUSD teaching and learning evolves beyond 20<sup>th</sup>-century teaching methods and utilization, historical capacities will need updating to reflect new standards. SFUSD is currently assessing how best to incorporate the education field's best practices in terms of space utilization for 21<sup>st</sup>-century education. This assessment will inform how best to accommodate the anticipated future school population and whether new or different types of facilities are needed. Should additional capacity be required to meet the updated educational space standards and projected public school student population, SFUSD is considering several options. A new school anticipated to have capacity for 500 students is under development in Mission Bay located at the corner of Owens Street and Nelson Rising Lane. In addition, in the near term, there is an existing school site on Treasure Island that will be leased by SFUSD.<sup>113</sup> There is also a project planned for the replacement, renovation, and expansion of the district's 135 Van Ness property for the Arts Center Campus. SFUSD could also renovate and reconfigure other existing school facilities and assets owned by SFUSD but not currently in school use, as necessary.

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[https://www.spur.org/sites/default/files/events\\_pdfs/SPUR%20Forum\\_August%2031%202016.pptx\\_.pdf](https://www.spur.org/sites/default/files/events_pdfs/SPUR%20Forum_August%2031%202016.pptx_.pdf), accessed April 8, 2020.

<sup>108</sup> Lapkoff & Gobalet Demographics Research, Inc., *Demographic Analyses and Enrollment Forecasts, San Francisco Unified School District*, January 2020.

<sup>109</sup> *Ibid.*

<sup>110</sup> San Francisco Unified School District, *San Francisco Bay Area Planning and Urban Research (SPUR) Forum Presentation, Growing Population, Growing Schools*, August 31, 2016. Online at: [https://www.spur.org/sites/default/files/events\\_pdfs/SPUR%20Forum\\_August%2031%202016.pptx\\_.pdf](https://www.spur.org/sites/default/files/events_pdfs/SPUR%20Forum_August%2031%202016.pptx_.pdf), accessed April 8, 2020.

<sup>111</sup> The enrollment forecast prepared for SFUSD notes that there is greater certainty regarding the estimate of 5,000 more students by 2030 than the increase between 2030 and 2040 of an additional 5,000, due to the lack of details in the data regarding the type of anticipated housing during this period.

<sup>112</sup> Lapkoff & Gobalet Demographics Research, Inc., *Demographic Analyses and Enrollment Forecasts, San Francisco Unified School District*, January 2020.

<sup>113</sup> Renovation and expansion of that school site was studied in the Treasure Island / Yerba Buena Island Redevelopment Project Draft EIR. For more information, please see *Treasure Island / Yerba Buena Island Redevelopment Project Draft EIR*, Planning Case No. 2007.0903E.

For schools, the SFUSD operates on a lottery system and students may attend schools outside their local geographic boundaries. Also, student generation rates vary by the characteristics of housing, and analysis prepared for SFUSD assumes different student yields for different types of units to develop projections for enrollment. The analysis prepared for the SFUSD used data from recently built housing to determine student generation for market rate units (0.1 student per unit) as well as for inclusionary affordable units (0.25 per unit).<sup>114</sup> Applying these rates to the proposed project's or project variant's 111 to 116 dwelling units would result in an enrollment increase in the SFUSD of approximately 15 to 16 public school students.

The proposed project or project variant, primarily residential uses, would incrementally increase the number of school-aged children that would attend public schools, by a total of about 16 students, as noted above. However, this increase would not exceed the projected student capacities that are expected and provided for by the SFUSD. Therefore, implementation of the proposed project or project variant would not necessitate the need for new or physically altered schools.

In addition, the proposed project or project variant would be subject to a citywide development impact fee, which requires a payment of \$3.79 per square feet of assessable space for residential development and \$0.60 per square feet of covered and enclosed space for commercial/industrial development applicable to the "retail and services" constructed within the SFUSD to be funded by the project sponsor and paid to the district.<sup>115</sup>

Overall, the proposed project or project variant would not result in a substantially increased demand for school facilities, and would not require new or expanded school facilities, and therefore, would result in a less-than-significant impact on school facilities.

**Impact PS-4: The proposed project or project variant would not substantially increase demand for government services, and there would be no adverse impact on government facilities. (Less than Significant)**

**Proposed Project and Project Variant**

The proposed project or project variant would incrementally increase demand for governmental services and facilities such as libraries; however, the proposed project or project variant would not be of such a magnitude that the demand could not be accommodated without the need to construct or physically alter these existing facilities. The San Francisco Public Library provides library services throughout the city through 28 neighborhood branches and mobile outreach services. The project site is served by the Main Library (at 100 Larkin Street) and the Chinatown

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<sup>114</sup> *Ibid.*

<sup>115</sup> [http://forms.sfplanning.org/Impact\\_Fee\\_Schedule\\_2019\\_notification.pdf](http://forms.sfplanning.org/Impact_Fee_Schedule_2019_notification.pdf). San Francisco Unified School District, Developer Impact Fee Annual and Five Year Reports for the Fiscal Year Ending June 30, 2015, December 8, 2015. Available online at [http://www.sfusd.edu/assets/sfusd-staff/\\_site-wide/files/SFUSD\\_AnnualFiveYearReports\\_FY1415.pdf](http://www.sfusd.edu/assets/sfusd-staff/_site-wide/files/SFUSD_AnnualFiveYearReports_FY1415.pdf). Accessed February 7, 2019.

Branch (at 1135 Powell Street), both of which are within one mile of the site. Thus, the existing library system would be able to accommodate the increase in demand for library services generated by the project's or project variant's future residents, and it is anticipated that this population increase could be accommodated by other government services. Therefore, the proposed project or project variant would have less-than-significant impacts on governmental services.

**Impact C-PS-1: The proposed project or project variant, combined with past, present, and reasonably foreseeable future projects in the vicinity, would have a less than significant cumulative impact on public services. (Less than Significant)**

**Proposed Project and Project Variant**

The geographic context for an analysis of cumulative impacts on public services includes the service areas of the service providers. For police and fire, this would comprise the service area of the Tenderloin Police Station and Fire Station 3. For schools, the context is the city-wide attendance area of the SFUSD. Each of these service providers, through the annual budgeting process, assesses the adequacy of levels of service and provides for needed expansion, equipment, or school facilities. The proposed project or project variant is not expected to significantly increase demand for public services beyond levels anticipated and planned for by public service providers. Additionally, police and fire services are provided on a cooperative basis; i.e., other stations can respond to calls for service if needed and service would not be restricted to the local police and fire stations.

The SFUSD currently has capacity for additional students anticipated through 2035. As stated above, SFUSD will likely need to increase its classroom capacity in order to accommodate public school students anticipated by 2040 and incorporate best practices for educational space utilization. However, it is too speculative to conduct a meaningful environmental review or identify significant cumulative impacts at this time without more information regarding what action or actions the SFUSD would take to accommodate the additional students, whether SFUSD would choose to accommodate the additional students in a manner that would result in physical changes to the environment, or exactly where those actions would occur. The SFUSD has identified options for accommodating anticipated future public student population, as described above. The additional up to 16 students as a result of the project would not contribute considerably to an impact related to the provision of new school facilities.

Cumulative development in the project area would incrementally increase demand for public services, but not beyond levels anticipated and planned for by public service providers. As discussed in **section E.3, Population and Housing**, implementation of the proposed project or project variant and reasonably foreseeable development projects would not exceed growth projections for San Francisco. Thus, cumulative impacts on public services would be less than significant.



## E.15 Biological Resources

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>15. BIOLOGICAL RESOURCES:</b> Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project site is in a developed area completely covered by impervious surfaces. The project area does not include riparian habitat or other sensitive natural communities as defined by the California Department of Fish and Wildlife and the United States Fish and Wildlife Service; therefore, question 13b is not applicable to the proposed project or project variant. In addition, the project area does not contain any wetlands as defined by Section 404 of the Clean Water Act; therefore, question 13c is not applicable to the proposed project or project variant. Moreover, the proposed project or project variant does not fall within any local, regional, or state habitat conservation plans; therefore, question 13f is not applicable to the proposed project or project variant.

**Impact BI-1: The proposed project or project variant would have no substantial impact on any special status species, (including avian species), or interfere with movement of native species through an existing wildlife corridor. (Less than Significant)**

**Proposed Project and Project Variant**

As stated above, the project site is completely covered with impervious surfaces and does not provide habitat for any rare or endangered plant or animal species. Thus, the proposed project or project variant would not adversely affect or substantially diminish plant or animal habitats. The proposed project or project variant would not interfere with any resident or migratory species, nor affect any rare, threatened, or endangered species.

Migrating birds do pass through San Francisco, but the project site does not contain habitat to support migrating birds. Nesting birds, their nests, and eggs are fully protected by Fish and Game Code (sections 3503 and 3503.5) and the Federal Migratory Bird Treaty Act. Although the proposed project or project variant would be subject to the Migratory Bird Treaty Act, the site does not contain habitat supporting migratory birds; therefore, the project or project variant would have no impact to nesting birds.

There are no riparian corridors, estuaries, marshes, or wetlands in the project vicinity that could be affected by the development in the Downtown/Civic Center neighborhood. In addition, development envisioned within the neighborhood would not substantially interfere with the movement of any resident or migratory wildlife species.

The location, height, and material of buildings, particularly transparent or reflective glass, may present risks for birds as they travel along their migratory paths. The city has adopted guidelines to address this issue and provided regulations for bird-safe design within San Francisco. Planning code section 139, Standards for Bird-Safe Buildings, establishes building design standards to reduce avian mortality rates associated with bird strikes.<sup>116</sup> The project site is not located in an Urban Bird Refuge, so the standards concerning location-related hazards are not applicable to the

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<sup>116</sup> San Francisco Planning Department, *Standards for Bird-Safe Buildings*, July 14, 2001.

proposed project or project variant.<sup>117</sup> The proposed project or project variant would comply, as necessary, with the building feature-related hazard standards of section 139 by using bird-safe glazing treatment on 100 percent of any building feature-related hazard.

The proposed project or project variant would not conflict with any local policies or ordinances directed at protecting biological resources and would have no impact on special-status species.

**Impact BI-2: The proposed project or project variant would not conflict with the City's local tree ordinance. (Less than Significant)**

**Proposed Project and Project Variant**

There are no existing trees on the project site. Planning code section 138.1(c)(1) requires that for every 20 feet of property frontage along each street, one 24-inch box tree be planted, with any remaining fraction of 10 feet or more of frontage requiring an additional tree. To comply with the ordinance, the project applicant would plant three trees along the O'Farrell Street frontage; a fourth tree would not be feasible because of a sidewalk electrical vault proposed with the project or variant. The proposed project or project variant would request a waiver under the code with payment of an in-lieu fee. Because the proposed project or project variant would not conflict with the City's local tree ordinance, no impact would occur.

**Impact C-BI-1: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on biological resources. (Less than Significant)**

**Proposed Project and Project Variant**

The project vicinity does not currently support any candidate, sensitive, or special-status species, any riparian habitat, or any other sensitive natural community identified in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or the United States Fish and Wildlife Service. As with the proposed project or project variant, nearby cumulative development projects would also be subject to the California Fish and Game Code; and the bird-safe building and urban forestry ordinances. As with the proposed project or project variant, with mandatory compliance with these ordinances, the effects of development projects on native or migratory birds would be less than significant.

The proposed project or project variant would not modify any natural habitat and would have no impact on any candidate, sensitive, or special-status species, any riparian habitat, or other sensitive natural community; and/or would not conflict with any local policy or ordinance protecting biological resources or an approved conservation plan. For these reasons, the proposed project or project variant would not have the potential to combine with past, present, and reasonably foreseeable future projects in the project vicinity to result in a significant cumulative

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<sup>117</sup> San Francisco Planning Department, *Urban Bird Refuge Map*, [http://maps.sfplanning.org/Urban\\_Bird\\_Refuge\\_Poster.pdf](http://maps.sfplanning.org/Urban_Bird_Refuge_Poster.pdf), accessed April 19, 2019.

impact related to biological resources. Therefore, cumulative impacts on biological resources would be less than significant.

## E.16 Geology and Soils

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>16. GEOLOGY AND SOILS. Would the project:</b>					
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

This section describes the geology, soils, and seismicity characteristics of the project area as they relate to the proposed project or project variant. Responses in this section rely on the information and findings provided in the Preliminary Geotechnical Investigations report prepared by Rollo & Ridley for the project site.<sup>118</sup> The studies relied on available geotechnical data from the surrounding area to develop preliminary conclusions and recommendations.

The project site would be connected to the existing sewer system and would not require use of septic systems. Therefore, question 16e would not apply to the project site.

### Setting

The major active faults in the area are the San Andreas, Hayward, and San Gregorio faults. The geological report included data on all active faults in the region and their proximity to the project site. Three segments of the San Andreas Fault, located between approximately 7.25 and 8.5 miles to the west, are capable of producing a maximum magnitude earthquake of 8.05.<sup>119</sup>

As described in the preliminary geotechnical report, four onsite borings were placed at depths between two and four feet below ground surface to analyze subsurface conditions. The report includes previous boring data to depths of 25 feet below ground surface. Results of the on-site borings indicate sand and silty sand are present directly below the basement slab. Borings from projects in the vicinity indicate that the site and vicinity are underlain by medium dense to very dense sand containing varying amounts of clay and silt fines associated with historic Quaternary Dune Sand deposits, which are typical within the project vicinity. These dune sands are expected to be found at depths between 5 and 20 feet below the existing building slab. Older alluvium

<sup>118</sup> Rollo & Ridley. 2018. Preliminary Geotechnical Investigation. 550 O'Farrell Street, San Francisco, California. September 18, 2018.

<sup>119</sup> Working Group on California Earthquake Probabilities and Cao et al. 2003.

deposits of dense to very dense clayed sand and silty sand are at depths of 60 to 90 feet; these deposits are underlain of sandstone and shale bedrock.

The project site is relatively flat with neighboring properties to the north at higher grades as the site vicinity slopes upward to the north.<sup>120</sup> The geotechnical report stated that the adjacent buildings, rear yards, and sidewalks adjacent to the site would require shoring and/or underpinning.

Groundwater was not encountered in the four borings drilled on site as well as explorations at other sites in the vicinity and the groundwater table is not expected within the upper 25 feet below sidewalk and street level. However, it is likely that groundwater from rainfall infiltration, landscaping irrigation, or broken utilities may seep at depths closer to the sidewalk grade, along the bottom of the Dune sand layer or within more permeable seams of the silty sand and clayey sand layers. Seasonal fluctuations are likely.

The proposed project or project variant would have an estimated 4.5-foot-deep excavation along the front half of the building (accounting the existing garage basement depth) to a total depth of 16 feet below sidewalk grade, and an 11-foot-deep excavation along part of the north end of the existing basement of the building. A portion of the existing basement at the north end of the site would be backfilled. This would remove enough soil for the new mat slab foundation. Up to approximately 2,205 cubic yards of soil would be removed from the proposed project site, and 500 cubic yards would be backfilled.

Alternatively, the proposed project or the project variant would not backfill any of the existing basement space and would instead extend the 11-foot-deep excavation to the north property line, creating an additional 1,110 cubic yards of soil to be removed from the site. Total excavation would then be about 3,300 cubic yards. That space would be developed into additional tenant storage or other service space. In addition, the proposed project or the project variant would backfill about 330 cubic yards at the east end of the existing sidewalk vault.

Below-grade excavation would require temporary shoring of excavation side walls. Up to 6,900 cubic yards of demolition debris also would be removed from the project site. The proposed project foundation is anticipated to consist of a reinforced concrete mat slab foundation with grade beams. Pile driving is not proposed.

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<sup>120</sup> As noted in the Project Description prepared for this DEIR, all elevations presented in this report are based on San Francisco Vertical Datum of 2013 (SFVD13) as shown on the Topographic Map and Boundary prepared by Aliquot Associates, Inc., dated August 30, 2016. SFVD13 is equivalent to NAVD88.

**Impact GE-1: The proposed project or project variant would not expose people and structures directly or indirectly to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, seismic ground-shaking, liquefaction, lateral spreading, or landslides. (Less than Significant).**

#### Proposed Project and Project Variant

With respect to potential rupture of a known earthquake fault, published data indicate that neither known active faults nor extensions of active faults exist beneath the project site. Therefore, the potential of surface rupture occurring at the site is very low.

In terms of the potential for strong seismic groundshaking, the site is located within a 50-kilometer (km) radius of several major active faults, including the San Andreas (12 km), Hayward (17 km), and San Gregorio (18 km). According to U.S. Geological Survey, the overall probability of moment magnitude 6.7 or greater earthquake to occur in the San Francisco Bay Region during the next 30 years is 63 percent. Therefore, there is potential that a strong to very strong earthquake would affect the proposed project or project variant during its lifetime.

The ABAG has classified the Modified Mercalli Intensity Shaking Severity Level of groundshaking in the proposed project vicinity due to an earthquake on the North San Andreas Fault as “VIII-Very Strong.”<sup>121</sup> Very strong shaking would result in damage to some masonry buildings, fall of stucco and some masonry walls, fall of chimneys and elevated tanks, and shifting of unbolted wood frame structures off their foundations. Design and construction of the proposed project or project variant would be in accordance with the provisions of the 2019 California Building Code. With implementation of these recommendations, and compliance with the San Francisco Building Code, the proposed project or project variant would not be expected to expose persons or structures to substantial adverse effects from groundshaking in the event of an earthquake, and the impact would be less than significant.

Liquefaction and lateral spreading of soils can occur when groundshaking causes saturated soils to lose strength due to an increase in pore pressure. In terms of seismic-related ground failure, including liquefaction, the site is not within a designated liquefaction hazard zone as shown on the seismic hazard zone map for the City and County of San Francisco, prepared by the California Division of Mines and Geology, dated November 17, 2001. As noted in the preliminary geotechnical investigation, onsite groundwater was not encountered at depths up to 25 feet below ground surface but would be expected to be deep below the site, within layers of very dense silty or clayed sand.<sup>122</sup> Therefore, the potential for liquefaction and lateral spreading at the site is very low. With compliance with the San Francisco Building Code, the impacts on the proposed project

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<sup>121</sup> Association of Bay Area Governments. Resilience Program: Earthquakes <http://resilience.abag.ca.gov/earthquakes/>. Accessed on January 29, 2018.

<sup>122</sup> *Preliminary Geotechnical Investigation, 550 O'Farrell Street, San Francisco, California*. Rollo & Ridley. September 18, 2018.

or project variant due to strong seismic groundshaking would not be expected to increase effects from liquefaction and lateral spreading in the event of an earthquake, and the impact would be less than significant.

With respect to landslides, based on the general plan, the project site is relatively level and is not located within a mapped landslide zone.<sup>123</sup> The site is not within a designated earthquake-induced landslide zone as shown on the California Geological Survey seismic hazard zone map for the area. Therefore, the proposed project or project variant would have a less-than-significant impact with respect to potential for landslides.

**Impact GE-2: The proposed project or project variant would not result in substantial loss of topsoil or erosion. (Less than Significant)**

**Proposed Project and Project Variant**

Although properties to the north of the project site are at moderately higher grades, the project site itself is flat and entirely covered with impervious surfaces. The proposed project or project variant would not substantially change the general topography of the site or any unique geologic or physical features of the site. The proposed project or project variant would require excavation for the construction of the proposed building and removal of up to approximately 2,205 cubic yards of soil. Alternatively, the proposed project or the project variant would not backfill any of the existing basement space and would instead extend the 11-foot-deep excavation to the north property line, creating an additional 1,110 cubic yards of soil to be removed from the site. In addition, the proposed project or the project variant would backfill about 330 cubic yards at the east end of the existing sidewalk vault. The project site size of 11,800 square feet (0.27 acres) would be under the 1-acre threshold for a NPDES General Construction Permit. The project sponsor and its contractor would be required to implement an erosion and sediment control plan for construction activities, in accordance with article 4.1 of the San Francisco Public Works Code, to address sediment-laden construction-site stormwater runoff. The SFPUC must review and approve the erosion and sediment control plan prior to the plan's implementation, and the SFPUC would inspect the project site periodically to ensure compliance with the plan.

As discussed in **section E.13, Utilities and Services**, the existing project site is entirely covered with impervious surfaces and does not contain topsoil. Additionally, the proposed project or project variant would include a landscaped rear yard that would reduce the impervious surface compared to existing conditions. Once constructed, the site of the new building would be covered in a manner similar to existing conditions; therefore, no erosion would occur.

Erosion and sedimentation control measures discussed above would reduce short-term, construction-related erosion impacts to less-than-significant levels.

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<sup>123</sup> San Francisco General Plan, Community Safety Element, Map 4. Available online at: [http://generalplan.sfplanning.org/Community\\_Safety\\_Element\\_2012.pdf](http://generalplan.sfplanning.org/Community_Safety_Element_2012.pdf). Accessed on January 29, 2019.



**Impact GE-3: The proposed project or project variant would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. (Less than Significant)**

#### Proposed Project and Project Variant

The area around the project site does not include hills or cut slopes likely to be subject to landslide. Improvements proposed as part of the proposed project or project variant include a basement below grade, which would require excavation to a maximum of approximately 16 feet below ground surface.

According to the geotechnical investigation conducted for the proposed project or project variant, the project site is underlain by loose to medium dense sand with gravel. The geotechnical report concludes that the primary geotechnical concern would be the presence of loose sandy fill and native sands, and their effects on foundations, site grades, and utilities. The geotechnical report found that the site would not be expected to be subject to seismic ground failure, liquefaction, or lateral movement. The site may be subject to differential compaction of non-saturated sand due to earthquake vibrations. The geotechnical report recommends the foundation should consist of either reinforced (continuous) concrete footings or a reinforced concrete mat that would reduce the potential for erratic and differential settlement. The proposed project or project variant would comply with this recommendation and the proposed building would be supported by a mat foundation.

Soil conditions beneath the existing garage would be suitable to support a shallow foundation system for the proposed building height and to withstand the effects of earthquake-induced settlement. The geotechnical investigation includes specific recommendations to be implemented during construction to support excavation activities to support the sidewalk under O'Farrell Street and adjacent buildings to the east and west (including underpinning and shoring), as well as foundation support for the building. Excavation activities would require the use of shoring and underpinning in accordance with the recommendations of the geotechnical report and San Francisco Building Code requirements. The department of building inspection would review background information, including geotechnical and structural engineering reports, to ensure the suitability of the soils on the project site for development of the proposed project or project variant. San Francisco Building Code requirements would ensure that the project applicant include analysis of the potential for unstable soil impacts and inclusion of recommendations to address unstable soils as part of the design-level geotechnical investigation prepared for the proposed project; therefore, potential impacts of unstable soils would be less than significant.

**Impact GE-4: The proposed project or project variant could be located on expansive soil, as defined in Table 18 1B of the Uniform Building Code, but would not create, either directly or indirectly, substantial risks to life or property. (Less than Significant)**

#### Proposed Project and Project Variant

Expansive soils expand and contract in response to changes in soil moisture, most notably when near surface soils change from saturated to a low-moisture content condition, and back again. The presence of expansive soils is typically determined on site-specific data. Anticipated excavation of the basement and along the O'Farrell Street frontage is expected to remove the majority of existing soils at the site. Subsurface conditions noted in the geotechnical report found that there would be a low likelihood for expansion. However, areas not excavated may be affected by expansive soils, if present. Due to the San Francisco Building Code requirement that the project applicant include analysis of the potential for soil expansion impacts and inclusion of recommendations to address expansive soils as part of the design-level geotechnical investigation prepared for the proposed project, potential direct or indirect impacts related to expansive soils would be less than significant.

**Impact GE-5: The proposed project or project variant would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (No Impact)**

#### Proposed Project and Project Variant

The existing project site is already developed. The proposed project or project variant would not substantially change the topography of the site, with the exception of excavation of the basement and the O'Farrell Street frontage. There are no unique paleontological or geologic features on the site. Therefore, no impact would occur to topographic or unique geologic, paleontological, or physical features.

**Impact C-GE-1: The proposed project or project variant, in combination with the past, present, and reasonably foreseeable future projects in the vicinity of the project site, would not result in cumulative impacts related to geology and soils. (Less than Significant)**

#### Proposed Project and Project Variant

Geology and soils impacts are generally site-specific and localized. Past, present, and foreseeable future projects could require various levels of excavation or cut-and-fill, which could affect local geologic conditions. As noted above, the San Francisco Building Code regulates construction in the City and County of San Francisco, and all development projects would be required to comply with its requirements to ensure maximum feasible seismic safety and minimize geologic impacts. Site-specific measures would also be implemented, as site conditions warrant, to reduce any potential impacts from unstable soils, groundshaking, liquefaction, or lateral spreading. The cumulative development projects would be subject to the same seismic safety standards and design review procedures applicable to the proposed project or project variant and are not located adjacent to the project site. Therefore, the proposed project or project variant, in combination with

the past, present, and reasonably foreseeable future projects in the vicinity of the project site, would not result in a cumulative impact related to geology and soils and cumulative impacts would be less than significant. No mitigation measures are necessary.

## E.17 Hydrology and Water Quality

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>17. HYDROLOGY AND WATER QUALITY. Would the project:</b>					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(i) Result in substantial erosion or siltation on- or off-site?					
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to a project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project site is not located in an area identified as subject to seiche or potential inundation in the event of a tsunami along the San Francisco coast, based on the Community Safety Element of the general plan. In addition, the developed area of the project site would not be subject to mudflow. Thus, question 15d does not apply to this project.

**Impact HY-1: The proposed project or project variant would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. (Less than Significant)**

#### Proposed Project and Project Variant

Project-related or project variant-related wastewater and stormwater would flow to the City's combined stormwater/sewer system and would be treated to standards contained in the City's NPDES permit for the Southeast Water Pollution Control Plant prior to discharge into San Francisco Bay. The NPDES standards are set and regulated by the San Francisco Regional Water Quality Control Board.

As discussed in **section E.16, Geology and Soils**, no groundwater was encountered at boring locations on the project site. However, groundwater is expected to occur 25 feet or more below ground surface. In addition, the preliminary geotechnical report states that perched groundwater from rainfall infiltration, landscaping irrigation or broken utilities may seep at depths closer to the sidewalk grade, and that the groundwater table levels are subject to seasonal fluctuation. If any groundwater is encountered during construction, it would be discharged into the combined stormwater/sewer system subject to the requirements of the San Francisco Sewer Use Ordinance (Ordinance Number 19-92, amended by Ordinance Number 116-97), as supplemented by Department of Public Works Order no. 158170.

Construction activities, such as excavation, would expose soil and could result in erosion and excess sediments being carried in stormwater runoff to the combined stormwater/sewer system. In addition, stormwater runoff from temporary on-site use and storage of vehicles, fuels, waste, and other hazardous materials could carry pollutants to the combined stormwater/sewer system if proper handling methods are not employed. During project operations, wastewater and stormwater from the project site would continue to flow into the combined stormwater and sewer

system and effluent discharge would be treated to the standards contained in the City's NPDES Permit for the Southeast Water Pollution Control Plant, prior to discharge into San Francisco Bay.

During excavation, up to approximately 2,205 cubic yards of soil would be removed from the proposed project site, and about 500 cubic yards of backfill would be located at the rear of the site. The project or project variant would be subject to city policies and regulation for new development to reduce stormwater runoff by 25 percent from existing site flows. All new construction in the city must comply with San Francisco's Stormwater Management Ordinance, the City's Public Works codes articles 4.1 and 4.2 (discussed in **section E.14, Public Services**), and meet the SFPUC's stormwater management requirements per the Stormwater Design Guidelines. The project sponsor would be required to submit a Stormwater Control Plan (SCP) approved by the SFPUC that complies with the City's Stormwater Design Guidelines, which applies to projects with over 5,000 square feet of ground surface disturbance. Implementation of the SCP would ensure that the proposed project or project variant meets performance measures set by the SFPUC related to stormwater runoff rate and volume. Construction best management practices would ensure compliance with water quality and waste discharge requirements. These measures would ensure protection of water quality during construction of the proposed project or project variant. Therefore, the proposed project or project variant would not substantially degrade water quality and water quality standards or waste discharge requirements would not be violated. For these reasons, the proposed project or project variant would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality.

**Impact HY-2: The proposed project or project variant would not substantially decrease groundwater supplies or interfere with groundwater recharge, such that the project would impede sustainable groundwater basin management. (Less than Significant)**

#### Proposed Project and Project Variant

The proposed project or project variant would comply with the City's Stormwater Management Plan (see **section E.13, Utilities and Service Systems**), which requires projects replacing or creating more than 5,000 square feet of impervious surface area to decrease stormwater runoff by 25 percent. The existing project site is completely developed with impervious surfaces and structures. Construction activities under the proposed project or project variant would not result in a net increase in impervious surface area compared to existing conditions. The proposed project or project variant would not result in a decrease in infiltration.

As discussed in **section E.16, Geology and Soils**, groundwater was not encountered during exploratory boring sites but may be present at 25 feet below ground surface. Improvements proposed as part of the proposed project or project variant would require excavation to approximately 16 feet below ground surface, which would be approximately 10 feet above the anticipated groundwater depth. Therefore, construction-related dewatering activities would likely not be necessary. If groundwater is encountered during excavation, and dewatering be found to be necessary, the Bureau of Systems Planning, Environment, and Compliance of the

SFPUC must be notified of projects necessitating dewatering. The SFPUC may require water analysis before discharge to the combined sewer system. The proposed project or project variant would be required to obtain a Batch Wastewater Discharge Permit from the SFPUC Wastewater Enterprise Collection System Division prior to any dewatering activities. Though groundwater was not encountered at the project site, the proposed project or project variant would nonetheless comply with stormwater and wastewater pretreatment requirements of the San Francisco Sewer Use Ordinance (Ordinance no. 19-92, amended by Ordinance no. 116-97), as supplemented by Public Works Order no. 158170.

The construction dewatering under the proposed project or project variant would be short-term and if present, would not involve extracting groundwater supplies. Moreover, the city does not rely on groundwater as a source of potable water. Therefore, the proposed project or project variant would not contribute to a decrease in groundwater supplies or groundwater recharge rates in the San Francisco Bay Basin and this impact would be less than significant.

**Impact HY-3: The proposed project or project variant would not substantially alter or redirect flows to 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 that would result in substantial on- or off-site erosion or siltation, or flooding. (Less than Significant)**

#### Proposed Project and Project Variant

The project site is not adjacent to an existing stream or river; therefore, construction activities would not alter existing drainage patterns of such waterbodies. Similar to the existing building, the proposed building would occupy the entire site and therefore, would not increase the amount of impervious surface coverage, or consequently, the amount of stormwater runoff. In accordance with the City's Stormwater Management Ordinance (Ordinance no. 64-16, public works code section 147), the proposed project or project variant would be subject to the SFPUC Stormwater Management Requirements and Design Guidelines, which require the incorporation of low-impact design approaches and stormwater management systems to reduce peak stormwater discharges by 25 percent. To achieve this, the proposed project or project variant would implement and install appropriate stormwater management systems that would manage stormwater on site and limit demand on both collection system and wastewater facilities resulting from stormwater discharges.

Stormwater runoff during construction must comply with the Construction Site Runoff Ordinance (Ordinance no. 260-13) and the public works code section 146. Construction activities that disturb 5,000 square feet or more, such as the proposed project or project variant, must submit an erosion and sediment control plan to the SFPUC for review and approval prior to construction. The plan would outline the best management practices to be implemented during construction to prevent the discharge of sediment, non-stormwater, and waste runoff from the project site. The proposed project or project variant would not significantly alter the site topography or increase

the rate or amount of surface runoff in a manner that would result in on- or off-site flooding beyond current conditions.

For these reasons, the proposed project or project variant would not increase stormwater runoff and would not result in on- or off-site flooding, substantial erosion, or siltation.

**HY-4: The proposed project or project variant would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (Less than Significant)**

#### Proposed Project and Project Variant

The proposed project or project variant would be constructed in compliance with all applicable federal, state, and local regulations governing water quality and discharges into surface and underground bodies of water. Runoff from the project site would drain into the city's combined stormwater/sewer system, ensuring that such runoff is properly treated at the Southeast Water Pollution Control Plant before being discharged into San Francisco Bay. As a result, the proposed project or project variant would not conflict with the city's existing water quality and groundwater management plans and this impact would be less than significant.

**Impact C-HY-1: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact related to hydrology and water quality. (Less than Significant)**

#### Proposed Project and Project Variant

Cumulative development in the project vicinity would result in an intensification of land uses, a cumulative increase in water consumption, and a cumulative increase in wastewater generation. The SFPUC has accounted for such growth in its service projections. Nearby cumulative development projects would be subject to the same water conservation, stormwater management, and wastewater discharge ordinances applicable to the proposed project or project variant. For these reasons, the proposed project or project variant would not, in combination with past, present, and reasonably foreseeable future projects, create a significant cumulative impact related to hydrology and water quality.

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## E.18 Hazards and Hazardous Materials

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>18. HAZARDS AND HAZARDOUS MATERIALS. Would the project:</b>					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



The project site is not located within an airport land use plan area or in the vicinity of a public airstrip, nor is the project site located in a wildland fire zone. Therefore, questions 18e and 18g are not applicable.

**Impact HZ-1: The proposed project or project variant would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (Less than Significant)**

**Proposed Project and Project Variant**

For buildings constructed prior to 1980, the Code of Federal Regulations (29 CFR 1926.1101) states that all thermal system insulation and surface materials must be designated as “presumed asbestos-containing material” (PACM) unless proven otherwise through sampling in accordance with the standards of the Asbestos Hazard Emergency Response Act. The existing building on the project site was constructed prior to 1980. Demolition of the existing building and removal of construction debris from the project site could release asbestos into the air. All demolition and construction activities that could disturb PACM are required to comply with federal, state, and local regulations related to the removal and disposal of PACM. For buildings constructed prior to 1978, it is highly likely that lead-based paint was used in their construction. Demolition of the existing building and removal of construction debris from the project site could release lead into the air. All demolition and construction activities that could disturb lead-based paint are required to comply with the provisions of San Francisco Building Code section 3407, which regulates the removal and disposal of building materials that contain lead-based paint.

There also may be hazardous materials stored on site during construction such as fuel for construction equipment, paints, solvents, and other types of construction materials that may contain hazardous ingredients. Transportation of hazardous materials to and from the project site would occur on designated hazardous materials routes, by licensed hazardous materials handlers, as required, and would be subject to regulation by the California Highway Patrol and the California Department of Transportation. This oversight would reduce any risk from the routine transport, use, or disposal of hazardous materials to less than significant.

Operation of the proposed project or project variant would likely result in use of common types of hazardous materials typically associated with retail and residential uses, such as cleaning products and disinfectants. These products are labeled to inform users of their potential risks and to instruct them in appropriate handling procedures. Most of these materials are consumed through use, resulting in relatively little waste. The use and storage of these typical hazardous materials would comply with San Francisco Health Code article 21, which implements the hazardous materials requirements of the California Health and Safety Code and provides for the safe handling of hazardous materials in the city. Any person or business that handles, sells, stores, or otherwise uses hazardous materials in quantities exceeding specified threshold amounts would be required to obtain and keep a current hazardous materials certificate of registration and to implement a hazardous materials business plan submitted with the business license

application. Businesses are required by law to ensure employee safety by identifying hazardous materials in the workplace, providing safety information to workers who handle hazardous materials, and adequately training workers. For these reasons, hazardous materials used during project operation would not pose any substantial public health or safety hazards. In addition, the California Highway Patrol and the California Department of Transportation regulate the transportation of hazardous materials. Due to the small quantities of hazardous materials expected to be used and/or generated on the project site, the proposed project or project variant would not routinely transport hazardous materials. Compliance with local and state regulations would ensure that impacts related to the routine transport, use, or disposal of hazardous materials would not create a significant hazard to the public or the environment. For these reasons, this impact would be less than significant.

**Impact HZ-2: The proposed project or project variant would not create a significant hazard to the public or the environment through reasonably foreseeable conditions involving the release of hazardous materials into the environment. (Less than Significant)**

**Proposed Project and Project Variant**

The proposed project site is located in an area of San Francisco governed by article 22A of the Health Code, also known as the Maher Ordinance. Areas governed by article 22A include sites with known or suspected soil and/or groundwater contamination. Projects excavating more than 50 cubic yards of soil in these areas are subject to the Maher Ordinance, which is administered by the health department. The project site falls within the boundaries of the expanded Maher Area Map published in 2015; therefore, the project sponsor must comply with provisions of the Maher Ordinance prior to being issued a building permit.<sup>124</sup> Pre-construction work would involve excavating 2,205 cubic yards of soil and hauled off site.

The closure of any underground storage tank must also be conducted in accordance with a permit from the San Francisco Fire Department. The Phase I Environmental Site Assessment<sup>125</sup> found that at least seven aboveground storage tanks were present on the project site at one point or another, with one current aboveground storage tank located within a vault on the southeast side of the property. No spills were reported from the aboveground storage tank, which is equipped with an electronic leak monitoring system.

If remediation is required, it would typically be achieved through one of several methods that include off-haul and disposal of contaminated soils, on-site treatment of soil or groundwater, or a vapor barrier installation. Compliance with health code article 22A and the related regulations identified above would ensure that project activities that disturb or release hazardous substances

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<sup>124</sup> City and County of San Francisco Planning Department, "Expanded Maher Area" Map, March 2015. Available online at: [https://www.sf-planning.org/ftp/files/publications\\_reports/library\\_of\\_cartography/Maher%20Map.pdf](https://www.sf-planning.org/ftp/files/publications_reports/library_of_cartography/Maher%20Map.pdf). Accessed January 15, 2019.

<sup>125</sup> Partner Engineering and Science, Phase I Environmental Site Assessment, 550 O'Farrell Street, October 29, 2013.

that may be present at the project site would not expose users of the site to unacceptable risk levels for the intended project uses.<sup>126</sup> In compliance with health code article 22A, the project sponsor has enrolled in the Maher program and submitted a *phase I environmental site assessment*,<sup>127</sup> *phase II soil characterization report*,<sup>128</sup> and revised phase II soil characterization report<sup>129</sup> to the health department.<sup>130</sup>

The phase I environmental site assessment determined the potential for site contamination and level of exposure risk associated with the proposed project or project variant. As noted in the phase I environmental site assessment, a regulatory agency database report (EDR Report) indicates that facilities of environmental concern in the vicinity of the project site had no violations, were closed by the regulatory agency, were hydrologically cross-gradient or down-gradient, or were determined to be a significant distance (greater than 1/4 mile) from the project site. As a result, these listings are not expected to pose an environmental risk to the project site and are not discussed. The project site itself was not listed in any of the regulatory databases.

Although several neighboring properties were identified as potential sources of activities involving hazardous substances or petroleum products, there is no available evidence that those off-site facilities have affected the environmental conditions at the project site.

The two-part phase II investigation was performed to characterize the project site's soil for suspect constituents of concern and to document the general quality of the soil proposed for future excavation and removal. The primary suspect constituents of concern were metals, petroleum hydrocarbons, and semi-volatile organic compounds (SVOC). Observations in the soil borings, soil screening, and the results of analytical testing indicate that historical commercial use of the building has not impacted the subsurface. In addition, there were no observed earthquake fill materials in the soil.

Based on representative soil sample analytical results and field observations, the revised phase II investigation concluded the following:

- Soils at the site are mixtures of unconsolidated sand interbedded with medium dense to dense silty sand from beneath the basement concrete foundation to 4.0 feet bgs (16 feet

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<sup>126</sup> City and County of San Francisco, Department of Public Health. Article 22A Compliance, Residential Tower, 550 O'Farrell Street, EHB-SAM No. SMED 1492. January 11, 2019.

<sup>127</sup> Partner Engineering and Science, Inc. Phase I Environmental Site Assessment Report, 550 O'Farrell Street. October 29, 2013.

<sup>128</sup> PII Environmental. Phase II Soil Characterization Report. 550 O'Farrell Street, San Francisco, California. August 2, 2018.

<sup>129</sup> PII Environmental. Revised Phase II Soil Characterization Report. 550 O'Farrell Street, San Francisco, California. August 16, 2019.

<sup>130</sup> Ossai, Joseph, Senior Environmental Health Inspector, Department of Public Health-Environmental Health, letter correspondence with Prabhass Kejrival, property owner, 550 O'Farrell Street, August 21, 2019.

below street level) and beneath the middle parking level to 10 feet bgs (16 feet below street level), and these sands likely continue;

- Metals, TEPH-range petroleum hydrocarbons,<sup>131</sup> and SVOCs were not reported at elevated concentrations and no contamination is suspected in the soil at the site;
- The data documents general residential soil quality and the soil sample analytical results summarized in the report can be used to profile any excess soil generated at the site for offsite recycling or disposal;
- Soil remaining at the extent of the proposed excavation meets applicable residential criteria for all typical constituents of concern and verification of soil sampling following proposed excavation is not warranted; and
- Since the site is located in a Maher Ordinance zone, information from the phase I environmental site assessment, the geotechnical investigation, the revised phase II subsurface investigation, and the proposed site redevelopment plans, should be used to prepare a site mitigation plan for submission to the health department.

To comply with various regulatory requirements, the health department would require the project sponsor to submit a *site mitigation plan* that includes measures to mitigate potential risks to the environment and to protect construction workers, nearby residents, workers, and/or pedestrians from potential exposure to hazardous substances and underground structures during soil excavation and grading activities. The site mitigation plan must also contain procedures for initial response to unanticipated conditions such as discovery of underground storage tanks, sumps, or pipelines during excavation activities. Specified construction procedures at a minimum must comply with building code section 106A.3.2.6.3 and health code article 22B related to construction dust control; and public works code section 146 et seq. concerning construction site runoff control. Additional measures would typically include notification, field screening, and worker health and safety measures to comply with Cal/OSHA requirements.

As noted above, a single aboveground storage tank is present on the project site. The health department would require any discovered aboveground and underground storage tanks to be closed pursuant to article 21 of the health code and comply with applicable provisions of chapters 6.7 and 6.75 of the California Health and Safety Code (commencing with section 25280) and its implementing regulations.

The proposed project or project variant would be required to remediate potential soil (and/or) groundwater contamination described above in accordance with article 22A. The health department would oversee this process, and various regulations would apply to any disturbance

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<sup>131</sup> TEPH is an acronym for total extractable petroleum hydrocarbons

of contaminants in soil or groundwater that would be encountered during construction to assure that no unacceptable exposures to the public would occur. Thus, the proposed project or project variant would not result in a significant hazard to the public or environment from the disturbance or release of contaminated soil (and/or) groundwater and the proposed project or project variant would result in a less-than-significant impact.

**Impact HZ-3: The proposed project or project variant would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 1/4-mile of an existing or proposed school. (Less than Significant).**

#### Proposed Project and Project Variant

There is one school located within ¼ mile of the project site. The San Francisco City Academy, at 230 Jones Street, is located about 0.2 of a mile south of the project site. The proposed project or project variant, which would consist of residential and retail uses only, would not store, handle, or dispose significant quantities of hazardous materials and would not otherwise include any uses that would include emissions of hazardous substances. Construction vehicles and equipment would comply with the mitigation measures detailed in **section E.8, Air Quality** and **section F, Mitigation Measures**. The proposed project or project variant would not produce short-term construction hazards or long-term operational emissions hazards. Therefore, the proposed project or project variant would have a less-than-significant impact related to emitting or handling hazardous materials within 1/4 mile of a school.

**Impact HZ-4: The proposed project or project variant is not included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5. (Less than Significant)**

Pursuant to Government Code section 65962.5, the Secretary for Environmental Protection maintains a list of sites with potentially hazardous wastes, commonly referred to as the Cortese list. The Cortese list includes hazardous waste sites from the Department of Toxic Substances Control's EnviroStor database, hazardous facilities identified by the Department of Toxic Substances Control that are subject to corrective action pursuant to Health and Safety Code section 25187.5, leaking underground storage tank sites from the state water board's Geotracker database, solid waste disposal sites maintained by the state board, and sites with active cease and desist orders and clean up and abatement orders. The project site is not on any available environmental databases as compiled by the Department of Toxic Substances Control or the state water board pursuant to section 65962.5. Because the project site is not listed in database reports from state and federal regulatory agencies that identify businesses and properties that handle or have released hazardous materials or waste, this impact would be less than significant.<sup>132</sup>

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<sup>132</sup> PII Environmental. 2018. Phase II Soil Characterization Report. August 2, 2018.

**Impact HZ-5: The proposed project or project variant would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and would not expose people or structures to a significant risk of loss, injury, or death. (Less than Significant)**

#### Proposed Project and Project Variant

San Francisco ensures fire safety primarily through provisions of the Building and Fire Codes. Final building plans would be reviewed and approved by the San Francisco Fire Department (as well as the Department of Building Inspection) to ensure conformance with these provisions. In this way, potential fire hazards, including those associated with low hydrant water pressures and emergency access, would be mitigated during the permit review process. Residential development projects must be designed with a wet system (also known as a “standpipe system”) of piping, valves, outlets, and related equipment designed to provide water at specified pressures and installed exclusively for the fighting of fires.<sup>133</sup> Compliance with fire safety regulations would ensure that the proposed project or project variant would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan or expose people or structures to a significant risk of loss, injury, or death.

Implementation of the proposed project or project variant could add incrementally to transportation conditions in the immediate area in the event of an emergency evacuation. As discussed in **section E.6, Transportation and Circulation**, above, the proposed project or project variant would not have a substantial contribution to traffic conditions within the context of the dense urban setting of the project site, and it is expected that project-related traffic would be dispersed within the existing street grid, such that there would be no significant adverse impacts on transportation conditions. Therefore, the proposed project or project variant would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. This impact would be less than significant.

**Impact C-HZ-1: The proposed project or project variant, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative impact related to hazards and hazardous materials. (Less than Significant)**

#### Proposed Project and Project Variant

Development in the city is subject to local and state controls designed to protect the public and the environment from risks associated with hazards and hazardous materials, and to ensure that emergency access routes are maintained. Any future development in the project vicinity would be subject to these same laws and regulations. For these reasons, the proposed project or project

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<sup>133</sup> 2019 San Francisco Fire Code section 202 (San Francisco Board of Supervisors file 190866).

variant, in combination with past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact related to hazards and hazardous materials.

## E.19 Mineral Resources

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>19. MINERAL RESOURCES.</b> Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Impact ME-1: The proposed project or project variant would have no impact on mineral resources. (No Impact)

#### Proposed Project and Project Variant

For mineral resources, the context could be assumed to be nationwide, as mineral resources are a dwindling resource as mineral extraction becomes costlier and less feasible. All land in the City of San Francisco, including the project site, is designated by the California Geological Survey as Mineral Resource Zone Four (MRZ-4) under the Surface Mining and Reclamation Act of 1975. The MRZ-4 designation indicates that adequate information does not exist to assign the area to any other MRZ; thus, the area is not one designated to have significant mineral deposits. The project site has previously been developed, and future evaluations of the presence of minerals at this site would therefore not be affected by the proposed project or project variant. Further, the development and operation of the proposed project or project variant would not have an impact on any off-site operational mineral resource recovery sites. In addition, because the site has been designated as having no known mineral deposits, the proposed project or project variant would not result in the loss of availability of a locally or regionally important mineral resource and would have no impact on mineral resources.

## E.20 Energy

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
<b>20. ENERGY. Would the project:</b>					
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Impact EN-1: The proposed project or project variant would result in increased energy consumption, but not in large amounts or in a wasteful manner. (Less than Significant)**

### Proposed Project and Project Variant

The proposed project or project variant would change the existing use from a parking garage to new residential and retail uses. This would increase the intensity of use at the project site, although, not to an extent that exceeds anticipated growth in the area. As a new building in San Francisco, the proposed project or project variant would be subject to the energy conservation standards included in the San Francisco Green Building Ordinance, which would require the proposed project or project variant to meet a number of conservation standards. Documentation showing compliance with the ordinance would be submitted with the application of the building permit and would be enforced by the Department of Building Inspection. See also **section E.9, Greenhouse Gas Emissions** above for a detailed discussion of those conservation standards. As such, the proposed project or project variant would not cause a wasteful use of energy, and effects related to use of fuel, water, or energy would be less than significant.

**Impact EN-2: The proposed project or project variant would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. (Less than Significant)**

### Proposed Project and Project Variant

The proposed project or project variant, as noted above, would meet the requirements of the San Francisco Green Building Ordinance. It would also meet the requirements of the *California Energy Code*, discussed below. Therefore, the proposed project or project variant would not conflict with plans for renewable energy or energy efficiency, and this impact would be less than significant.



**Impact C-EN-1: The proposed project or project variant, in combination with other past, present, or reasonably foreseeable projects, would not result in a cumulative impact on energy resources. (Less than Significant)**

**Proposed Project and Project Variant**

The geographic context for an analysis of cumulative impacts on energy resources varies depending on the resource. With regard to energy use, the geographic context would be the area served by Pacific Gas & Electric.

Title 24 of the *California Code of Regulations*, known as the California Building Standards Code (CBC) contains the regulations that govern the construction of buildings in California. The CBC contains general building design and construction requirements relating to fire and life safety, structural safety, and access compliance. CBC provisions provide minimum standards to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures and certain equipment. Part 6 of the CBC is the *California Energy Code* and contains energy conservation standards (Building Energy Efficiency Standards) applicable to all residential and non-residential buildings throughout California, including schools and community colleges. The standards contain energy and water efficiency requirements (and indoor air quality requirements) for newly constructed buildings, additions to existing buildings, and alterations to existing buildings.<sup>134</sup> These standards are updated every three years; the most recent update went into effect on January 1, 2020. The 2016 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the residential standards include improvements for attics, walls, water heating, and lighting. The most significant efficiency improvements to the nonresidential Standards include alignment with the ASHRAE 90.1 2013 national standards. New efficiency requirements for elevators and direct digital controls are included in the nonresidential Standards. Public Resources Code section 25402.1 also requires the Energy Commission to support the performance standards with compliance tools for builders and building designers.

The proposed project or project variant and nearby residential and nonresidential cumulative development projects would be required by the Department of Building Inspection to conform to current state and local energy conservation standards, including Title 24 of the *California Code of Regulations*. As a result, the proposed project or project variant, in combination with other reasonably foreseeable projects, would not cause a wasteful use of energy or other non-renewable natural resources. The project-generated demand for electricity would be negligible in the context of overall demand within San Francisco, the greater Bay Area, and the State, and would not in and of itself require any expansion of power facilities. The City plans to reduce GHG emissions

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<sup>134</sup> Public Resources Code section 25402, subdivisions (a)-(b).

to 25 percent below 1990 levels by the year 2017 and ultimately reduce GHG emission to 80 percent below 1990 levels by 2050, which would be achieved through a number of different strategies, including energy efficiency. The proposed project or project variant would be consistent with the City's GHG reduction strategy. Therefore, the energy demand associated with the proposed project or project variant would not substantially contribute to a cumulative impact on existing or proposed energy supplies or resources.

Based on the foregoing, the proposed project or project variant, in combination with past, present, and reasonably foreseeable projects, would not cause a significant cumulative impact on energy resources.

## E.21 Agriculture and Forestry Resources

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>21. AGRICULTURE AND FORESTRY RESOURCES:</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. <b>Would the project:</b>					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Impact AF-1: The proposed project or project variant would not convert farmland, conflict with existing zoning for agricultural uses or forest land, and would not result in the loss or conversion of forest land. (No Impact)**

#### Proposed Project and Project Variant

The project site is located within an urbanized area of San Francisco. No land in San Francisco County has been designated by the California Department of Conservation's Farmland Mapping and Monitoring Program as agricultural land. Because the project site does not contain agricultural uses and is not zoned for such uses, the proposed project or project variant would not require the conversion of any land designated as prime farmland, unique farmland, or Farmland of Statewide Importance to non-agricultural use. The proposed project or project variant would not conflict with any existing agricultural zoning or Williamson Act contracts.<sup>135</sup> No land in San Francisco is designated as forest land or timberland by the State Public Resource Code. Therefore, the proposed project and project variant would not conflict with zoning for forest land, cause a loss of forest land, or convert forest land to a different use. The proposed project and project variant would therefore have no impact on agricultural and forest resources.

<sup>135</sup> San Francisco is identified as "Urban and Built-Up Land" on the California Department of Conservation Farmland Mapping and Monitoring Program, Division of Land Resources Protection, <https://maps.conservation.ca.gov/dlrp/ciftimeseries>, accessed June 28, 2019.

## E.22 Wildfire

<i>Topics</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>22. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</b>					
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The City and County of San Francisco and bordering areas within San Mateo County do not have any state responsibility areas for fire prevention or lands classified as very high fire hazard severity zones;<sup>136</sup> therefore, this topic is not applicable to this project.

<sup>136</sup> CALFIRE Fire and Resource Assessment Program, San Francisco County Draft Fire Hazard Severity Zones in Local Responsibility Areas Map, October 5, 2007; San Mateo County Fire Hazard Severity Zones in State Responsibility Areas Map, November 7, 2007; and San Mateo County Very High Fire Hazard Severity Zones in Local Responsibility Areas Map, November 24, 2008, <https://frap.fire.ca.gov/mapping/maps/>, June 28, 2019.

## E.23 Mandatory Findings of Significance

<i>Topics</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<b>23. MANDATORY FINDINGS OF SIGNIFICANCE. Does the project:</b>					
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This initial study determined that the proposed project and project variant could have potential individual and cumulative environmental effects on cultural resources – the historical architectural resource at 550 O'Farrell Street and the National Register-listed Uptown Tenderloin Historic District. The initial study found that the proposed project or project variant would not have a significant adverse individual or cumulative environmental effect relating to all other topics. For those topics, the project would have no impact, a less-than-significant impact, or a less-than-significant impact with the implementation of mitigation measures. Implementation of the proposed project or project variant would not result in substantial adverse effects on human beings, either directly or indirectly.

Note: Authority cited: sections 21083 and 21083.05, 21083.09 Public Resources Code. Reference: section 65088.4, Gov. Code; sections 21073, 21074 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21080.3.1, 21080.3.2, 21082.3, 21084.2, 21084.3, 21093, 21094, 21095, and 21151, Public Resources Code; Sundstrom v. County of Mendocino, (1988) 202 Cal.App.3d 296; Leonoff v. Monterey Board of Supervisors, (1990) 222 Cal.App.3d 1337; Eureka Citizens for Responsible Govt. v. City of Eureka (2007) 147 Cal.App.4th 357; Protect the Historic Amador Waterways v. Amador Water Agency (2004) 116 Cal.App.4th at 1109; San Franciscans Upholding the Downtown Plan v. City and County of San Francisco (2002) 102 Cal.App.4th 656.

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## F. MITIGATION MEASURES

The following mitigation measures have been identified to reduce potentially significant environmental impacts resulting from the proposed project to less-than-significant levels.

### **Mitigation Measure M-CR-5: Accidental Discovery**

The following mitigation measure is required to avoid any potential adverse effect from the proposed project on accidentally discovered buried or submerged historical resources as defined in *CEQA Guidelines* Section 15064.5(a) and (c), on tribal cultural resources as defined in *CEQA Statute* Section 21074, and on human remains and associated or unassociated funerary objects. The project sponsor shall distribute the planning department archeological resource “ALERT” sheet to the project prime contractor; to any project subcontractor (including demolition, excavation, grading, foundation, pile driving, etc. firms); or utilities firm involved in soils disturbing activities within the project site. Prior to any soils disturbing activities being undertaken each contractor is responsible for ensuring that the “ALERT” sheet is circulated to all field personnel including, machine operators, field crew, pile drivers, supervisory personnel, etc.

A preconstruction training shall be provided to all construction personnel performing or managing soils disturbing activities by a qualified archeologist prior to the start of soils disturbing activities on the project. The training may be provided in person or using a video and include a handout prepared by the qualified archeologist. The video and materials will be reviewed and approved by the ERO. The purpose of the training is to enable personnel to identify archeological resources that may be encountered and to instruct them on what to do if a potential discovery occurs. Images of expected archeological resource types and archeological testing and data recovery methods should be included in the training.

The project sponsor shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) to the ERO confirming that all field personnel have received copies of the Alert Sheet and have taken the preconstruction training.

Should any indication of an archeological resource be encountered during any soils disturbing activity of the project, the project Head Foreman and/or project sponsor shall immediately notify the ERO and shall immediately suspend any soils disturbing activities in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken.

If the ERO determines that an archeological resource may be present within the project site, the project sponsor shall retain the services of an archeological consultant from the pool of qualified archeological consultants maintained by the Planning Department archeologist. The archeological consultant shall advise the ERO as to whether the

discovery is an archeological resource, retains sufficient integrity, and is of potential scientific/historical/cultural significance. If an archeological resource is present, the archeological consultant shall identify and evaluate the archeological resource. The archeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require, if warranted, specific additional measures to be implemented by the project sponsor. The ERO may also determine that the archeological resources is a tribal cultural resource and will consult with affiliated Native Americans tribal representatives, if warranted, as detailed under M-TCR-1 for this project.

Measures might include: preservation in situ of the archeological resource; an archeological monitoring program; an archeological testing program; and an interpretative program. If an archeological monitoring program, archeological testing program, or an interpretative program is required, it shall be consistent with the Environmental Planning (EP) division guidelines for such programs and reviewed and approved by the ERO. The ERO may also require that the project sponsor immediately implement a site security program if the archeological resource may be at risk from vandalism, looting, or other damaging actions.

The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and federal laws. This shall include immediate notification of the Medical Examiner of the City and County of San Francisco and, in the event of the Medical Examiner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission, which will appoint a Most Likely Descendant (MLD). The MLD will complete his or her inspection of the remains and make recommendations or preferences for treatment within 48 hours of being granted access to the site (Public Resources Code section 5097.98). The ERO also shall be notified immediately upon the discovery of human remains.

The project sponsor and ERO shall make all reasonable efforts to develop a Burial Agreement ("Agreement") with the MLD, as expeditiously as possible, for the treatment and disposition, with appropriate dignity, of human remains and associated or unassociated funerary objects (as detailed in CEQA Guidelines section 15064.5(d)). The Agreement shall take into consideration the appropriate excavation, removal, recordation, scientific analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. If the MLD agrees to scientific analyses of the remains and/or associated or unassociated funerary objects, the archeological consultant shall retain possession of the remains and associated or unassociated funerary objects until completion of any such analyses, after which the remains and associated or unassociated funerary objects shall be reinterred or curated as specified in the Agreement.



Nothing in existing State regulations or in this mitigation measure compels the project sponsor and the ERO to accept treatment recommendations of the MLD. However, if the ERO, project sponsor and MLD are unable to reach an Agreement on scientific treatment of the remains and associated or unassociated funerary objects, the ERO, with cooperation of the project sponsor, shall ensure that the remains and/or mortuary materials are stored securely and respectfully until they can be reinterred on the property, with appropriate dignity, in a location not subject to further or future subsurface disturbance.

Treatment of historic-period human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity, additionally, shall follow protocols laid out in the project's archeological treatment documents, and in any related agreement established between the project sponsor, Medical Examiner and the ERO.

The archeological consultant shall submit a Draft Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken. The Draft FARR shall include a curation and deaccession plan for all recovered cultural materials. The Draft FARR shall also include an Interpretation Plan for public interpretation of all significant archeological features.

Copies of the Draft FARR shall be sent to the ERO for review and approval. Once approved by the ERO, the consultant shall also prepare a public distribution version of the FARR. Copies of the FARR shall be distributed as follows: California Archeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning Department shall receive one bound and one unlocked, searchable PDF copy on CD of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of public interest in or the high interpretive value of the resource, the ERO may require a different or additional final report content, format, and distribution than that presented above.

#### **Mitigation Measure M-TCR-1: Tribal Cultural Resources Archeological Resource Preservation Plan and/or Interpretive Program**

In the event of the discovery of an archeological resource of Native American origin, the Environmental Review Officer (ERO), the project sponsor, and the tribal representative, shall consult to determine whether preservation in place would be feasible and effective. If it is determined that preservation-in-place of the tribal cultural resource (TCR) would be both feasible and effective, then the archeological consultant shall prepare an archeological

resource preservation plan (ARPP), which shall be implemented by the project sponsor during construction.

If the ERO in consultation with the project sponsor and the tribal representative determines that preservation-in-place of the TCR is not a sufficient or feasible option then archeological data recovery shall be conducted, as detailed under M-CR-2a for this project. In addition, the project sponsor shall prepare an interpretive program of the TCR in consultation with affiliated Native American tribal representatives. The plan shall identify proposed locations for installations or displays, the proposed content and materials of those displays or installation, the producers or artists of the displays or installation, and a long-term maintenance program. The interpretive program may include artist installations, preferably by local Native American artists, oral histories with local Native Americans, artifacts displays and interpretation, and educational panels or other informational displays. Upon approval by the ERO and prior to project occupancy, the interpretive program shall be implemented by the project sponsor.

#### **Mitigation Measure M-NO-1: Construction Noise Controls**

The project sponsor shall develop a set of site-specific noise attenuation measures under the supervision of a qualified acoustical consultant to ensure that maximum feasible noise attenuation will be achieved for the duration of construction activities. Prior to commencement of demolition and construction activities, the project sponsor shall submit the construction noise control plan to the San Francisco Planning Department (planning department) for review and approval. Noise attenuation measures shall be implemented to meet a goal of not increasing noise levels from construction activities by more than 10 dBA above the ambient noise level at sensitive receptor locations. Noise measures may include, but are not limited to, those listed below.

1. Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment.
2. Use “quiet” models of air compressors and other stationary noise sources where technology exists.
3. Locate stationary equipment as far away as possible from adjacent land uses and/or construct temporary noise barriers, where feasible, to screen such equipment. Temporary noise barrier fences would provide a 5-dBA noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receptor and if the barrier is constructed in a manner that eliminates any cracks or gaps.
4. Unnecessary idling of internal combustion engines should be strictly prohibited.
5. The construction staging area should be located on O’Farrell Street and as far as feasible from noise-sensitive receptors. Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.

6. Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.
7. Where feasible, temporary power service from local utility companies should be used instead of portable generators.
8. Locate cranes as far from adjoining noise-sensitive receptors as possible.
9. During final grading, substitute graders for bulldozers, where feasible. Wheeled heavy equipment is quieter than track equipment and should be used where feasible.
10. Substitute nail guns for manual hammering, where feasible.
11. Avoid the use of hydra break rams and hoe rams during demolition.
12. Avoid the use of concrete saws, circular saws, miter/chop saws, and radial arm saws near the adjoining noise-sensitive receptors. Where feasible, shield saws with a solid screen with material having a minimum surface density of 2 pounds per square foot (e.g., such as ¾-inch plywood).
13. During interior construction, the exterior windows facing noise-sensitive receptors should be closed.
14. During interior construction, locate noise-generating equipment within the building to break the line-of-sight to the adjoining receptors.
15. The contractor shall prepare a detailed construction schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.
16. Designate a Construction Manager who shall:
  - a. Clearly post his/her name and phone number(s) on signs visible during each phase of the construction program.
  - b. Notify area residents of construction activities, schedules, and impacts.
  - c. Receive and act on complaints about construction noise disturbances.
  - d. Determine the cause(s) and implement remedial measures as necessary to alleviate potentially significant problems related to construction noise.
  - e. Request night noise permits from the San Francisco Department of Building Inspection if any activity, including deliveries or staging, is anticipated outside work hours that has the potential to exceed noise standards. If such activity is required in response to an emergency or other unanticipated conditions, night noise permits shall be requested as soon as feasible for any ongoing response activities.
  - f. Notify the planning department's Development Performance Coordinator at the time that night noise permits are requested or as soon as possible after emergency/unanticipated activity causing noise with the potential to exceed noise standards has occurred.
17. A noise monitoring log report shall be prepared by the construction manager or other designated person(s) on a weekly basis and shall be made available to the

planning department when requested. The log shall include any complaints received, whether in connection with an exceedance or not, as well as any complaints received through calls to 311 or the department of building inspection if the contractor is made aware of them (for example, via a department of building inspection notice, inspection, or investigation). Any weekly report that includes an exceedance or for a period during which a complaint is received should be submitted to the Development Performance Coordinator within 3 business days following the week in which the exceedance or complaint occurred. A report also shall be submitted to the planning department at the completion of each construction phase. The report shall document noise levels, exceedances of threshold levels, if reported, and corrective action(s) taken.

### **Mitigation Measure M-NO-2: Construction Vibration Controls**

The project sponsor shall retain the services of a qualified structural engineer or vibration consultant and preservation architect that meet the Secretary of the Interior's Historic Preservation Professional Qualification Standards to conduct a Pre-Construction Assessment at historic properties within 20 feet of the site.

Prior to any demolition or ground-disturbing activity, a Pre-Construction Assessment shall be prepared to establish a baseline and shall contain written and photographic descriptions of the existing condition of the visible exteriors from public rights-of-way of the adjacent buildings and in interior locations upon permission of the owners of the adjacent properties. The Pre-Construction Assessment shall determine specific locations to be monitored and include annotated drawings of the buildings to locate accessible digital photo locations and locations of survey markers and/or other monitoring devices to measure vibrations. The Pre-Construction Assessment shall be submitted to the planning department along with the demolition and site permit applications.

The structural engineer and/or vibration consultant in consultation with the preservation architect shall develop, and the project sponsor shall implement, a *vibration management and monitoring plan* to protect nearby historic buildings against damage caused by vibration or differential settlement caused by vibration during project construction activities. In this plan, the maximum vibration level not to be exceeded at each building shall be 0.25 inches per second, or a level determined by the site-specific assessment made by the structural engineer and/or the vibration consultant in coordination with the preservation architect for the project. The vibration management and monitoring plan shall document the criteria used in establishing the maximum vibration level for the project. The plan shall include pre-construction surveys and continuous vibration monitoring throughout the duration of the major construction project activities that would require heavy-duty equipment to ensure that vibration levels do not exceed the established standard. The vibration management and monitoring plan shall be submitted

to planning department preservation staff prior to issuance of any demolition or construction permits. The plan shall include but not be limited to these measures:

1. The project sponsors shall incorporate into construction specifications for the proposed project a requirement that the construction contractor(s) use all feasible means to avoid damage to the adjacent buildings including, but not limited to, staging of equipment and materials as far as possible from adjacent buildings to limit damage; using techniques during demolition, excavation, shoring, and construction that create the minimum feasible vibration; maintaining a buffer zone when possible between heavy equipment and adjacent contributing resource(s); enclosing construction scaffolding to avoid damage from falling objects or debris; and ensuring appropriate security to minimize risks of vandalism and fire.
2. Place operating equipment on the construction site as far as possible from vibration-sensitive receptors.
3. Use smaller equipment to minimize vibration levels below the limits.
4. Avoid using vibratory rollers and tampers near sensitive areas.
5. Select demolition methods not involving impact tools.
6. Modify/design or identify alternative construction methods to reduce vibration levels below the limits.
7. Avoid dropping heavy objects or materials.

Should vibration levels be observed in excess of the standard, or if damage to adjacent buildings is observed, construction shall be halted and alternative techniques put in practice, to the extent feasible. The structural engineer and/or vibration consultant and the historic preservation consultant shall conduct regular periodic inspections of digital photographs, survey markers, and/or other monitoring devices during ground-disturbing activity at the project site. The buildings shall be protected to prevent further damage and remediated to pre-construction conditions as shown in the Pre-Construction Assessment with the consent of the building owner. Any remedial repairs shall not require building upgrades to comply with current San Francisco Building Code standards. A final report on the vibration monitoring shall be submitted to planning department preservation staff prior to the issuance of a Certificate of Occupancy.

#### **Mitigation Measure M-AQ-2: Construction Emissions Minimization**

The project sponsor or the project sponsor's Contractor shall comply with the following:

##### *A. Engine Requirements.*

1. All off-road equipment greater than 25 hp and operating for more than 20 total hours over the entire duration of construction activities shall have engines that meet or exceed either EPA or California air board Tier 2 off-road

emission standards, and have been retrofitted with an California air board Level 3 VDECS. Equipment with engines meeting Tier 4 Interim or Tier 4 Final off-road emission standards automatically meet this requirement.

2. Where access to alternative sources of power are available, portable diesel engines shall be prohibited.
3. Diesel engines, whether for off-road or on-road equipment, shall not be left idling for more than two minutes, at any location, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment (e.g., traffic conditions, safe operating conditions). The Contractor shall post legible and visible signs in English, Spanish, and Chinese, in designated queuing areas and at the construction site to remind operators of the two-minute idling limit.
4. The Contractor shall instruct construction workers and equipment operators on the maintenance and tuning of construction equipment and require that such workers and operators properly maintain and tune equipment in accordance with manufacturer specifications.

**B. Waivers.**

1. The planning department's ERO or designee may waive the alternative source of power requirement of subsection (A)(2) if an alternative source of power is limited or infeasible at the project site. If the ERO grants the waiver, the Contractor must submit documentation that the equipment used for on-site power generation meets the requirements of subsection (A)(1).
2. The ERO may waive the equipment requirements of subsection (A)(1) if: a particular piece of off-road equipment with a California air board Level 3 VDECS is technically not feasible; the equipment would not produce desired emissions reduction due to expected operating modes; installation of the equipment would create a safety hazard or impaired visibility for the operator; or there is a compelling emergency need to use off-road equipment that is not retrofitted with a California air board Level 3 VDECS. If the ERO grants the waiver, the Contractor must use the next cleanest piece of off-road equipment, according to **Table M-1: Off-Road Equipment Compliance Step-down Schedule** below.

**Table M-1: Off-Road Equipment Compliance Step-down Schedule**

Compliance Alternative	Engine Emission Standard	Emissions Control
1	Tier 2	California air board Level 2 VDECS
2	Tier 2	California air board Level 1 VDECS
3	Tier 2	Alternative Fuel*

\* Alternative fuels are not a VDECS.

- C. Construction Emissions Minimization Plan.** Before starting on-site construction activities, the Contractor shall submit a Construction Emissions Minimization

Plan (plan) to the ERO for review and approval. The plan shall state, in reasonable detail, how the contractor will meet the requirements of section A.

1. The plan shall include estimates of the construction timeline by phase, with a description of each piece of off-road equipment required for every construction phase. The description may include, but is not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), hp, engine serial number, and expected fuel usage and hours of operation. For VDECS installed, the description may include: technology type, serial number, make, model, manufacturer, California air board verification number level, and installation date and hour meter reading on installation date. For off-road equipment using alternative fuels, the description shall also specify the type of alternative fuel being used.
  2. The project sponsor shall ensure that all applicable requirements of the plan have been incorporated into the contract specifications. The plan shall include a certification statement that the contractor agrees to comply fully with the plan.
  3. The contractor shall make the plan available to the public for review on site during working hours. The contractor shall post at the construction site a legible and visible sign summarizing the plan. The sign shall also state that the public may ask to inspect the plan for the project at any time during working hours and shall explain how to request to inspect the plan. The contractor shall post at least one copy of the sign in a visible location on each side of the construction site facing a public right-of-way.
- D. *Monitoring.* After start of construction activities, the Contractor shall submit quarterly reports to the ERO documenting compliance with the plan. After completion of construction activities and prior to receiving a final certificate of occupancy, the project sponsor shall submit to the ERO a final report summarizing construction activities, including the start and end dates and duration of each construction phase, and the specific information required in the plan.

#### **M-AQ-4. Best Available Control Technology for Diesel Generators.**

The project sponsor shall ensure that the backup diesel generator meet or exceed one of the following emission standards for PM: (1) Tier 4 certified engine, or (2) Tier 2 or Tier 3 certified engine that is equipped with a California air board Level 3 VDECS. A non-VDECS may be used if the filter has the same PM reduction as the identical California air board-verified model and if the air district approves of its use. The project sponsor shall submit documentation of compliance with the air district's New Source Review permitting process (Regulation 2, Rule 2, and Regulation 2, Rule 5) and the emission standard requirement of this mitigation measure to the planning department for review and approval prior to issuance of a permit for a backup diesel generator from any City agency.

## **G. PUBLIC NOTICE AND COMMENT**

Publication of the Notice of Preparation (NOP) initiated a 30-day public review and comment period that began on March 6, 2019 and ended on April 5, 2019. (The NOP was filed with the County Clerk at a later date, June 10, 2019, and the comment period was extended to July 10, 2019). During the NOP review and comment period, a total of 15 comments were submitted to the San Francisco Planning Department by interested parties. San Francisco Public Utilities Commission staff commented on water supply information to be addressed in the environmental documents. The Native American Heritage Commission commented on AB 52 tribal cultural resources notification and consultation requirements. Thirteen other responses commented on the NOP review schedule, project merits, construction noise and air quality impacts, views, parking, historic resources, and project alternatives. The planning department considered the comments made by the public in preparation of the IS and DEIR for the proposed project and project variant. There are no known areas of controversy or issues to be resolved.



## H. DETERMINATION

On the basis of this Initial Study:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

Devyani Jain for

Lisa Gibson  
Environmental Review Officer  
for  
Richard Hillis  
Director of Planning

DATE May 20, 2020

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