



SAN FRANCISCO PLANNING DEPARTMENT

Notice of Preparation of an Environmental Impact Report

Date: **June 17, 2015**
Case No.: **2009.0159E**
Project Title: **One Oak Street Project**
Zoning: **C-3-G (Downtown Commercial, General) Use District
120/400-R-2 and 120-R-2 Height and Bulk Districts**
Block/Lot: **Assessor's Block 836 / Lots 1, 2, 3, 4, 5 (aka 1500-1540 Market Street)**
Lot Size: **18,735 square feet**
Project Sponsor: **Katie O'Brien, Build Inc., (415) 551-7610**
Lead Agency: **San Francisco Planning Department**
Staff Contact: **Michael Jacinto – (415) 575-9033
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PROJECT DESCRIPTION

The project site is located at the northwest corner of the intersection of Market Street, Oak Street, and Van Ness Avenue in the southwestern portion of San Francisco's Downtown/Civic Center neighborhood. The project site includes five contiguous privately owned lots within Assessor's Block 836 (Lots 1, 2, 3, 4, and 5), the "building site," totaling about 18,735 square feet. The project site also includes surrounding areas within adjacent public rights-of-way (totaling about 22,610 square feet) along the building site's Market Street, Van Ness Avenue and Oak Street frontages, in which pedestrian streetscape improvements would be constructed as part of the proposed project.

The proposed project consists of the demolition of the two existing buildings on the site (1500 Market Street on Lot 1, and 1540 Market Street on Lot 5) and construction of a new, 39-story residential building (400 feet tall plus a 20-foot-tall parapet, for a total height of 420 feet). The proposed project would include a total of 320 residential units, consisting of about 29 studio units, 163 one-bedroom units, 120 two-bedroom units, and 8 three-bedroom units. The proposed project would also include about 12,970 gsf of retail/restaurant uses on the ground floor and potentially on the 2nd floor. The proposed project would include 160 accessory parking spaces for building residents in an approximately 84,000-gsf, three-level subsurface garage. Vehicles would access the parking garage from Oak Street and would reach the subsurface parking levels by car elevators. The three-level subsurface garage would extend laterally approximately 43 feet northward beneath the Oak Street right-of-way.

Pedestrian streetscape improvements within the adjacent public rights-of-way include the closure of the easternmost segment of Oak Street to general vehicular traffic (but would remain open to emergency vehicles), and construction of a new public plaza within the Oak Street right-of-way. The proposed plaza would include a free-standing, approximately 40-foot-tall wind canopy that would span over the street along the site's Oak Street frontage. The proposed project also entails the relocation of the Muni Metro Van Ness station entrance from its current location along Market Street to the southwest corner of the Van Ness Avenue and Oak Street intersection. An optional scheme that would retain the Muni Metro entrance at its existing location is also under consideration by the project sponsor as a variant to the proposed project.

Approvals required for the proposed project include, but are not limited to, the following: A determination under Planning Code Section 295 that the project would have no adverse impact on Recreation and Park Commission properties; approval of the project under Planning Code Section 309, including possible exceptions with regard to ground-level winds, off-street freight loading spaces, rear yard, and dwelling unit exposure; approval of a General Plan amendment and an ordinance to amend the Zoning Map to shift the Height and Bulk District 120/400-R-2 designation from Lot 1 to Lot 5 on Assessor's Block 836; approval of an underground easement under a portion of the Oak Street right-of-way for a proposed subsurface parking garage; approval of changes in public rights-of-way and of conversion of a portion of Oak Street into a publicly owned pedestrian plaza; approval of a proposed wind canopy within the Oak Street right-of-way; approval of the relocation of the Muni Metro station entrance and Muni Metro elevator.

DETERMINATION

This project may have a significant effect on the environment and an Environmental Impact Report is required. This determination is based upon the criteria of the State CEQA Guidelines, Sections 15063 (Initial Study), 15064 (Determining Significant Effect), and 15065 (Mandatory Findings of Significance), and for the reasons documented in the Environmental Evaluation (Initial Study) for the project, which is attached.

PUBLIC SCOPING PROCESS

Written comments will be accepted until 5:00 p.m. on **July 17, 2015**. Written comments should be sent to Sarah B. Jones, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103.

If you work for a responsible State agency, we need to know the views of your agency regarding the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering a permit or other approval for this project. Please include the name of a contact person in your agency.

Members of the public are not required to provide personal identifying information when they communicate with the Commission or the Department. All written or oral communications, including submitted personal contact information, may be made available to the public for inspection and copying upon request and may appear on the Department's website or in other public documents.

June 17, 2015
Date


Sarah B. Jones
Environmental Review Officer

Initial Study
ONE OAK STREET PROJECT
(1500-1540 Market Street)

Planning Department Case No. 2009.0159E

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ADA	Americans with Disabilities Act
ADRP	Archaeological Data Recovery Plan
AMP	Archaeological Monitoring Plan
APN	Assessor's Parcel Number
ARB	California Air Resources Board
ARD/TP	Archaeological Research Design and Treatment Plan
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
bgs	below ground surface
BMP	best management practices
BMR	below market rate
BRT	Bus Rapid Transit
CAA	Clean Air Act
CAP	Clean Air Plan
CCAA	California Clean Air Act
CDMG	California Division of Mines and Geology
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CGS	California Geological Survey
CO	carbon monoxide
CRHR	California Register of Historical Resources
CSO	combined sewer overflow
dB	decibel
dBA	A-weighted decibel
DBI	Department of Building Inspection
DPM	diesel particulate matter
DPW	Department of Public Works
EIR	Environmental Impact Report
EMS	emergency medical services
ERO	Environmental Review Officer
ESA	Environmental Site Assessment
FAR	Floor Area Ratio
FARR	Final Archaeological Resources Report
FEIR	Final EIR
FEMA	Federal Emergency Management Agency
FIRMs	Flood Insurance Rate Maps
FTA	Federal Transit Administration
GHG	greenhouse gas
gpcd	gallons per capita per day
gsf	gross square feet
HRE	Historic Resource Evaluation
HVAC	heating, ventilating, and air conditioning
IWMP	Integrated Waste Management Plan
lbs.	pounds
LEED	Leadership in Energy and Environmental Design
L _{dn}	day-night noise level

L _{eq}	steady-state energy level
L _{eq} (24)	steady-state acoustical energy level measured over a 24-hour period
MBTA	Migratory Bird Treaty Act
MERV	Minimum Efficiency Reporting Value
MLD	Most Likely Descendant
MOU	Memorandum of Understanding
MRZ-4	Mineral Resource Zone 4
MTC	Metropolitan Transportation Commission
M _w	moment magnitude
NAHC	Native American Heritage Commission
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NOP	Notice of Preparation
NO ₂	nitrogen dioxide
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NSR	New Source Review
PACM	presumed asbestos-containing material
PM	particulate matter
PM _{2.5}	fine particulate matter
PRMMP	Paleontological Resources Monitoring and Mitigation Program
ROG	reactive organic gases
ROSE	Recreation and Open Space Element
RMS	root mean square
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SFBAAB	San Francisco Bay Area Air Basin
SFFD	San Francisco Fire Department
SFHA	Special Flood Hazard Area
SFMTA	San Francisco Municipal Transportation Agency
SFPD	San Francisco Police Department
SFPUC	San Francisco Public Utilities Commission
SFRPD	San Francisco Recreation and Park Department
SFUSD	San Francisco Unified School District
SoMa	South of Market
SO ₂	sulfur dioxide
sq. ft.	square feet
SUD	Special Use District
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminant
TBACT	Best Available Control Technology for Toxics
TEP	Transit Effectiveness Project
USEPA	United States Environmental Protection Agency
UST	underground storage tank
UWMP	Urban Water Management Plan
VdB	vibration decibels
VDECS	Verified Diesel Emission Control Strategy
WSA	Water Supply Assessment
ZOI	Zone of Influence
µg/m ³	micrograms per cubic meter

Initial Study
ONE OAK STREET PROJECT
(1500-1540 Market Street)
Planning Department Case No. 2009.0159E

A. PROJECT DESCRIPTION

The proposed project consists of the demolition of all existing structures within the project site and construction of a new 320-unit high-rise residential tower (39-story, 400-foot-tall, plus 20-foot-tall parapet). The proposed residential tower would also include ground floor commercial space and a subsurface parking garage for residents. The proposed project also includes construction of pedestrian streetscape improvements to adjacent sidewalks and streets, construction of a wind canopy within the Oak Street right-of-way to provide protection to the public from existing hazardous wind conditions to which the proposed project would contribute, and relocation of an existing Muni Metro Van Ness station entrance from its current location along Market Street to the southwest corner of the Van Ness Avenue and Oak Street intersection. An optional scheme that would retain the Muni Metro entrance at its existing location is also under consideration by the project sponsor as a variant to the proposed project.

Project location and the site, proposed project, the variant to the proposed project, and required project approvals are discussed in more detail below.

Project Location and Site

The project site is located at the northwest corner of the intersection of Market Street, Oak Street, and Van Ness Avenue in the southwestern portion of San Francisco's Downtown/Civic Center neighborhood.¹ (See **Figure 1: Project Location.**)

The project site is entirely within the following zoning districts: the C-3-G (Downtown Commercial, General) District, the Market Street Special Sign District (Planning Code Section 608.8), and the Van Ness and Market Downtown Residential Special Use District (SUD) (Planning Code Section 249.33). Most of the project site is within the 120/400-R-2 Height and Bulk District that establishes a 120-foot-tall limit for the height of the building's podium base, and a 400-foot-tall height limit for the proposed tower. The westernmost portion of the project site is within the 120-R-2 Height and Bulk District. The project site is also within the *Market and Octavia Area Plan* area.

¹ Although Market Street runs diagonally northeast to southwest, for the purposes of this EIR, it is referred to as having an east-west orientation.

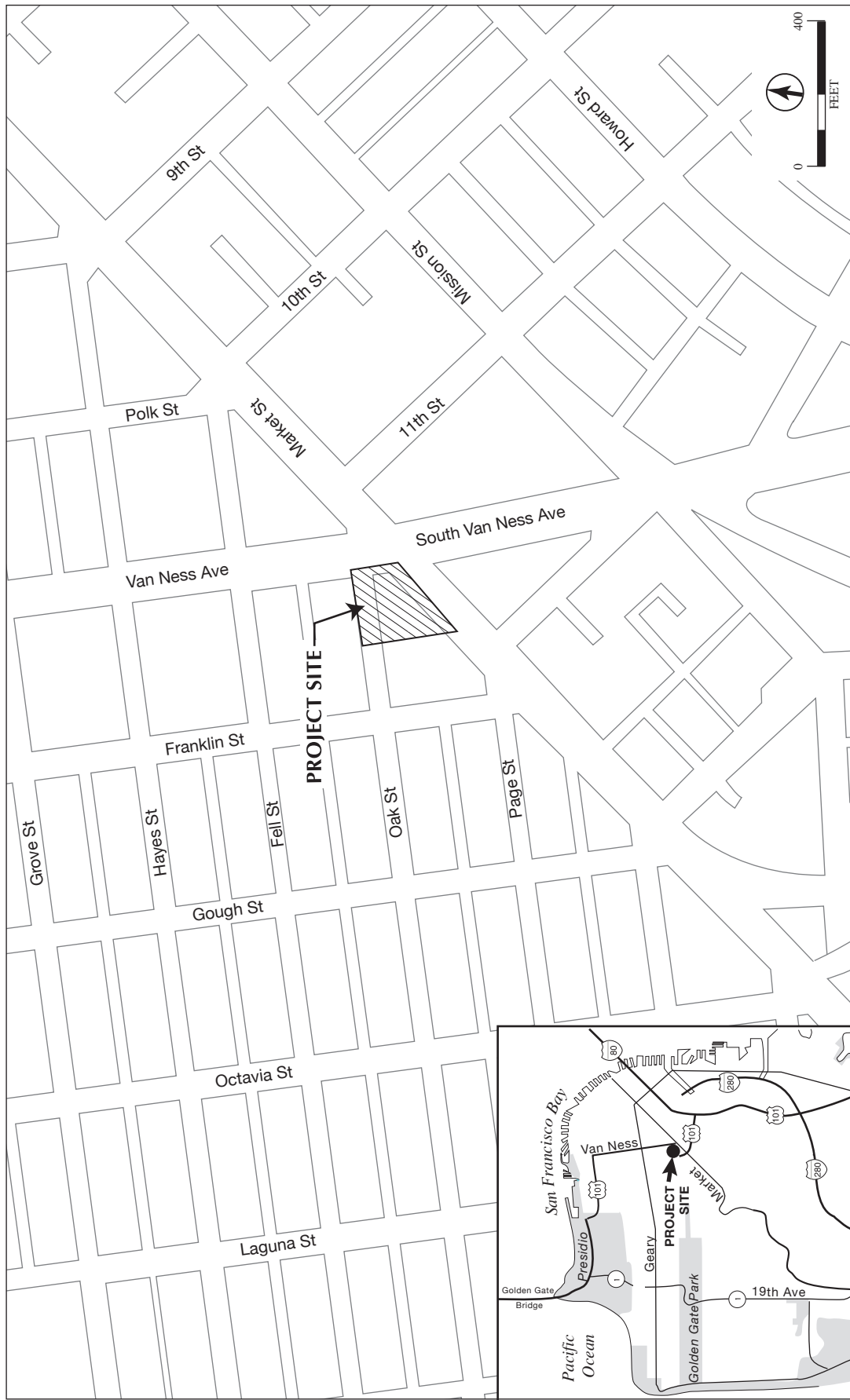


FIGURE 1: PROJECT LOCATION

SOURCE: Turnstone Consulting/SWCA

ONE OAK PROJECT

2009.0159E

Project Site

The project site collectively includes both a “building site” component and a “streetscape improvement area” component within surrounding public rights-of-way. These two components of the project site are described below. (See **Figure 2: Existing Project Site.**)

The Building Site

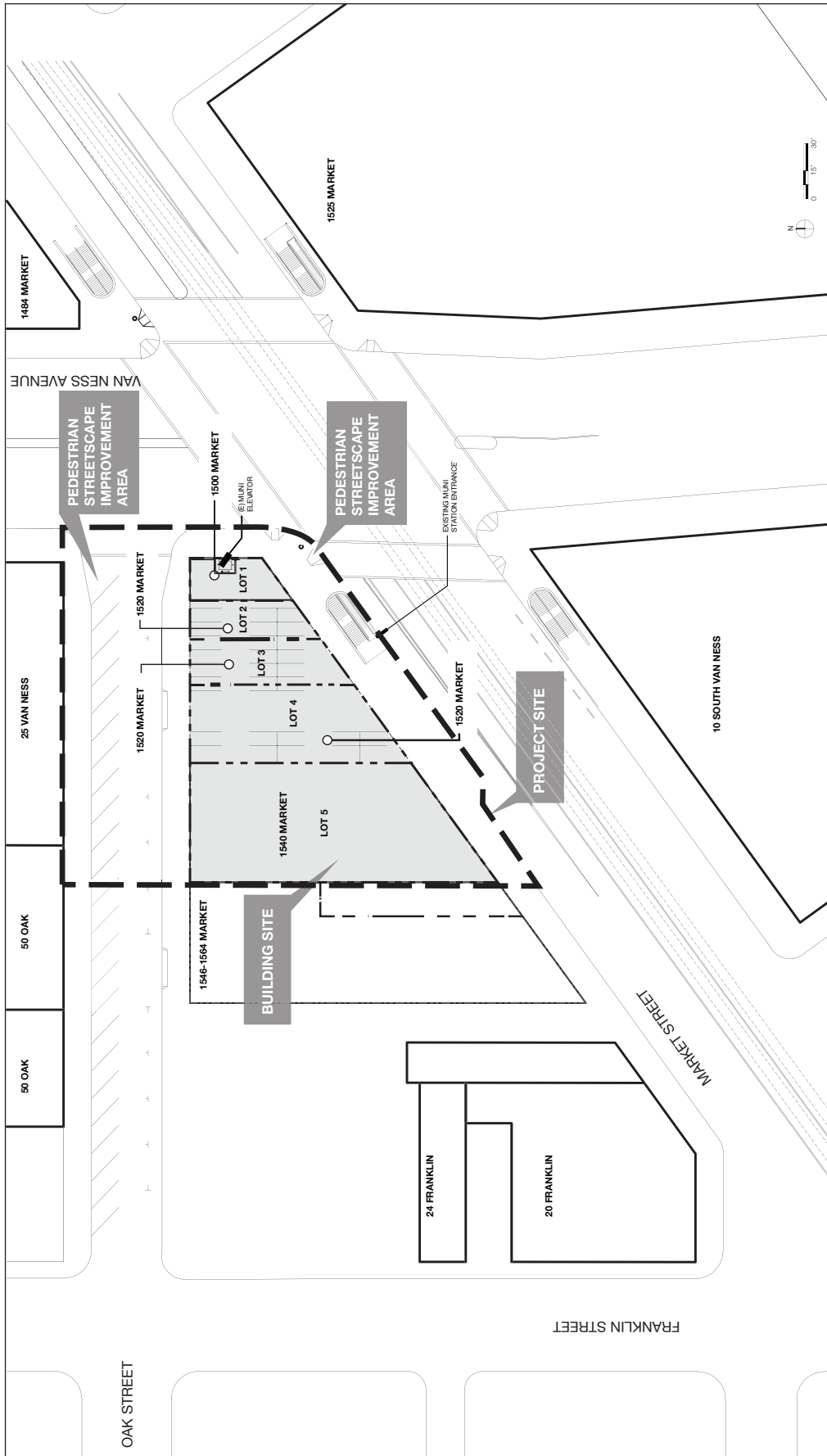
The building site component of the project site is made up of five contiguous privately owned lots within Assessor’s Block 836 (Lots 1, 2, 3, 4, and 5) that together form an 18,735-square-foot (sq. ft.) trapezoid, bounded by Oak Street to the north, Van Ness Avenue to the east, Market Street to the south, and the interior property line shared with the neighboring properties to the west. The building site measures about 177 feet along its Oak Street frontage, 39 feet along Van Ness Avenue, 218 feet along Market Street, and 167 feet along its western interior property line. The existing street address of the project parcels is referred to as 1500-1540 Market Street.

The easternmost portion of the building site, 1500 Market Street (Lot 1), is currently occupied by an existing three-story, 2,750-sq.-ft. commercial building, built in 1980. This building is partially occupied by the All Star Café in the ground floor and also contains an elevator entrance to the Van Ness Muni Metro station that opens onto Van Ness Avenue. Immediately west of the 1500 Market Street building is an existing 30-car surface parking lot (on Lots 2, 3, and 4). The parking lot is fenced along its Market Street and Oak Street frontages and is entered from Oak Street. The westernmost portion of the building site at 1540 Market Street (Lot 5) is occupied by a four-story, 48,225-sq.-ft. commercial office building, built in 1920. This building is currently partially occupied.

Streetscape Improvement Area

In addition to the building site, the project site also includes surrounding areas within and beneath the adjacent public rights-of-way (collectively, the streetscape improvement area, totaling about 22,610 sq. ft.) in which pedestrian streetscape improvements would be constructed as part of the proposed project. The proposed improvements within the streetscape improvement area, including the closure of a segment of Oak Street to regular vehicular traffic, creation of a proposed pedestrian plaza, and construction of a free-standing wind canopy, are described on pp. 15-16.

Oak Street currently runs one way, east to west, between Van Ness Avenue and Franklin Street. The proposed streetscape improvement area includes a segment of the Oak Street right-of-way (including roadway and sidewalks) along the Oak Street frontages of Lots 1-4. The portion of the



SOURCE: Build Inc.

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FIGURE 2: EXISTING PROJECT SITE

Oak Street right-of-way within the streetscape improvement area component of the project site measures about 69 feet wide north to south, from the opposing lot line along the north side of Oak Street to the north lot line of the building site. The segment of the Oak Street right-of-way within the streetscape improvement area component of the project site measures about 192 feet long east to west, from the west curb line along Van Ness Avenue to the western extent of the building site component's Oak Street frontage.

As illustrated on Figure 2, the project site's streetscape improvement area component also includes the sidewalk areas along the Van Ness Avenue and Market Street frontages of the building site component of the project site. The existing Van Ness Avenue sidewalk within the streetscape improvement area is about 15 feet wide. The existing Market Street sidewalk within the streetscape improvement area is about 25 feet wide, and narrows to 15 feet at the western end of the project site. The escalator and stairway entrance to the Van Ness Muni Metro station occupies a portion of the sidewalk, narrowing the walkway to 9 feet. The sidewalk along Market Street is paved in the characteristic red brick of Market Street. Within the streetscape improvement component of the project site, the Market Street sidewalk also includes three of the 327 historic "Path of Gold" light standards that line Market Street (San Francisco Landmark #200).

Project Characteristics

Characteristics of the proposed project (proposed uses, building form, public realm improvements, vehicular access and parking and project construction) are discussed below.

Proposed Uses

The use program for the proposed project is summarized in **Table 1: Summary of Uses Under the Proposed Project** and further described below.

Residential Use

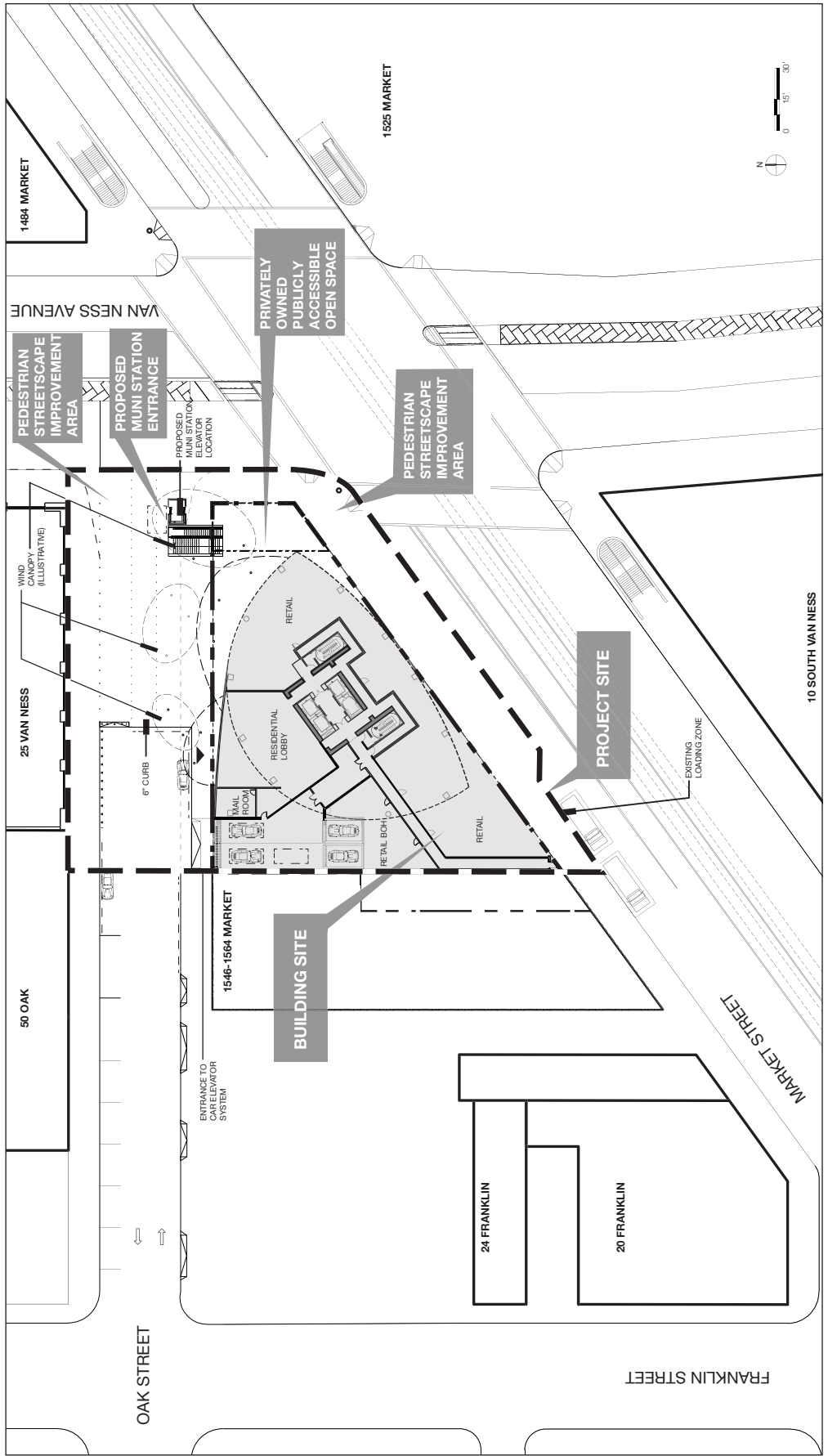
The proposed project would include a total of 320 residential units, consisting of about 29 studio units (9.1%), 163 one-bedroom units (50.9%), 120 two-bedroom units (37.5%), and 8 three-bedroom units (2.5%). Total building space allocated to residential use (including residential units, lobby, amenities, circulation, storage, systems, and services) would be about 438,950 gross square feet (gsf). Residential units and amenities would be located on floors 2-39.

Residential pedestrian access to the ground-floor entrance of the proposed building would be through lobby entrance doors located along the Oak Street right-of-way. (See **Figure 3: Proposed Ground Floor Plan.**) From the lobby, residents would access elevators to residential units at the upper floors. At the 12th floor, building residents would have access to shared indoor

Table 1: Summary of Uses Under the Proposed Project

		Proposed Project
Building Area Total (gsf)		544,420 gsf
Residential Uses		438,950 gsf
Units		350,670 gsf
Lobby		3,600 gsf
Amenity		8,073 gsf
Circulation, Storage, Systems, Services		76,607 gsf
Parking (car elevator), Loading, Bicycle Parking		84,000 gsf
Retail/Restaurant		12,970 gsf
Basement Level 1 Storage & Utility Space		8,500 gsf
Residential Units Total (Units)		320 units
Studio		29 units
One Bedroom		163 units
Two Bedroom		120 units
Three Bedroom		8 units
Parking & Loading Spaces		
Resident Parking Garage		160 spaces
Carshare		3 spaces
Freight Loading		1 space
Bicycle Spaces		336 spaces
Class 1		322 spaces
Class 2		22 spaces
Residential Open Space (sq. ft.)		
Private Residential (for 80 units)		2,880 sq. ft.
Common Residential Space (for 240 units)		11,523 sq. ft.
Podium Rooftop		9,668 sq. ft.
27 th Floor Terrace		1,225 sq. ft.
Ground-Floor Inner Courtyard		630 sq. ft.
Publicly Accessible Open Space (sq. ft.)		
Oak Plaza		11,050 sq. ft.
Adjacent Van Ness Sidewalk		2,290 sq. ft.
Adjacent Market Sidewalk		6,670 sq. ft.
Privately Owned, Publicly Accessible		2,566 sq. ft.
Muni Metro Entrance		
Ground Level		2,600 gsf
Basement Level 1		8,370 gsf
Note that the Initial Study also studies a variant that would retain the existing Muni Station entrance, as described on pp. 20-23.		

Source: Build Inc. & Turnstone Consulting/SWCA



SOURCE: Build Inc.

ONE OAK PROJECT

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FIGURE 3: PROPOSED GROUND FLOOR PLAN

amenity space totaling about 8,073 gsf. (See **Figure 4: Representative Podium/Lower Tower Plan, Floors 2-11**; **Figure 5: Floor 12 Plan**; and **Figure 6: Representative Upper Tower Plan, Floors 13-39**.) About 8,500 gsf of residential storage and utility space would be located in basement level 1.

Residential Open Space

Approximately 80 units on floors 13-39 would each have access to private open space totaling about 2,880 square feet within private terraces.

Building residents would also have access to common open space totaling about 11,523 sq. ft., consisting of the following: a 630-sq.-ft. inner courtyard, located at the second floor along the western property line; an approximately 9,668-sq.-ft. open space roof deck located atop the 11-story podium element, and accessed from the 12th floor amenity space within the tower; and an approximately 1,225-sq.-ft. double-height terrace at the 28th floor, recessed from the perimeter of the tower shaft, and facing eastward.

Retail/Restaurant Use

About 12,970 gsf would be allocated to retail/restaurant uses on the ground floor and potentially on the 2nd floor. The proposed retail/restaurant space would be accessed from a bank of doors facing northeast toward Oak Street and Van Ness Avenue, as well as from individual entrances along Market Street. The division of this space would be determined at a later date.

Proposed Building Form and Design

The proposed new building would consist of two volumetric components: an 11-story, 120-foot-tall podium element occupying the western portion of the building site component of the project site; and a 39-story tower element (400 feet tall plus a 20-foot-tall parapet, for a total height of 420 feet). The tower would rise from ground level at the eastern portion of the building site and would rise above a portion of the podium at the western portion of the building site. (See **Figure 7: Proposed South (Market Street) Elevation**; **Figure 8: Proposed North (Oak Street) Elevation**; and **Figure 9: Proposed East (Van Ness Avenue) Elevation**.) The recessed features at the 12th and 28th floors providing access to common open space would provide a visual counterpoint to the verticality of the tower.

Building floor plates at the lower levels (floors 1-11) would be generally constant in overall size and shape from one floor to the next, although particular interior floor plans would vary between floors. Building floor plates at the upper tower levels above the podium (floors 12-39) would also be generally constant in overall size and shape from one floor to the next, although the particular interior floor plans could vary between floor levels.

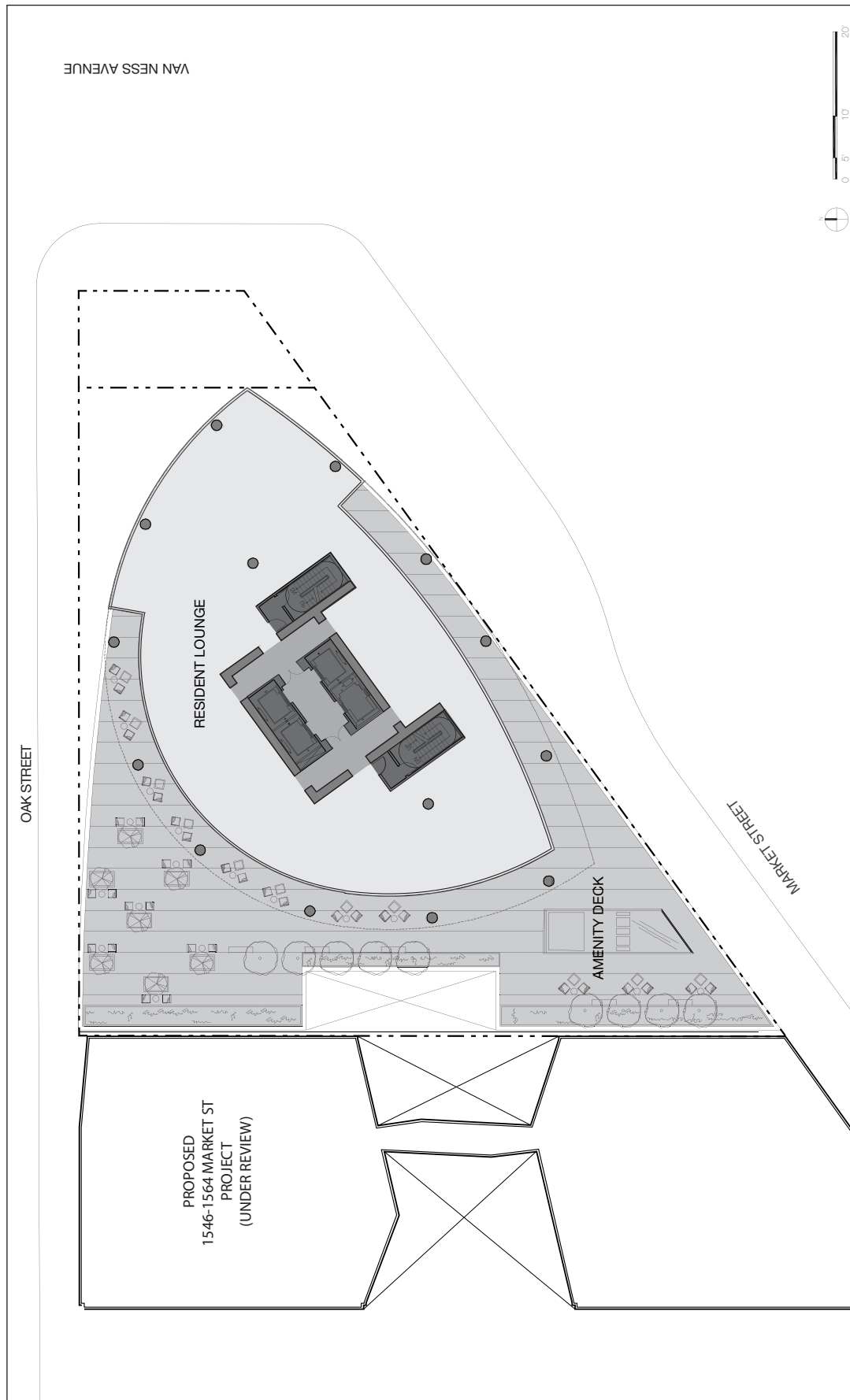


SOURCE: Build Inc.

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FIGURE 4: REPRESENTATIVE PODIUM/LOWER TOWER PLAN, FLOORS 2-11

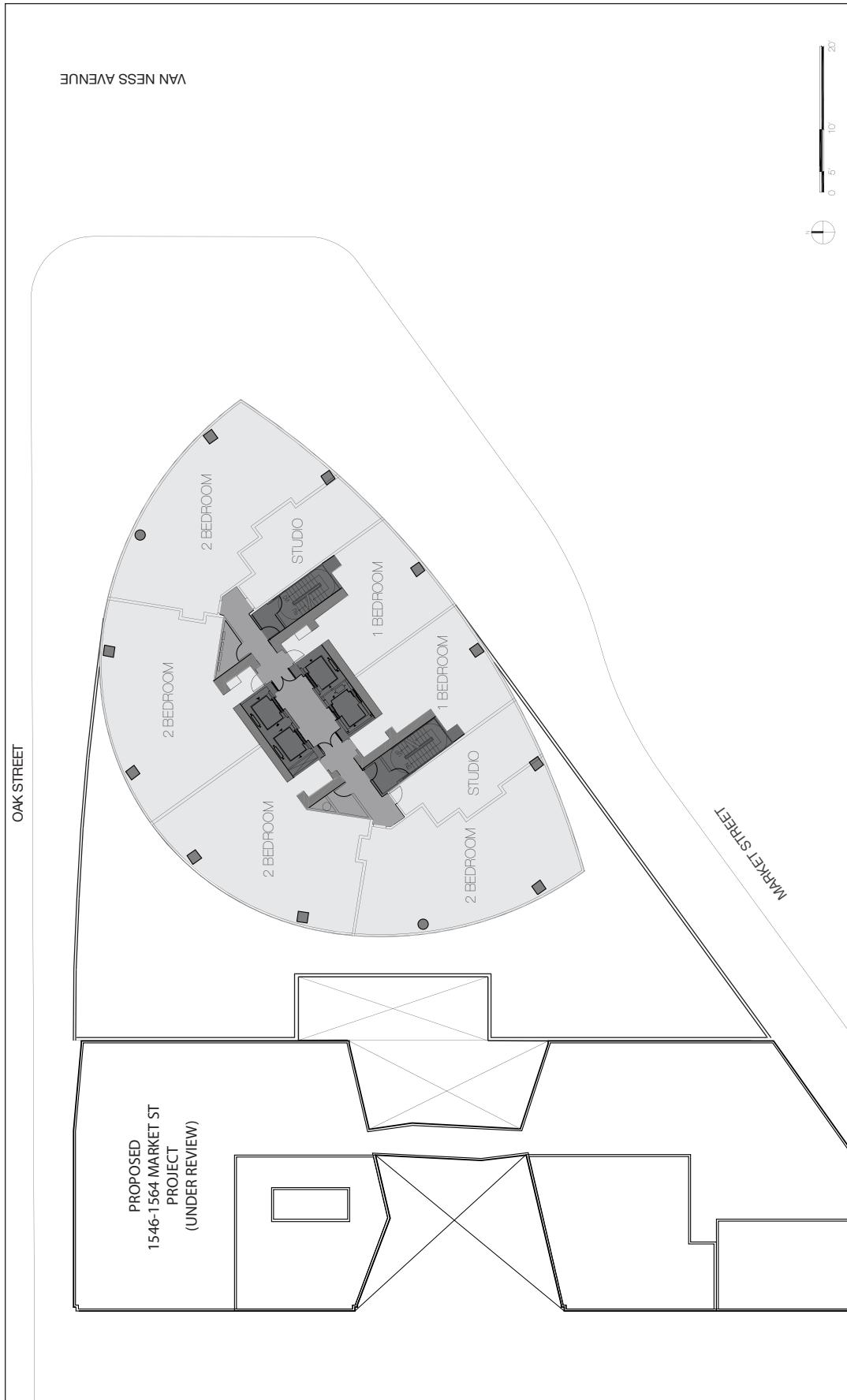


SOURCE: Build Inc.

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FIGURE 5: FLOOR 12 PLAN

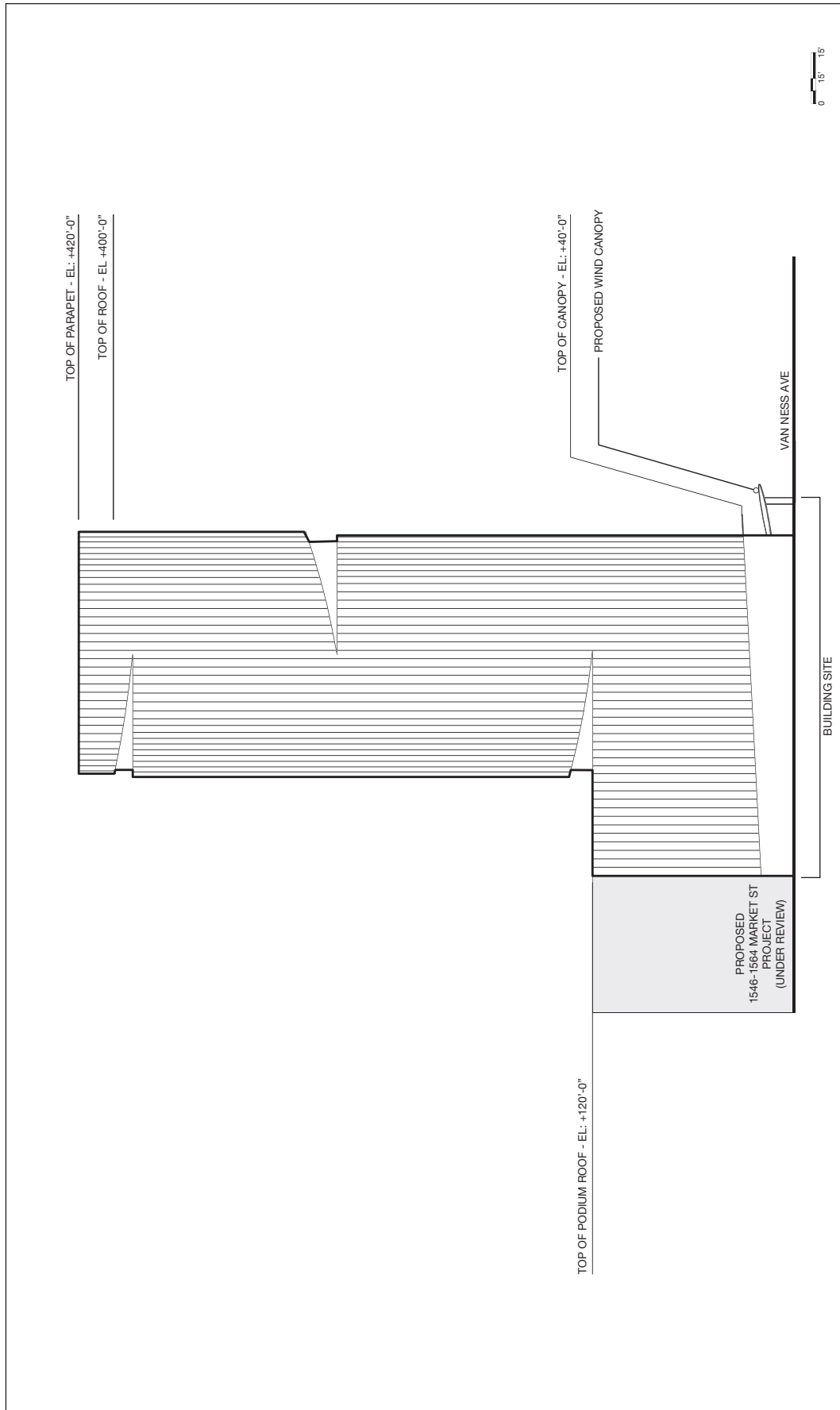


SOURCE: Build Inc.

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FIGURE 6: REPRESENTATIVE UPPER TOWER PLAN FLOORS 13-29

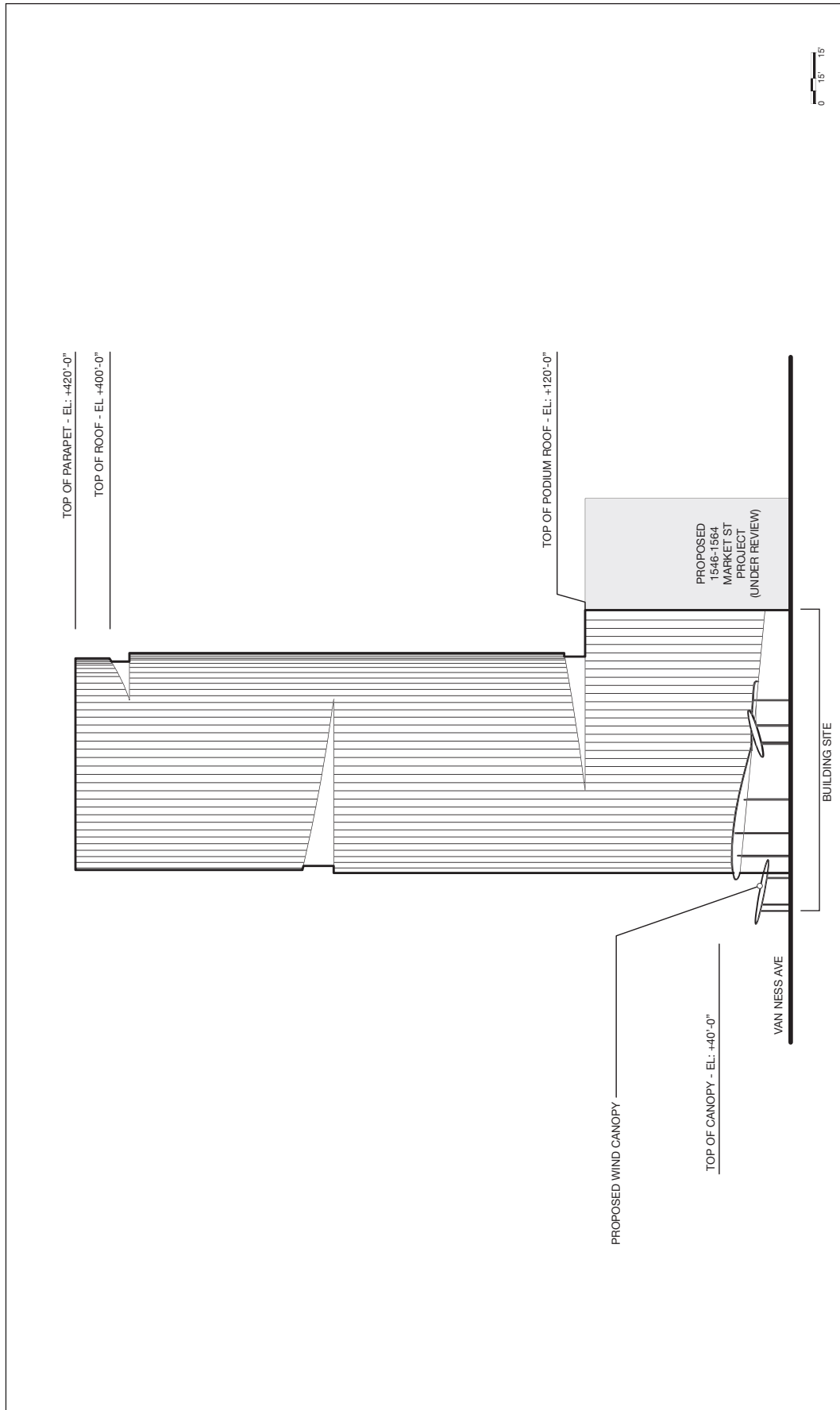


SOURCE: Build Inc.

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FIGURE 7: PROPOSED SOUTH (MARKET STREET) ELEVATION

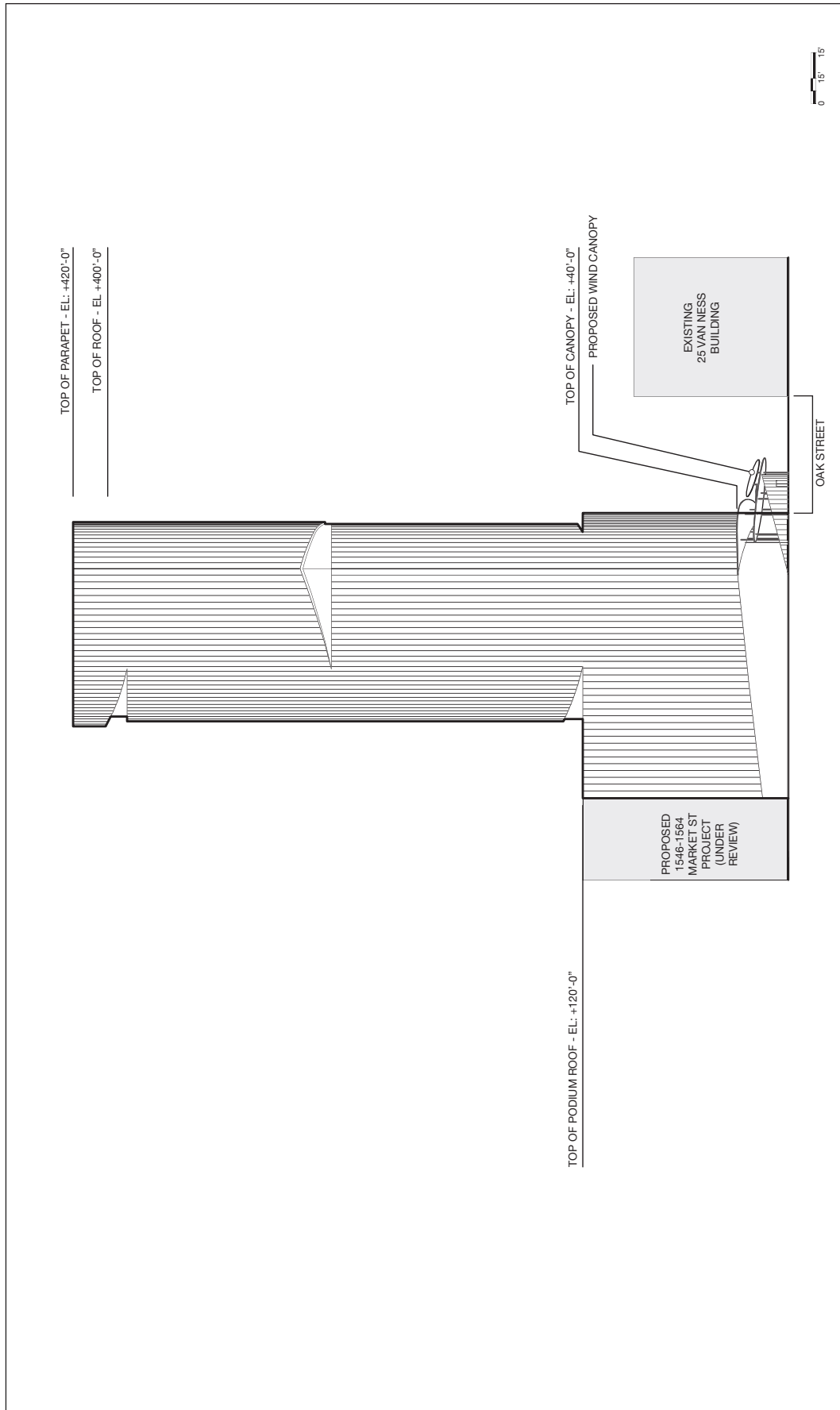


SOURCE: Build Inc.

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FIGURE 8: PROPOSED NORTH (OAK STREET) ELEVATION



SOURCE: Build Inc.

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FIGURE 9: PROPOSED EAST (VAN NESS AVENUE) ELEVATION

Proposed Public Realm Improvements

The proposed project includes public realm improvements in the streetscape improvement area intended to enhance the pedestrian environment consistent with the *Better Streets Plan* (see **Section C, Compatibility with Existing Plans and Policies**, on p. 33) and to enhance pedestrian safety and comfort by providing a wind canopy structure that would protect public areas from hazardous wind conditions, as discussed below.

The public realm improvements also include vehicular access from Oak Street to the subsurface parking facility and residential lobby drop-off for the proposed building and a vehicular turnaround at the new eastern end of Oak Street, as described on p. 17.

Note that at the time of publication of this Notice of Preparation/Initial Study (NOP/Initial Study) the proposed public realm improvements described below are conceptual and subject to ongoing review and refinement.

Proposed Oak Plaza and Wind Canopy

The easternmost end of the Oak Street right-of-way would be closed to normal vehicular traffic and would become a 11,050-sq.-ft. public pedestrian plaza (Oak Plaza) extending westward from the Van Ness Avenue curb line by about 121 feet. (The reconfiguration of the remaining segment of the Oak Street roadway to the west of the project site as part of the proposed project is discussed below on p. 19.) The Oak Street roadway within the proposed Oak Plaza would be raised to sidewalk level. The plaza would be distinguished by a distinctive paving pattern and plantings, and would provide fixed and movable seating. The paving pattern would continue to the west of the plaza to the western edge of the proposed streetscape improvement area, signifying a shared automobile-pedestrian “slow street.”

The public plaza would maintain a 26-foot-wide emergency access zone and a 14-foot-wide fire lane and 12 feet of additional clearance for emergency access to and from Van Ness Avenue. Rolled curb cuts at the east and west ends of the plaza would allow emergency vehicles to cross the plaza when necessary. The Van Ness Avenue stop bar for southbound vehicular traffic would be relocated to align with the northern edge of the fire lane so that emergency vehicles could turn onto Van Ness Avenue unimpeded.

The proposed Oak Plaza would include wind screen canopy features that would buffer ground-level wind speeds that are intended to protect public areas from existing hazardous wind conditions to which the proposed new building would contribute. The canopies would be freestanding trellis-like structures with cantilevered segments, supported by vertical columns. The grouping of canopies would measure approximately 150 feet long from east to west and 40 feet from north to south, and would be up to approximately 40 feet high. The particular configuration of canopies would be determined by subsequent wind tunnel tests, but the design

intention is to minimize the area covered by canopies while still providing the necessary protection from hazardous wind conditions. None of the proposed vertical column supports would be in the 26-foot-wide emergency access zone or the reconfigured Oak Street roadway. However, the canopies may cantilever over portions of these areas.

Adjacent Sidewalks

The proposed project includes pedestrian streetscape improvements to the Van Ness Avenue and Market Street sidewalks within the streetscape improvement area component of the project site, including landscaping and paving improvements. Streetscape improvements along Market Street would be consistent with the existing visual identity established for the rest of Market Street, including use of red pavers and retention of the three existing historic Path of Gold light standards. The Van Ness Avenue sidewalk within the streetscape improvement area would be repaved to become a visual extension of the proposed Oak Plaza.

Privately Owned, Publicly Accessible Open Space

The ground floor of the proposed project would cover about 15,726 sq. ft. of the 18,735-sq.-ft. building site component of the project site (Lots 1-5). The remaining open space at the perimeter of the ground floor, including most of Lot 1, would become privately owned, publicly accessible outdoor open space, totaling about 2,566 sq. ft. Streetscape improvements within the private building site component of the project site would be consistent with the visual identity of the proposed publicly owned Oak Plaza. The privately owned, publicly accessible outdoor open spaces within the building site would be paved to become a visual extension of the proposed Oak Plaza.

Muni Metro Station Entrance and Elevator Relocation

The proposed project would replace the existing Van Ness Muni Metro station entrance along Market Street and the existing elevator on the building site component of the project site that faces Van Ness Avenue with a new Muni Metro entrance/exit and elevator located in the southeast corner of the proposed Oak Plaza. Muni Metro users would enter the Muni Metro entrance on Oak Plaza and would take either the down escalator or the elevator to a publicly accessible hallway at basement level 1, which would connect directly into the existing adjacent Van Ness Muni Metro station located below Market Street. The existing Muni Metro entrance stairs and escalator would be removed and the existing opening in the sidewalk would be eliminated. Space for a possible station-level café is also included near the opening of the passageway to the relocated Muni Metro station entrance.

Vehicular Access, Parking, Bicycle Storage, Changes to On-Street Parking, and Loading

Note that at the time of publication of this NOP/Initial Study the proposed vehicular access, parking, loading and bicycle storage facility described below are conceptual and subject to ongoing review and refinement.

Vehicular Access to the Project Site from Oak Street

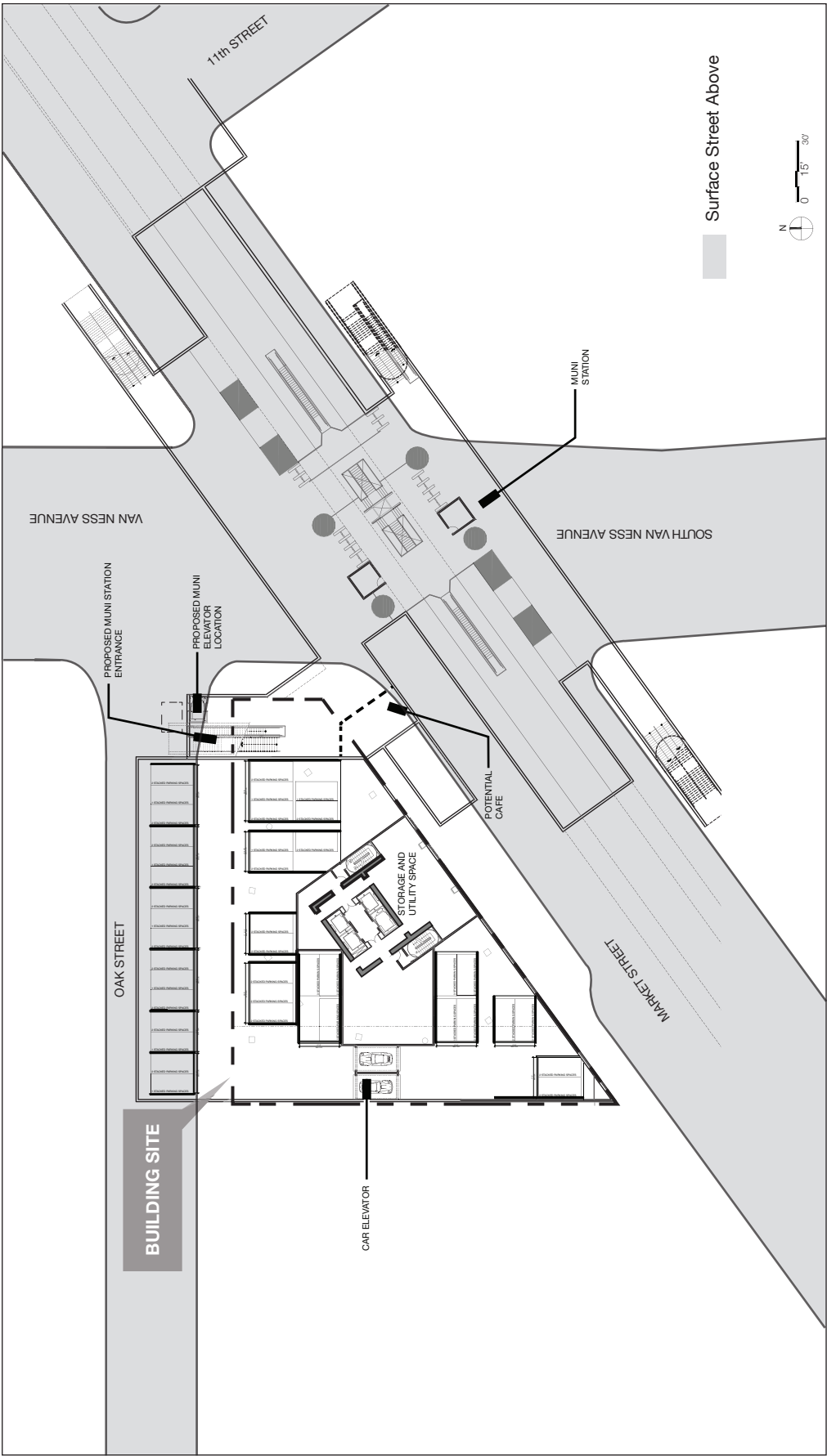
As described above, the easternmost segment of Oak Street within the streetscape improvement area component of the project site would be closed to general vehicle access (but would remain open for emergency vehicles) and converted to a public pedestrian plaza. The proposed project includes renovation of the remaining segment of the Oak Street roadway west of the project site to Franklin Street. This segment would be restriped and reconfigured to become a two-way street. Access to all existing driveways to other properties along this segment of Oak Street would be maintained. Vehicles would enter and exit this segment of Oak Street at Franklin Street. A turnaround would be provided at the proposed new eastern terminus of Oak Street immediately west of the proposed Oak Plaza.

The proposed project includes creation of a curbside white zone passenger drop-off area near the residential lobby entrance doors of the proposed project along the south side of Oak Street at Oak Street's new eastern terminus, as well as a curbside red zone area near the lobby entrance along the north side of Oak Street at the new eastern terminus to accommodate the vehicle turnaround area.

Parking Garage

The proposed project would contain 160 accessory parking spaces for building residents in an 84,000-gsf, three-level subsurface garage. Vehicles would access the parking garage from Oak Street at the northwest corner of the building site, as shown on Figure 3 on p. 7, and would reach the subsurface parking levels by two car elevators. The proposed three-level subsurface garage would extend laterally approximately 43 feet northward beneath the proposed Oak Plaza within the streetscape improvement area component of the project site, provided that the project sponsor and the City agree to the purchase and sale of an easement or fee interest in that underground portion of the public right-of-way, and that the underground portion of the right-of-way is vacated by the City. (See **Figure 10: Proposed Basement Level 1 Plan.**) If the vacation and purchase of that underground portion of the Oak Street right-of-way does not occur for any reason, the proposed project would include a smaller garage that extends to the existing property line.

The proposed parking garage would also include three Carshare spaces for use by residents and the general public. They would be accessed through the same car-elevator system that residents would use to access their vehicles.



SOURCE: Build Inc.

ONE OAK PROJECT

2009.0159E

FIGURE 10: PROPOSED BASEMENT PLAN

Bicycle Storage

The proposed project would include 322 Class 1 bicycle parking spaces (protected) for building residents. The proposed project would also include 22 at-grade Class 2 bicycle parking spaces for visitors, guests, and patrons. The bicycle parking would be accessed through the freight/loading entrance on Market Street, down the freight elevator adjacent to the entrance, and through the corridor in the below-grade level. The 22 Class 2 bicycle spaces would be located on sidewalks on Oak and Market Streets, subject to SFMTA approval.

Proposed On-Street Parking Along Oak Street

Outside and west of the project site, along the south side of Oak Street, all existing on-street parking spaces (10 parallel parking spaces and 3 motorcycle spaces) would be eliminated under the proposed project to accommodate the proposed Oak Plaza and a new eastbound traffic lane within the remainder of this segment of Oak Street.

Along the north side of Oak Street, existing on-street parking spaces (29 diagonal parking spaces and 4 motorcycle spaces) would also be eliminated under the proposed project.

The remaining segment of Oak Street along the north side would be reconfigured to provide some replacement on-street parking spaces (five parallel parking spaces) and parallel loading spaces described below.

Proposed Loading

The proposed project would not include the three on-site truck loading spaces that would be required under the San Francisco Planning Code. Instead, the proposed project would use an existing recessed commercial loading bay on Market Street adjacent to the property for freight loading. Freight deliveries would reach the upper floors via a service elevator accessible from a service corridor located at the southwestern corner of the building site.

The proposed project would also include a new yellow zone loading spaces (three parallel) on the north side of Oak Street in front of the Conservatory of Music at 50 Oak Street that would replace existing on-street parking spaces and motorcycle spaces that would be eliminated, as described above.

Small package deliveries would use the white zone area near the proposed project's residential lobby entrance doors along the south side of Oak Street near Oak Street's new eastern terminus.

Project Construction

Project construction would take about 32 months from start of work to finish, as discussed below.

Foundation and Excavation

The type of foundation for the proposed One Oak Street building is anticipated to be a full-site mat foundation varying in thickness from about 12 feet at the elevator core to about 8 feet outside of the elevator core. Some over-excavation may be needed in order to stiffen the soil below the mat down to the Colma sand layer (approximately 35-40 feet below the ground surface).

The existing buildings and parking lot on the building site component of the project site would be demolished as part of the proposed project. As noted above, the proposed three-level subsurface garage would extend laterally about 43 northward beneath the proposed Oak Plaza within the streetscape improvement area component of the project site. Excavation of the entire project site would occur to a depth of up to about 50 feet including space for the mat foundation. Approximately 30,000 cubic yards of demolition debris and 50,000 cubic yards of soil would be excavated and exported from the project site.

Construction Phasing and Duration

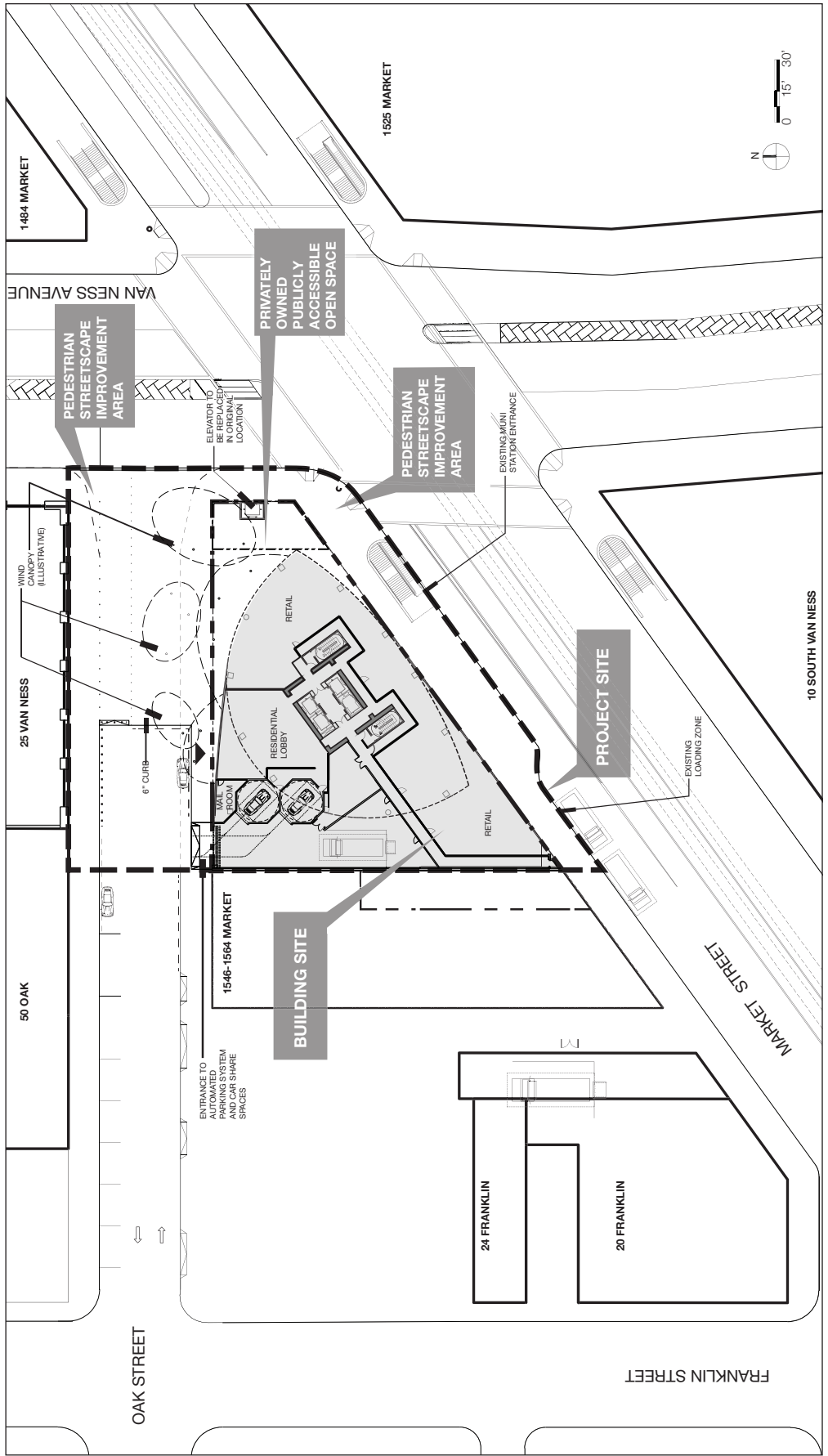
Project construction would take about 32 months from start of work to finish and would occur in several overlapping phases. Site demolition would take about 2 months. Excavation and shoring would take about 3 months. Foundation work and below-grade construction would take about 3 months. Base building construction would take about 14 months. Exterior finishing would take about 14 months. Interior finishing would take about 21 months. Pedestrian streetscape improvements would take about 2 months.

Existing Muni Entrance Variant

An optional scheme, the Existing Muni Entrance Variant, is also under consideration by the project sponsor. (See **Figure 11: Existing Muni Entrance Variant, Ground Floor Plan**, and **Figure 12: Existing Muni Entrance Variant, Basement Level 1 Plan**.) In most respects, this variant would be substantially the same as the proposed project. However, under the variant, the existing Van Ness Muni Metro station stair/escalator entrance within the Market Street sidewalk would be left in place and upgraded, and the existing station elevator would be replaced with a new station elevator in a similar location. Construction excavation and duration would be substantially the same as that described for the proposed project on p. 19. Because the stairway/escalator entry would remain in place within the Market Street sidewalk, Oak Plaza would be 13,650 sq. ft. under this variant, compared to 11,050 sq. ft. under the proposed project. Under this variant, parking and loading would also differ from that of the proposed project, as described below.

Parking under Existing Muni Entrance Variant

Like the proposed project, the variant would contain 160 accessory parking spaces for building residents that would be accessed from Oak Street at the northwest corner of the building site.

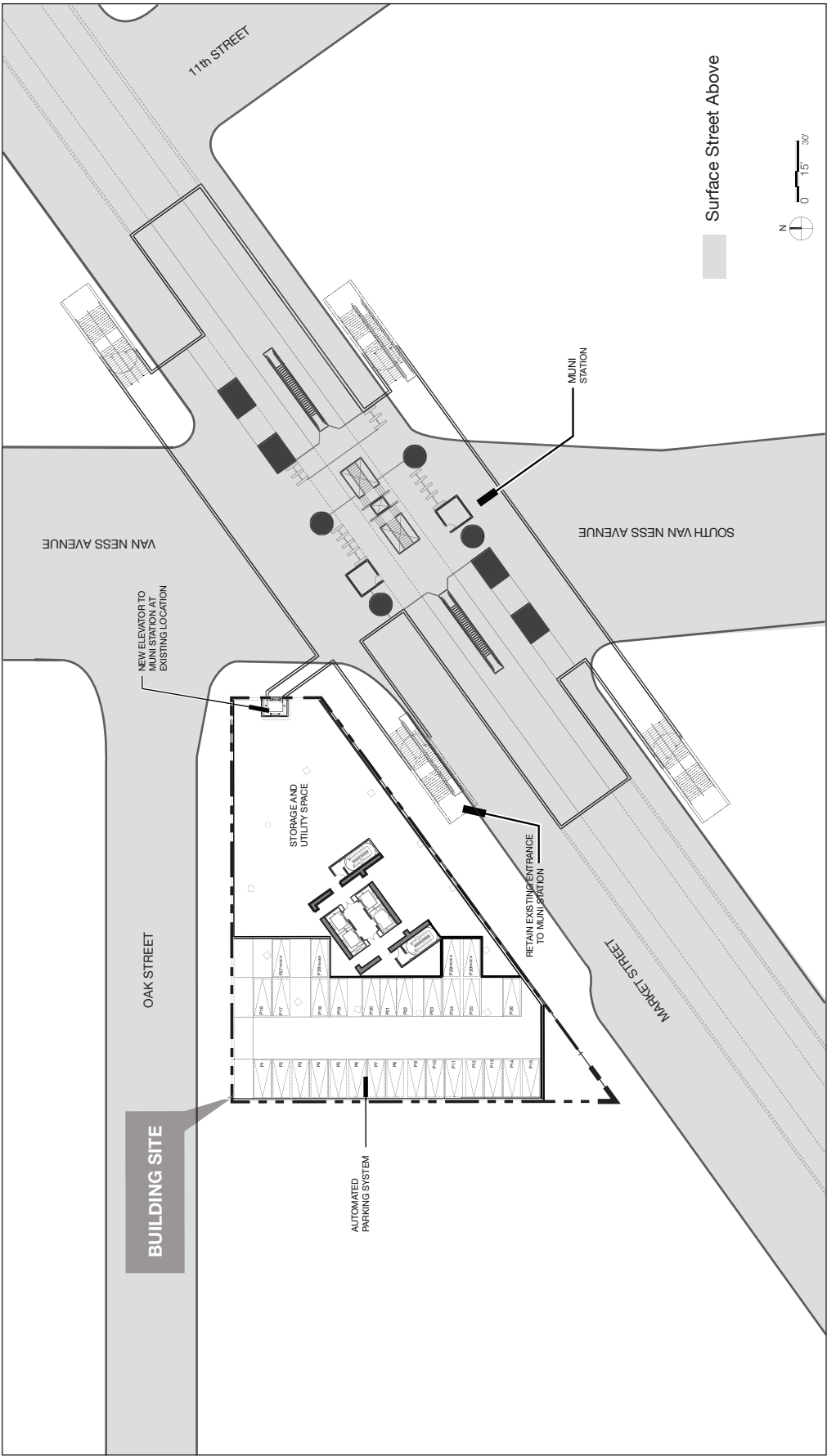


SOURCE: Build Inc.

ONE OAK PROJECT

2009.0159E

FIGURE 11: EXISTING MUNI ENTRANCE VARIANT, GROUND FLOOR PLAN



SOURCE: Build Inc.

ONE OAK PROJECT

2009.0159E

FIGURE 12: EXISTING MUNI ENTRANCE VARIANT, BASEMENT PLAN

However, unlike the proposed project, which would include an 84,000-gsf subsurface parking garage in three basement levels beneath the building site and a portion of Oak Plaza within the streetscape improvement area component of the project site, the variant would provide the parking spaces in a 39,750-gsf, automated, self-serve parking facility located below grade at the westernmost portion of the building site. Alternatively, the parking may be provided by valet with or without the use of stackers. Vehicles would enter the parking facility from Oak Street at the northwest corner of the building site.

The proposed automated parking facility would also include three Carshare spaces for use by residents and the general public. They would be accessed through the same secure system that residents would use to store and retrieve their vehicles. Alternatively, the Carshare spaces would be accessed by valet.

Loading under Existing Muni Entrance Variant

Unlike the proposed project, which would provide loading for the building only at the existing recessed commercial loading bay on Market Street adjacent to the property, the project variant would also include an off-street, on-site freight loading space that would be accessed from Oak Street through the same ground-floor vehicular entrance used for accessing the automated parking facility. Freight deliveries would reach the upper floors via a service elevator accessible through a short service corridor connected to the loading dock. Across from the freight-loading entrance, an area along the north side of Oak Street (50 feet long) would be kept clear, giving trucks room to maneuver into and out of the loading dock.

As with the proposed project, the existing recessed commercial loading bay on Market Street adjacent to the property would also be used for freight loading. Freight deliveries from Market Street would reach the upper floors via a service elevator accessible from a service corridor located at the southwestern corner of the proposed project.

Small package deliveries would use the white zone area near the proposed project's residential lobby entrance doors along the south side of Oak Street near Oak Street's new eastern terminus.

Required Approvals

The proposed project approvals include, but may not be limited to, the following decisions from these City agencies:

Recreation and Park Commission

- Joint determination with the Planning Commission that the project would have no adverse impact on Patricia's Green, Page and Laguna Mini Park, Koshland Park, and Hayes Valley Playground, or other parks subject to Planning Code Section 295.

Planning Commission

- Initiation Hearing of the *General Plan* Amendment to revise Map 3 of the *Market and Octavia Area Plan* to shift the Height and Bulk District 120/400-R-2 designation from Lot 1 to Lot 5 on Assessor's Block 0836.
- Certification of the Final EIR and adoption of CEQA Findings and adoption of a Mitigation Monitoring and Reporting Program.
- *General Plan* referral to allow construction in the Oak Street right-of-way, vacation of Oak Street, and construction of the proposed wind canopy.
- Approval of the project under Planning Code Section 309, including possible exceptions with regard to ground-level winds², off-street freight loading spaces,³ rear yard⁴, and dwelling unit exposure⁵.
- Approval of an In-kind Improvements Agreement under Planning Code Section 424.3(c) for community improvements for the neighborhood infrastructure portion of the Van Ness and Market Downtown Residential Special Use District Affordable Housing and Neighborhood Infrastructure Fee.
- Approval of a Conditional Use authorization under Planning Code Section 303 for increased on-site parking capacity.
- Recommendation of an ordinance amending the Zoning Map to shift the Height and Bulk District 120/400-R-2 designation from Lot 1 to Lot 5 on Assessor's Block 0836.
- Recommendation of a *General Plan* amendment to revise Map 3 of the *Market and Octavia Area Plan* to shift the Height and Bulk District 120/400-R-2 designation from Lot 1 to Lot 5 on Assessor's Block 0836.
- Joint determination with the Recreation and Park Commission under Planning Code Section 295 that net new project shadow being cast on Patricia's Green, or other parks subject to Section 295, would not adversely affect the use of the park.

Board of Supervisors

- Approval of an ordinance amending the Zoning Map to shift the Height and Bulk District 120/400-R-2 designation from Lot 1 to Lot 5 on Assessor's Block 0836.
- Approval of *General Plan* amendment to revise Map 3 of the *Market and Octavia Area Plan* to shift the Height and Bulk District 120/400-R-2 designation from Lot 1 to Lot 5 on Assessor's Block 0836.
- Approval of an underground easement under a portion of the Oak Street right-of-way to facilitate construction of the parking garage.
- Approval of a license to operate the Plaza on Oak Street, pursuant to SF Administrative Code Section 94.3.

² Planning Code Section 148.

³ Planning Code Section 152.1.

⁴ Planning Code Section 134.

⁵ Planning Code Section 140.

Department of Building Inspection (DBI)

- Issuance of demolition, site, and associated building permits (site permit addenda).

Department of Public Works (DPW)

- Approval of changes in public rights-of-way and of conversion of a portion of Oak Street into a publicly owned pedestrian plaza. This approval may proceed under the City's newly adopted Plaza Program, San Francisco Administrative Code Sections 94.1-94.7.
- Approval of the purchase of a permanent underground easement under a portion of Oak Street for underground parking.
- Approval of a Plaza Encroachment Permit pursuant to Section 792 of the Public Works Code.
- Permit for removal and planting of street trees.
- Approval of subdivision map and condominium map applications.
- Approval of a lot line adjustment.
- Approval of a Street Space Permit from the Bureau of Street Use and Mapping for use of a public street space during project construction (including construction of the proposed wind canopy and Oak Plaza improvements).
- Approval of Memorandum of Understanding (MOU) regarding the maintenance and availability of a curbside loading zone on Market Street.

Municipal Transportation Agency (SFMTA)

- Approval of the Oak Plaza conversion.
- Approval of a Special Traffic Permit from the Department of Parking and Traffic for use of a public street space during project construction.
- Approval of foundation, shoring, and dewatering systems as they relate to Muni Zone-of-Influence
- Approval of the relocation of the Muni Metro station entrance, including the location of a new replacement elevator.
- Approval of Americans with Disabilities Act (ADA) and Title 24 access solution during temporary closure of station elevator.

Bay Area Rapid Transit (BART)

- Approval of foundation, shoring, and dewatering systems as they relate to BART Zone-of-Influence.
- Approval of the relocation of the Muni Metro station entrance, including the location of a new replacement elevator.
- Approval of ADA and Title 24 access solution during temporary closure of station elevator.

San Francisco Art Commission

- Approval of proposed Oak Plaza design and wind canopy by the Design Review Committee.

B. PROJECT SETTING

This discussion of project setting is presented in the Initial Study to orient the reader to the surrounding context of the project site. The project site occupies a central and prominent position at the intersection of Market Street and Van Ness Avenue, two of the City's widest and most recognizable thoroughfares.

Land Use Character of the Project Vicinity

The project vicinity is an urban, mixed-use area that includes a diverse range of residential, commercial, institutional, office, and light industrial uses. Existing discernible land use patterns are generally evident. Offices are located along Market Street and Van Ness Avenue, and government uses are located to the north in the Civic Center. The area is currently in transition, with residential uses being built along Market Street and Van Ness Avenue in recent years.

The project site is located within the southwestern edge of downtown in the C-3-G (Downtown General Commercial, General) District, characterized by a variety of retail, office, hotel, entertainment, and institutional uses, and high-density residential. West of the project block, west of Franklin Street, is an NC-3 Moderate Scale Neighborhood Commercial District comprised of a diverse mix of residential, commercial, and institutional uses. South of Market Street, and west of 12th Street, is the C-M Heavy Commercial District, which includes a mix of office and heavy commercial uses such as business services and light manufacturing.

The project site is located near the convergence and transition between different street grid orientations. The North of Market street grid forms a pattern of major through streets running north-south and east-west with typical rectangular blocks measuring about 275 feet north-south by 412 feet east-west. Market Street runs diagonally northeast to southwest. As a result, North of Market streets converge with Market Street obliquely, forming irregularly shaped blocks and lots along the north side of Market Street (like the project block), some with triangular "flatiron" buildings, and irregularly shaped plazas.

The South of Market street grid east of the project site aligns with Market Street, forming a pattern of major through-streets running northeast-southwest and northwest-southeast that are parallel or perpendicular to the alignment of Market Street. South of Market blocks along the south side of Market Street present their long sides to Market Street, forming a regular streetwall along the south side of Market Street east of the project site.

West of the project site and south of Market Street, the South of Market street grid transitions to a Mission District street pattern, as South of Market streets running parallel to Market Street (like Mission Street) veer southward away from Market Street to form a grid of north-south and east-west streets. As with North of Market streets, Mission District streets west of the project site

converge with Market Street obliquely, forming irregularly shaped triangular blocks and lots along the south side of Market Street.

Adjacent Uses

The project site is located near the convergence of several San Francisco neighborhoods: the Hayes Valley neighborhood to the west, the Van Ness corridor to the north, Civic Center/Midmarket areas to the east, South of Market to the southeast, and the Mission District to the southwest. Within the vicinity of the project site, building height, scale, massing, architectural character, and age do not conform to any strongly discernible overall pattern. Nearby surrounding development is described in more detail below.⁶

To the West

The adjacent building immediately to the west of the project site along Market Street is 1550 Market Street, a three-story office over a ground-floor retail building built in 1912.

Further west along Market Street is 1554 Market Street, a one-story retail building built in 1907. At the rear of the same lot as 1554 Market Street is 55 Oak Street, a one-story automotive repair building built in 1929.

The southwestern corner of the project block is occupied by a six-story apartment building over ground-floor retail at 1582 Market Street, built in 1917. The northwestern corner of the project block is occupied by a surface parking lot.

To the North

To the northwest of the project site along the north side of Oak Street is the Conservatory of Music at 50 Oak Street, a five-story Neoclassical building built in 1914. Immediately to the west of that building is a modern addition to 50 Oak Street. The Conservatory building houses studio, classroom, office, and performance space.

Immediately to the north of the project site is 25 Van Ness Avenue, an eight-story Renaissance Revival building built in 1910. The building currently has ground-floor retail, and offices on the upper floors. The building also houses the San Francisco New Conservatory Theater. Further north along the west side of Van Ness Avenue is 77 Van Ness Avenue, an eight-story residential building with ground-floor retail, built in 2008.

⁶ This Initial Study describes building heights as a measurement in feet above ground surface and/or as a number of building stories. For the purposes of this Initial Study, one residential story is equivalent to about 10-12 feet, although ground-floor stories are often higher (up to 15 feet).

To the East

Immediately to the east of the project site is Van Ness Avenue, an eight-lane, north-south roadway with three travel lanes and parking in each direction, separated by a center median.

Along the east side of Van Ness Avenue, across from the project site to the northeast, is 30 Van Ness Avenue (also known as 1484-1496 Market Street), a five-story office over ground-floor retail building. The building was originally built in 1908, but its façade was extensively remodeled around 1960.

To the South

Immediately to the south of the project site is Market Street, a roadway that includes two travel lanes and a bicycle lane in each direction. Historic streetcars use the center-running tracks and transit stops within the Market Street roadway.

On the south side of Market Street at the southeast corner of Market Street and 11th Street (due east of the project site) is 1455 Market Street, a 22-story office building over ground-floor commercial, built in 1979. This building terminates eastward views along Oak Street.

At the southeast corner of Market Street and Van Ness Avenue, diagonally across the intersection of Market Street and Van Ness Avenue, is 1 South Van Ness Avenue, an eight-story office building over ground-floor commercial (Bank of America), built in 1959.

At the southwest corner of Market Street, across Market Street from the project site, is 10 South Van Ness Avenue, a one-story car dealership.

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"/>

This section discusses (1) variances, special authorizations, and proposed changes to the Planning Code or Zoning Map, (2) conflicts with adopted plans and goals of the City or region, and (3) if applicable, the approvals or permits required from various federal, state, and local agencies necessary for the construction and operation of the proposed project.

Conflicts with adopted plans, policies, or regulations do not, in and of themselves, indicate a significant environmental effect within the meaning of CEQA. To the extent that physical environmental impacts may result from such conflicts, these impacts are analyzed under the relevant environmental topic in the Initial Study (Section E, Evaluation of Environmental Effects) or in the EIR. The consistency of the proposed project with plans, policies, and regulations that do not relate to physical environmental issues will be considered by City decision-makers when they determine whether to approve, modify, or disapprove the proposed project.

San Francisco General Plan

The *San Francisco General Plan (General Plan)* is the embodiment of the City’s vision for the future of San Francisco. It is comprised of a series of ten elements, each of which deals with a particular topic that applies citywide: Air Quality; Arts; Commerce and Industry; Community Facilities; Community Safety; Environmental Protection; Housing; Recreation and Open Space; Transportation; and Urban Design.

The *General Plan* also includes area plans, each of which focuses on a particular area of the City. The project site is in the area covered by the *Market and Octavia Area Plan*, which establishes objectives and policies that guide development in the Market and Octavia neighborhoods. The *General Plan* also includes a Land Use Index, which consolidates the different land use policies contained in all of the different elements of the *General Plan*, including area plans.

The proposed project would not obviously or substantially conflict with the objectives and policies of the *General Plan* except as noted below. The proposed project, which would be 400 feet tall, would potentially conflict with the following policies of the *General Plan*:

- Recreation and Open Space Element
 - Policy 2.3: Preserve sunlight in public open spaces.

- Urban Design Element
 - Policy 3.4: Promote building forms that will respect and improve the integrity of open spaces and other public areas.

The physical environmental impacts that could result from these potential conflicts will be discussed in the EIR. The consistency of the proposed project with *General Plan* objectives and policies that do not relate to physical environmental issues will be considered by City decision-makers as part of their deliberations on whether to approve or disapprove the proposed project, and any potential conflicts identified as part of that process would not alter the physical environmental effects of the proposed project.

San Francisco Planning Code and Zoning Maps

The San Francisco Planning Code (Planning Code), which incorporates by reference the City’s Zoning Maps, governs permitted uses, densities, and the configuration of buildings within San Francisco. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless the proposed project complies with the Planning Code, an exception or variance is granted pursuant to the provisions of the Planning Code, or legislative amendments to the Planning Code are included and adopted as part of the proposed project.

Land Use Controls

The building site component of the project site is in the C-3-G District. Pursuant to Planning Code Section 210.3, the C-3-G District “is composed of a variety of uses: retail, offices, hotels, entertainment, clubs and institutions, and high-density residential. Many of these uses have a citywide or regional function, although the intensity of development is lower here than in the downtown core area. As in the case of other downtown districts, no off-street parking is required for individual commercial buildings. In the vicinity of Market Street, the configuration of this district reflects easy accessibility by rapid transit.”

The building site component of the project site is in the Van Ness and Market Downtown Residential Special Use District. Pursuant to Planning Code Section 249.33, this district is intended to be a transit-oriented, high-density, mixed-use neighborhood with a significant residential presence.

Planning Code Sections 215 through 227 regulate the types of land uses that are principally permitted, conditionally permitted, or not permitted in the C-3-G District. Other Planning Code requirements that are applicable to the proposed project include, but are not limited to, the provisions of:

- Section 124: Floor Area Ratio
- Section 132.1: Setbacks and Streetwall Articulation in C-3 Districts
- Section 134: Rear Yards

- Section 135: Usable Open Space
- Section 138: Public Open Space in C-3 Districts
- Section 138.1: Streetscape and Pedestrian Improvements
- Section 140: Dwelling Unit Exposure
- Section 145.1: Street Frontages
- Section 146: Sunlight Access to Public Sidewalks in C-3 Districts
- Section 147: Reduction of Shadows on Certain Public and Publicly Accessible Open Spaces in C-3 Districts
- Section 148: Reduction of Ground-Level Wind Currents in C-3 Districts
- Section 151.1: Permitted Off-Street Parking Spaces in C-3 Districts
- Section 152.1: Required Off-Street Freight Loading Spaces in C-3 Districts
- Section 155.2: Bicycle Parking
- Section 166: Car Sharing
- Section 249.33: Van Ness and Market Downtown Residential Special Use District
- Section 295: Height Restrictions on Structures Shadowing Property Under the Jurisdiction of the Recreation and Park Commission
- Section 309: Permit Review in C-3 Districts
- Section 411: Transit Impact Development Fee
- Section 415: Housing Requirements for Residential and Live/Work Development Projects
- Section 424: Van Ness and Market Affordable Housing and Neighborhood Infrastructure Fee and Program
- Section 429: Public Art Requirements

As discussed in **Section A, Project Description**, pp. 23-25, the list of required project approvals includes exceptions and variances from the Planning Code requirements related to rear yard (Planning Code Section 134), dwelling unit exposure (Planning Code Section 140), off-street freight loading (Planning Code Section 152.1), and wind (pedestrian comfort) (Planning Code Section 148),

Height and Bulk Controls

As shown on Zoning Map Sheet HT07, most of the building site component of the project site (Block 0836, Lots 1 through 4 plus the eastern half of Lot 5) is in a 120/400-R-2 Height and Bulk District, and the remainder of the building site (the western half of Block 0836, Lot 5) is in a 120-R-2 Height and Bulk District. The 120- and 400-foot height limits permit maximum building heights of 120 and 400 feet, respectively. The proposed project tower would comply with the height limit for most of the building site, but would require the adoption of legislative

amendments to shift the Height and Bulk District 120/400-R-2 designation from Lot 1 to the western half of Lot 5 on Assessor's Block 0836.

Bulk controls reduce the size of a building's floorplates as the building increases in height. Pursuant to Planning Code Section 270(f), the bulk controls in an "R-2" Bulk District are as follows:

- There are no bulk controls below a building height of 120 feet.
- Beginning at a building height of 120 feet, a building with an overall height between 351 and 550 feet cannot exceed the following bulk controls: a maximum plan length of 115 feet, a maximum diagonal dimension of 145 feet, and a maximum average floor area of 10,000 gsf.

The proposed project would not exceed existing bulk controls.

Floor Area Ratio

The building site component of the project site is subject to a 9:1 Floor Area Ratio (FAR)⁷ limit under Planning Code Section 124 and Section 249.33(b)(6)(A). The proposed project would exceed this limit. Planning Code Section 249.33, applicable to the Van Ness Downtown Residential Special Use District, states that the maximum FAR may be exceeded through compliance with Planning Code Section 424, the Van Ness and Market Inclusionary Affordable Housing Fee and Van Ness and Market Neighborhood Infrastructure Fee, through payment of fees and/or direct provision of affordable housing or public improvements. The proposed project would be required to comply with Planning Code Section 424 through payment of fees or direct provision of public open space and infrastructure improvements, or some combination thereof.

The Accountable Planning Initiative

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added Section 101.1 to the Planning Code and established eight Priority Policies. These policies are (1) preservation and enhancement of neighborhood-serving retail uses and future opportunities for resident employment in and ownership of such businesses; (2) conservation and protection of existing housing and neighborhood character to preserve the cultural and economic diversity of neighborhoods; (3) preservation and enhancement of affordable housing; (4) discouragement of commuter automobiles that impede Muni transit service or that overburden streets or neighborhood parking; (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; (7) preservation of

⁷ Floor Area Ratio is the ratio of a building's total gross floor area, as defined in Planning Code Section 102.9 (which identifies certain types of spaces within a building that are not included in a building's gross floor area) to the area of the lot or lots that the building occupies.

landmarks and historic buildings; and (8) protection of parks and open space and their access to sunlight and vistas.

Implementation of the proposed project potentially conflicts with Priority Policy No. 8, which calls for the protection of parks and open space and their access to sunlight. The physical environmental impacts that could result from this potential conflict will be discussed in the EIR.

Prior to issuing a permit for any project which 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 which requires a finding of consistency with the *General Plan*, the City is required to find that the proposed project or legislation would be consistent with the Priority Policies. 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 the Priority Policies.

Other Local Plans and Policies

In addition to the *General Plan*, the 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 emissions inventory and reduction targets, and describes recommended actions for reducing the City's greenhouse gas emissions.
- The *Transit First Policy* (City Charter, Section 8A.115) is a set of principles that underscore the City's commitment to give priority to traveling by transit, bicycle, and on foot over traveling 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 *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 *San Francisco 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.

- The *Better Market Street Project* is a plan that envisions a new Market Street that is more beautiful and green, has enlivened public plazas and sidewalks full of cafés, showcases public art and performances, provides dedicated bicycle facilities, and delivers efficient and reliable transit. The goal of the Better Market Street Project is to revitalize and reestablish Market Street as the cultural, civic, and economic center of San Francisco.

The proposed project has been reviewed against these local plans and policies and would not obviously or substantially conflict with these plans or policies.

Regional Plans and Policies

In addition to local 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 adhered to when evaluating a project under CEQA. The regional plans and policies that are relevant to the proposed project are discussed below.

- *Plan Bay Area*, prepared by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), is a long-range land use and transportation plan for the nine-county Bay Area that covers the period from 2010 to 2040. *Plan Bay Area* calls for concentrating housing and job growth around transit corridors, particularly within areas identified by local jurisdictions as Priority Development Areas. In addition, *Plan Bay Area* 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* was adopted on July 18, 2013.
- *ABAG's Projections 2013* is an advisory policy document that includes population and employment forecasts to assist in the development of local and regional plans and policy documents.
- The MTC's *Transportation 2035 Plan for the San Francisco Bay Area* is a policy document that outlines transportation projects for highway, transit, rail, and related uses through 2035 for the nine Bay Area counties.
- The Bay Area Air Quality Management District's *Bay Area 2010 Clean Air Plan* updates the Bay Area 2005 Ozone Strategy, 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, air toxics, and greenhouse gases throughout the region.
- The Regional Water Quality Control Board's *Water Quality Control Plan for the San Francisco Bay Basin* 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 proposed project has been reviewed against these regional plans and policies and would not obviously or substantially conflict with these plans or policies.

D. SUMMARY OF ENVIRONMENTAL EFFECTS

The proposed project could potentially affect the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor.

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

Senate Bill 743 and Public Resources Code Section 21099

On September 27, 2013, Governor Brown signed Senate Bill (SB) 743, which became effective on January 1, 2014.⁸ Among other provision, SB 743 amends the California Environmental Quality Act (CEQA) by adding Public Resources Code Section 21099 regarding analysis of aesthetics and parking impacts for urban infill projects.

Aesthetics and Parking Analysis

Public Resources Code Section 21099(d), effective January 1, 2014, provides that, “aesthetics and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment.”⁹ Accordingly, aesthetics and parking are no longer to be considered in determining if a project has the potential to result in significant environmental effects for projects that meet all of the following three criteria:

- a) The project is in a transit priority area;¹⁰
- b) The project is on an infill site;¹¹ and
- c) The project is residential, mixed-use residential, or an employment center.¹²

⁸ SB 743 can be found on-line at:

http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB743.

⁹ See Public Resources Code Section 21099(d).

¹⁰ Public Resources Code Section 21099(a) defines a “transit priority area” as an area within one-half mile of an existing or planned major transit stop. A “major transit stop” is defined in Section 21064.3 of the California Public Resources Code as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

¹¹ Public Resources Code Section 21099(a) defines an “infill site” as a lot located within an urban area that has been previously developed, or a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses.

The proposed project meets each of the above three criteria because it (1) is located within close proximity to several transit routes, (2) is located on an infill site that is already developed with commercial uses and is surrounded by other similar urban development, and (3) would be an expansion of existing commercial support uses, located within close proximity to several transit routes, and in an urban area on a site already developed and zoned for commercial uses with a FAR greater than 0.75.¹³ Thus, this Initial Study and the EIR do not consider aesthetics and the adequacy of parking in determining the significance of project impacts under CEQA.

Public Resources Code Section 21099(e) states that a Lead Agency maintains the authority to consider aesthetic impacts pursuant to local design review ordinances or other discretionary powers and that aesthetics impacts do not include impacts on historical or cultural resources. As such, there will be no change in the Planning Department's methodology related to design and historic review.

The Planning Department recognizes that the public and decision makers nonetheless may be interested in information pertaining to the aesthetic effects of a proposed project and may desire that such information be provided as part of the environmental review process. Therefore, some of the information that would have otherwise been provided in an aesthetics Initial Study or EIR section (such as "before" and "after" visual simulations) will be included in the EIR Project Description. However, this information is provided solely for informational purposes and is not used to determine the significance of the environmental impacts of the project, pursuant to CEQA.

Similarly, the Planning Department acknowledges that parking conditions may be of interest to the public and the decision makers. Therefore, the EIR will present a parking demand analysis for informational purposes and will consider any secondary physical impacts associated with constrained supply (e.g., queuing by drivers waiting for scarce onsite parking spaces that affects the public right-of-way) as applicable in the transportation analysis.

Effects Found to Be Potentially Significant

This Initial Study evaluates the proposed One Oak Street project to determine whether it would result in significant environmental impacts. The designation of topics as "Potentially Significant" in the Initial Study means that the EIR will consider the topic in greater depth and determine whether the impact would be significant. On the basis of this Initial Study, topics for which there are project-specific effects that have been determined to be potentially significant include:

¹² Public Resources Code Section 21099(a) defines an "employment center" as a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 and located within a transit priority area.

¹³ San Francisco Planning Department, *Transit-Oriented Infill Project Eligibility Checklist*, December 27, 2014. This document is available for review at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2009.0159E.

- Transportation and Circulation (all topics)
- Wind and Shadow (all topics)

Effects Found Not to Be Significant

The following potential individual and cumulative environmental effects were determined to be either less than significant or would be reduced to a less-than-significant level through recommended mitigation measures included in this Initial Study:

- Land Use and Land Use Planning
- Population and Housing
- Cultural and Paleontological Resources
- Air Quality
- Greenhouse Gas Emissions
- Recreation
- Utilities and Service Systems
- Public Services
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Hazards and Hazardous Materials
- Mineral and Energy Resources
- Agricultural and Forest Resources

These items are discussed, and mitigation measures are identified where appropriate, in Sections E and F, and require no environmental analysis in the EIR. All mitigation measures identified, including those for archaeological resources and hazards, have been agreed to by the project sponsor and will be incorporated into the proposed project.

Approach to Considering Environmental Impacts of the Existing Muni Entrance Variant

The Existing Muni Entrance Variant, described above on pp. 20-23, is a variation of the proposed project that modifies limited aspects of the proposed project. The variant would be available for future selection by the decision-makers or project sponsor.

The variant is substantially the same as the proposed project with respect to the character and intensity of land uses and with respect to exterior building design. Therefore, physical environmental effects of the variant under most environmental topics would be substantially the same as described for the proposed project under the following environmental topics: Land Use and Land Use Planning, Population and Housing, Cultural Resources (historic architectural

resources), Air Quality, Greenhouse Gas Emissions, Wind and Shadow, Recreation, Utilities and Service Systems, Public Services, Biological Resources, and Agricultural and Forest Resources.

The variant could slightly reduce the amount of excavation and the duration of construction from those of the proposed project and would not provide a new connection between the project site and the Van Ness Muni Station. Therefore, the potential for environmental impacts could be slightly reduced from that of the proposed project under the following environmental topics: Cultural Resources (archaeological resources and paleontological resources), Noise, Geology and Soils, Hydrology and Water Quality, Hazards and Hazardous Materials, and Mineral and Energy Resources.

Because the functioning of vehicular access, loading, and transit access under the Existing Muni Entrance Variant would differ from that of the proposed project, further discussion and evaluation of potential Transportation and Circulation impacts of this variant is required and will be specifically addressed in the EIR.

Approach to Cumulative Impact Analysis

Cumulative impacts are two or more individual effects which, when considered together, are considerable or which compound or increase environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. Cumulative impacts are impacts of the project in combination with other closely related past, present and reasonably foreseeable probable future projects. (CEQA Guidelines Section 15355(a)(b))

CEQA Guidelines Section 15130(b)(1) sets forth two primary approaches to the analysis of cumulative impacts. The analysis can be based on (a) a list of past, present, and probable future projects producing related impacts that could combine with those of a proposed project, or (b) a summary of projections contained in a general plan or related planning document. Cumulative impact analysis in San Francisco generally employs both a list-based approach and a projections approach, depending on which approach best suits the individual resource topic being analyzed. For topics such as shadow and wind, the analysis typically considers large, individual projects that are anticipated in the project area. By comparison, transportation analysis relies on a citywide growth projection model that encompasses many individual projects anticipated in the project vicinity. The projections model includes many of the larger, individual projects listed below and applies a quantitative growth factor to account for other growth that may occur in the area.

The following factors were used to determine an appropriate level for cumulative analysis in this Initial Study:

- **Similar Environmental Impacts.** A relevant project contributes to effects on resources that are also affected by the proposed project. A relevant future project is defined as one

that is reasonably foreseeable,” such as a proposed project for which an application has been filed with the approving agency or has approved funding.

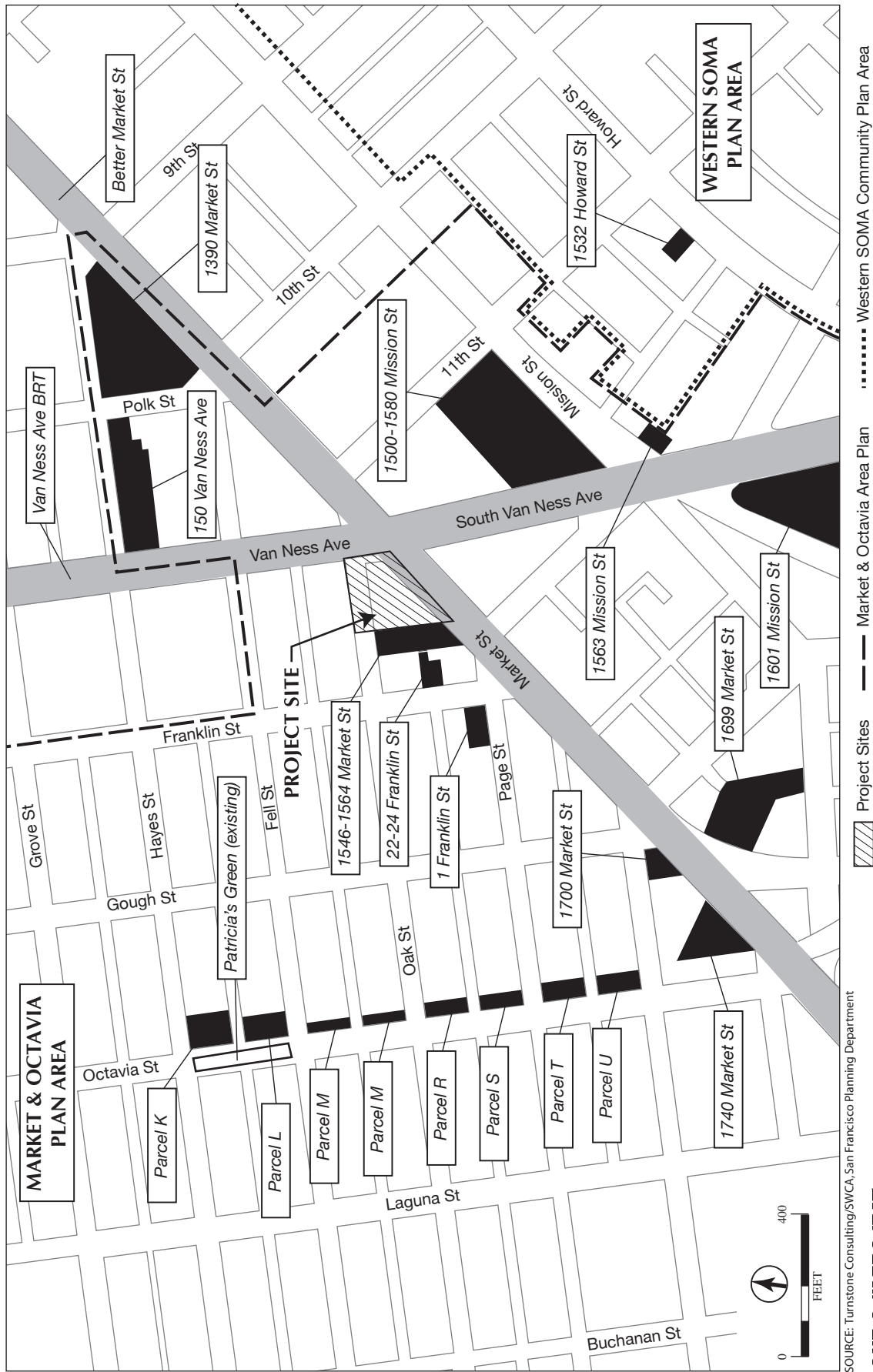
- **Geographic Scope and Location.** A relevant project is located within the geographic area within which effects could combine. The geographic scope varies on a resource-by-resource basis. For example, the geographic scope for evaluating cumulative effects to air quality consists of the affected air basin.
- **Timing and Duration of Implementation.** Effects associated with activities for a relevant project (e.g., short-term construction or demolition, or long-term operations) would likely coincide in timing with the related effects of the proposed project.

Based on the above, the following plans and projects in the project vicinity are examples of the types of projects considered in the cumulative impact analysis. This list is representative and may not include all of the projects considered in the cumulative analysis of each resource topic.

CEQA impact analyses for projects in the vicinity of the Market Street and Van Ness Avenue intersection will need to account for a large number of projects in the area. These include projects that are under construction, projects that have been approved but are not yet under construction, and projects that are undergoing environmental review. The list of reasonably foreseeable probable future projects is comprised of projects within about a quarter mile from the project site¹⁴ that are not yet under construction but for which Planning Department Environmental Evaluation Applications have been filed or approved. Approved projects that are under construction or recently completed at the time of this Notice of Preparation/Initial Study, or the approval of a project’s shadow or wind scope of work (whichever is first), are considered part of the proposed project’s existing setting, rather than part of the future cumulative scenario. Such projects include 1400 Mission Street, Case No. 2011.1043E; 1415 Mission Street, Case No. 2005.0540E; 1321 Mission Street, Case No. 2011.0312E; 101 Polk Street, Case No. 2011.0702E; 100 Van Ness Avenue, Case No. 2012.0032E; 1407-1435 Market Street (NEMA), Case No. 2006.0584; and Central Freeway Parcel V (8 Octavia Street), Case No. 2011.0931E. For the purposes of the wind and shadow studies, these buildings are to be modeled as if fully constructed.

The cumulative analyses for those topics using a list-based approach (such as Noise, Wind, and Shadow) will each use a modified list of nearby future projects from the list that is appropriately tailored to the particular environmental topic based upon the potential for combined localized environmental impacts, as described in the respective cumulative analyses under each environmental topic in this NOP/Initial Study and the forthcoming EIR. See **Figure 13: Reasonably Foreseeable Projects in the Project Vicinity.**

¹⁴ The quarter-mile radius serves as a general guide. The list may be more or less inclusive depending on the particular characteristics of the proposed project and its surroundings and that of the anticipated nearby projects



SOURCE: Turnstone Consulting/SWCA, San Francisco Planning Department

ONE OAK PROJECT

2009.0159E

FIGURE 13: REASONABLY FORESEEABLE PROJECTS IN THE PROJECT VICINITY

- **1546-1564 Market Street**, Case No. 2012.0877E. The proposal is to merge the two lots, demolish the existing buildings, and construct a 12-story, 120-foot-tall mixed-use residential building with up to 109 residential units, up to 28 off-street parking spaces, and approximately 4,900 gsf of ground-floor retail. (Currently undergoing environmental review.)
- **150 Van Ness Avenue**, Case No. 2013.0973E. The proposal is to merge five lots, demolish the existing buildings, and construct a 512,010-gsf, 12-story, 120-foot-tall mixed-use residential building with 429 residential units, 218 off-street parking spaces in one below-grade basement level, and approximately 9,000 gsf of ground-floor retail space. (Currently undergoing environmental review.)
- **1500-1580 Mission Street** (Goodwill site), Case No. 2014-000362ENV. The proposal is to merge the two lots, demolish the majority of the existing buildings, and construct a new mixed-use building. The project would include the retention and reconfiguration of a portion of the Mission Street frontage and the clock tower element of the 1500 Mission Street building. The mixed-use building would include approximately 550 residential units in a 380-foot-tall tower, approximately 463,300 gsf of office/permit center space to be occupied by the City and County of San Francisco in a 260-foot-tall tower and podium, 35,000 gsf of ground-floor retail space, and up to 309 off-street parking spaces. The project sponsor is seeking a zoning map amendment to adjust the height/bulk designations and amendments to the Planning Code. (Currently undergoing environmental review.)
- **1601 Mission Street** (Tower Car Wash), Case No. 2014.1121ENV. The proposal is to demolish the existing gas station facilities and construct an 11-story, 120-foot-tall mixed-use residential building with up to 200 residential units, up to 93 off-street parking spaces in one below-grade basement level, and approximately 10,400 gsf of ground-floor commercial space. (Currently undergoing environmental review.)
- **22 Franklin Street**, Case No. 2013.1005E. The proposal is to merge two lots, demolish the existing commercial building, and construct an 8-story, 85-foot-tall mixed-use residential building with up to 24 residential units, and 2,120 gsf of retail space along Franklin Street. (Currently undergoing environmental review.)
- **1 Franklin Street**, Case No. 2014.1423V. The proposal is to construct an 8-story mixed-use residential building with 35 residential units, 18 off-street parking spaces, and approximately 2,400 gsf of ground-floor commercial space. The project would comply with the two different height limits that apply on the lot (50 and 85 feet). (Approved but not yet under construction.)
- **1390 Market Street** (Fox Plaza Expansion), Case No. 2005.0979E. Fox Plaza currently contains two buildings: a 29-story mixed-use building and a two-story commercial building. The proposal would demolish the existing, two-story building and construct an 11-story, 120-foot-tall mixed-use residential building with up to 230 residential units, no parking spaces, and approximately 17,500 gsf of ground-floor commercial space. The existing 29-story mixed-use building would not be changed. (Approved but not yet under construction.)
- **1699 Market**, Case No. 2014.0484E. The proposed project would demolish an existing building and surface parking lot and construct a new 9-story residential (162 units) and commercial (3,937 sq. ft.) building with 97 below-grade parking spaces. (Currently undergoing environmental review.)

- **1700 Market**, Case No. 2013.1179E. The proposal is to demolish the existing building and construct an 8-story, 85-foot-tall mixed-use residential building with up to 43 residential (group housing) units and approximately 1,500 gsf of ground-floor retail space. (Currently undergoing environmental review.)
- **1740 Market Street**, Case No. 2014.0409E. The proposal is to demolish the existing building and construct a 9-story, 85-foot-tall mixed-use residential building with up to 110 residential (group housing) units and approximately 7,630 gsf of ground-floor commercial space. (Currently undergoing environmental review.)
- **1563 Mission Street**, Case No. 2014.0095E. The proposal is to change the use of the existing 44,000-sq.-ft. building from commercial use to medical and social services to be provided by HealthRight360, and an addition of 6,000 sq. ft. The project would involve interior tenant improvement, replacement of a mezzanine, and façade changes. (Currently undergoing environmental review.)
- **1532 Howard Street**, Case No. 2013.1305E. The proposal is to demolish an existing one-story commercial building and the construct a 6-story residential building with 15 single-room-occupancy units. (Currently undergoing environmental review.)
- **Market & Octavia Area Plan**, Case No. 2003.0347. The Market & Octavia Area Plan is an element of the San Francisco *General Plan*. The Market & Octavia Area Plan serves to respond to the need for housing, to repair the fabric of the neighborhood, and to support transit-oriented development. The Plan proposes new zoning for appropriate residential and commercial uses, prescribes streetscape and open space improvements, and places high-density land uses close to transit. Additionally, the Plan describes infill guidelines for housing on 22 vacant Central Freeway parcels and the creation of a new residential center in the SOMA West / South Van Ness area.
- **Western SoMa Community Plan**, Case No. 2008.0877E. The Western SoMa Community Plan is an element of the San Francisco *General Plan*. The Plan Area comprises approximately 298 acres in the western portion of the South of Market. The various components of the Plan include increases and decreases in building heights on selected parcels due to proposed height and bulk district reclassifications; increases and decreases in density on selected parcels due to proposed use district reclassifications that replace density standards with other mechanisms to account for density, such as building envelope controls; and streetscape improvements along designated streets and intersections, including installation of signalized pedestrian crossings; sidewalk extensions and corner bulbouts; gateway treatments such as signage and lighting; physical roadway features such as enhanced hardscape area, landscaped islands and colored textured pavement; public realm greening amenities (i.e., street trees and planted medians); and other pedestrian enhancements (i.e., street furniture and public restrooms). (The Western SoMa Community Plan has been adopted and plan implementation is currently underway.)
- **Van Ness Bus Rapid Transit (BRT)**. The Van Ness Avenue BRT project is a program to improve Muni bus service along Van Ness Avenue between Mission and Lombard streets through the implementation of operational and physical improvements. The operational improvements consist of (1) designating bus-only lanes to allow buses to travel with fewer impediments, (2) adjusting traffic signals to give buses more green lights at intersections, and (3) providing real-time bus arrival and departure information to passengers to allow them to manage their time more efficiently. The physical improvements consist of (1) building high-quality and well-lit bus stations to improve

passenger safety and comfort, and (2) providing streetscape improvements and amenities to make the street safer and more comfortable for pedestrians and bicyclists who access the transit stations. (State Clearinghouse No. 2007092059) (Construction to commence in 2016.)

- **Transit Effective Program (TEP)**, Case No. 2011.0558E. The TEP proposals include a series of service improvements and concurrent necessary capital investments designed to improve safety and service reliability and reduce travel time. The TEP is comprised of four major categories: service policy framework, service improvements, service-related capital projects, and travel time reduction proposals. The proposed Service Improvements include creating new routes, redesigning existing routes, or adding service to new streets; eliminating unproductive existing routes or route segments; changing vehicle type; changing frequency and span of service; changing the mix of local/limited/express service; and other changes, such as new express service stops, expansion of Limited-stop service to include Sundays, and the expansion of other service with the addition of days of operation. In the vicinity of Market and Van Ness, TEP improvements would include route changes along Van Ness and Mission Street to the following routes: 10 Townsend and 47 Van Ness routes changes.
- **Better Market Street**, Case No. 2014.0012E. The project sponsor, San Francisco Public Works, in coordination with the San Francisco Planning Department and the SFMTA, proposes to redesign and provide various transportation and streetscape improvements to the 2.2-mile segment of Market Street between Octavia Boulevard and The Embarcadero and potentially to the 2.3-mile segments of Mission Street between Valencia Street and The Embarcadero, as well as Valencia Street between Market and McCoppin streets and 10th Street between Market and Mission as part of the proposed Better Market Street Project. Elements of the Better Market Street Project consist of both transportation and streetscape improvements, including changes to roadway configuration and private vehicle access; traffic signals; surface transit, including transit-only lanes, stop spacing, service, stop location, stop characteristics and infrastructure; bicycle facilities; pedestrian facilities; streetscapes; commercial and passenger loading; vehicular parking; plazas; and utilities. The EIR will analyze three alternatives. Based on the EIR and other analysis and comment, a project proposal within the range of these alternatives will be proposed for consideration and approval:
 - Alternative 1: Market Street (Complete Street and Transit Priority Improvements)
 - Alternative 2: Market Street Moderate Alternative (Complete Street and Moderate Transit Priority Improvements)
 - Alternative 3: Market Street + Mission Street (Complete Street and Transit Priority Improvements on Market plus Bicycle Facility Improvements on Mission)

Alternatives 1 and 2 include two designs for the bicycle facilities on Market Street, Design Option A and Design Option B. Under Alternatives 1 and 2, Design Option A, an enhanced version of the existing shared vehicle and bicycle lane with painted sharrows (shared lane pavement markings) would be provided at locations where a dedicated bicycle facility is not already present. Under Alternatives 1 and 2, Design Option B, a new raised cycle track (an exclusive bicycle facility that is physically separated from motor traffic and is distinct from the sidewalk for the exclusive or primary use of bicycles) would be provided along the entire length of Market Street, except at locations

where BART/Muni entrances or other obstructions would not allow it. Alternative 3 includes the proposed bicycle facilities on Market Street described under Alternative 1, Design Option A and adds a cycle track in both directions on Mission Street. (The Better Market Street Project is currently undergoing environmental review.)

- **Safer Market Street**, Case No. 2015-004278ENV. The Safer Market Project proposes to restrict private vehicle access along a segment of Market Street to reduce conflicts between private vehicles and other roadway users on a high-injury corridor. The Safer Market Street Project would help achieve the City's adopted Vision Zero policy, which aims to eliminate all traffic-related fatalities by 2024. Unlike most San Francisco streets, the majority of collisions on Market Street are at mid-block locations and are caused by vehicles proceeding straight, rather than turning movements at intersections. To address this collision pattern, the Safer Market Street Project proposes to improve safety by restricting private vehicles from the segment of Market Street between 3rd Street and 8th Street, which has the most collisions. The project also proposes to create continuous eastbound and westbound transit only lanes through this segment to reduce collisions caused by lane changes. As part of the Safer Market Street Project, private vehicles that currently travel on that segment of Market Street would be diverted throughout the network north or south of the corridor.
- **Central Freeway Parcels**. The removal of the Central Freeway and construction of Octavia Boulevard resulted in excess land that the California Department of Transportation transferred to the City and County of San Francisco. The parcels along the former Central Freeway alignment are envisioned to accommodate housing. To the extent feasible, development of these sites was evaluated at a project level in the *Market and Octavia Neighborhood Plan Final Environmental Impact Report*, Case No. 2003.0347E. Projects on the Central Freeway Parcels, listed below, are currently undergoing environmental review and are being reviewed for consistency with the project analyzed in the *Market and Octavia FEIR*. The Planning Department will determine if the analysis in the *Market and Octavia FEIR* sufficiently addressed the potential environmental impacts of these projects as currently proposed.
 - **Central Freeway Parcel K** (370 Linden Street) (APN 0817/068) (APN stands for assessor's parcel number). The approximately 11,430-sq.-ft. site is occupied with temporary retail and restaurant uses. This parcel was identified as Central Freeway Parcel K in the *Market Octavia FEIR*. The original proposal included the development of up to 25 residential units in a mixed-use residential building. (Environmental review was completed as part of the *Market Octavia FEIR* and no entitlements have been filed.)
 - **Central Freeway Parcel L** (404-428 Octavia Street) (APN 0817/033). The approximately 13,595-sq.-ft. site is occupied with temporary restaurant uses. This parcel was identified as Central Freeway Parcel L in the *Market Octavia FEIR*. The original proposal included the development of up to 25 residential units in a mixed-use residential building. (Environmental review was completed as part of the *Market Octavia FEIR* and no entitlements have been filed.)
 - **Central Freeway Parcel M** (379 Fell Street) (APN 0832/026) Case File No. 2014-002330ENV. The approximately 3,000-sq.-ft. site is currently vacant and was identified as Central Freeway Parcel M in the *Market Octavia FEIR*. The proposal is to construct a five-story, 55-foot-tall mixed-use residential building. (Currently undergoing environmental review.)

- **Central Freeway Parcel N** (300 Octavia Street) (APN 0832/025) Case File No. 2014-002330ENV. The approximately 3,000-sq.-ft. site is currently vacant and was identified as Central Freeway Parcel N in the *Market Octavia FEIR*. The proposal is to construct a five-story mixed-use residential building with up to 16 micro residential units and approximately 650 gsf of ground-floor retail space. (Currently undergoing environmental review.)
- **Central Freeway Parcels R and S** (APN 0838/035) Case File No. 2014-002101ENV. The project consists of the development of both parcels R and S into a mixed-use 100 percent affordable residential project consisting of two buildings, partially satisfying the “Offsite BMR [Below Market Rate]” requirement for the multi-family One Oak Street residential project. The proposed project would provide approximately 19,968 gsf of permanently affordable residential housing and approximately 4,925 gsf of neighborhood-serving retail. (Currently undergoing environmental review.)
- **Central Freeway Parcel T** (APN 0853/022). The proposal is to construct a 5-story, 55-foot-tall mixed-use residential building with up to 26 residential units, up to 13 residential parking spaces, and approximately 5,320 gsf of ground-floor retail space. (Environmental review completed as part of the *Market Octavia FEIR* and no entitlements have been filed.)
- **Central Freeway Parcel U** (APN 0853/021). The proposal consists of the development of a 5-story, 55-foot-tall mixed-use building with 32 residential unit on the approximately 13,198-sq.-ft. lot, which is currently vacant. (Environmental review completed as part of the *Market Octavia FEIR* and no entitlements have been filed.)

E. EVALUATION OF ENVIRONMENTAL EFFECTS

All items on the Initial Study Checklist that have been checked “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 Impact” and for most items checked with “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 Department, such as the 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. For each checklist item, the evaluation has considered the impacts of the proposed project both individually and cumulatively.

<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>
1. LAND USE AND LAND USE PLANNING— Would the project:					
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial impact upon the existing character of the vicinity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

The proposed project would not create a physical barrier to neighborhood access or remove an existing means of access. The proposed residential building would be developed within the delineated limits of its lot. The proposed project includes closure of a segment of Oak Street to normal vehicular traffic to create a new public pedestrian plaza within the Oak Street right-of-way. The proposed project also includes placement of a canopy structure within the Oak Street public right-of-way covering a portion of Oak Plaza. The proposed plaza would change existing vehicular traffic circulation patterns and could temporarily inconvenience motorists accustomed to turning on to Oak Street from Van Ness Avenue.

The proposed change in use to this segment of Oak Street from its existing use as a roadway to its proposed use as public open space would not create a barrier or obstruction that would physically divide the community. Rather, the proposed Oak Plaza improvements are intended to enhance

the pedestrian environment and facilitate pedestrian circulation and connectivity in the area. Oak Plaza would continue to be accessible to emergency vehicles, as discussed in **Section E.15, Hazards**. The proposed canopy structure would continue to provide adequate clearances for emergency vehicles. Vehicle access to properties on Oak Street west of the project site would be available from Franklin Street. For these reasons, the proposed project would have a less-than-significant effect regarding physically dividing the surrounding community. No mitigation measures are necessary.

Impact LU-2: The proposed project would not conflict with *General Plan* objectives and policies adopted for the purpose of avoiding or mitigating an environmental effect. (*Less than Significant*)

At a height of 400 feet, the westernmost portion of the proposed project tower would exceed the 120-foot height limit applicable to this portion of the building site. As discussed above in Initial Study Section C, Compatibility with Existing Plans and Policies, most of the building site component of the project site (Lots 1 through 4 plus the eastern half of Lot 5) is in a 120/400-R-2 Height and Bulk District. However, the westernmost portion of the building site (the western half of Block 0836, Lot 5) is in a 120-R-2 Height and Bulk District. The proposed project would require *General Plan* and Zoning Map amendments to shift the 120/400-R-2 Height and Bulk District from the easternmost parcel (Lot 1), to the westernmost portion of the westernmost parcel (Lot 5). The proposed rearrangement of the existing height districts within the building site component of the project site would not substantially alter the general land use pattern envisioned for the immediate area, which calls for residential uses in tall slender towers at the intersection of Market Street/Van Ness Avenue.

The proposed 400-foot tower would not conform to the 120-foot height limit within the westernmost portion of the building site. This conflict would not in itself result in a significant environmental impact under CEQA because this aspect of the proposed project would not conflict, on balance, with plans and land use regulations adopted for the purpose of avoiding or mitigating an environmental effect. The proposed project would substantially conform to the general land use pattern for height and bulk envisioned for the immediate area under the *Market and Octavia Area Plan*. The Plan calls for a concentration of density in areas, such as the project site, best served by transit and accessible by foot. The *Market and Octavia Area Plan* also envisions the intersection of Market Street and Van Ness Avenue marked by prominent visual landmarks in the form of tall slender towers. The proposed project is also consistent with the Van Ness and Market Downtown Residential Special Use District which, under Planning Code Section 249.33, envisions a transit-oriented, high-density, mixed-use neighborhood with a significant residential presence for the area. The proposed project would not substantially conflict with applicable plans and policies. No mitigation measures are necessary.

Impact LU-3: The proposed project would not have a substantial impact on the existing character of the vicinity. (*Less than Significant*)

The proposed project would not have a substantial demonstrable adverse impact on the existing character of the built environment, nor on the existing land use character of the vicinity.

Existing Character of the Built Environment

The proposed project, at 39 stories and 400 feet tall (420 feet tall including a 20-foot-tall mechanical penthouse), would be substantially taller than surrounding development. As discussed above in **Section B, Project Setting**, on pp. 26-28, the existing character of the project site and its surroundings is varied. Building height, scale, siting, massing, architectural character, and age do not conform to any strongly discernible overall pattern. The proposed project would be overtly contemporary in architectural character and would increase and contribute to the existing variety of forms and features that characterizes existing buildings in the area.

Implementation of the proposed project would transform the existing character of the project site and would introduce a prominent new building, public plaza, and wind canopy within the project site. The proposed project includes features that are intended to contribute visual interest and variety to its setting, an area characterized by a varied character of development. The proposed project would also include features intended to improve the pedestrian environment. The proposed new 400-foot-tall building, public plaza, and wind canopy structure would not be inconsistent with the existing dense and varied urban environment in the area. As discussed above under Impact LU-2, the proposed project would also be generally consistent with the City's overall vision for future height and visual prominence of new buildings in the vicinity under the *General Plan* and the *Market and Octavia Area Plan*.

For these reasons, the proposed project would have a less-than-significant impact on the existing character of the site and its surroundings. No mitigation measures are necessary.

Existing Land Use Character

As discussed above in **Section C, Compatibility with Existing Zoning and Plans**, on p. 30, the project site is in the C-3-G District. Pursuant to Planning Code Section 210.3, the C-3-G District includes diverse retail, office, hotel, entertainment, institutional, and high-density residential uses. Many of these uses have a citywide or regional function, although the intensity of development is lower here than in the downtown core area. As in the case of other downtown districts, no off-street parking is required for individual commercial buildings. In the vicinity of Market Street, the configuration of this district reflects easy accessibility by rapid transit.

Implementation of the proposed mixed-use, high-density residential project would be compatible with existing uses in the vicinity and would not fundamentally alter the land use character of the project vicinity by introducing incompatible land uses. Likewise, the proposed new public open

space use for the proposed Oak Plaza (which, like other urban plazas, would include seating and food service, and could also be used for events) would not conflict with the existing diverse retail, office, entertainment, institutional, and residential land uses in the area. The intensification and change of uses over time is a commonly expected and experienced consequence of urban growth in San Francisco, particularly along or near mass transit corridors such as Market Street and Van Ness Avenue where there has been substantial public investment in transit infrastructure.

For these reasons, the proposed project would not have a substantial adverse impact on the existing land use character of the vicinity. This impact would be less than significant, and no mitigation measures are necessary.

The physical impacts of construction and operation of the proposed land uses within the project site are manifested in environmental impacts that are discussed in this Initial Study under the environmental topics presented later in this section, and in a forthcoming EIR.

Cumulative Impacts

Impact C-LU-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, would not contribute considerably to a significant cumulative land use impact. (*Less than Significant*)

The proposed project combined with other past, present, and reasonably foreseeable future projects would result in a physical change to the neighborhood by increasing the number of residential units in the surrounding area and adding population density.

The proposed project would implement the types and densities of uses envisioned by the *Market and Octavia Area Plan* and analyzed in the *Market Octavia FEIR*. The *Market Octavia FEIR* considered that the project site would maintain the same land use designation of Downtown General Commercial and a building height designation of 120-400 feet tall. That FEIR found that Plan implementation could result in three major land use effects: 1) provision of an almost three-fold increase in total housing development in the area compared to existing conditions; 2) creation of a sustainable and more efficient land use pattern by concentrating and redirecting land uses into higher density, residential mixed-use projects near transit and neighborhood retail and services; and 3) a reduction in the negative land use effects of automobile traffic and parking in the area, including the creation of more livable and safe street environments for residents, pedestrians, and bicyclists. That EIR further found that additional housing development in the area in combination with other housing development in the vicinity would provide a more sustainable transit-oriented development pattern and would not disrupt or divide an established community or have a substantial adverse impact on the existing character of the project vicinity and that the cumulative impacts would not be significant. The introduction of high-rise residential development at the prominent intersection of Market Street and Van Ness Avenue, as envisioned in the *Market and Octavia Area Plan* and analyzed in the FEIR, would transform the

existing land use character of the area and would extend the general building scale of the downtown area westward to Van Ness Avenue. The *Market Octavia FEIR* did not identify any significant adverse effects related to Land Use that would result from such a change.

The proposed project, in combination with past, present, and reasonably foreseeable future projects in the southwestern portion of Downtown and the *Market and Octavia Area Plan*, would contribute to increases in the amount of residential, and retail uses in the project vicinity that are anticipated and planned for in the *Market and Octavia Plan*, such as the development on parcels along the east side of Octavia Boulevard. (See Figure 13 on p. 40.) This cumulative development is not expected to result in the construction of any physical barriers to neighborhood access or the removal of any existing means of access, either of which would physically divide the established community. In addition, this cumulative development is not expected to introduce any land uses, such as industrial uses, that would disrupt the community's established land use patterns.

There are two reasonably foreseeable projects within the project block: 1546-1564 Market Street and 22 Franklin Street. The 1546-1564 Market Street site is immediately adjacent to the project site to the west. That project calls for demolition of existing buildings on that site and construction of a 12-story, 120-foot tall, mixed-use residential building with up to 109 residential units, up to 28 off-street parking spaces, and approximately 4,900 gsf of ground-floor retail. The 22 Franklin Street site is further west and fronts along Franklin Street. That project calls for demolition of the existing commercial building on that site, and construction of an 8-story, 85-foot tall mixed-use residential building with up to 24 residential units, and 2,120 gsf of retail space. The proposed residential/retail project would be consistent with the land use character of these anticipated residential/retail projects on the project block as well as several other nearby residential proposals in the vicinity of the project site. The proposed project would be substantially taller and denser than these other projects in the vicinity. However, these projects, together with the proposed project, implement the *Market and Octavia Area Plan*, extending the downtown high-rise scale westward to properties at the intersection of Van Ness Avenue and Market Street with a transition to mid-rise development further west of the intersection.

The changes to Oak Street and the Van Ness Avenue and Market Street sidewalks under the proposed project would not conflict with implementation of anticipated transportation network changes within Van Ness Avenue and Market Street, in particular, the Van Ness BRT. The Van Ness BRT would create two dedicated transit lanes, one northbound and one southbound, flanked by stations and shelters, in the center of Van Ness Avenue. Most left turns from Van Ness Avenue would be eliminated. The proposed project, which calls for closure of a segment of Oak Street west of Van Ness Avenue, would not conflict with these or other proposed transportation network changes along Van Ness Avenue and Market Street. The forthcoming EIR transportation section will analyze potential impacts of the proposed project in combination with anticipated transportation network changes along Van Ness Avenue and Market Street. As discussed on

p. 25, the proposed changes within adjacent public rights-of-way would require review and approval from the SFMTA.

The proposed project, in combination with past, present, and reasonably foreseeable future projects, would also be consistent with local and regional growth projections, such as *Projections 2013*, published by ABAG, and adopted planning documents, such as the 2009 Update of the Housing Element of the *San Francisco General Plan*. This cumulative development is not expected to conflict with any land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Implementation of the proposed project, in combination with past, present, and reasonably foreseeable future projects, would intensify land uses in the project vicinity, but this intensification and growth is not expected to introduce any land uses that do not already exist in the area. As a result, the character of the vicinity would not undergo any substantial adverse changes related to land use.

For these reasons, the proposed project, in combination with past, present, and reasonably foreseeable future projects, would have less-than-significant cumulative land use impacts. The proposed project would not make a cumulatively considerable contribution to a significant cumulative land use impact, and no mitigation measures are necessary.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
2. POPULATION AND HOUSING— Would the project:					
a) Induce substantial 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 housing units or create demand for additional housing, necessitating the construction of replacement housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In general, a project that induces substantial growth or concentration of population is not viewed as having a significant impact on the environment unless this growth results in significant physical impacts on the environment. The physical environmental effects of this growth and increased density are examined under other environmental topics such as transportation and circulation, air quality, noise, recreation, public services, and utilities and service systems. Potential environmental effects associated with population and employment growth are discussed in the relevant sections of this Initial Study (Section E.5, Noise; Section E.6, Air Quality;

Section E.9, Recreation; Section E.10, Utilities and Service Systems; and Section E.11, Public Services) or will be discussed in the EIR (Transportation and Circulation).

Population and employment growth are also considered in the context of adopted local and regional plans and population and employment projections for the City and County of San Francisco. For the purposes of this analysis, the project-related population and employment increases are also evaluated in the context of urban growth attributable to implementation of the *Market and Octavia Area Plan*, which includes the project site.

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

The proposed project would introduce 320 residential dwelling units to the project site, which currently has no residential uses. It would also introduce approximately 12,970 gsf of retail/restaurant uses to the project site, which currently has active commercial and retail uses (All Star Cafe), in the existing three-story commercial building at 1500 Market Street; a 30-car surface parking lot; and office uses in the four-story commercial building at 1540 Market Street). The proposed project would directly increase population at the project site and would contribute to anticipated population growth in the neighborhood and citywide.

The 2010 U.S. Census reported a population of 805,235 persons in the City and County of San Francisco¹⁵ and a population of 3,264 persons in Census Tract 168.02, which includes the project site.^{16, 17} The population of Census Tract 168.02 and adjacent Census Tracts within a quarter-mile radius of the project site is approximately 31,978 persons.¹⁸ Based on an average household size for San Francisco of 2.26 persons per unit in 2010,¹⁹ the addition of 320 residential dwelling units would increase the population at the project site by about 723 residents. This would represent a residential population increase of about 22 percent over the reported 2010 population within Census Tract 168.02, about 2.3 percent over the reported

¹⁵ U.S. Census Bureau, American FactFinder, Profile of General Population and Housing Characteristics: 2010, 2010 Demographic Profile Data. Available online at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed September 29, 2014.

¹⁶ Census Tract 168.02 is bounded by Oak Street to the north, Van Ness Avenue to the east, Market Street to the south, and Laguna (between Market and Haight streets), Webster (between Haight and Page streets), and Fillmore (between Page and Oak streets) streets to the west.

¹⁷ U.S. Census Bureau, American FactFinder, Profile of General Population and Housing Characteristics: 2010, 2010 Demographic Profile Data. Available online at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed September 29, 2014.

¹⁸ Census Tracts 162, 124.02, 176.01, 177, 201, and 202. U.S. Census Bureau, American FactFinder, Profile of General Population and Housing Characteristics: 2010, 2010 Demographic Profile Data. Available online at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed September 29, 2014.

¹⁹ Association of Bay Area Governments (ABAG), *Projections 2013*. Census Tract 168.02 had an average household size of 1.70 persons in 2010. The *Market and Octavia Neighborhood Plan EIR* used an average household size of 1.91 persons. The citywide datum (2.26 persons) is used because it is more conservative.

2010 population within the project area (Census Tract 168.02 and adjacent Census Tracts), and about 0.09 percent over the reported 2010 citywide population. The population increase attributable to the proposed project would represent about 0.3 percent of the projected citywide population increase of about 280,465 persons between 2010 and 2040.²⁰

The project-related residential population growth that would result from the increase in the number of housing units on the project site would be within, and consistent with, population projections for San Francisco developed by ABAG as well as projections related to the implementation of the *Market and Octavia Area Plan*. In addition, this increase in population would not substantially change existing area-wide population characteristics, and the resulting density would not exceed levels common and accepted in urban areas such as San Francisco, as well as levels anticipated and encouraged under the *Market and Octavia Area Plan*. Therefore, implementation of the proposed project would not directly induce substantial growth or concentration of population that would cause a substantial adverse physical change to the environment. Furthermore, the proposed project would not indirectly induce substantial population growth in the project vicinity because its attendant public realm improvements would not augment the carrying capacity of adjacent roadways, utilities, or other public infrastructure.

The proposed project would replace existing commercial activities on the project site (the All Star Cafe, the surface parking lot, and office uses at the existing 1540 Market Street building) with a mixed-use building with 320 residential units, 160 parking spaces, and 12,970 gsf of ground-floor retail/restaurant uses. The existing commercial activities on the project site have approximately 45 employees.²¹ The proposed development program would result in the generation of approximately 41 new jobs (11 property management/maintenance jobs for the new One Oak Street building and 30 jobs for the new retail uses^{22, 23}). As a result, there would be a net displacement of approximately four jobs. For this reason, implementation of the proposed project would not induce substantial growth or concentration of employment that would cause a substantial adverse physical change to the environment.

In summary, the project-related residential population increase would not be substantial in relation to the expected increases in the residential population in the Market and Octavia neighborhood and San Francisco. The proposed project would not directly or indirectly induce

²⁰ ABAG, *Projections 2013*, p. 75. The projected residential population of San Francisco for 2040 is 1,085,700 persons.

²¹ E-mail communication with Project Sponsor, October 2, 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

²² E-mail communication with Project Sponsor, October 15, 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

²³ San Francisco Planning Department, *Transportation Impact Analysis Guidelines for Environmental Review*, October 2002, Appendix C, Table C-1. An employment factor of 350 gsf per employee is used for general retail uses.

substantial population growth or concentration of employment in the project vicinity, in the Market and Octavia neighborhood, or citywide such that an adverse physical change to the environment would occur. This impact would be less than significant, and no mitigation measures are necessary.

Impact PH-2: The proposed project would not displace substantial numbers of existing housing units or people nor would it create demand for additional housing, necessitating the construction of replacement housing. (*Less than Significant*)

The project site is not developed with residential uses; therefore, no residential displacement would result from implementation of the proposed project. The proposed project would implement the *Market and Octavia Area Plan*, which envisions and encourages high-density housing at the project site and other appropriate locations. The proposed project would help to meet the City's overall housing demands by adding 320 new residential units to the City's housing stock and either 64 off-site below-market-rate (BMR) units within one mile of the project site or payment of an in-lieu fee in compliance with the City's Inclusionary Affordable Housing Program (Planning Code Section 415).²⁴ The proposed change in land use on the project site (from commercial and retail uses to a mixed-use residential building with ground-floor retail/restaurant uses) would result in a net decrease in on-site employment and would not create additional demand for housing. Thus, the proposed project would have a less-than-significant impact related to displacement of residents and the demand for additional housing. No mitigation measures are necessary.

Cumulative Impacts

Impact C-PH-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, would not contribute considerably to significant cumulative population and housing impacts. (*Less than Significant*)

The proposed project would not contribute to a significant adverse cumulative impact related to population growth. The proposed project would create a new high-density residential development on an urban infill site at the intersection of major mass transit lines, and in close proximity to a concentration of employment, retail, and other services. This area of San Francisco is particularly suited, and therefore planned, to absorb substantial residential population growth and to become residential in character over time.

The list of past, present, and reasonably foreseeable future development is provided on Initial Study pp. 40-45 and includes mixed-use, commercial, and residential projects. Together, these

²⁴ Projects of five or more residential units are required to contribute to the creation of BMR housing, either through direct development of BMR residential units on the project site (equal to 12 percent of the project's overall residential units), within a separate building within 1 mile of the project site (equal to 20 percent of the project's overall residential units), or through an in-lieu payment to the Mayor's Office of Housing.

projects entail development of up to 2,047 residential units, approximately 101,010 gsf of retail/commercial space, approximately 422,700 gsf of office space, and approximately 46,600 gsf of medical and social service uses.²⁵ Based on a conservative average (i.e., one that may overstate rather than understate household size) of approximately 2.26 persons per household and an employment factor of 350 gsf per employee for retail uses, these projects could add up to 4,625 residents and up to 290 employees to the project area.²⁶ Cumulative development in the project vicinity would result in an intensification of land uses and cumulative increases in the residential and employment populations at the neighborhood, citywide, and regional levels.

Although the proposed project would combine with these projects and add to citywide population and employment growth, the project-related contribution to population and employment growth as described under Impact PH-1, such growth would be consistent with 2040 population and employment growth projections presented in *Plan Bay Area* and *Projections 2013* and would not result in substantial, unplanned population and employment growth in the area. The project-related contribution to cumulative population and employment growth is also consistent with the planned urban growth attributable to implementation of the *Market and Octavia Area Plan*. Although the proposed project would contribute to the population and employment growth in the Market and Octavia neighborhood, it would not cause a significant adverse physical impact, since it would focus new housing development in San Francisco in an established urban area that has a high level of transit access and other public services that can accommodate the proposed residential population increase,²⁷ while generally conforming to the height and bulk parameters of the Planning Code. The *Market Octavia FEIR* found this increase in housing development, as well as in residential population, to not constitute an adverse physical environmental impact. Therefore, while the proposed project would contribute to this cumulative population growth, this level of growth would fall into the range of effects discussed in the *Market Octavia FEIR*, as would the other projects being developed in the vicinity of the project site.

Additionally, the proposed project and the nearby projects would contribute up to 2,367 residential units to San Francisco's housing supply when constructed, and meet a portion of the City's overall existing demand for housing. As described under Impact PH-2, the proposed project would not result in residential displacement and would meet its obligation to create below market rate housing by providing up to 64 off-site BMR units or payment of an in-lieu fee. The nearby residential projects would also be required to address the requirements of the Inclusionary Affordable Housing Program through in-lieu payments or other means as required in Planning

²⁵ The increase in office space is primarily due to the proposed shifting of City office functions from 1660 Mission Street to 1500-1580 Mission Street. Therefore, this shift and/or replacement of existing office uses is not part of the new employment calculation. Future plans for 1660 Mission Street are not factored into the area totals because there is no information available regarding its future use.

²⁶ San Francisco Planning Department, *Transportation Impact Analysis Guidelines for Environmental Review*, October 2002, Appendix C, Table C-1. General retail factor used.

²⁷ San Francisco Planning Department, *Market and Octavia Neighborhood Plan EIR*, 2005, p. 4-75. Available online at <http://www.sf-planning.org/index.aspx?page=1714>. Accessed September 30, 2014.

Code Section 415. Therefore, implementation of the proposed project, in combination with the nearby projects, would result in a direct increase in BMR units locally and citywide and would not contribute to a cumulative citywide shortfall in affordable housing.

As described above, the nearby projects when considered together would add approximately 290 net new employees to the project area by 2040. The nearby projects’ estimated employment increase of up to 290 employees would generate a demand for approximately 245 new housing units in San Francisco by 2040 and would not contribute in a considerable manner to cumulative housing impacts. As described under Impact PH-2, the proposed project would result in a net decrease in on-site employment and would not contribute to a cumulative citywide demand for additional housing.

In conclusion, the proposed project, in combination with past, present, and reasonably foreseeable future development, would not make a considerable contribution to significant cumulative impacts related to population and housing, or create housing demand that would likely be unmet. No mitigation measures are necessary.

<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>
3. CULTURAL AND PALEONTOLOGICAL RESOURCES—Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco <i>Planning Code</i> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) 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"/>

Impact CP-1: The proposed project would not cause a substantial adverse change in the significance of an historic architectural resource. (*Less than Significant*)

Direct Effects on On-Site Historic Architectural Resources

The easternmost portion of the project site, 1500 Market Street (Lot 1), is currently occupied by an existing three-story, 2,750-sq.-ft. commercial building (All Star Cafe), built in 1980. As a structure less than 50 years of age (as of the date of this Notice of Preparation / Initial Study) and for which the City has no information indicating that the structure qualifies as an historical resource, the 1500 Market Street building is considered a “Category C” property under the San

Francisco Planning Department's *CEQA Review Procedures for Historic Resources*, and is not considered an historical resource for the purposes of CEQA.²⁸

The westernmost portion of the project site at 1540 Market Street (Lot 5) is occupied by a vacant, four-story, 48,225-sq.-ft. commercial building, built in 1920. The building is not included in, nor determined eligible for inclusion in, any federal, state, or adopted local register of historic resources (including the National Register of Historic Places, the California Register of Historical Resources [CRHR], and Planning Code Articles 10 and 11), pursuant to CEQA Guidelines Section 15064.5(a)(1) and (2). Because the 1540 Market Street building is greater than 50 years of age, an Historic Resource Evaluation (HRE) was prepared to determine if the building is eligible for listing in the CRHR.²⁹

The HRE determined that the 1540 Market Street building is not eligible for listing in the CRHR as an individual resource nor as contributor to a district. Under CRHR Criterion 1 (Events) the HRE found that the building is not associated with significant events in the history of San Francisco or the State of California, including events related to Van Ness Auto Row, despite being located within the Van Ness Auto Row Support Structures Survey area. Under CRHR Criterion 2 (Persons), the HRE found that the building was not associated with the lives of important persons. Under CRHR Criterion 3 (Architecture), the HRE found that the building has been substantially altered from its original form and few of its original character-defining architectural features are evident in the present day. Therefore, the HRE found that the building no longer embodies the distinctive characteristics of its original type, period, and method of construction.³⁰

For these reasons, the project site contains no historic architectural resources. The proposed project would have no direct effect on an on-site historic architectural resource.

Indirect Effects on Off-Site Resources

While the proposed project would have no direct physical impact on any historic architectural resources, the proposed project could have an indirect visual impact on nearby off-site resources

²⁸ San Francisco Planning Department, Draft *CEQA Review Procedures for Historic Resources*, March 31, 2008, pp. 3-8.

²⁹ Kelley & VerPlanck, *Historical Resource Evaluation, 1540 Market Street San Francisco, California*, September 2009, Revised March 2010, p. 19. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, as part of Case File No. 2009.0159E.

³⁰ The HRE did not evaluate the 1540 Market Street building under Criterion 4 (Information Potential). Study of the physical fabric of the building is unlikely to yield important scientific information about history or prehistory. Criterion 4 is generally understood to apply primarily to archaeological resources (although it may apply to architectural resources under limited circumstances not applicable here). The potential for the presence of subsurface archaeological resources within the project site is addressed below under Impact CP-2.

by altering the existing immediate visual setting of 50 Oak Street and 25 Van Ness Avenue. 50 Oak Street is a five-story Neoclassical building built in 1914, rated a Category II, Significant building under Article 11 of the Planning Code. 25 Van Ness Avenue is an eight-story Renaissance Revival building built in 1910, rated a Category I, Significant building under Article 11 of the Planning Code. 25 Van Ness Avenue is visually prominent from Oak Street, Market Street, and Van Ness Avenue.

The proposed project calls for placement of a 400-foot-tall high-rise tower within the block to the south of these historic architectural resources. In addition, the proposed project would introduce a new wind canopy feature into the Oak Street right-of-way. When viewed from the streetscape improvement area within the project site, the proposed project would alter and obscure existing views of 50 Oak Street and 25 Van Ness. When viewed from off site at greater distances, (e.g., from across Van Ness Avenue and the Van Ness Avenue/Market Street intersection, and from Oak Street to the west of the project site) the proposed project would partially obscure primary façades and alter the existing visual setting of these resources. The proposed project would also diminish the existing visual prominence of the 25 Oak Street building as it is currently viewed from these areas.

As individually significant buildings, the integrity and significance of 50 Oak Street and 25 Van Ness Avenue are not premised on their possessing an intact visual setting or a cohesive visual relationship with their surroundings. Rather, the original visual setting of these resources has been transformed by more recent nearby development. The proposed project would not destroy historic features and materials that characterize nearby historic architectural resources. The proposed wind canopy would be separated from the Oak Street façade of 25 Van Ness by about 32 feet and from 50 Oak Street by about 55 feet. It would be contemporary in design and materials and would not convey a false sense of historic development. The character-defining features and form of nearby historic architectural resources would continue to be clearly evident from surrounding streets, although less visually prominent than under current conditions.

Conclusion

For these reasons, the indirect visual impacts of the proposed project are not those of a project that “demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by the lead agency for purposes of CEQA.” (CEQA Guidelines Section 15064.5(b)(2)(C)) Implementation of the proposed project would not have a substantial adverse effect on the significance of an historic architectural resource under CEQA. The impact of the proposed project would be less than significant. No mitigation measures are required.

Impact CP-2: Construction activities for the proposed project could cause a substantial adverse change in the significance of archaeological resources and human remains, if such resources are present within the project site. (*Less than Significant with Mitigation*)

Despite the historic disruption of the project site over 150 years of development, the potential remains that as-yet unknown and historically significant archaeological deposits may be present beneath the project site. The proposed project would have the potential to adversely affect significant archaeological resources if they are present on the site. A draft Archaeological Research Design and Treatment Plan (ARD/TP) has been prepared and submitted to the Environmental Review Officer for review and approval. The draft ARD/TP notes that although the project site “was developed during the 1800s, it is unknown if such development would have destroyed any prehistoric deposits within the upper levels of dune sand that existed on the property prior to the 1850s.”³¹ Additionally, the report notes that, in the event that soil conditions require an alternative approach to foundation construction and the installation of piles with soil improvement techniques is necessary, prehistoric deposits situated in the dune sand, the relic marsh, and the Colma Formation strata (if they exist under the project site) may be disturbed during construction.³² The draft ARD/TP also notes that potentially historic archaeological resources associated with early development prior to the 1906 Earthquake and Fire are likely present below layers of fill on the project site.³³

The *Market Octavia FEIR* noted that implementation of the *Market and Octavia Neighborhood Plan* (adopted as the *Market and Octavia Area Plan*) could potentially result in significant impacts to archaeological resources as a result of soil disturbance associated with development. Implementation of Mitigation Measures 5.6.A1 through 5.6.A4, as identified in the *Market Octavia FEIR*, would reduce these potential impacts to archaeological resources to a less-than-significant level.³⁴ Measures recommended by the draft ARD/TP are incorporated into Mitigation Measure M-CP-2: Archaeological Testing, Monitoring, Data Recovery, and Reporting, listed below, which requires site preparation and building construction to be conducted in accordance with the requirements of the approved ARD/TP. Implementation of this measure would reduce potential effects on archaeological resources, including human remains, to a less-than-significant level.

³¹ William Self Associates, *Draft Archaeological Research Design and Treatment Plan for the 1510-1540 Market Street Project, City and County of San Francisco, California*, February 2012 (hereinafter “*Draft ARD/TP for 1510-1540 Market Street*”), p. 74. Available for review at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, as part of Case File No. 2009.0159E.

³² William Self Associates, *Draft ARD/TP for 1510-1540 Market Street*, p. 79.

³³ William Self Associates, *Draft ARD/TP for 1510-1540 Market Street*, p. 74.

³⁴ San Francisco Planning Department, *Market and Octavia Neighborhood Plan Final EIR*, 2005, pp. 4-165 to 4-170. Available online at <http://www.sf-planning.org/index.aspx?page=1714>.

Mitigation Measure M-CP-2: Archaeological Testing, Monitoring, Data Recovery, and Reporting.

Based on a reasonable presumption that pre-historic and historic archaeological resources may be present within the project site, the following measures shall be undertaken, consistent with the MO Plan EIR mitigation measures to avoid any potentially significant adverse effect from the proposed project on buried cultural resources.

- a. The project sponsor shall retain the services of a qualified archaeological consultant having expertise in California prehistoric and urban historical archaeology. The archaeological consultant's work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the Environmental Review Officer for review and comment, and shall be considered draft reports subject to revision until final approval by the Environmental Review Officer.

Predicting the location of potentially significant subsurface archaeological resources is never completely accurate; therefore, the possibility remains that important resources may be encountered in locations that have not been tested, and may become apparent during the course of construction. The Archaeological consultant shall be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure, or if archaeological resources are encountered during construction.

- b. Due to the potential for intact cultural resources within and beneath the fill layer underlying the existing building and parking lot on the property, the archaeological consultant shall undertake an archaeological testing program prior to and coinciding with mass excavation on the site. The archaeological testing shall include the following measures:
 1. A systematic core-sampling program shall be undertaken prior to excavation activity on the site to address uncertainties about prehistoric-period archaeological sensitivity of the geological strata that underlie the project site. A hydraulic coring device, or "Geoprobe," utilizing a dual-wall system to improve recovery will be used to obtain six core samples extending to the maximum depth of disturbance across the footprint of the area that will be impacted by mass excavation or pile driving (if a pile foundation system is required).
 2. Testing for historic-period resources includes mechanical excavation of test trenches and areal excavations in two specific areas of the project site identified in the ARD/TP that have the most potential to contain intact archaeological deposits and features that would be disturbed by excavation and construction activities.
- c. If potentially significant cultural resources are encountered during the testing program, the archaeological consultant shall determine if redirection of construction excavation is needed, and shall evaluate the significance of the find and discuss appropriate mitigation(s) in consultation with EP and the project sponsor. In consultation with EP, the project archaeological consultant shall develop avoidance measures or other appropriate mitigation, including data recovery, as needed. If data recovery is the preferred mitigation alternative, the consultant shall develop an Archaeological Data Recovery Plan (ADRP) for submittal to EP for review and approval. Once approved the consultant shall implement the measures in the plan to

recover any potentially significant data. The ADRP will reference the prehistoric and historic contexts and research design in the ARD/TP and will provide a detailed data recovery plan. The data recovery plan will include the following procedures:

1. Determination of the structure and stratigraphic integrity, the date of the deposition, and the range and quantity of associated artifacts, if possible;
 2. An appropriate portion of each feature will be excavated manually to assess its content and integrity;
 3. A detailed profile of the feature will be produced, and each layer investigated for contents and temporal affiliation;
 4. The field crew will produce plans to-scale, take digital photographs, and map all features and deposits using WSA's Trimble Geo-XT GPS Data Logger, which provides sub-meter accuracy;
 5. Diagnostic artifacts will be removed, bagged, and catalogued; and
 6. Soil color and texture samples will be recovered and soil profiles will be drawn, if applicable.
- d. Based on the results of the archaeological testing program, if EP, in consultation with the project archaeologist, determines that an archaeological monitoring program shall be implemented, the project archaeologist shall prepare an Archaeological Monitoring Plan (AMP) that will provide guidance to the archaeological monitor and the construction manager as to the procedures that are to be followed in the event that previously unknown or unanticipated buried cultural resources are encountered during excavation. In general, the AMP will include the following guidelines and recommendations:
1. Construction work should be stopped until the project archaeologist has had an opportunity to evaluate the significance of the find and discuss appropriate mitigation(s) in consultation with the construction manager, the archaeological monitor, and EP. At that time, it will also be determined if redirection of construction excavation is needed;
 2. Upon observing what is reasonably believed to be a cultural deposit or feature, the archaeological monitor shall immediately request the equipment operator to stop excavation and shall notify the construction manager, who shall direct that all construction activity stop within 25 ft. of the resource in order to permit an examination of the find. The archaeological monitor is not permitted to direct other movements of earth-moving machinery.
 3. If the archaeological monitor determines that the cultural object or feature is potentially significant, the archaeological monitor must then immediately notify the project archaeological consultant who shall initiate appropriate consultations with the construction manager and EP to determine the appropriate avoidance or mitigation measures. All information needed, including soil color or type, elevation, location, photographs, sketch maps, etc., shall be gathered as quickly as conditions permit to allow a final determination of the significance of the find.
 4. EP and the project archaeological consultant shall develop avoidance measures or other appropriate mitigation, and may include data recovery. If potentially significant cultural resources are identified during construction monitoring and it is decided that data recovery is the preferred mitigation alternative, the project

archaeological consultant shall develop an ADRP per the criteria outlined above in measure 3, for submittal to EP for review and approval, and shall implement the measures in the approved plan to recover any potentially significant data found during construction.

- e. In the unlikely event that human remains are encountered during implementation of archaeological testing, the remains must be treated in accordance with the requirements of CEQA Section 15064.5 and Section 7050.5(b) of the California Health and Safety Code, which states:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

1. The county coroner, upon recognizing the remains as being of Native American origin, is responsible to contact the NAHC within 24 hours, who then assigns a Native American Most Likely Descendant (MLD) to the Project. The MLD, or in lieu of the MLD, the NAHC, has responsibility to provide guidance as to the ultimate disposition of any Native American remains.
 2. In the event the remains are determined to be non-Native American, under CEQA Section 15064.5 (a) (4), the City and County of San Francisco, as lead agency, may determine that the remains constitute an historical resource. As such, the remains may have the potential to provide essential information on Gold Rush-era and later 19th-century diet, disease, mortality, and internment practices, among other important research topics.
- f. Upon completion of archaeological testing and monitoring, a draft Final Archaeological Resources Report (FARR) documenting the results of implementing the ARD/TP shall be prepared by the project archaeologist and submitted to EP for review. The content of the FARR shall be consistent with the City of San Francisco Guidelines. A final draft of the FARR shall be produced in response to comments provided by EP.
 - g. Exposure of sub-surface archaeological deposits increases the risks of looting and destruction of valuable and spatially-sensitive archaeological information.³⁵ Consequently, prior to site preparation and excavation, a security fence shall be erected around the project parcel. Once surface hardscapes have been removed and archaeological testing begins, a security guard shall be employed to provide security during those periods when the site is otherwise unoccupied. It shall be the security

³⁵ William Self Associates, *Draft ARD/TP for 1510-1540 Market Street*.

guard's responsibility to insure that no unauthorized excavations occur and no cultural material is removed from the site.

- h. Upon the completion of the final report on archaeological investigations, the collection will be transferred to an appropriate facility for permanent curation where it will be available for study by researchers in the future. This facility will meet the standards set forth in *Curation of Federally Owned and Administered Archaeological Collections*.³⁶ In addition to the artifacts, soil samples, etc., the facility will also receive copies of field notes and drawings, special studies, and the final report. The designated repository for the San Francisco Bay Area is the Archaeological Collections Facility at Sonoma State University.

Implementation of Mitigation Measure M-CP-2 would reduce the impact to previously undiscovered archaeological resources, including human remains, to a less-than-significant level.

Impact CP-3: Construction activities of the proposed project could affect a unique paleontological resource or a unique geologic feature. (*Less than Significant with Mitigation*)

Excavation under the proposed project has the potential to disturb significant paleontological resources, if such resources are present within the project site. Site disturbance could impair the ability of significant paleontological resources within the project site to yield important scientific information. Unless mitigated, implementation of the proposed project could potentially impair the significance of paleontological resources in the project area and would therefore be considered a potentially significant impact under CEQA. Mitigation Measure M-CP-3: Paleontological Resources Monitoring and Mitigation Program, shown below, calls for a qualified paleontologist to implement an approved Paleontological Resources Monitoring and Mitigation Program (PRMMP). Implementation of the approved plan for monitoring, recovery, identification, and curation under Mitigation Measure M-CP-3 would ensure that the scientific significance of the resource under CRHR Criterion 4 (Information Potential) would be preserved and/or realized. With implementation of Mitigation Measure M-CP-3, implementation of the proposed project would not cause a substantial adverse change to the scientific significance of a paleontological resource. Therefore, this impact would be less than significant with mitigation.

Mitigation Measure M-CP-3: Paleontological Resources Monitoring and Mitigation Program

The project sponsor shall retain the services of a qualified paleontological consultant having expertise in California paleontology to design and implement a Paleontological Resources Monitoring and Mitigation Program. The PRMMP shall include a description of when and where construction monitoring would be required; emergency discovery procedures; sampling and data recovery procedures; procedure for the preparation, identification, analysis, and curation of fossil specimens and data recovered; preconstruction coordination procedures; and procedures for reporting the results of the monitoring program.

³⁶ 36 CFR 79, as cited in William Self Associates, *Draft ARD/TP for 1510-1540 Market Street*, p. 74.

The PRMMP shall be consistent with the Society for Vertebrate Paleontology Standard Guidelines for the mitigation of construction-related adverse impacts to paleontological resources and the requirements of the designated repository for any fossils collected. During construction, earth-moving activities shall be monitored by a qualified paleontological consultant having expertise in California paleontology in the areas where these activities have the potential to disturb previously undisturbed native sediment or sedimentary rocks. Monitoring need not be conducted in areas where the ground has been previously disturbed, in areas of artificial fill, in areas underlain by nonsedimentary rocks, or in areas where exposed sediment would be buried, but otherwise undisturbed.

The consultant's work shall be conducted in accordance with this measure and at the direction of the City's ERO. Plans and reports prepared by the consultant shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Paleontological monitoring and/or data recovery programs required by this measure could suspend construction of the proposed project for as short a duration as reasonably possible and in no event for more than a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce potential effects on a significant paleontological resource as previously defined to a less-than-significant level.

Cumulative Impacts

Impact C-CP-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity, would not result in a cumulatively considerable contribution to significant cumulative impacts on cultural resources. (*Less than Significant with Mitigation*)

The proposed project would have no direct physical impact on an historic architectural resource. The character-defining features and form of nearby off-site historic architectural resources would continue to be evident with the proposed project.

The adjacent project at 1546-1564 Market Street, immediately west of the project site, would include demolition of two existing buildings, 1546-1564 Market Street and 55 Oak Street, and construction of a 12-story residential building. The existing building at 1546-1564 Market Street is one-story commercial building, built in 1907. It is individually eligible for listing on the CRHR under Criterion 1 (Events) for its association with the immediate rebuilding efforts after the 1906 Earthquake and Fire and Criterion 3 (Design/Construction), for embodying the distinctive characteristics of a single-story, multiple-unit commercial building constructed on Market Street during commercial reconstruction efforts following the 1906 Earthquake and Fire. The existing building at 55 Oak Street is a one-story, reinforced-concrete automotive repair shop, built in 1929. It is individually eligible for listing on the CRHR under Criterion 1 (Events) for its association with early automotive repair facilities and under Criterion 3 (Design/Construction) for clarity of expression as an automotive repair shop. For these reasons, the *1546-1564 Market Street Project Draft EIR* concluded that the demolition of the 1546-1564 Market Street and 55

Oak Street buildings would each result in a significant impact to an individual historical resource.³⁷

While these historic architectural resources are immediately adjacent to the project site, impacts on historical resources resulting from the adjacent 1546-1564 Market Street project are unrelated to those of the proposed project. The proposed project would not contribute to any cumulative loss of resources associated with the reconstruction after the 1906 Earthquake and Fire, or with early automotive uses along the Van Ness corridor.

Conversely, the 1546-1564 Market Street project would not contribute considerably to the proposed project's indirect visual impacts on the visual prominence of 50 Oak Street and 25 Van Ness Avenue. The proposed new building at 1546-1564 would be a midblock infill building that would not obstruct existing street-level views of 50 Oak Street and 25 Van Ness Avenue. Likewise, the 1546-1564 Market Street project would not contribute considerably to impacts of the proposed project on the visual setting of 50 Oak Street and 25 Van Ness Avenue. As discussed above under Impact CP-1, the significance of these individual resources is not premised on their possessing an intact visual setting or a cohesive visual relationship with their surroundings.

For these reasons, the proposed project would not contribute to any cumulative impact on historic architectural resources that could result from past, present, or reasonably foreseeable future projects in the vicinity of the project site.

The significance of impacts on archaeological and paleontological resources is premised on the potential loss of historic and scientific information. When considered with other past and proposed projects within San Francisco and the Bay Area region, the potential disturbance of archaeological and paleontological resources within the project site could make a cumulatively considerable contribution to a loss of significant historic and scientific information about California, Bay Area, and San Francisco history and prehistory. As discussed above, implementation of the approved plans for testing, monitoring, and data recovery would preserve and realize the information potential of archaeological and paleontological resources. The recovery, documentation, and interpretation of information about archaeological and paleontological resources that may be encountered within the project site would enhance knowledge of prehistory and history. This information would be available to future archaeological and paleontological studies, contributing to the collective body of scientific and historic knowledge. With implementation of Mitigation Measure M-CP-2: Archaeological Testing, Monitoring, Data Recovery and Reporting and Mitigation Measure M-CP-3:

³⁷ City and County of San Francisco Planning Department, *1546-1564 Market Street Draft Environmental Impact Report*, January 7, 2015. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, as part of Case File No. 2012.0877E.

Paleontological Resources Monitoring and Mitigation Program, the proposed project's contribution to cumulative impacts, if any, would not be cumulatively considerable. Therefore, this impact would be less than significant.

<u>Topics:</u>	<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>
4. TRANSPORTATION AND CIRCULATION— Would the project:					
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels, obstructions to flight, or a change in location, that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project site is not located within an airport land use plan area or in the vicinity of a private airstrip. Therefore, Topic 5c is not applicable to the proposed project.

Construction and operation of the proposed project would increase auto, transit, pedestrian, and bicycle trips to and from the project site and would modify existing access and egress points to the project site related to pedestrian access, vehicular access, parking, and loading. The proposed project would also change the existing circulation pattern of Oak Street by closing a segment of Oak Street to regular vehicular traffic to create a new publicly accessible open space within the existing Oak Street roadway. The proposed project has the potential to result in unacceptable levels of service at local intersections, could increase transportation hazards, and could conflict with adopted policies related to transit, bicycle, or pedestrian facilities. The potential project-generated and cumulative transportation impacts will be discussed in the EIR, based on the results of a Transportation Impact Study.

Impact TR-1: The proposed project could result in unacceptable levels of service at local intersections, which would conflict with an established measure of effectiveness of performance of the circulation system; could increase transportation hazards due to a design feature; could result in inadequate emergency access to the project site; or could conflict with adopted policies related to transit, bicycle, or pedestrian facilities. (Potentially Significant)

A transportation impact study will be prepared for the proposed project and summarized in the EIR. The study will examine existing conditions and assess the proposed project’s net-new daily and PM peak hour trips and their impacts on intersection operations, transit, passenger loading operations, circulation, large-truck equipment loading operations, bicycle and pedestrian safety, emergency vehicle access, and parking.

Cumulative Impacts

Impact C-TR-1: The proposed project, in combination with past, present and reasonably foreseeable future projects in the site vicinity, could result in a cumulatively considerable contribution to a significant transportation and circulation impact. (Potentially Significant)

The transportation impact study will evaluate the project’s contribution of net-new trips in conjunction with those projected to occur from reasonably foreseeable projects and background growth anticipated within both the neighborhood and citywide context. The EIR cumulative transportation analysis will also take into consideration the anticipated future implementation of transportation network changes under the TEP, the Van Ness BRT Project, and the Better Market Street Project. Combined, the data will then be used to determine impacts on intersection operations, transit, passenger loading operations, circulation, large-truck equipment loading operations, bicycle and pedestrian safety, emergency vehicle access, and parking.

<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>
5. NOISE—Would the project:					
a) Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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) For a project located within 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"/>
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Be substantially affected by existing noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project site is not located within an airport land use plan area or within 2 miles of a public use airport, nor is it within the vicinity of a private airstrip. Therefore, the proposed project would not expose people residing or working in the area to excessive aviation-related noise levels, and Topics 6e and 6f are not applicable to the proposed project.

SETTING

Fundamentals of Environmental Noise

Noise is generally defined as sound that is loud, disagreeable, unexpected, or unwanted. It consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep. Sound is mechanical energy transmitted in the form of a wave by a disturbance or vibration that causes pressure variation in air the human ear can detect.

Noise Descriptors

The sound pressure level has become the most common descriptor used to characterize the loudness of an airborne ambient sound, and the decibel (dB) scale is used to quantify sound intensity. Because sound can vary in intensity by over one million times within the range of human hearing, a logarithmic loudness scale is used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all sound frequencies; therefore, sound is “weighted” to emphasize frequencies to which the ear is more sensitive in a process called “A-weighting,” expressed as “dBA.”

On this scale, the normal range of human hearing extends from about 0 dBA to about 140 dBA. Except in carefully controlled laboratory experiments, a change of only 1 dBA in sound level cannot be perceived. Outside of the laboratory, a 3 dBA change is considered a perceptible difference. A 10 dBA increase in the level of a continuous noise represents a perceived doubling of loudness. Variations in noise exposure over time are typically expressed in terms of a

steady-state energy level (called L_{eq}) that represents the acoustical energy of a given measurement. L_{eq} (24) is the steady-state acoustical energy level measured over a 24-hour period. Because humans are more sensitive to unwanted noise intrusion during the evening and at night, a 24-hour noise descriptor, called the day-night noise level (L_{dn}), is used. L_{dn} adds a 10 dBA penalty to all nighttime noise levels between 10 PM and 7 AM. The noise levels presented herein are expressed in terms of dBA, unless otherwise indicated.

Attenuation of Noise

A person's distance from a noise source affects how noise levels attenuate (decrease). Transportation noise sources tend to be arranged linearly, such that roadway traffic attenuates at a rate of 3.0 dBA to 4.5 dBA per doubling of distance from the source. Point sources of noise, including stationary, fixed, and idle mobile sources, like idling vehicles or construction equipment, can attenuate at a rate of 6.0 dBA to 7.5 dBA per doubling of distance from the source, depending on the type of intervening ground surfaces and vegetation.³⁸ Meaningful reductions or attenuation of noise levels can also be accomplished by "shielding" or providing a barrier, which may be in the form of an intervening structure or terrain. Buildings next to a roadway may shield people from traffic noise, and closely spaced buildings may provide about 5 dBA of reduction.³⁹ Building façades also provide a barrier to ambient exterior noise.

Planning for Noise Exposure

The sensitivity of land uses is a primary consideration when assessing the compatibility of surrounding uses and noise sources. The Environmental Protection Element of the *San Francisco General Plan* contains Land Use Compatibility Guidelines for Community Noise for determining the compatibility of various land uses with different noise levels (see **Figure 14: San Francisco Land Use Compatibility Chart for Community Noise**). These guidelines, which are similar to state guidelines set forth by the Governor's Office of Planning and Research, indicate maximum acceptable noise levels for various land uses. For residential land uses, the maximum satisfactory exterior noise level without incorporating noise insulation features into a project is 60 dBA (L_{dn}). Where existing noise levels exceed 60 dBA (L_{dn}), residential development is generally discouraged. New residential development where exterior noise levels exceed 60 dBA (L_{dn}) must demonstrate, through the preparation of a detailed noise analysis, how the interior noise standard of 45 dBA (L_{dn}) would be met. Interior noise levels can be reduced through the use of noise insulating windows and by using sound insulation materials in walls and ceilings.

³⁸ Natural attenuation as sound propagates is based on the inverse square law and equations for geometric spreading of noise waves over hard and soft surfaces. (U.S. Housing and Urban Development, *The Noise Guidebook*, 1985, p. 24.)

³⁹ California Department of Transportation, Division of Environmental Analysis, "Technical Noise Supplement," November 2009, pp. 2-39 and 2-40. Available online at http://www.dot.ca.gov/hq/env/noise/pub/tens_complete.pdf. Accessed December 23, 2014.

Figure 14: San Francisco Land Use Compatibility Chart for Community Noise

Land Use Category	Sound Levels and Land Use Consequences (L _{dn} Values in dB)						
	55	60	65	70	75	80	85
Residential – All Dwellings, Group Quarters	Satisfactory		Discouraged				
Transient Lodging - Motels, Hotels	Satisfactory		Discouraged				
School Classrooms, Libraries, Churches, Hospitals, Nursing Homes, etc.	Satisfactory		Discouraged				
Auditoriums, Concert Halls, Amphitheaters, Music Shells	Satisfactory		Discouraged				
Sports Arenas, Outdoor Spectator Sports	Satisfactory		Discouraged				
Playgrounds, Parks	Satisfactory		Discouraged				
Golf Courses, Riding Stables, Water-Based Recreation Areas, Cemeteries	Satisfactory		Discouraged				
Office Buildings – Personal, Business, and Professional Services	Satisfactory		Discouraged				
Commercial – Wholesale and Some Retail, Industrial/Manufacturing, Transportation, Communication, and Utilities	Satisfactory		Discouraged				
Manufacturing – Noise-Sensitive Communications – Noise-Sensitive	Satisfactory		Discouraged				

Satisfactory, with no special noise insulation requirements.

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

New construction or development should generally not be undertaken.

Source: San Francisco Planning Department, 1996. *San Francisco General Plan*, adopted on June 27, 1996. Available online at http://www.sf-planning.org/ftp/general_plan/I6_Environmental_Protection.htm. Accessed November 4, 2014.

Existing Ambient Noise Levels

The project site is located in San Francisco's Downtown/Civic Center neighborhood on the south side of Oak Street near the intersection of Market Street and Van Ness Avenue. Major Muni transit routes are located on Van Ness Avenue and Market Street, both on the street and in the Muni Metro subway. Ambient noise levels in the vicinity of the project site are typical of noise levels in San Francisco's Downtown/Civic Center neighborhood, which are dominated by noise produced by vehicular traffic, including trucks, cars, buses, and emergency and delivery vehicles.

Existing Ambient Noise Levels

The project site is located in San Francisco's Downtown/Civic Center neighborhood on the south side of Oak Street near the intersection of Market Street and Van Ness Avenue. Major Muni transit routes are located on Van Ness Avenue and Market Street, both on the street and in the Muni Metro subway. Ambient noise levels in the vicinity of the project site are typical of noise levels in San Francisco's Downtown/Civic Center neighborhood, which are dominated by noise produced by vehicular traffic, including trucks, cars, buses, and emergency and delivery vehicles. Field observations indicate that surrounding land uses do not conduct noticeably noisy operations, because office work, retail stores, and other commercial operations conduct their operations inside buildings and are not inherently noisy. The loudest typical noise sources are vehicular traffic and intermittent vehicular noise such as emergency vehicle sirens, truck backup beepers, and Muni historic streetcars. There may be intermittent noises from vehicle repair and body shop operations at several locations around the project site where their doors are open.

In 2009 the San Francisco Planning Department produced a citywide map of background noise levels.⁴⁰ The map indicates that the project site is generally subject to elevated ambient noise levels, with background noise levels between a range of 50-55 dBA (L_{dn}) on the low end to over 70 dBA (L_{dn}) on the high end. According to this map, the project area is characterized by an ambient noise level of over 70 dBA (L_{dn}) on Market Street, Franklin Street, and Van Ness Avenue, and between 65 and 70 dBA (L_{dn}) on Oak Street. This is primarily due to traffic noise from Market Street and Van Ness Avenue, streetcar noise from the Muni F-line, and, to a lesser extent, traffic noise from Franklin Street, approximately 210 feet west of the project site.

The closest noise-sensitive land uses are the multi-family residential building at 20 Franklin Street (approximately 135 feet west of the project site) and the Conservatory of Music on the north side of Oak Street (approximately 70 feet northwest of the project site). Other noise-sensitive land uses in the project area include multi-family residential buildings at 23 Franklin Street (approximately 320 feet west of the project site), 41 Franklin Street

⁴⁰ San Francisco *General Plan*, Map 1: Background Noise Levels-2009. Available online at http://www.sf-planning.org/ftp/General_Plan/images/I6.environmental/ENV_Map1_Background_Noise%20Levels.pdf Accessed October 28, 2014.

(approximately 275 feet west of the project site), 150 Franklin Street (approximately 285 feet northwest of the project site), 171 Fell Street (approximately 260 feet northwest of the project site), 145 Fell Street (approximately 220 feet north of the project site), 77 Van Ness Avenue (approximately 220 feet north of the project site), and 1601 Market Street (approximately 225 feet southwest of the project site). The French American and Chinese American International School campuses (150 Oak Street) are approximately 310 feet west of the project site. There are no daycare facilities, hospitals, or public libraries in the immediate project area.

Ambient Noise Measurements

The acoustical engineering firm, Brown-Buntin Associates, Inc., prepared a noise and vibration assessment for the proposed project.⁴¹ Five site-specific, 15-minute (approximately), noise measurements were conducted on December 18, 2012 at the following locations:

- 1) North sidewalk of Market Street adjacent to project site and entrance to the Muni subway,
- 2) North sidewalk of Market Street approximately 28 feet west of the project site,
- 3) South sidewalk of Oak Street approximately 150 feet west of the project site,
- 4) North sidewalk of Oak Street approximately 70 feet north of the project site, and
- 5) South sidewalk of Oak Street at Van Ness Avenue adjacent to the project site.

Based on these measurements, the existing background noise levels indicate that ambient noise levels in the project vicinity are in the range of 65-70 dBA (L_{eq}), with the highest level recorded on the south sidewalk of Oak Street adjacent to the project site (Measurement Location 5) and closest to Van Ness Avenue.⁴² The lowest background level of 59.2 dBA (L_{eq}) occurs on the north side of the project site along Oak Street (Measurement Location 4), where the existing buildings on the south side of Oak Street provide some acoustic shielding from traffic on Market Street. Maximum peak noise levels at all of the sites except Measurement Location 4 were in the range of 74-79 dBA, and were caused by passing trucks or buses and Muni streetcars. The estimated L_{dn} values at Measurement Locations 1, 2, 3 and 5 are in the range of 65-68 dBA.⁴³ The background noise analysis performed in 2012/2013 is still valid in 2015, as no substantial changes in surrounding land use or circulation patterns have taken place. These levels are consistent with those reported in the City's *General Plan* and data presented on the citywide Background Noise Levels-2009 map.

⁴¹ Brown-Buntin Associates, Inc., *Environmental Noise and Vibration Assessment, 1510-1540 Market Street, San Francisco, California*, April 2013. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

⁴² *Ibid.*, p. 6.

⁴³ *Ibid.*, p. 6.

Fundamentals of Vibration and Groundborne Noise

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Several different methods are used to quantify vibration. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration that displaces the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS.⁴⁴ Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration.

Receptors sensitive to vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment. High levels of vibration can damage fragile buildings or interfere with sensitive equipment. With the exception of long-term occupational exposure, vibration levels rarely affect human health. Instead, most people consider vibration to be an annoyance that can affect concentration or disturb sleep. People may tolerate infrequent, short duration vibration levels, but human annoyance to vibration becomes more pronounced if the vibration is continuous or occurs frequently. The rumbling sound caused by the vibration of room surfaces is called groundborne noise, which can occur as a result of the low-frequency components from a specific steady source of vibration, such as a rail line.

The City does not have regulations that define acceptable levels of vibration. Therefore, this document references a Federal Transit Administration (FTA) publication concerning noise and vibration impact assessment from transit activities for informational purposes.⁴⁵ Although the FTA guidelines are intended to apply to transit operations, the guidelines may be reasonably applied to the assessment of the potential for annoyance or structural damage to other facilities and "fragile" buildings resulting from other activities. The FTA guidelines do not define what constitutes a "fragile" building other than to state that many fragile buildings are old.

Existing Vibration Sources

Typical sources of groundborne vibration in San Francisco are large-scale construction projects that involve pile driving or underground tunneling, and Muni Metro's historic F-line streetcars, which operate on Market Street approximately 25 feet from the project site and approximately 50 feet from the building site component of the project site. Vibration is also caused by Muni Metro light rail transit vehicles in the subway system under Market Street. Because rubber tires

⁴⁴ Vibration velocity level is reported in decibels relative to a level of 1×10^{-6} inches per second and is denoted as VdB.

⁴⁵ FTA, *Transit Noise and Vibration Impact Assessment*, May 2006. Available online at http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf. Accessed October 28, 2014.

provide vibration isolation, rubber-tire vehicles, such as Muni buses, trucks, and automobiles, rarely create substantial groundborne vibration effects unless there is a discontinuity or bump in the road that causes the vibration.⁴⁶

A survey of groundborne vibration levels from operations of Muni's historic streetcars was conducted in 2006 to determine the range of vibration levels that may be expected at sensitive land uses along the alignment.⁴⁷ The maximum vibration level monitored along a straightaway segment was 81 vibration decibels (VdB) at 25 feet. The building site component along Market Street is approximately 50 feet north of the streetcar tracks. Using the above-referenced FTA guidelines and the data collected from previous studies (including a 2010 study by Brown-Buntin on the M-line), the noise and vibration assessment determined that typical vibration levels at approximately 50 feet from the Muni line setback could conservatively be in the range of 83-88 Vdb at the project site.⁴⁸ The estimated vibration levels from Muni rail operations do not include attenuation due to material damping from soil between the source and receiver, and would likely represent a worst-case assessment.

Grade surface vibration estimates from Muni light rail trains operating in tunnels have been estimated at various depths in the environmental analysis for the *Central Subway Project Final SEIS/SEIR*. Where trains operate at a depth of 20 feet below grade, vibration levels within concrete and steel buildings are expected to be 62 VdB at a distance of 25 feet from the track. The project site is 40 feet northwest of the Muni subway tunnel, which is approximately 40 feet below Market Street at this location.⁴⁹ Therefore, values presented here represent a conservative potential for ground borne vibration levels on the project site from underground Muni operations along Market Street.

Existing Sensitive Receptors

Noise-sensitive land uses or receptors are those where noise exposure would result in adverse effects (i.e., injury or annoyance) to individuals and uses where quiet is an essential element of their intended purpose. Noise-sensitive land uses are residences, hotels and motels, schools, preschools, libraries, places of worship, hospitals, senior care centers, nursing homes, retirement

⁴⁶ Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment*, May 2006, p. 7-9. Available online at http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf. Accessed October 28, 2014.

⁴⁷ Wilson, Ihrig & Associates, Inc., *Noise and Vibration Setting Report*, San Francisco Muni Historic Streetcar Service to Fort Mason, April 2009. Available online at <http://www.nps.gov/goga/parkmgmt/upload/Final-Noise-and-Vibration.pdf>. Accessed December 23, 2014.

⁴⁸ Brown-Buntin Associates Inc., *Environmental Noise and Vibration Assessment, 1510-1540 Market Street, San Francisco, California*, April 2013 (hereinafter "*Noise and Vibration Assessment*"), p. 7. This document is available for review at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, as part of Case File No. 2009.0159E.

⁴⁹ Langan Treadwell Rollo, *Preliminary Geotechnical Study 1510-1540 Market Street San Francisco, California*, September 9, 2011, p. 6.

residences, and other places where low interior noise levels are essential to the use. Land uses within the project area are described in Initial Study **Section B, Project Setting**, pp. 26-28.

Similar to noise-sensitive land uses described on pp. 74-75, vibration-sensitive land uses include residences, educational uses, places of worship, and hospitals because receptors within these land uses can experience annoyance from groundborne vibration. Vibration-sensitive uses also include fragile buildings and underground facilities, in particular those that are considered historic, because groundborne vibration can result in structural damage. No known historic or potentially fragile structures are immediately adjacent to the project site; however, 25 Van Ness Avenue (70 feet north of the project site) and the commercial building at 1576 Market Street (25 feet west of the project site) are both historic resources and were built in 1911 and 1907, respectively. Certain workplaces may also contain vibration-sensitive equipment (e.g., high-resolution lithography equipment, electron microscopes, or micro-electronics production equipment), although none of these vibration-sensitive facilities are known to be near the project site. Typical office-based computing and communication equipment is not considered highly sensitive to vibration.

Annoyance generally occurs in reaction to newly introduced sources of noise that interrupt ongoing activities. Community annoyance is a summary measure of the general adverse reaction of people to noise that causes speech interference, sleep disturbance, or interference with the desire for a tranquil environment.⁵⁰ People react to the duration of noise events, judging longer events to be more annoying than shorter ones, and transportation noise is usually a primary cause of community dissatisfaction. Construction noise or vibration also often generates complaints, especially during lengthy periods of heavy construction, when nighttime construction is undertaken to avoid disrupting workday activity, or when the adjacent community has no clear understanding of the extent or duration of the construction.⁵¹

IMPACTS

Impact NO-1: The proposed project would not expose persons to or generate noise levels in excess of standards established in San Francisco's Noise Ordinance; nor would the proposed project result in a substantial permanent increase in ambient noise levels above levels existing without the project. (*Less than Significant*)

The proposed project would necessitate demolition and construction work that would be a temporary source of noise; it would further introduce new mobile and stationary noise sources to the area in the form of additional traffic and new building mechanical systems, i.e., heating, ventilating, and air conditioning (HVAC) equipment and an emergency generator.

⁵⁰ FTA, *Transit Noise and Vibration Impact Assessment*, May 2006, pp. 2-13 to 2-17. Available online at www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf. Accessed October 28, 2014.

⁵¹ *Ibid.* p. 12-1.

In order for the newly introduced project-related noise sources to be perceptible, an increase in ambient noise levels would need to be 3 dBA or greater, as discussed above under “Attenuation of Noise” on p. 69. Off-site noise-sensitive receptors include residents in the mixed-use residential buildings within approximately 300 feet of the project site boundaries. Other nearby noise-sensitive land uses include the French American and Chinese American International School campuses and the Conservatory of Music to the west and northwest, respectively.

Mobile Noise Sources

The project site is located in an area with elevated background noise levels predominantly influenced by traffic. Thus, existing off-site noise-sensitive receptors are currently exposed to these elevated ambient noise levels. In general, a project must double existing traffic volumes on the local roadway network to cause a noticeable (3 dBA or greater) increase over existing traffic noise levels and to cause a significant traffic noise impact.⁵² The proposed project would generate approximately 8,167 daily vehicle trips, with approximately 1,171 of those trips occurring during weekday PM peak hour.⁵³ Currently approximately 2,253 vehicles pass near the project site in the Oak Street/Fell Street intersection during the weekday PM peak hour.⁵⁴ If all project-related traffic during this period were assigned to these two adjacent roadways, the proposed project’s generation of approximately 1,711 weekday PM peak hour vehicle trips would represent an approximately 52 percent increase over existing traffic volumes, substantially less than a doubling of the approximately 2,253 weekday PM peak hour vehicle trips that now occur on Oak and Franklin Streets. Therefore, the proposed project would not double traffic volumes on the adjacent roadways, and changes to background noise levels would not be noticeable in the context of existing traffic noise levels.⁵⁵

Fixed Noise Sources

The proposed project would include new fixed noise sources that would produce operational noise on the project site. The proposed heating, ventilation, and air conditioning (HVAC)

⁵² California Department of Transportation, *Technical Noise Supplement*, November 2009, Sacramento, CA. p. 7-5. Available online at http://www.dot.ca.gov/hq/env/noise/pub/tens_complete.pdf. Accessed December 23, 2014.

⁵³ LCW Consulting, *[Preliminary Draft] One Oak Street Project Transportation Impact Study*, Table 9, p. 38, A copy of this report is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

⁵⁴ LCW Consulting, *[Preliminary Draft] One Oak Street Project Transportation Impact Study*, Figure 8. Existing Traffic Volumes – Weekday PM Peak Hours, p. 20. A copy of this report is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

⁵⁵ Ambient noise from traffic is based on a 24-hour traffic volume; however, because PM peak hour trips generally make up about 10 percent of total daily vehicle trips, it is reasonable to use the PM peak hour traffic volumes to assess whether the proposed project would result in a doubling of traffic volumes and thus produce a noticeable increase in traffic noise.

equipment and the emergency generator⁵⁶ would be located in a mechanical penthouse on the central portion of the roof. The rooftop enclosures would provide acoustical shielding. Operation of this equipment would be subject to the City's Noise Ordinance (Article 29 of the San Francisco Police Code), amended in November 2008. Section 2909 (a)(1) regulates noise from mechanical equipment and other similar sources on residential property. Mechanical equipment operating on residential property must not produce a noise level more than 5 dBA above the ambient noise level at the property boundary. Section 2909 (d) states that no fixed noise source may cause the noise level measured inside any sleeping or living room in a dwelling unit on residential property to exceed 45 dBA between 10 PM and 7 AM or 55 dBA between 7 AM and 10 PM with windows open, except where building ventilation is achieved through mechanical systems that allow windows to remain closed. The proposed project would comply with the regulations and would not exceed limits for fixed noise sources set forth in the Noise Ordinance.

For the reasons discussed above, operational noise from the project-related vehicle trips would not be substantial enough to generate noticeable increases over existing traffic noise levels and fixed noise sources would not expose off-site noise-sensitive receptors to noise levels in excess of standards established in the Noise Ordinance. When considered in conjunction with existing nearby noise sources, operational noise generated by the proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above those that currently exist without the proposed project. Therefore, the proposed project's operational noise impacts on existing off-site noise-sensitive receptors would be less than significant. No mitigation is necessary, and this topic will not be discussed in the EIR.

Impact NO-2: Project demolition and construction would temporarily and periodically increase ambient noise and vibration in the project vicinity compared to existing conditions. (*Less than Significant with Mitigation*)

Construction Noise

Construction noise is regulated by Sections 2907 and 2908 of the City's Noise Ordinance. Section 2907 (a) requires that noise levels from individual pieces of powered construction equipment, other than impact tools and equipment, not exceed 80 dBA at a distance of 100 feet from the source between 7 AM and 8 PM. Section 2907 (b) requires that the intakes and exhausts of impact tools and equipment be equipped with mufflers, and that pavement breakers and jackhammers be equipped with acoustically-attenuating shields or shrouds to the satisfaction of the Director of Public Works or Building Inspection, as feasible, to best accomplish maximum noise attenuation. Section 2908 prohibits construction work between 8 PM and 7 AM if the noise would exceed the ambient noise level by 5 dBA at the project property line, unless a special

⁵⁶ Although emergency generators are intended only to be used in periods of power outages, monthly testing of the emergency generator would be required.

permit is authorized by the Director of Public Works. The proposed project would comply with the regulations set forth in the Noise Ordinance.

Typical construction equipment (without noise controls or features such as mufflers, silencers, shields, shrouds, ducts and engine enclosures) generates noise ranging from about 70 to 92 dBA at a distance of 100 feet from the source (see **Table 2: Typical Noise Levels of Construction Equipment**).

Table 2: Typical Noise Levels of Construction Equipment (in dBA)

Equipment	Noise Level at 50 Feet		Noise Level at 100 Feet		Noise Ordinance Maximum Noise Level at 100 feet ^b
	Without Controls	With Controls ^a	Without Controls	With Controls ^a	
Earthmoving					
Front Loaders	79	75	73	69	80
Backhoes	85	75	79	69	80
Dozers	80	75	74	69	80
Tractors	80	75	74	69	80
Graders	85	75	79	69	80
Trucks	91 ^c	75	85	69	80
Materials Handling					
Concrete Mixers	85	75	79	69	80
Concrete Pumps	82	75	76	69	80
Cranes	83	75	77	69	80
Derricks	88	75	82	69	80
Stationary					
Pumps	76	75	70	69	80
Generators	78	75	72	69	80
Compressors	81	75	75	69	80
Impact^d					
Rock Drills	98	80	92	74	d, e
Jack Hammers	88	75	82	69	d, e
Pneumatic Tools	86	80	80	74	d, e
Other					
Saws	78	75	72	69	80
Vibrators	76	75	70	69	80

Notes:

- ^a “With Controls” means that estimated levels can be obtained by selecting quieter procedures or machines by implementing noise-control features that do not require major redesign or extreme cost (e.g., improved mufflers, equipment redesign, use of silencers, shields, shrouds, ducts, and engine enclosures).
- ^b Construction noise at a distance of 100 feet from individual pieces of powered construction equipment, other than impact tools and equipment, are not to exceed 80 dBA per Sections 2907 and 2908 of the City’s Noise Ordinance between 7 AM and 8 PM.
- ^c This noise level represents the maximum noise level (Lmax) associated with a single passing truck.
- ^d Pile driving is not expected to be used during construction of the proposed project.
- ^e Section 2907 (b) of the City’s Noise Ordinance requires use of best practices to achieve maximum noise attenuation to the satisfaction of the Director of Public Works or Building Inspection.

Source: U.S. Environmental Protection Agency, 1971

Noise-generating construction activities typically include the use of heavy construction equipment for demolition, earthmoving activities, and materials handling; stationary equipment for on-site power generation; and impact tools and other equipment for demolition, site

preparation, and shoring activities. Many of these pieces of construction equipment would be expected to be in use at the project site during the early stages of construction. Pile driving, which is the most disruptive activity in terms of construction noise, would not be part of the proposed project as the proposed building would be supported on a mat foundation. As shown in Table 2, noise levels without controls generated by heavy construction equipment and stationary equipment at a distance of 100 feet from the activity would be up to 85 dBA. Adding controls would reduce the maximum level to 69 dBA at a distance of 100 feet. Noise levels without controls from impact tools and other tools used for demolition, site preparation, and shoring activities, such as concrete breaking and drilling, would generate noise levels up to 92 dBA at a distance of 100 feet from the activity, while adding controls would reduce the maximum level to 74 dBA at a distance of 100 feet. Thus, construction equipment noise levels (with controls) would be expected to range from about 69 to 74 dBA at a distance of 100 feet and would be below the Noise Ordinance maximum noise level of 80 dBA at 100 feet from the source.

Project-related construction activities would temporarily and intermittently contribute to ambient noise levels over the 32 months of construction, with more construction noise generated in the initial 22 months of project construction and relatively lower levels of construction noise in the subsequent 10 months. Due to the distance of existing residential land uses from the project site boundaries (more than 100 feet) and the presence of intervening buildings, construction noise would be minimized for most off-site noise sensitive receptors.

Although off-site noise sensitive-receptors can reduce daytime interior noise levels to acceptable levels by closing exterior windows given the proximity of construction activities to adjacent sensitive land uses (e.g., the Conservatory of Music, which appears to have operable windows on the higher stories, although they may be seldom used) and their potential exposure to elevated noise levels during construction, the project sponsor has agreed to implement Mitigation Measure M-NO-2: General Construction Noise Control Measures.

Mitigation Measure M-NO-2: General Construction Noise Control Measures

To ensure that project noise from construction activities is minimized to the maximum extent feasible, the project sponsor and/or its construction contractors shall undertake the following:

- The project sponsor shall require the general contractor to ensure that equipment and trucks used for project construction utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).
- The project sponsor shall require the general contractor to locate stationary noise sources (such as compressors) as far from adjacent or nearby sensitive receptors as possible, to muffle such noise sources, and to construct barriers around such sources and/or the construction site, which could reduce construction noise by as much as 5 dBA. To further reduce noise, the contractor shall locate stationary equipment in pit areas or excavated areas, if feasible.

- The project sponsor shall require the general contractor to use impact tools (e.g., jack hammers, pavement breakers, and rock drills) that are hydraulically- or electrically-powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used, along with external noise jackets on the tools, which could reduce noise levels by as much as 10 dBA.
- The project sponsor shall include noise control requirements in specifications provided to construction contractors. Such requirements could include, but not be limited to, performing all work in a manner that minimizes noise to the extent feasible; use of equipment with effective mufflers; undertaking the most noisy activities during times of least disturbance to surrounding residents and occupants, as feasible; and selecting haul routes that avoid residential buildings inasmuch as such routes are otherwise feasible.
- Prior to the issuance of building permits, along with the submission of construction documents, the project sponsor shall submit to the Planning Department and Department of Building Inspection (DBI) a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include (1) a procedure and phone numbers for notifying DBI, the Department of Public Health, and the Police Department (during regular construction hours and off-hours); (2) a sign posted on-site describing noise complaint procedures and a complaint hotline number that shall be answered at all times during construction; (3) designation of an on-site construction complaint and enforcement manager for the project; and (4) notification of neighboring residents and non-residential building managers within 300 feet of the project construction area at least 30 days in advance of extreme noise-generating activities (defined as activities generating noise levels of 90 dBA or greater) about the estimated duration of the activity.

Therefore, although construction noise may be perceived by some as an occasional annoyance, with implementation of Mitigation Measure M-NO-2, project-related construction noise would be less than significant and would not exceed noise levels commonly experienced in an urban environment.

Groundborne Vibration During Construction

The proposed project would not involve the types of construction activities that could produce excessive groundborne vibration, i.e., pile driving for a foundation or the use of explosives for building demolition. However, construction equipment used for demolition, site preparation, and shoring activities, such as jackhammers, pavement breakers, and drills, could generate varying degrees of temporary groundborne vibration, with the highest levels expected in the first 22 months of construction during the demolition, excavation, and below-grade construction phases. The proposed project would also require the use of heavy trucks for material deliveries and for off-site hauling of demolition debris throughout the day and throughout the 32-month construction period. Vibration from most rubber-tired construction vehicles moving slowly through the construction area would not be expected to result in excessive groundborne vibration.

All construction activities would be conducted between 7 AM and 8 PM in compliance with Section 2908 of the City's Noise Ordinance.

Since the proposed project would use standard construction equipment and would not include activities such as pile driving, the vibration impact would be temporary and would not be excessive. Therefore, the proposed project would result in a less-than-significant impact with respect to human annoyance from excessive groundborne vibration during construction. Groundborne vibration from the types of equipment that would be used for construction of the proposed project would not be expected to result in damage to adjacent buildings because the only adjacent buildings would be demolished as part of a concurrent project (1546-1564 Market Street). Therefore, the potential impact to buildings from groundborne vibration from construction would be less than significant.

In summary, the proposed project's construction-related noise and groundborne vibration impacts would be less than significant with mitigation. These topics will not be discussed in the EIR.

Impact NO-3: The proposed project's new residents would not be substantially affected by existing noise or vibration levels. (*Less than Significant with Mitigation*)

Exposure to Existing Noise Levels

The proposed project would introduce new residential, commercial, and parking land uses to a developed, mixed-use neighborhood. As discussed above on p. 72 ("Ambient Noise Measurements"), existing ambient noise levels around the project site were found to be approximately 65-68 dBA (L_{dn}) at four of the five measurement locations. The exterior noise levels are in excess of the 60 dBA (L_{dn}) threshold requiring preparation of a detailed noise analysis, as specified in the *General Plan Land Use Compatibility Guidelines for Community Noise*. Additionally, new multi-unit residential developments are subject to the California Noise Insulation Standards in Title 24 of the California Code of Regulations, which states that interior noise levels attributable to exterior sources shall not exceed 45 dBA (L_{dn}) in any habitable room of new dwellings. Design and construction in accordance with the recommendations developed in a site-specific acoustical analysis required by Title 24, and enforced through DBI's permit review process, would reduce the impact of the existing noise environment on future residents of the development to a less-than-significant level. This would ensure that future residents of the proposed building would not be substantially affected by existing noise levels, which are predominantly associated with vehicular traffic along Market Street, Van Ness Avenue, and, to a lesser extent, Franklin Street.

The proposed project would also include Planning Code-required private and common open space for the project's residents as described on p. 8. Exposure of residents to ambient noise levels at new on-site private and common open spaces is considered as part of the City's overall review for residential livability but is not required. The Planning Department would, through its building

permit review process, evaluate building and site plans to ensure that open spaces are shielded, to the maximum feasible extent, from existing noise levels that could prove annoying or disruptive to users. Acoustical shielding could involve, among other things, site design that uses the building itself to shield on-site open space from the greatest noise sources and construction of noise barriers between noise sources and open space. The proposed private and common open space areas would be designed to achieve the equivalent of at least 5 dBA of acoustical shielding which would be perceived to noticeably muffle sound coming from the street and adjacent land uses. Consequently, when shielding and distance effects are considered, the exterior noise level for the private and common open spaces that would be provided as part of the proposed project would be considered to be typical for an urban core neighborhood. No mitigation measures are necessary.

Exposure to Existing Vibration

After construction, the proposed building could also be exposed to vibration from existing transportation sources. To prevent vibration annoyance in residential buildings, the FTA guidelines recommend a vibration velocity level of 72 VdB or less when there are more than 70 vibration events per day. Muni operates the F-line streetcar on Market Street within 50 feet of the project site. Muni also operates light rail vehicles within a subway tunnel beneath the site. Both systems could produce more than 70 vibration events per day. After construction, the Muni subway line would pass approximately 10 feet below and 40 feet laterally to the southeast from the project parking garage; however, parking garages are not generally considered sensitive uses. Vibrations from the nearby Muni rail facilities are not expected to exceed recognized thresholds for potential building damage based upon the worst-case assessment of potential vibration from existing Muni rail operations.⁵⁷ However, the vibration levels from existing Muni rail operations have the potential to exceed the 72 VdB threshold suggested by the FTA to prevent annoyance to residential uses where there are more than 70 vibration events per day. Therefore, the noise and vibration assessment recommends that a site-specific analysis of the project site and proposed building be undertaken by a qualified acoustical consultant to determine if future sensitive uses would be exposed to excessive vibration levels from existing sources and to determine the extent of appropriate design features that may be required to minimize the potential for vibration annoyance. Implementation of Mitigation Measure M-NO-2b: Vibration Attenuation would reduce the impacts resulting from exposure to existing sources of unacceptable vibration to a less-than-significant level.

Mitigation Measure M-NO-3: Vibration Attenuation

Prior to submittal of the building permit application, the project sponsor shall hire a qualified acoustical consultant to prepare a detailed site-specific vibration analysis to determine if future sensitive uses will be exposed to excessive vibration levels from Muni

⁵⁷ Brown-Buntin Associates Inc., *Noise and Vibration Assessment*, p. 8.

rail operations and to evaluate the extent of vibration-reducing design features that may be required to minimize the potential for vibration annoyance to future residents. The vibration analysis shall be submitted to the Department of Building Inspection for review and approval prior to issuance of the building permit, to ensure that necessary acoustical features are included in the final project design.

For the reasons discussed above, the proposed project would not expose the project residents to interior noise levels that are in excess of standards established in the *General Plan* and Title 24, and with implementation of Mitigation Measure M-NO-3 would not expose project residents to excessive vibration. Therefore, this impact would be less than significant. This topic will not be discussed in the EIR.

Cumulative Impacts

Impact C-NO-1: Project operational noise from fixed noise sources and from traffic increases generated by the proposed project, when combined with other past, present, and reasonably foreseeable future projects in the site's vicinity and noise from reasonably foreseeable traffic growth forecast to the year 2040, would not contribute considerably to a significant cumulative permanent increase in ambient noise levels in the site's vicinity above levels existing without the project or cumulative traffic noise increases. (*Less than Significant*)

Fixed Noise Sources

Each reasonably foreseeable future project in the vicinity of the project site would generate operational noise and could contribute to an overall increase in ambient noise levels in the project vicinity. As with the proposed project, the stationary or fixed noise sources included in each of these future projects analyzed in the cumulative scenario, such as HVAC equipment, emergency power generators, and other mechanical equipment, would be subject to the Noise Ordinance, which requires that fixed noise sources not produce a noise level more than 5 dBA above the ambient noise level at each property boundary. The project at 1546-1564 Market Street (immediately to the west) is the closest project that could combine with the proposed project. With well over 100 feet of horizontal distance between any of the other reasonably foreseeable future projects and the project site, offering attenuation of up to 6 dBA of sound, ambient noise levels at and adjacent to the project site would not be affected by stationary equipment on the sites of the other future projects. Thus, due to the requirements of the Noise Ordinance and the distances between these future projects, there would be no potential to combine to result in significant cumulative long-term noise impacts related to fixed noise sources. As discussed in Impact NO-1, project-related fixed noise sources would be sited in a mechanical penthouse that would provide sufficient acoustical shielding to achieve compliance with the noise level limits of the Noise Ordinance. The Oak Street Plaza may serve as a gathering space for residents of the proposed project and residents of other proposed projects nearby, as well as occupants of existing land uses and the general public. The users of this new open space would not be significantly affected by cumulative noise from stationary equipment on the project site and the sites of other

future projects based on distances between the proposed plaza and other development sites and based on compliance by the proposed project with the requirements of the Noise Ordinance.

Therefore, the cumulative impact of operational noise related to fixed noise sources would not cause noise-sensitive receptors to be substantially affected by ambient noise levels, and this cumulative impact would not be significant.

Mobile Sources

Traffic levels in the project vicinity are anticipated to increase, which could also increase ambient noise levels. This would be attributable to the additional vehicle trips generated by forecasted residential and employment growth in the project vicinity, the City, and the region. Traffic noise could affect residents of the proposed project and residents of other proposed new buildings in the nearby area. In addition, Oak Street Plaza may function as a gathering space that attracts members of the public and new residents from the proposed project, those from other proposed residential projects in the vicinity, and occupants of other nearby land uses, for passive recreation and to wait for connecting transit vehicles such as the proposed BRT. These future new residents and other users of the proposed open space would be exposed to relatively high ambient noise levels from vehicular traffic, although the proposed new building would provide some buffer from traffic noise generated on Market Street. Traffic that would be generated by the proposed project and other reasonably foreseeable projects, as well as the traffic effects of removing two travel lanes on Van Ness Avenue with implementation of the Van Ness Avenue BRT project, is captured in future 2040 cumulative traffic volume forecasts generated by the San Francisco County Transportation Authority. These forecasts are based on anticipated citywide and regional economic growth and development, and account for growth on the project site.

Bus rapid transit vehicle operations along the Van Ness Avenue corridor would occur at-grade in dedicated transit lanes. As indicated in the Brown-Buntin Report, noise from future operation of bus rapid transit vehicles along Van Ness Avenue is estimated to be between 56 dBA to 62 dBA.⁵⁸ When considered in the context of existing and future ambient noise levels in the project vicinity, bus rapid transit vehicle operations would likely be imperceptible to nearby noise-sensitive receptors at or near the project site or at other future project sites. The future 2040 weekday PM peak hour traffic volume would not represent a doubling of the existing weekday PM peak hour traffic volume. Although these traffic data are for the weekday PM peak hour, it is reasonable to assume that daily traffic volumes would not double because the weekday PM period represents daily peak traffic periods. Future cumulative traffic-generated noise would not likely be noticeable to most people in the vicinity and would continue to be typical of dense urban areas. Therefore, the cumulative impact of traffic-generated noise levels in the project vicinity would not cause noise-sensitive receptors in proposed new residential buildings such as the proposed

⁵⁸ Brown-Buntin Associates Inc., *Noise and Vibration Assessment*, p. 9.

project or users of Oak Street Plaza to be substantially affected by ambient noise levels, and this cumulative impact would not be significant. The contribution of noise from project-generated roadway traffic to cumulative traffic noise levels in the project vicinity would not be cumulatively considerable in this context, i.e., would be less than significant.

In conclusion, project operational noise from fixed and mobile noise sources, in combination with operational noise from past, present, and reasonably foreseeable future projects in the project vicinity and cumulative traffic growth to 2040 (inclusive of the reasonably foreseeable future projects), would not contribute considerably to the long-term exposure of nearby noise-sensitive receptors to noise levels in excess of applicable noise standards and/or result in substantial permanent increase in the ambient noise levels in the project vicinity. This cumulative impact would not be significant. No mitigation is necessary, and this topic will not be discussed in the EIR.

Impact C-NO-2: Construction of the proposed project, in combination with other past, present, and reasonably foreseeable future projects in the site's vicinity, would not result in a cumulatively considerable contribution to significant temporary or periodic increases in ambient noise or vibration levels in the project vicinity above levels existing without the proposed project. (*Less than Significant with Mitigation*)

Construction noise is a localized impact that reduces as distance from the source increases and rapidly attenuates when line-of-sight is blocked by buildings or other intervening features. The 1546-1564 Oak Street project (immediately west of the project site), the 22-24 Franklin Street project (approximately 220 feet west), and the Van Ness Avenue BRT project (immediately east of the project site) are the closest project sites that could contribute to cumulative noise levels at the same noise-sensitive residential land uses that would be affected by construction noise from the proposed project should such activities occur within the same time period. Construction activities at the other project sites within a roughly ¼-mile radius of the project site, such as 1 Franklin Street, the Central Freeway Parcels, 1500-1580 Mission Street, 1601 Mission Street, 1700 Market Street, and others (see list of cumulative projects on Initial Study pp. 40-45), would not contribute to cumulative construction noise in the project vicinity because they would be required to comply with the City's Noise Ordinance and because of their distance from the project site, the presence of intervening structures, and, in some cases, because they are currently under construction (e.g., 100 Van Ness Avenue and 101 Polk Street). Therefore, the cumulative noise analysis does not consider those reasonably foreseeable future projects.

The reasonably foreseeable future projects at 1546-1564 Market Street, 22 Franklin Street, and in the Van Ness Avenue right-of-way would each involve demolition and construction work and would generate construction truck trips that would use the same routes as those for the proposed project to access their respective project sites. If construction of these future projects were to overlap, noise-sensitive receptors close to all three of these project sites could experience temporary and intermittent increases to ambient noise levels. As with the proposed project,

construction activities at these sites would also be required to comply with the Noise Ordinance and would be subject to enforcement of the Noise Ordinance by DBI and the Police Department. As explained above, the Noise Ordinance prohibits construction activities between 8 PM and 7 AM, and limits noise from any individual piece of construction equipment, except impact tools, to 80 dBA (Ldn) at 100 feet from the noise source. As described above under Impact NO-2, the proximity of off-site sensitive receptors to project construction activities (within 70 feet) would result in a significant construction noise impact, and Mitigation Measure M-NO-2 was identified to reduce the impact to a less-than-significant level. Depending on the distance of sensitive receptors to the other future project sites, these reasonably foreseeable projects may also be required to incorporate measures to reduce construction-related noise. Therefore, while cumulative construction activities could temporarily increase ambient noise levels intermittently if construction periods for these projects were to overlap, measures to minimize temporary construction noise could be implemented.

Noise levels are reduced with distance from the source, as illustrated in Table 2 on p. 78. Noise-sensitive receptors closest to the project site at the Conservatory of Music, 145 Fell Street, and 77 Van Ness Avenue would be over 100 feet from the three construction sites included in the cumulative analysis and thus would experience reduced noise levels from construction activities that would occur at those locations. While the combined noise from multiple construction sites would be noticeable and annoying to some noise-sensitive receptors, the overall cumulative effect would not be significant.

Implementation of **Mitigation Measure M-NO-2** would ensure that the incremental contribution of the proposed project to short-term exposure of noise-sensitive receptors to increased construction noise would not result in a cumulatively considerable contribution to cumulative construction noise impacts. Therefore, this topic will not be discussed in the EIR.

<u>Topics:</u>	<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>
6. AIR QUALITY—Would the project:					
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) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors 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 (BAAQMD) is the regional agency with jurisdiction over the nine-county San Francisco Bay Area Air Basin (SFBAAB), which includes San Francisco, Alameda, Contra Costa, Marin, San Mateo, Santa Clara, and Napa Counties and portions of Sonoma and Solano Counties. The BAAQMD is responsible for attaining and maintaining air quality in the SFBAAB within federal and state air quality standards, as established by the federal Clean Air Act (CAA) and the California Clean Air Act (CCAA), respectively. Specifically, the BAAQMD has the responsibility to monitor ambient air pollutant levels throughout the SFBAAB and to develop and implement strategies to attain the applicable federal and state standards. The CAA and the CCAA require plans to be developed for areas that do not meet air quality standards, generally. The most recent air quality plan, the *2010 Clean Air Plan*, was adopted by the BAAQMD on September 15, 2010. The *2010 Clean Air Plan* updates the *Bay Area 2005 Ozone Strategy* in accordance with the requirements of the CCAA to implement all feasible measures to reduce ozone; provide a control strategy to reduce ozone, particulate matter, air toxics, and greenhouse gases in a single, integrated plan; and establish emission control measures to be adopted or implemented. The 2010 Clean Air Plan contains the following primary goals:

- Attain air quality standards;
- Reduce population exposure and protect public health in the San Francisco Bay Area; and
- Reduce greenhouse gas emissions and protect the climate.

The *2010 Clean Air Plan* represents the most current applicable air quality plan for the SFBAAB. 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 state and federal CAAs, air pollutant standards are identified for the following six criteria air pollutants: ozone, carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), 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 SFBAAB experiences low concentrations of most pollutants when compared to federal or state standards. The SFBAAB is designated as either in attainment⁵⁹ or unclassified for most criteria pollutants with the exception of ozone, PM_{2.5}, and PM₁₀, 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.⁶⁰

Land use projects may contribute to regional criteria air pollutants during the construction and operational phases of a project. **Table 3: Criteria Air Pollutant Significance Thresholds** identifies air quality significance thresholds followed by a discussion of each threshold. 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 SFBAAB.

Table 3: 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 _x	54	54	10
PM ₁₀	82 (exhaust)	82	15
PM _{2.5}	54 (exhaust)	54	10
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	

Ozone Precursors

As discussed previously, the SFBAAB is currently designated as non-attainment for ozone and particulate matter. 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_x). The potential for a project to result in a cumulatively considerable net increase in

⁵⁹ "Attainment" status refers to those regions that are meeting federal and/or state standards for a specified criteria pollutant. "Non-attainment" refers to regions that do not meet federal and/or state standards for a specified criteria pollutant. "Unclassified" refers to regions where there is not enough data to determine the region's attainment status for a specified criteria air pollutant.

⁶⁰ Bay Area Air Quality Management District (BAAQMD), *California Environmental Quality Act Air Quality Guidelines*, May 2011, p. 2-1.

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, BAAQMD 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_x, the offset emissions level is an annual average of 10 tons per year (or 54 pounds (lbs.) per day).⁶¹ 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_x 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_x emissions. Due to the temporary nature of construction activities, only the average daily thresholds are applicable to construction phase emissions.

Particulate Matter (PM₁₀ and PM_{2.5})⁶²

The BAAQMD has not established an offset limit for PM_{2.5}. However, the emissions limit in the federal New Source Review (NSR) program for stationary sources in nonattainment areas is an appropriate significance threshold. The federal NSR program was created by the federal CAA to ensure that stationary sources of air pollution are constructed in a manner that is consistent with attainment of federal health-based ambient air quality standards. For PM₁₀ and PM_{2.5}, the emissions limit under NSR 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.⁶³ Similar to ozone precursor thresholds identified above, land use development projects typically result in particulate matter 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.

⁶¹ BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, page 17.

⁶² PM₁₀ is often termed “coarse” particulate matter and is made of particulates that are 10 microns in diameter or smaller. PM_{2.5}, termed “fine” particulate matter, is composed of particles that are 2.5 microns or less in diameter.

⁶³ BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 16.

Fugitive Dust

Fugitive dust emissions are typically generated during construction phases. Studies have shown that the application of best management practices (BMPs) at construction sites significantly control fugitive dust⁶⁴ and individual measures have been shown to reduce fugitive dust by anywhere from 30 to 90 percent.⁶⁵ The BAAQMD has identified a number of BMPs to control fugitive dust emissions from construction activities.⁶⁶ The City's Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) requires a number of measures to control fugitive dust. In addition, the BMPs employed in compliance with the City's Construction Dust Control Ordinance is 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 SO₂ concentrations have never exceeded the standards. The primary source of CO emissions from development projects is vehicle traffic. Construction-related SO₂ emissions represent a negligible portion of the total basin-wide emissions and construction-related CO emissions represent less than five percent of the Bay Area total basin-wide CO emissions. As discussed previously, the Bay Area is in attainment for both CO and SO₂. Furthermore, the BAAQMD has demonstrated, based on modeling, that in order to exceed the California ambient air quality standard of 9.0 ppm (8-hour average) or 20.0 ppm (1-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 SO₂ emissions that could result from a development projects, development projects would not result in a cumulatively considerable net increase in CO or SO₂, and quantitative analysis is not required.

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.

⁶⁴ Western Regional Air Partnership. 2006. *WRAP Fugitive Dust Handbook*. September 7, 2006. This document is available online at http://www.wrapair.org/forums/dejff/dh/content/FDHandbook_Rev_06.pdf, accessed February 16, 2012.

⁶⁵ BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 27.

⁶⁶ BAAQMD, *CEQA Air Quality Guidelines*, May 2011.

Unlike criteria air pollutants, TACs do not have ambient air quality standards but are regulated by the BAAQMD 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.⁶⁷

Air pollution does not affect every individual in the population in the same way, and some groups are more sensitive to adverse health effects than others. Land uses such as residences, schools, children's day care 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, 350 days per year, for 70 years. Therefore, assessments of air pollutant exposure to residents typically result in the greatest adverse health outcomes of all population groups.

Exposures to fine particulate matter (PM_{2.5}) are strongly associated with mortality, respiratory diseases, and lung development in children, and other endpoints such as hospitalization for cardiopulmonary disease.⁶⁸ In addition to PM_{2.5}, diesel particulate matter (DPM) is also of concern. The California Air Resources Board (ARB) identified DPM as a TAC in 1998, primarily based on evidence demonstrating cancer effects in humans.⁶⁹ The estimated cancer risk 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 BAAQMD 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,"⁷⁰ were identified based on health-protective criteria that considers estimated cancer risk, exposures

⁶⁷ In general, a health risk assessment is required if the BAAQMD 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.

⁶⁸ SFDPH, *Assessment and Mitigation of Air Pollutant Health Effects from Intra-Urban Roadways: Guidance for Land Use Planning and Environmental Review*, May 2008.

⁶⁹ California Air Resources Board (ARB), Fact Sheet, "The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines," October 1998.

⁷⁰ San Francisco Department of Public Health and San Francisco Planning Department, *Air Pollutant Exposure Zone Map*, available online at <https://www.sfdph.org/dph/files/EHSdocs/AirQuality/AirPollutantExposureZoneMap.pdf>. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

to fine particulate matter, proximity to freeways, and locations with particularly vulnerable populations. Each of these criteria is discussed below.

Excess Cancer Risk

The above 100 per one million persons (100 excess cancer risk) criteria is based on United State Environmental Protection Agency (USEPA) guidance for conducting air toxic analyses and making risk management decisions at the facility and community-scale level.⁷¹ As described by the BAAQMD, the USEPA 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 (NESHAP) rulemaking,⁷² the USEPA 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 BAAQMD regional modeling.⁷³

Fine Particulate Matter

In April 2011, the USEPA published *Policy Assessment for the Particulate Matter Review of the National Ambient Air Quality Standards*, “Particulate Matter Policy Assessment.” In this document, USEPA staff concludes that the then current federal annual PM_{2.5} standard of 15 µg/m³ should be revised to a level within the range of 13 to 11 µg/m³, with evidence strongly supporting a standard within the range of 12 to 11 µg/m³. The Air Pollutant Exposure Zone for San Francisco is based on the health protective PM_{2.5} standard of 11 µg/m³, as supported by the USEPA’s Particulate Matter Policy Assessment, although lowered to 10 µg/m³ to account for uncertainty in accurately predicting air pollutant concentrations using emissions modeling programs.

Proximity to Freeways

According to the California Air Resources 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.

⁷¹ BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 67.

⁷² 54 Federal Register 38044, September 14, 1989.

⁷³ BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 67.

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,⁷⁴ lots that are within 500 feet of freeways are included in the Air Pollutant Exposure Zone.

Health Vulnerable Locations

Based on the BAAQMD'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 lots in the Air Pollutant Exposure Zone to: (1) an excess cancer risk greater than 90 per one million persons exposed, and/or (2) PM_{2.5} concentrations in excess of 9 µg/m³.⁷⁵

The above citywide health risk modeling was also used as the basis for approving a series of amendments to the San Francisco Building and Health Codes, generally 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. The project site is located within the Air Pollutant Exposure Zone.

CONSTRUCTION AIR QUALITY IMPACTS

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

Impact AQ-1: The proposed project'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*)

Construction activities (short-term) typically result in emissions of ozone precursors and PM in the form of dust (fugitive dust) and exhaust (e.g., vehicle tailpipe emissions). Emissions of ozone precursors and PM are primarily a result of the combustion of fuel from on-road and off-road

⁷⁴ 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>.

⁷⁵ 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.

vehicles. However, ROGs are also emitted from activities that involve painting, other types of architectural coatings, or asphalt paving. The proposed project includes demolition of the existing structures, excavation for the foundation and underground parking levels, and construction of a 39-story mixed-use building with an 84,000-gsf below-grade parking garage, along with streetscape components. Approximately 30,000 cubic yards of demolition debris and 50,000 cubic yards of soil would be excavated and exported from the site by trucks. During the project's approximately 32 month construction period, construction activities would have the potential to result in emissions of ozone precursors and PM, as discussed below.

Fugitive Dust

Project-related demolition, excavation, grading, and other construction activities may cause wind-blown dust that could contribute particulate matter into the local atmosphere. 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 particulate matter exposure can cause health effects at lower levels than national standards. The current health burden of particulate matter demands that, where possible, public agencies take feasible available actions to reduce sources of particulate matter exposure. According to the ARB, reducing particulate matter PM_{2.5} concentrations to state and federal standards of 12 µg/m³ in the San Francisco Bay Area would prevent between 200 and 1,300 premature deaths.⁷⁶

Dust can be an irritant causing watering eyes or irritation to the lungs, nose, and throat. Demolition, excavation, grading, and other construction activities can cause wind-blown dust that adds particulate matter to the local atmosphere. Depending on exposure, adverse health effects can occur due to this particulate matter in general and also due to specific contaminants such as lead or asbestos that may be constituents of soil.

In response, the San Francisco Board of Supervisors approved a series of amendments to the San Francisco Building and Health Codes generally referred hereto as 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 in order to protect the health of the general public and of onsite workers, minimize public nuisance complaints, and to avoid orders to stop work by the Department of Building Inspection (DBI).

The 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

⁷⁶ ARB, *Methodology for Estimating Premature Deaths Associated with Long-term Exposure to Fine Airborne Particulate Matter in California*, Staff Report, Table 4c, October 24, 2008.

not the activity requires a permit from DBI. The Director of DBI may waive this requirement for activities on sites less than one 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. 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 seven 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 mil (0.01 inch) polyethylene plastic (or equivalent) tarp, braced down, or use other equivalent soil stabilization techniques. CCSF 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.

For projects over one half-acre, such as the proposed project when the streetscape improvement area is included, the Dust Control Ordinance requires that the project sponsor submit a Dust Control Plan for approval by the San Francisco Department of Public Health. DBI will not issue a building permit without written notification from the Director of Public Health that the applicant has a site-specific Dust Control Plan, unless the Director waives the requirement. Interior-only tenant improvement projects that are over one-half acre in size that will not produce exterior visible dust are exempt from the site-specific Dust Control Plan requirement.

The site-specific Dust Control Plan would require the project sponsor to: submit of a map to the Director of Public Health showing all sensitive receptors within 1,000 feet of the site; wet down areas of soil at least three times per day; provide an analysis of wind direction and install upwind and downwind particulate dust monitors; record particulate monitoring results; hire an independent, third-party to conduct inspections and keep a record of those inspections; establish shut-down conditions based on wind, soil migration, etc.; establish a hotline for surrounding community members who may be potentially affected by project-related dust; limit the area subject to construction activities at any one time; install dust curtains and windbreaks on the property lines, as necessary; limit the amount of soil in hauling trucks to the size of the truck bed and securing with a tarpaulin; enforce a 15 mph speed limit for vehicles entering and exiting

construction areas; sweep affected streets with water sweepers at the end of the day; install and utilize wheel washers to clean truck tires; terminate construction activities when winds exceed 25 miles per hour; apply soil stabilizers to inactive areas; and sweep off adjacent streets to reduce particulate emissions. The project sponsor would be required to designate an individual to monitor compliance with these dust control requirements. Compliance with the regulations and procedures set forth by the San Francisco 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 3, p. 88 above, the BAAQMD, in its *CEQA Air Quality Guidelines* (May 2011), 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 greenfield⁷⁷ 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 exceeds the criteria air pollutant screening criteria; therefore a quantitative analysis was conducted. Construction-related criteria air pollutants generated by the proposed project were quantified using the California Emissions Estimator Model (CalEEMod). The model was developed, including default data (e.g., emission factors, meteorology, etc.), in collaboration with California air districts' staff. Default assumptions were used where project-specific information was unknown. Construction of the proposed project would occur over an approximately 32 months, Monday through Friday. Emissions were converted from tons/year to lbs/day using the estimated construction duration of 669 working days.⁷⁸ As shown in **Table 4: Daily Project Construction Emissions**, unmitigated project construction emissions would not be above the threshold of significance for any criteria pollutant.

⁷⁷ A greenfield site refers to agricultural or forest land or an undeveloped site earmarked for commercial, residential, or industrial projects.

⁷⁸ Calculated using 251 working days per year on average.

Table 4: Daily Project Construction Emissions

	Pollutant Emissions (Average Pounds per Day)			
	ROG	NOx	Exhaust PM₁₀	Exhaust PM_{2.5}
Unmitigated Project Emissions	22.13	27.09	2.93	1.83
Significance Threshold	54.0	54.0	82.0	54.0

Note: Emissions over threshold levels are shown in in bold.

Source: BAAQMD, 2011; San Francisco Planning Department, Environmental Planning Division, 2015

As discussed above, the proposed project’s construction activities 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. For these reasons, this impact would be less than significant. No mitigation measures are required.

Impact AQ-2: The proposed project’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)

The project site is located within the Air Pollutant Exposure Zone as described above. The proposed project would include 320 residential units, a new sensitive receptor. Existing sensitive land uses within about 300 feet of the project site include the multi-family residential buildings at 20 Franklin Street, 23 Franklin Street, 41 Franklin Street, 150 Franklin Street, 171 Fell Street, 145 Fell Street, 77 Van Ness Avenue, and 1601 Market Street. The French American and Chinese American International School campuses (150 Oak Street) are within 500 feet of the project site as are multi-family residential buildings at 1600 Market Street, 24 Page Street, 225 Fell Street, 181-185 Franklin Street, and 1400 Market Street. There are no daycare facilities, hospitals, or public libraries in the immediate project area.

Off-road equipment (which includes construction-related equipment) is a large contributor to DPM emissions in California, although since 2007, the ARB has found the emissions to be substantially lower than previously expected.⁷⁹ 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.⁸⁰ For example, revised PM emission estimates for the year 2010, which DPM is a major component

⁷⁹ ARB, *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.

⁸⁰ ARB, *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.

of total PM, have decreased by 83 percent from previous 2010 emissions estimates for the SFBAAB.⁸¹ Approximately half of the reduction in emissions can be attributed to the economic recession and half to updated methodologies used to better assess construction emissions.⁸²

Additionally, a number of federal and state regulations are requiring cleaner off-road equipment. Specifically, both the USEPA and California 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 would be 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 USEPA estimates that by implementing the federal Tier 4 standards, NO_x and PM emissions will be reduced by more than 90 percent.⁸³

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 BAAQMD's *CEQA Air Quality Guidelines*:

“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.”⁸⁴

Therefore, project-level analyses of construction activities have a tendency 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 would require construction activities for the approximate 32-month construction period. Project construction activities would result in short-term emissions of DPM

⁸¹ ARB, “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.

⁸² ARB, *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.

⁸³ USEPA, “Clean Air Nonroad Diesel Rule: Fact Sheet,” May 2004.

⁸⁴ BAAQMD, *CEQA Air Quality Guidelines*, May 2011, p. 8-6.

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 Air Quality 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.⁸⁵ 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, which is not yet available for engine sizes subject to the mitigation. Therefore, compliance with Mitigation Measure M-AQ-2 would reduce construction emissions impacts on nearby sensitive receptors to a less-than-significant level.

Mitigation Measure M-AQ-2: Construction Air Quality

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 U.S. Environmental Protection Agency (USEPA) or California Air Resources Board (ARB) Tier 2 off-road emission standards, and have been retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy. 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

⁸⁵ 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 United States Environmental Protection Agency's *Exhaust and Crankcase Emissions Factors for Nonroad Engine Modeling – Compression Ignition* has estimated Tier 0 engines between 50 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, ARB 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).

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 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 onsite 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 an ARB 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 an ARB 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-AQ-2, below.

Table M-AQ-2: Off-Road Equipment Compliance Step-down Schedule

Compliance Alternative	Engine Emission Standard	Emissions Control
1	Tier 2	ARB Level 2 VDECS
2	Tier 2	ARB Level 1 VDECS
3	Tier 2	Alternative Fuel*
* Alternative fuels are not a VDECS		

How to use the table: If the ERO determines that the equipment requirements cannot be met, then the project sponsor would need to meet Compliance Alternative 1. If the ERO determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 1, then the Contractor must meet Compliance Alternative 2. If the ERO determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 2, then the Contractor must meet Compliance Alternative 3.

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), horsepower, 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, ARB 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 ERO 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.

OPERATIONAL AIR QUALITY 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 addresses air quality impacts resulting from operation of the proposed project.

Impact AQ-3: During project operations, the proposed project 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)

As discussed above in Impact AQ-1, the BAAQMD, in its *CEQA Air Quality Guidelines* (May 2011), 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 includes 320 dwelling units, and a 12,970-gsf restaurant, estimated to generate approximately 8,167 daily vehicle trips. The proposed project would be below the operational criteria air pollutant screening sizes for the “apartment, high-rise” land use type (510 dwelling units) and the restaurant use (47,000 sq. ft.) identified in the BAAQMD’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 less than significant impact with respect to criteria air pollutants.

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

The project site is located within the Air Pollutant Exposure Zone as described above. Sensitive land uses within 300 feet of the project site include multi-family residential buildings at 20 Franklin Street, 23 Franklin Street, 41 Franklin Street, 150 Franklin Street, 171 Fell Street, 145 Fell Street, 77 Van Ness Avenue, and 1601 Market Street. The French American and Chinese American International School campuses (150 Oak Street) are within 500 feet of the project site as are multi-family residential buildings at 1600 Market Street, 24 Page Street, 225 Fell Street, 181-185 Franklin Street, and 1400 Market Street. Additionally, the proposed project would introduce new residential units to the project site.

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 BAAQMD 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 estimated 8,167 daily vehicle trips would be well below this level and would be distributed among the local roadway network, therefore an assessment of project-generated TACs resulting from vehicle trips is not required and the proposed project would not generate a substantial amount of TAC emissions that could affect nearby sensitive receptors.

The proposed project would also include a backup emergency generator. Emergency generators are regulated by the BAAQMD 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 BAAQMD. Although emergency generators are intended only to be used in periods of power outages, monthly testing of the generator would be required. The BAAQMD limit testing to no more than 50 hours per year. Additionally, as part of the permitting process, the BAAQMD 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 (TBACT). 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 TAC, resulting in a significant air quality impact. Implementation of Mitigation Measure AQ-4a: 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 would add a new source of TACs 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 particulate matter: (1) Tier 4 certified engine, or (2) Tier 2 or Tier 3 certified engine that is equipped with a California Air Resources Board(ARB) Level 3 Verified Diesel Emissions Control Strategy (VDECS). A non-verified diesel emission control strategy may be used if the filter has the same particulate matter reduction as the identical ARB verified model and if the Bay Area Air Quality Management District (BAAQMD) approves of its use. The project sponsor shall submit documentation of compliance with the BAAQMD 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 would include development of 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 Department of Public Health (DPH) that achieves protection from PM_{2.5} (fine particulate matter) equivalent to that associated with a Minimum Efficiency Reporting Value 13 MERV filtration. DBI 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 Article 38, the project sponsor has submitted an initial application to DPH.⁸⁶ The regulations and procedures set forth by Article 38 would ensure that exposure to sensitive receptors would not be significant. Therefore impacts related to siting new sensitive land uses would be less than significant through compliance with Article 38.

Impact AQ-5: The proposed project would not conflict with, or obstruct implementation of, the 2010 Clean Air Plan. (Less than Significant)

The most recently adopted air quality plan for the SFBAAB is the *2010 Clean Air Plan*. The *2010 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 *2010 Clean Air Plan* (CAP), this analysis considers whether the project would: (1) support the primary goals of the CAP, (2) include applicable control measures from the CAP, and (3) avoid disrupting or hindering implementation of control measures identified in the CAP.

The primary goals of the CAP are to: (1) reduce emissions and decrease concentrations of harmful pollutants, (2) safeguard the public health by reducing exposure to air pollutants that pose the greatest health risk, and (3) reduce greenhouse gas emissions. To meet the primary goals, the CAP recommends specific control measures and actions. These control measures are grouped into various categories and include stationary and area source measures, mobile source measures, transportation control measures, land use measures, and energy and climate measures. The CAP recognizes that to a great extent, community design dictates individual travel mode, and that a key long-term control strategy to reduce emissions of criteria pollutants, air toxics, and greenhouse gases 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 *2010 Clean Air Plan* includes 55 control measures aimed at reducing air pollution in the SFBAAB.

The measures most applicable to the proposed project are transportation control measures and energy and climate control measures. The proposed project's impact with respect to GHGs are discussed in Section E.7, 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 high availability of viable transportation options ensure that residents could bicycle, walk, and ride transit to and from the project site

⁸⁶ Build Inc., Department of Public Health Application for Article 38 Compliance Assessment, April 29, 2015. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E

instead of taking trips via private automobile. These features ensure that the project would avoid substantial growth in automobile trips and vehicle miles traveled. The proposed project's anticipated 8,167 net new daily vehicle trips would result in a negligible increase in air pollutant emissions. Furthermore, the proposed project would be generally consistent with the *San Francisco General Plan*, as discussed in Section C, Compatibility with Existing Zoning and Plans. Transportation control measures that are identified in the *2010 Clean Air Plan* are implemented by the *San Francisco 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 *2010 Clean Air Plan*. Therefore, the proposed project would include applicable control measures identified in the CAP to meet the CAP's primary goals.

Examples of a project that could cause the disruption or delay of *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 would add 320 residential units, 160 parking spaces, and a restaurant into 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 CAP.

For the reasons described above, the proposed project would not interfere with implementation of the *2010 Clean Air Plan*, and because the proposed project 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 would not create objectionable odors that would affect a substantial number of people. (*Less than Significant*)

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.⁸⁷ Additionally, the proposed project includes residential units and ground floor retail space with a restaurant, and would therefore not create a significant source of new odors. Therefore, odor impacts would be less than significant.

⁸⁷ Turnstone/SWCA, site visits conducted October 20, 2014 and March 26, 2015.

CUMULATIVE AIR QUALITY IMPACTS

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

As discussed above, regional air pollution is by its very nature largely a cumulative impact. Emissions from past, present, and 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.⁸⁸ 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 construction (Impact AQ-1) and operational (Impact AQ-3) emissions would not exceed the project-level thresholds for criteria air pollutants, the proposed project would not be considered to result in a cumulatively considerable contribution to regional air quality impacts.

As discussed above, the project site is located in an area that already experiences poor air quality. The project would add new sources of TACs (e.g., construction activities, new vehicle trips and an emergency 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 would be required to implement Mitigation Measure M-AQ-2: Construction Air Quality, pp. 99-101, 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, pp. 103, which requires best available control technology to limit emissions from the project's emergency back-up generator. Furthermore, compliance with Article 38 would ensure that new sensitive receptors are not exposed to cumulatively significant levels of air pollution. Implementation of these mitigation measures and adherence to Article 38 would reduce the proposed project's contribution to cumulative air quality impacts to a less-than-significant level.

⁸⁸ BAAQMD, *CEQA Air Quality Guidelines*, May 2011, p. 2-1.

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>
7. GREENHOUSE GAS EMISSIONS— Would the project:					
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 contribute to global climate change and its associated environmental impacts.

The Bay Area Air Quality Management District (BAAQMD) 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* (GHG Reduction Strategy),⁸⁹ which presents a comprehensive assessment of policies, programs, and ordinances that collectively represent San Francisco’s Qualified GHG Reduction Strategy in compliance with CEQA Guidelines. The actions outlined in the strategy have resulted in a 14.5 percent reduction in GHG emissions in 2010 compared to 1990 levels, exceeding the year 2020 reduction goals outlined in the BAAQMD’s *2010 Clean Air Plan*, Executive Order S-3-05,⁹⁰ and Assembly Bill 32 (AB 32), also known as the Global Warming Solutions Act.^{91, 92}

⁸⁹ San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco*, 2010. The final document is available online at <http://www.sf-planning.org/index.aspx?page=2627>.

⁹⁰ Executive Order S-3-05 sets forth a series of target dates by which statewide emissions of GHGs need to be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels (approximately 457 million MTCO2E); by 2020, reduce emissions to 1990 levels (estimated at 427 million MTCO2E); and by 2050 reduce emissions to 80 percent below 1990 levels (approximately 85 million MTCO2E).

⁹¹ San Francisco Department of Environment, *San Francisco Climate Action Strategy, 2013 Update*.

⁹² The *Clean Air Plan*, Executive Order S-3-05, and AB 32 goals, among others, are to reduce GHGs in the year 2020 to 1990 levels.

Given that the City's local greenhouse gas reduction targets are more aggressive than the state's and region's 2020 GHG reduction targets and consistent with the long-term 2050 reduction targets, the City's Greenhouse Gas Reduction Strategy is consistent with the goals of EO S-3-05, AB 32, and the BAAQMD's 2010 Clean Air Plan. Therefore, proposed projects that are consistent with the City's Greenhouse Gas Reduction Strategy would be consistent with the goals of EO S-3-05, AB 32, and the BAAQMD's 2010 Clean Air Plan, would not conflict with these plans, and would therefore not exceed San Francisco's applicable GHG threshold of significance.

The following analysis of the proposed project's impact on climate change focuses on the project's contribution to cumulatively significant GHG emissions. Given the analysis is in a cumulative context, this section does not include an individual project-specific impact statement.

Impact C-GG-1: The proposed project 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)

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 would increase the activity on site by introducing up to 320 dwelling units, up to approximately 12,970 gsf of retail/restaurant space, and an underground garage with up to 160 parking spaces plus 3 Carshare spaces to a site that is currently occupied by a small commercial building, a 30-car parking lot, and a partially occupied office building. Therefore, the proposed project 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 and wastewater treatment, and solid waste disposal. Construction activities would also result in temporary increases in GHG emissions.

The proposed project would be subject to and required to comply with several regulations adopted to reduce GHG emissions as identified in the GHG Reduction Strategy. The regulations that are applicable to the proposed project include the Commuter Benefits Ordinance, the Emergency Ride Home Program, bicycle parking requirements, San Francisco Green Building Requirements related to energy efficiency and water use reduction, the Stormwater Management Ordinance, the Water Efficient Irrigation Ordinance, the Residential Water Conservation Ordinance, the Residential Energy Conservation Ordinance, the Mandatory Recycling and Composting Ordinance, street tree planting requirements for new construction, and Health Code requirements related to the regulation of back-up diesel generators.

These regulations, outlined in San Francisco’s *Strategies to Address Greenhouse Gas Emissions*, have proven effective, as San Francisco’s GHG emissions have been measurably reduced compared to 1990 emissions levels, demonstrating that the City has met and exceeded EO S-3-05, AB 32, and BAAQMD’s *2010 Clean Air Plan* GHG reduction goals for the year 2020. The proposed project was determined to be consistent with San Francisco’s GHG Reduction Strategy.⁹³ Other existing regulations, such as those implemented through AB 32, will continue to reduce a proposed project’s contribution to climate change. Therefore, the proposed project’s GHG emissions would not conflict with state, regional, and local GHG reduction plans and regulations, and thus the proposed project’s contribution to GHG emissions would not be cumulatively considerable or generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment. As such, the proposed project would result in a less-than-significant impact with respect to GHG emissions. No mitigation measures are necessary.

<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>
8. WIND AND SHADOW—Would the project:					
a) Alter wind in a manner that substantially affects public areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact WS-1: The proposed project could alter wind in a manner that substantially affects public areas. (Potentially Significant)

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. 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

⁹³ Greenhouse Gas Analysis: Compliance Checklist, May 29, 2015. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

prevailing wind direction, the building has more surface area to intercept and redirect winds down to ground level.

Implementation of the proposed project would result in the construction of a building that would be 400 feet tall (plus mechanical penthouse). The proposed project, which would be taller than the existing buildings in the vicinity of the project site, has the potential to alter ground-level wind currents in a manner that would substantially affect public areas. As discussed on p. 15, the proposed Oak Plaza would include wind screen canopy features that are intended to buffer ground-level wind speeds to protect public areas from existing hazardous wind conditions to which the proposed new building may contribute.

The potential project-generated wind impacts will be discussed in the EIR, based on the results of a wind tunnel analysis of scale models of the proposed project and its surroundings.

Impact WS-2: The proposed project could create new shadow in a manner that could substantially affect outdoor recreation facilities or other public areas. (*Potentially Significant*)

In 1984, San Francisco voters approved an initiative known as “Proposition K, The Sunlight Ordinance,” which was codified in 1985 as Planning Code Section 295. Planning Code Section 295 prohibits the approval of “any structure that would cast any shade or shadow upon any property under the jurisdiction of, or designated for acquisition by, the Recreation and Park Commission” unless the Planning Commission, with review and comment by the General Manager of the Recreation and Park Department, in consultation with the Recreation and Park Commission, has found that the shadows cast by a proposed project would not have an adverse impact on the use of the property. The period analyzed is from the first hour after sunrise until the last hour before sunset.

Implementation of the proposed project would result in the construction of a building that would be 400 feet tall (plus mechanical penthouse). Four Recreation and Park Department parks that are protected under Planning Code Section 295 are within the potential reach of project shadow during the times of day specified in the ordinance: Patricia’s Green, Page and Laguna Mini Park, Koshland Park, and Hayes Valley Playground. The proposed project, which would be required to comply with the provisions of Planning Code Section 295, has the potential to create new shadow that may substantially affect outdoor recreation facilities or other public areas. The EIR analysis of shadow impacts will be based on a detailed computer-generated shadow study that will model shadows from the proposed project. The potential project-generated shadow impacts will be discussed in the EIR, based on the results of the computer-generated shadow analysis.

Cumulative Impacts

Impact C-WS-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, may result in cumulatively considerable contributions to significant cumulative impacts related to wind or shadow. (*Potentially Significant*)

The results of the cumulative wind tunnel analysis will be discussed and analyzed in the EIR. The EIR analysis of wind impacts will be based on wind tunnel testing of scale models of the project site and surrounding buildings in the project vicinity. Three distinct scenarios will be tested and analyzed in the wind tunnel: an existing scenario in order to understand existing baseline wind conditions at the project site and surroundings; an existing-plus-project scenario to understand the project’s effect on existing wind conditions; and a cumulative scenario to examine the combined effect of the project in conjunction with past, present, and reasonably foreseeable future projects.

The results of the shadow study will be discussed and analyzed in the EIR. The EIR analysis of shadow impacts will be based on a detailed computer-generated shadow study that will model shadows from existing buildings in the vicinity (including those now under construction), shadow from the proposed project, as well as those reasonably foreseeable nearby projects that may combine with project shadow to result in potentially adverse effects on parks and public open spaces.

<i>Topics:</i>	<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>
9. RECREATION—Would the project:					
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"/>
c) Physically degrade existing recreational resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The San Francisco Recreation and Park Department (SFRPD) manages more than 200 parks, playgrounds, and open spaces throughout the City. SFRPD recreation facilities also include 15 recreation centers, 9 swimming pools, 5 golf courses, and more than 300 athletic fields, tennis courts, and basketball courts. In addition to SFRPD recreational resources, San Francisco residents have access to parks and open space owned and operated by other City agencies as well as state and federal agencies, e.g., the Ella Hill Hutch Center, Candlestick Point, and the Presidio. With passage of the 2008 and 2012 Clean and Safe Neighborhood Parks Bonds, the SFRPD

received funds to plan for the development of a number of new City parks in the eastern part of the City (primarily along the waterfront). In addition to augmenting the number of City parks, these bonds have also funded renovations and repairs to parks, playgrounds, pools, and athletic fields throughout the City.

The project site is located in SFRPD Park Service Area 2 and is currently developed with commercial and retail uses. There are no public parks, open spaces, playgrounds, or other recreational resources immediately adjacent to the project site. The recreational resources listed below are located within a ½-mile radius of the project site and are accessible by walking, bicycling, or transit:

- The 0.45-acre Patricia's Green, which includes a playground, lawns, rotating art installations, picnic tables, and seating;
- The 0.61-acre Hayes Valley Playground, which includes a clubhouse, a central stage and plaza, a community garden, a playground, outdoor fitness equipment, a tennis court, and a basketball court;
- The 5.03-acre Margaret S. Hayward Playground, which includes a clubhouse, two softball fields with bleachers, two outdoor tennis courts, one outdoor basketball court, an outdoor volleyball court, a street soccer court, a multi-purpose field, and a playground with a sandpit;
- The 1.81-acre Buchanan Street Mall, which is located between Willow and Grove streets and includes pathways along its edges and small berms, trees, and play structures along its central spine;
- The 0.82-acre Koshland Park, which includes a lawn, a playground with a sand pit, a half basketball court, and a community garden;
- The 0.15-acre Page and Laguna Mini-Park, which is located between two residential homes and includes a curving central walkway, benches, and a community garden;
- The 0.08-acre Page Street Community Garden, which is located between Webster and Buchanan streets;
- The South of Market (SoMa) West Skate Park and Dog Play Area, which are located on the Caltrans right-of-way parcels underneath the Central Freeway, between Valencia and Otis streets.
- The McCoppin Hub Plaza, which is located at the north end of McCoppin Street between Valencia and Market streets;
- The 0.85-acre War Memorial Open Space, which is located between the War Memorial Opera House and the Veteran's War Memorial Building and includes an oval lawn surrounded by a double row of trees;
- The 5.38-acre Joseph L. Alioto Performing Arts Piazza, which includes a central concourse, two playgrounds, seating, and lawn areas; and
- The 3.03-acre United Nations Plaza, which includes a central concourse, lawn areas planted with trees, seating, and a large sculpted concrete fountain.

Impact RE-1: The proposed project would not increase use of existing neighborhood parks and regional parks or other recreation facilities such that substantial physical deterioration or physical degradation of existing recreational resources would occur or be accelerated, nor would it include or result in the need for the expansion or construction of recreational facilities beyond those included in the proposed project. (*Less than Significant*)

The *San Francisco General Plan Recreation and Open Space Element (ROSE)* defines a “high needs area” of the City as an area that is projected to absorb future population growth and that exhibits a combination of high population densities; high percentages of children and youth, seniors, and low-income households relative to the City as a whole; and low access to open space.⁹⁴ Based on these variables, a composite map was generated to identify areas of the City that receive priority when opportunities to acquire land for development of new parks arise and when funding decisions for the renovation of existing parks are made (Map 7 of the ROSE). As shown on Maps 4a through 4c of the ROSE, the project site is located within the ½-mile service area of “Active Use/Sports Fields” and “Passive Use/Tranquil Spaces” and the ¼-mile service area of “Playgrounds.” As shown on Maps 5a, 5c, and 5d of the ROSE, the project site is not within an area of the City that exhibits higher population densities or higher percentages of children and youth and seniors relative to the City as a whole. However, it is within an area with a higher percentage of low-income households relative to the City as a whole (Map 5c) and an area designated to absorb future population growth (Map 6 of the ROSE).⁹⁵ As shown on Map 7, the project site exhibits a greater need than some areas of the City and a lesser need than other areas; however, it is not located within a “high needs area.”

As described under Initial Study Topic E.2, Population and Housing, pp. 51-55, implementation of the proposed project would add approximately 723 residents to the project site. This would represent an approximately 22 percent increase over the reported 2010 population within Census Tract 168.02, which includes the project site; an approximately 2.3 percent increase over the reported 2010 population within the project area (Census Tract 168.02 and adjacent Census Tracts within a quarter-mile of the project site); and an approximately 0.09 percent increase over the reported 2010 citywide population. The project area as defined by the Census Tract boundaries is roughly analogous to the area covered in the *Market and Octavia Area Plan*. The residential population growth attributable to the proposed project would represent approximately 9.5 percent of the anticipated net increase of 7,620 residents within the Market and Octavia

⁹⁴ San Francisco General Plan, Recreation and Open Space Element, April 2014, Map 4 through Map 7, pp. 21-24. Available online at http://openspace.sfplanning.org/docs/Recreation-and-Open-Space-Element_APRIL-2014-ADOPTED.pdf. Accessed October 6, 2014.

⁹⁵ The project site is located within the *Market and Octavia Area Plan* and the Downtown-Van Ness-Geary Priority Development Area. The *Market and Octavia Neighborhood Plan* was developed to accommodate a sizable increment of the City’s housing growth in the future. ABAG’s *Plan Bay Area, Projections 2013* identified this area as one that would accommodate a significant amount of new housing and jobs by 2040.

neighborhood by the year 2025.⁹⁶ This residential growth would increase the demand for public parks and open spaces, playgrounds, and other recreational resources in the project area and citywide. However, the increase in demand would not be in excess of amounts expected, provided for, or planned for in the *Market and Octavia Area Plan* and the City as a whole.⁹⁷

As described above, the project site is within the service areas of a number of public parks and open spaces, playgrounds, and other recreational resources. These local recreational resources can be accessed from the project site by walking, bicycle, or transit. The proposed project would provide Planning Code-required open space for project residents: 2,880 sq. ft. of private open space and 11,523 sq. ft. of common open space. At the east end of Oak Street the proposed project would also include an 11,050-sq.-ft. (13,650-sq.-ft. under the variant) pedestrian plaza (Oak Plaza) within the public right-of-way (see **Section A, Project Description**, p.15). In addition, a 2,566-sq.-ft. privately owned, publicly accessible open space would be developed at the east end of the project site and along the perimeter of the ground floor along Market Street. The private and common open spaces, Oak Plaza, and the privately owned, publicly accessible open space associated with the proposed One Oak Street building would partly serve the demand for open space and recreational facilities generated by the project residents.

Based on the number of public parks and open spaces, playgrounds, and other recreational resources in the project vicinity; the availability of open space on, and in the immediate vicinity of, the project site; and the incremental increase in population due to the proposed project, project-generated demand could be accommodated by the existing local recreational resources. The Market and Octavia Area Plan anticipates that Brady Park would one day become a new open space that could address open space needs in the vicinity. Project residents could also use other recreational resources throughout the City and region. Therefore, the proposed project would not result in a substantial increase in the use of existing neighborhood parks and open spaces, playgrounds, and other recreational resources in the project vicinity or the use of citywide/regional recreational resources such that substantial deterioration or degradation of these existing recreational resources would occur or be accelerated. Furthermore, project-generated demand would not be substantial enough (i.e., there would be no unmet demand) to warrant the construction or expansion of recreational facilities that could, in turn, have an adverse effect on the environment. No mitigation measures are necessary.

⁹⁶ San Francisco Planning Department, *Market and Octavia Neighborhood Plan EIR*, 2005, p. 4-72. Available online at <http://www.sf-planning.org/index.aspx?page=1714>. Accessed September 29, 2014

⁹⁷ The Market and Octavia neighborhood was envisioned as a network of “living” streets and open spaces highlighted by the development of parks such as Hayes Green (already built and renamed Patricia’s Green), Brady Park, McCoppin Square (already built and renamed McCoppin Hub Plaza), and Octavia Plaza.

Cumulative Impacts

Impact C-RE-1: The proposed project, in combination with other past, present, or reasonably foreseeable projects, would not contribute considerably to a significant impact on recreational resources leading to their physical deterioration or physical degradation, nor would it result in the construction or expansion of recreational facilities resulting in physical effects on the environment. (*Less than Significant*)

The types of cumulative impacts relevant to recreation include the following: (1) the project's contribution to the cumulative increase in demand for public recreational resources that could result in physical deterioration of such resources, and (2) other reasonably foreseeable projects that could result in a loss of recreational resources. The 2010 U.S. Census reported a population of 805,235 in the City and County of San Francisco. The population in San Francisco in 2040 is estimated to be about 1,085,700 (approximately 280,465 new residents).⁹⁸ The citywide population increase between 2010 and 2040 would be substantial, and would result in increased demand for recreational resources in the City in the future. No projects currently under consideration in the general vicinity would result in the loss of recreational resources.

As described under Impact RE-1, implementation of the proposed project would result in the introduction of approximately 723 new residents to the project area, which would incrementally increase demand for recreational resources in the project area and in San Francisco generally. The provision of Planning Code-required private and common open space; the new Oak Plaza; and an on-site privately owned, publicly accessible open space would partially offset the demand for recreational resources and the potential for the deterioration and/or degradation of existing recreational resources in the project area.

As discussed in Initial Study Topic E.2, Population and Housing, on pp. 52-54, the population increase attributable to the proposed project would represent approximately 0.3 percent of the projected citywide increase of about 280,465 people between 2010 and 2040, and approximately 9.5 percent of the projected area-wide increase of about 7,620 residents in the Market and Octavia neighborhood by 2025 (from 28,905 to 36,525).⁹⁹ The population increase attributable to nearby reasonably foreseeable projects (approximately 4,625 new residents) would constitute approximately 1.7 percent of citywide growth and the majority of the projected growth in the Market and Octavia neighborhood, which is envisioned as an area that would accommodate a sizable increment of the City's future growth.¹⁰⁰ The increase in the use of nearby local recreational resources associated with the anticipated population increase under the proposed project would not constitute a cumulatively considerable increase in the use of these recreational resources and would not contribute considerably to their physical deterioration or to the need to

⁹⁸ ABAG, *Projections 2013*, p. 75.

⁹⁹ *Ibid.*

¹⁰⁰ 1532 Howard Street (which represents 15 of the 2,047 new residential units) is the only reasonably foreseeable project not located within the Market and Octavia neighborhood.

construct or expand recreational facilities to meet the additional demand. Furthermore, as described above, implementation of the *Market and Octavia Area Plan* would include the development of two more parks in the project area, Brady Park and Octavia Plaza (all within a half-mile radius of the project site).

As with the proposed project, these anticipated projects would be consistent with 2040 population growth projections and would increase the demand for public parks and open spaces, playgrounds, and other recreational resources in the project area and citywide. However, the increase in demand would not be in excess of amounts expected, provided for, or planned for in the *Market and Octavia Area Plan* and the City as a whole. Therefore, when considered in combination with other past, present, or reasonably foreseeable projects, implementation of the proposed project would not result in a cumulatively considerable contribution to significant recreation-related cumulative impacts. No mitigation is necessary.

<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>
10. UTILITIES AND SERVICE SYSTEMS— Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supply available to serve the project from existing entitlements and resources, or require new or expanded water supply resources or entitlements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that would 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"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact UT-1: Implementation of the proposed project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, would not exceed the capacity of the wastewater treatment provider that would serve the project, and would not require the construction of new or expansion of existing wastewater treatment or stormwater drainage facilities. (*Less than Significant*)

The project site is located in the Bayside basin and is served by the City's combined sanitary sewer and stormwater system.¹⁰¹ This system collects, transports, and treats sanitary sewage and stormwater runoff in the same facilities. Discharges to federal and state waters are governed by two National Pollutant Discharge Elimination System (NPDES) permits: the 2008 Bayside Permit (NPDES Permit No. CA0037664) and the 2009 Oceanside Permit (NPDES Permit No. CA0037681). These permits are issued and enforced by the San Francisco Bay Regional Water Quality Control Board (RWQCB).

All wastewater and stormwater flows that emanate from the Bayside basin are subject to the 2008 Bayside Permit. This permit specifies discharge prohibitions, dry-weather effluent limitations, wet-weather effluent performance criteria, receiving water limitations, sludge management practices, and monitoring and reporting requirements for the Southeast Water Pollution Control Plant (Southeast Plant), the North Point Wet-Weather Facility, and the Bayside Wet-Weather Transport/Storage and Diversion Structures, a series of storage/transport boxes located around the perimeter of the City's bayside.¹⁰² During wet weather the capacity at the Southeast Plant is supplemented by the North Point Wet-Weather Facility and the Bayside Wet-Weather Transport/Storage and Diversion Structures. If wet-weather flows exceed the capacity of the overall system, the excess (primarily stormwater) is discharged from one of 36 combined sewer overflow (CSO) structures located along the waterfront. The permit prohibits overflows from the CSO structures during dry weather, and requires wet-weather overflows to comply with the nine minimum controls specified in the United States Environmental Protection Agency's (USEPA) Combined Sewer Overflow Control Policy.

Project-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 Bay Area RWQCB. Therefore, the proposed project would not conflict with RWQCB requirements.

Implementation of the proposed project would incrementally increase wastewater flows from the project site due to the introduction of about 723 residents.¹⁰³ The proposed project would incorporate water-efficient fixtures, as required by Title 24 of the California Code of Regulations and the City's Green Building Ordinance. Compliance with these regulations would reduce wastewater flows and the amount of potable water used for building functions. The

¹⁰¹ San Francisco is roughly divided into two major drainage areas: the Bayside and Westside basins, which are further divided into eight subdrainage areas. Draft San Francisco Sewer System Improvement Program Report, August 10, 2010, Figure 1. San Francisco Major Drainage Basins and Wastewater Facilities, p. 2. Available online at <http://sfwater.org/modules/showdocument.aspx?documentid=984>. Accessed October 9, 2012.

¹⁰² The storage/transport boxes provide treatment consisting of settling and screening of floatable materials inside the boxes and is equivalent to primary treatment at the wastewater treatment plants.

¹⁰³ There would be a net reduction of four on-site employees (from 45 to 41).

San Francisco Public Utilities Commission's (SFPUC's) infrastructure capacity plans account for projected population and employment growth. The incorporation of water-efficient fixtures into new development is also accounted for by the SFPUC, because widespread adoption can lead to more efficient use of existing capacity. For these reasons, the population increase associated with the proposed project would not require the construction of new or expansion of existing wastewater treatment facilities.

The project site has been developed since the late 1800s, and implementation of the proposed project would not result in an increase in impervious surfaces. The City's Stormwater Management Ordinance (Ordinance No. 83-10) requires the proposed project to maintain, reduce, or eliminate the existing volume and rate of stormwater runoff discharged from the project site. To achieve this objective, the proposed project would implement and install appropriate stormwater management systems that retain runoff on site, promote stormwater reuse, and limit (or eliminate altogether) site discharges from entering the City's combined stormwater/sewer system. This, in turn, would limit the incremental demand on both the collection system and treatment facilities resulting from stormwater discharges, and would minimize the potential for upsizing or constructing new facilities. For these reasons, the proposed project would not substantially increase the demand for wastewater or stormwater treatment.

As discussed above, implementation of the proposed project would not exceed wastewater treatment requirements of the applicable RWQCB, would not exceed the capacity of the wastewater treatment provider that would serve the project, and would not require the construction of new or expansion of existing wastewater treatment or stormwater drainage facilities. This impact would be less than significant, and no mitigation measures are necessary.

Impact UT-2: The SFPUC has sufficient water supply available to serve the proposed project from existing entitlements and resources and would not require new or expanded water supply resources or entitlements. (*Less than Significant*)

The SFPUC provides an average of approximately 265 million gallons of water per day to approximately 2.5 million people in San Francisco, Santa Clara, Alameda, San Mateo, and Tuolumne counties.¹⁰⁴ Implementation of the proposed project, which consists of up to 320 dwelling units and up to approximately 12,970 gsf of retail/restaurant space, would incrementally increase the demand for water in San Francisco. It is anticipated that the approximately 723 new residents would use 50 gallons per capita per day (gpcd), so the total water usage of the new residents would be approximately 36,150 gpcd.¹⁰⁵ In addition, the

¹⁰⁴ San Francisco Public Utilities Commission, *2010 Urban Water Management Plan for the City and County of San Francisco*, adopted June 2011 (hereinafter "2010 UWMP"), pp. 7, 14, 22-25. Available online at <http://www.sfwater.org/Modules/ShowDocument.aspx?documentID=1055>. Accessed September 29, 2014.

¹⁰⁵ *2010 UWMP*, p. 34.

proposed project would not increase the daily number of on-site employees and visitors to the project site over existing conditions.

All large-scale projects in California subject to CEQA are required to obtain an assessment from a regional or local jurisdiction water agency to determine the availability of a long-term water supply sufficient to satisfy project-generated water demand under SB 610 and SB 221.45. Under SB 610, a Water Supply Assessment (WSA) is required if a proposed project is subject to CEQA in an Environmental Impact Report or Negative Declaration and is any of the following: (1) a residential development of more than 500 dwelling units; (2) a shopping center or business employing more than 1,000 persons or having more than 500,000 square feet of floor space; (3) a commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space; (4) a hotel or motel with more than 500 rooms; (5) an industrial or manufacturing establishment housing more than 1,000 persons or having more than 650,000 square feet or 40 acres; (6) a mixed-use project containing any of the foregoing; or (7) any other project that would have water demand at least equal to a 500-dwelling-unit project. The proposed project would not exceed any of these thresholds and, therefore, is not required to prepare a WSA.

In June 2011, the SFPUC adopted a resolution finding that the SFPUC's *2010 Urban Water Management Plan* (2010 UWMP) adequately fulfills the requirements of the water assessment for urban water suppliers. The 2010 UWMP uses year 2035 growth projections prepared by the Planning Department and ABAG to estimate future water demand. The proposed project is within the demand projections of the 2010 UWMP and would not exceed the water supply projections.

Although the total amount of water demand would increase at the project site, the proposed building would be designed to incorporate water-efficient fixtures as required by Title 24 of the California Code of Regulations and the City's Green Building Ordinance. Because the proposed water demand could be accommodated by existing and planned water supply anticipated under the 2010 UWMP, the proposed project would not result in a substantial increase in water use and would be served from existing water supply entitlements and resources. In addition, the proposed project would include water conservation devices such as low-flow showerheads and low-flush toilets. For these reasons, there would be sufficient water supply available to serve the proposed project from existing water supply entitlements and resources, and new or expanded resources or entitlements would not be required. This impact would be less than significant, and no mitigation measures are necessary.

Impact UT-3: The proposed project would be served by a landfill with sufficient permitted capacity and would comply with federal, state, and local statutes and regulations related to solid waste. (*Less than Significant*)

In 1988, the City and County of San Francisco contracted for the disposal of 15 million tons of solid waste at the Altamont Landfill. As of March 2013, San Francisco's remaining capacity at the landfill was approximately 1 million tons out of the original 15-million-ton capacity.¹⁰⁶ At current disposal rates, San Francisco's available landfill space under the existing contract will run out in January 2016. However, as of August 2005 (the latest available record), the landfill has a closure date of January 1, 2025, and a remaining capacity of 74 percent.¹⁰⁷

Reports filed by the San Francisco Department of the Environment show that the City generated approximately 628,900 tons of waste material in 2007; by 2012, that figure decreased to approximately 454,600 tons.¹⁰⁸ Waste diverted from landfills is defined as recycled or composted. San Francisco had a goal of 75 percent solid waste diversion by 2010; it currently has a goal of 100 percent solid waste diversion by 2020. San Francisco currently diverts 80 percent of its solid waste from landfills.¹⁰⁹

With implementation of the proposed project, new trash receptacles would be in place at the project site and new residents would participate in the City's recycling and composting programs and other efforts to reduce the solid waste disposal stream. Based on the City's solid waste diversion rate and the Altamont Landfill's remaining capacity, the proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs. This impact would be less than significant, and no mitigation measures are necessary.

The California Integrated Waste Management Act of 1989 (AB 939) requires municipalities to adopt an Integrated Waste Management Plan (IWMP) to establish objectives, policies, and programs related to waste disposal, management, source reduction, and recycling. San Francisco Ordinance No. 27-06 requires a minimum of 65 percent of all construction and demolition debris

¹⁰⁶ San Francisco Department of the Environment, Zero Waste FAQ. Available online at <http://www.sfenvironment.org/zero-waste/overview/zero-waste-faq>. Accessed September 29, 2014.

¹⁰⁷ California Department of Resources Recycling and Recovery, Facility/Site Summary Details: Altamont Landfill and Resource Recovery (01-AA-0009). Available online at <http://www.calrecycle.ca.gov/SWFacilities/Directory/01-AA-0009/Detail/>. Accessed September 29, 2014.

¹⁰⁸ California Department of Resources Recycling and Recovery, Jurisdiction Disposal Tonnage Trend: San Francisco. Available online at <http://www.calrecycle.ca.gov/LGCentral/Reports/Jurisdiction/ReviewReports.aspx>. Accessed September 29, 2014.

¹⁰⁹ San Francisco Department of the Environment, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate," available online at <http://www.sfenvironment.org/news/update/san-francisco-sets-north-american-record-for-recycling-composting-with-80-percent-diversion-rate>. Accessed September 29, 2014.

to be recycled and diverted from landfills. San Francisco Ordinance No. 100-09 requires everyone in San Francisco to separate their solid waste into recyclables, compostables, and trash. The proposed project would be subject to and would comply with San Francisco Ordinance No. 27-06, San Francisco Ordinance No. 100-09, and all other applicable statutes and regulations related to solid waste. In addition, soils from excavation activities as well as building debris and materials (e.g., asbestos, fluorescent lights, lead paint) could be classified as a California hazardous waste. Accordingly, the proposed project would be required to follow state and federal regulations related to the disposal of hazardous waste. This impact would be less than significant, and no mitigation measures are necessary.

Cumulative Impacts

Impact C-UT-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a considerable contribution to cumulative impacts on utilities and service systems. (*Less than Significant*)

Cumulative development in the project vicinity, which includes proposed projects anticipated under the *Market and Octavia Area Plan*, would result in an intensification of land uses, a cumulative increase in water consumption, and a cumulative increase in wastewater and solid waste generation. The SFPUC has accounted for such growth in its service projections, and the City has implemented various programs to divert 80 percent of its solid waste from landfills. Nearby cumulative projects would be subject to the same water conservation, wastewater discharge, recycling and composting, and construction demolition and debris ordinances applicable to the proposed project. Compliance with these ordinances would reduce the effects of nearby cumulative projects to less-than-significant levels. For these reasons, the proposed project would not contribute to a significant cumulative impact on utilities and service systems in combination with past, present, and reasonably foreseeable future projects in the project vicinity to create a cumulative impact on utilities and service systems.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
11. PUBLIC SERVICES— Would the project:					
a) Result in substantial adverse physical impacts associated with the provision of, or the 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 public services such as fire protection, police protection, schools, parks, or other services?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Project-related impacts on parks are discussed under Initial Study Topic E.9, Recreation, on pp. 111-116.

Impact PS-1: The proposed project would not result in substantial adverse physical impacts associated with the provision of fire protection, police protection, schools, and library services in order to maintain acceptable service ratios, response times, or other performance objectives. (*Less than Significant*)

Fire Protection and Emergency Medical Services

The San Francisco Fire Department (SFFD), headquartered at 698 Second Street, provides fire suppression services and unified emergency medical services (EMS) and transport, including basic life support and advanced life support services, in the City and County of San Francisco. Emergency response operations include fire suppression; tactical rescues; emergency medical care; fire prevention; arson investigations; responses to natural disasters, mass-casualty incidents, and hazardous-materials incidents; and fire and EMS dispatch supervision. In January 2012 the City reestablished its exclusive operating area for emergency response under an agreement with the state that requires the SFFD to respond to a minimum of 80 percent of all EMS calls handled by the City and 10 to 20 percent of all calls handled by privately operated ambulance companies.^{110,111} In 2013 the SFFD responded to 120,718 calls (27,843 fire suppression calls and 92,875 EMS calls).¹¹² Between 2007 and 2013 the SFFD experienced an 18 percent increase in calls, with fire suppression calls increasing by about 6 percent and EMS calls increasing by about 22 percent.¹¹³ In 2013, the response rate was just 73 percent, down from 98 percent in 2007, the year prior to the rescission of City's previous exclusive operating area agreement.¹¹⁴

The SFFD fire suppression companies have three divisions: the Airport Division (serving the San Francisco International Airport) and Divisions 2 and 3 (serving the rest of San Francisco). Division 2 is divided into four battalions, and Division 3 is divided into five battalions. The SFFD has 43 fire stations located throughout the City as well as three stations located at the San Francisco International Airport. SFFD resources include 43 engine companies, 19 truck companies, 2 heavy rescue squad units, 2 fire boats, multiple special purpose units, and a dynamically deployed¹¹⁵ fleet of 43 ambulances. In addition, the SFFD Emergency Services Division oversees the operation of Station 49 at 1415 Evans Street, from which all ambulances are deployed. The SFFD employs approximately 1,395 uniformed personnel and requires a daily

¹¹⁰ City and County of San Francisco, Performance Audit of Emergency Medical Services Resources at the San Francisco Fire Department, June 10, 2014, p. 12. Available online at <http://www.sfbos.org/Modules/ShowDocument.aspx?documentid=49337>. Accessed October 8, 2014.

¹¹¹ San Francisco Department of Emergency Management, EMS System Providers. Available online at <http://www.sfdem.org/index.aspx?page=183>. Accessed October 8, 2014.

¹¹² City and County of San Francisco, Performance Audit of Emergency Medical Services Resources at the San Francisco Fire Department, June 10, 2014, p. 3. Available online at <http://www.sfbos.org/Modules/ShowDocument.aspx?documentid=49337>. Accessed October 8, 2014.

¹¹³ Ibid.

¹¹⁴ Ibid, p. 12.

¹¹⁵ Dynamic deployment is the SFFD's ambulance dispatch strategy of estimating demands and stationing ambulances to increase their mobility and ensure the fastest response times.

fire suppression staffing level of 297 uniformed personnel.¹¹⁶ Approximately 23 percent of uniformed personnel are classified as EMS staff and 77 percent are classified as fire suppression staff.¹¹⁷ The SFFD response for all calls reporting either smoke or fire in a building typically includes 35 SFFD personnel in the configuration shown below:

- 3 engine companies – each with 1 officer and 3 firefighters;¹¹⁸
- 2 truck companies – each with 1 officer and 4 firefighters;
- 1 heavy rescue squad – 1 officer and 3 firefighters;
- 1 division chief – 1 assistant chief and 1 incident support specialist;
- 2 Battalion Chiefs – 1 Battalion Chief (3 out of 9 Battalion Chiefs have an Incident Support Specialist); and
- 1 medic unit – 1 paramedic and 1 emergency medical technician.

The project site is located within the Division 3 service area, which encompasses the South of Market area to the southwestern boundaries of the City up to the southern border. The project site is in the First Alarm area¹¹⁹ for Station 36 (Battalion 2), located one block west of the project site at 109 Oak Street. Station 36 has one engine with one officer and three firefighters, the Chief of Battalion 2, and a hazardous materials unit. Renovations to Station 36 were recently completed and were funded through the 2010 Earthquake Safety and Emergency Response Bond.¹²⁰ Other fire stations in the vicinity include Station 6 (Battalion 2) at 135 Sanchez Street (about 1 mile west), Station 3 (Battalion 2) at 1067 Post Street (about 1 mile north), and Station 5 (Battalion 4/Division 2) at 1301 Turk Street (about 1.2 miles northwest).¹²¹ Station 6 houses one engine with one officer and three firefighters, one aerial (ladder) truck with one officer and four firefighters, and a decontamination unit. Station 3 has one engine with one officer and three

¹¹⁶ City and County of San Francisco, Performance Audit of the City's Practices to Recruit, Retain and Promote Uniformed Fire Staff and the Fire Department's Use of Overtime to Meet Minimum Staffing Requirements, January 13, 2014, pp. 9 and 64. Available online at <http://www.sfbos.org/Modules/ShowDocument.aspx?documentid=47587>. Accessed October 8, 2014.

¹¹⁷ Ibid, p. 19.

¹¹⁸ Currently, Basic Life Support engines are staffed with firefighters cross-trained as emergency medical technicians and Advanced Life Support engines are staffed with at least one firefighter cross-trained as a paramedic.

¹¹⁹ The First Alarm area is the geographic area in which a station is responsible for arriving first in the case of an emergency.

¹²⁰ City and County of San Francisco, Earthquake Safety and Emergency Response Bond Monthly Status Report, June 2014. Available online at http://www.sfearthquakesafety.org/uploads/1/9/4/3/19432507/eser_06-30-2014_goboc_report.pdf. Accessed October 13, 2014.

¹²¹ SFFD, *SFFD Fire Station Locations*. Available online at <http://www.sf-fire.org/Modules/ShowDocument.aspx?documentid=1975>. Accessed October 8, 2014.

firefighters and one aerial (ladder) truck with one officer and four firefighters. Station 5 houses one engine with one officer and three firefighters, and a light rescue unit.¹²²

Implementation of the proposed project would result in an intensification of land uses on the project site and the creation of the proposed Oak Plaza, including a wind canopy. The proposed project would add approximately 723 people to the project site, an approximately 22 percent increase over the existing residential population for Census Tract 168.02, as reported in the 2010 U.S. Census (3,264 people).

Current emergency vehicle operations allow for the contraflow use of the one-way, westbound Oak Street (between Van Ness Avenue and Franklin Street) in order to gain access to Van Ness Avenue. With implementation of the proposed Oak Plaza, vehicle circulation on Oak Street would be changed from one-way westbound between Franklin Street and Van Ness Avenue, to two-way operations between Franklin Street and the proposed Oak Plaza. Emergency vehicles, however, would continue to have access through Oak Plaza. Rolled curb cuts at the east and west ends of the plaza would allow emergency vehicles to cross the plaza when necessary. In addition, the Van Ness Avenue stop bar for southbound vehicular traffic would be relocated to align with the northern edge of the fire lane so that emergency vehicles could turn onto Van Ness Avenue unimpeded. The proposed Oak Plaza and wind canopy would be designed to provide a 26-foot-wide emergency access zone, which includes a 14-foot-wide fire lane and 12 feet of additional clearance for emergency access to and from Van Ness Avenue. These dimensions meet the *Better Streets Plan* requirements for emergency vehicle access and would allow unimpeded emergency vehicle access from Oak Street onto Van Ness Avenue for emergency vehicles (ambulance, 35-foot fire truck, 57-foot ladder truck). The canopy would be at least 40 feet above the plaza, allowing appropriate vertical clearance for all emergency vehicles. Thus, emergency vehicles would be accommodated by the proposed Oak Plaza. In addition, and as part of the San Francisco Fire Department's building permit review process, drawings for the proposed emergency access zone and wind screen canopy features in the proposed plaza would be reviewed by the Fire Department to ensure that emergency access to Van Ness Avenue and to the existing and proposed buildings in the immediate area would meet SFFD requirements.

Although the number of fire suppression and EMS calls received from the project site could increase, the project-related increase would be incremental, with any additional costs funded largely through project-related increases to the City's tax base, which would, in turn, support SFFD personnel recruitment and training. This incremental increase would not be substantial in light of the existing demand for fire suppression and emergency medical services in the City. The proposed project would not generate a demand for new or physically altered facilities or increased staffing needs, nor would the proposed project affect the SFFD's ability to meet its response time

¹²² The 2014 Earthquake Safety and Emergency Response Bond includes funding for the seismic upgrade of Station 5.

goals. Therefore, the proposed project would have a less-than-significant impact on fire protection and emergency medical services. No mitigation is necessary, and this topic will not be discussed in the EIR.

In addition, construction of the proposed 39-story mixed-use, high-rise building would be required to comply with all regulations of the San Francisco Building and Fire Codes that establish requirements for fire safety and fire prevention, such as the provision of smoke alarms, sprinkler system, appropriate building access, and emergency response notification systems. Further, the SFFD recommends that all new high-rise buildings use a system to assist Fire Department and/or EMS personnel upon arrival, including a protocol to greet paramedics at the door of the building or in the street to help them reach the patient, and to provide express elevator service when necessary. The proposed project would follow these protocols, and building management would have an on-site employee trained in these procedures. These measures would ensure that any potential delay to emergency medical response due to building height would be minimized, and that care would be provided as quickly as possible.

Police Protection Services

The San Francisco Police Department (SFPD), headquartered at 850 Bryant Street, provides police protection in the City and County of San Francisco. The SFPD divides the City into two divisions, Metro and Golden Gate, and each division is divided into five districts.¹²³ The project site is located within the Northern Police District, which is made up of Pacific Heights, Japantown, Polk Gulch, Russian Hill, the Marina, and a portion of the Western Addition.¹²⁴ The Northern Station, located at 1125 Fillmore Street, is part of the Metro Division and serves a 5.3-square-mile area with a population of approximately 96,148 people.¹²⁵ It is approximately 1.2 miles northwest of the project site and is staffed by about 138 officers.¹²⁶ The SFPD's deployment of resources is based on the use of computer statistics and allows the SFPD to proactively address public safety issues before they occur, instead of simply reacting to crimes already committed.¹²⁷ According to the SFPD Crime Maps, the most reported crimes in a 0.5-mile radius of the project site are disturbing the peace, assault, and theft/larceny. Other

¹²³ San Francisco Police Department (SFPD), Operations. Available online at <http://sf-police.org/index.aspx?page=23>. Accessed October 13, 2014.

¹²⁴ SFPD, Northern District Map. Available online at <http://sanfranciscopolice.org/Modules/ShowDocument.aspx?documentid=12829>. Accessed October 13, 2014.

¹²⁵ SFFD, Compstat Report April 2014. Available online at <http://sf-police.org/index.aspx?page=4581>. Accessed October 14, 2014.

¹²⁶ The Public Safety Strategies Group, *San Francisco Police Department District Station Boundaries Analysis Final Report*, May 13, 2008, pp. D5–D6. Available online at <http://sf-police.org/Modules/ShowDocument.aspx?documentid=14683>. Accessed October 14, 2014.

¹²⁷ The SFPD has adopted the use of computer statistics to guide its deployment of resources to more effectively address crime throughout the City. Available online at <http://www.sf-police.org/index.aspx?page=3254>. Accessed October 14, 2014.

frequently reported crimes in the area include vehicle break-in/theft, burglary, and vandalism. These crime data statistics are based on reports taken from a 6-month time period from April 17, 2014 through October 14, 2014.¹²⁸

Development of the project site would replace two buildings and a surface parking lot with new residential, retail, and parking uses. The proposed project would generate an increase of approximately 723 people on the project site. These new residents would result in an approximately 22 percent increase over the existing residential population for Census Tract 168.02, as reported in the 2010 Census (3,264 people). The SFPD bases its estimates for additional facilities on calls for service, types and times of traffic and pedestrian flow patterns, and operational hours of uses within each Police District area, not on increases in population.

The project sponsor would, as part of the building permit review process, work with the SFPD and the Department of Emergency Management to ensure that emergency access to the project site and nearby properties would not be impeded by the proposed project and that emergency communication systems within the new high-rise building are functional and appropriately designed. Communication systems would be incorporated into the proposed project to the extent practicable based on consultation with SFPD.

SFPD policy is to accommodate the additional growth with existing infrastructure through re-deployment of resources from other areas of the City, if needed. Increased demand for police services due to the additional 723 residents anticipated under the proposed project would be accommodated in this manner. This incremental increase would not be substantial in light of the existing demand for police protection in the City. The proposed project would not generate a demand for new, or physically altered, facilities or increased staffing needs, nor would the proposed project affect the SFPD's ability to meet its response time goals. Therefore, the proposed project would have a less-than-significant impact on police protection services. No mitigation is necessary, and this topic will not be discussed in the EIR.

Public Schools

The San Francisco Unified School District (SFUSD) provides primary and secondary education in San Francisco. The SFUSD manages 64 elementary schools (K-5), 12 middle schools (grades 6-8), 18 high schools (grades 9-12), and 9 alternatively configured schools with a total enrollment of 53,270 students. An additional 511 students are enrolled in County programs and approximately 3,268 students are enrolled in charter schools.^{129,130} According to the 2010 U.S.

¹²⁸ SFPD, *SFPD CrimeMAPS*. Available online at <http://www.crimemapping.com/map/ca/sanfrancisco>. Accessed October 14, 2014.

¹²⁹ San Francisco Unified School District (SFUSD), Research Planning and Accountability Data Center, School List and Summary – Student Enrollment. Available online at <http://tinyurl.com/leko089>. Accessed October 14, 2014.

Census, there are approximately 90,000 school-aged children in San Francisco.¹³¹ Over the past five years, elementary school student enrollment in the SFUSD has increased from approximately 21,663 to 23,270, while middle school and high school enrollment has decreased. Overall student enrollment between the 2008-2009 and 2013-2014 academic years has decreased slightly from 55,240 to approximately 53,270.¹³² The SFUSD projects its overall enrollment will increase slightly through 2014, with the largest increases projected for the elementary and middle school level and a slight increase projected for the high school level.¹³³

The project site is within the attendance area of John Muir Elementary School at 380 Webster Street, six blocks west of the project site.¹³⁴ For the 2013-2014 academic year, John Muir Elementary had a total K-5 enrollment of 258 students.¹³⁵ According to the current SFUSD enrollment and matriculation process, students who attend this elementary school would subsequently attend James Lick Middle School.¹³⁶ After middle school, the students would then apply to any high school across the City.

Implementation of the proposed project would add 320 market rate residential units, which could increase the demand for schools by about 16 students based on a student generation rate of 0.05 students per market rate unit.¹³⁷ If the project sponsor were to meet the affordable housing requirements on site (282 market rate units and 38 below market rate units), about 24 students would be added to the SFUSD population based on a student generation rate of 0.25 students for below market rate units and 0.05 students for market rate units.¹³⁸ As discussed above,

¹³⁰ Five charter schools submit their student data directly to the California Department of Education rather than through SFUSD; thus, the total charter school enrollment number is greater than 3,268.

¹³¹ U.S. Census Bureau, American FactFinder, Profile of General Population and Housing Characteristics: 2010, 2010 Demographic Profile Data. Available online at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed October 14, 2014.

¹³² SFUSD, Research Planning and Accountability Data Center, School List and Summary – Student Enrollment. Available online at <http://tinyurl.com/lekoo89> and <http://tinyurl.com/lqge346>. Accessed October 14, 2014.

¹³³ SFUSD, SFUSD Recommended Budget for Fiscal Year 2014 – 2015, p. 13. Available online at <http://tinyurl.com/k62bqwp>. Accessed October 14, 2014.

¹³⁴ For elementary schools, a lottery that gives some weight to the attendance area in which the student resides is used to assign students. There is no requirement that the elementary attendance area school be chosen by parents, nor can placement at the elementary attendance area school be guaranteed. Beginning in 2017, 5th grade students will receive an automatic, initial assignment into their designated middle school feeder. They will also have an opportunity to apply for enrollment at other middle schools, but there will be a guaranteed assignment into the middle school based on where they attend elementary school. Available online at <http://www.sfusd.edu/en/enroll-in-sfusd-schools/frequently-asked-questions.html>. Accessed October 14, 2014.

¹³⁵ SFUSD, Research Planning and Accountability Data Center, School List and Summary – Student Enrollment. Available online at <http://tinyurl.com/lekoo89>. Accessed October 14, 2014.

¹³⁶ SFUSD Address and School Locator. Available online at <http://www.sfpublicschools.org/php/>. Accessed October 14, 2014.

¹³⁷ San Francisco Planning Department, *Transit Center District Plan and Transit Tower Final Environmental Impact Report*, Case No. 2007.0558E and 2008.0789E, May 24, 2012, p. 548.

¹³⁸ Ibid.

elementary school enrollment has increased over the last five years and SFUSD projections indicate that elementary enrollment will continue to grow. The SFUSD maintains a property and building portfolio that has a student capacity for over 90,000 students.¹³⁹ Thus, even with increasing enrollment, SFUSD facilities throughout the City are underutilized. An increase in students associated with the proposed project would not substantially change the demand for schools, nor would it result in the need for new facilities.

The Leroy F. Greene School Facilities Act of 1998, or SB 50, restricts the ability of local agencies to deny land use approvals on the basis that public school facilities are inadequate. SB 50, however, permits the levying of developer fees to address local school facility needs resulting from new development. Local jurisdictions are precluded under state law from imposing school-enrollment-related mitigation beyond the school development fees. The SFUSD collects these fees for all construction and building permits issued within the City and County of San Francisco. Developer fee revenues are utilized, in conjunction with other District funds, to support efforts to complete capital improvement projects. The School Facilities Impact Fees to be collected for residential, commercial, and retail developments for fiscal year 2013-2014 are set at \$2.24/sq. ft. for new residential construction and \$0.18/sq. ft. for retail space.¹⁴⁰ Thus, with payment of school impact fees, project impacts on SFUSD facilities and services would be considered less than significant. No mitigation is necessary, and this topic will not be discussed in the EIR.

Libraries

The San Francisco Public Library operates the Main Library at Civic Center, at 100 Larkin Street, and 27 neighborhood branches throughout San Francisco. Public libraries provide reading rooms, book lending, information services, access to technology, and library-sponsored public programs. The public libraries near the project site are the Main Library; the Eureka Valley Branch at 1 Jose Sarria Court, about 1.1 miles west of the project site; and the Western Addition Branch at 1550 Scott Street, about 1.7 miles northwest of the project site.

In 1994, San Francisco voters passed Proposition E, a Charter amendment that created the Library Preservation Fund, which provided library services and materials, and aids in the operation of library facilities. Proposition E requires the City to maintain funding for the San Francisco Public Library at a level no lower than the amount it spent during the 1992–1993 fiscal year. Voters renewed the Library Preservation Fund in November 2007 (Proposition D).

¹³⁹ SFUSD, Capital Plan 2010-2019, pp. 24-25. Available online at <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/capital-plan-final-2010-2019.pdf>. Accessed October 14, 2014.

¹⁴⁰ SFUSD, Developer Impact Fee Annual and Five Year Reports for the Fiscal Year Ending June 30, 2014, November 10, 2014, p. 2. Available online at http://www.sfusd.edu/en/assets/sfusd-staff/_site-wide/files/SFUSD_AnnualFiveYearReports_FY1314_Final.pdf. Accessed March 31, 2015.

The Branch Library Improvement Program resulted from a bond measure passed in November 2000 to provide \$106 million in funding to upgrade San Francisco's branch library system, and Proposition D, authorizing additional funding to improve the branches. These funds were used to establish the Mission Bay Branch, which opened in February 2009.

The proposed project would introduce 723 residents into the neighborhood. The Main Library and branch libraries near the project site would be able to meet the incremental increase in demand for library services generated by the proposed project. The proposed project would not require construction of new or expanded library facilities beyond those already proposed or under construction through the Branch Library Improvement Program.

Thus, the San Francisco Public Library system could accommodate increased demand from the proposed project, and no additional library facilities or the expansion of existing facilities would be required to meet unmet demand. Impacts on library services would be less than significant. No mitigation is necessary, and this topic will not be discussed in the EIR.

Cumulative Impacts

Impact C-PS-1: The proposed project, in combination with other past, present or reasonably foreseeable future projects, would not result in a cumulatively considerable contribution to significant cumulative impacts on public services. (*Less than Significant*)

The proposed project's contribution to cumulative public services impacts was analyzed in relation to anticipated citywide population growth estimates. Reasonably foreseeable future projects in the project vicinity include a number of mixed-use projects along Van Ness Avenue, Octavia Boulevard, and Market and Franklin streets (see list of cumulative projects on pp. 40-45). Together, these projects would develop up to 2,047 residential units. Based on a conservative average of approximately 2.26 persons per household, these projects could add up to 4,625 new residents to the project area. Implementation of the proposed project in combination with reasonably foreseeable future projects would not exceed growth projections for the Market and Octavia neighborhood or San Francisco, as discussed in Initial Study Topic E.2, Population and Housing, p. 55. As a result, the implementation of reasonably foreseeable future projects would not result in any service gap in the provision of police, fire, and emergency medical services. Because there is no citywide shortfall with respect to school or library services and because reasonably foreseeable future projects would be required to pay school impact fees pursuant to SB 50, there would also be no significant cumulative effects with respect to those public services.

Thus, the proposed project, when considered together with reasonably foreseeable future projects, would not result in a cumulatively considerable contribution to cumulative impacts on police protection services, fire protection and emergency services, or school and library services. No mitigation is necessary, and this topic will not be discussed in the EIR. Refer to Initial Study Topic E.9, Recreation, pp. 115-116, for a discussion of cumulative impacts on park services.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporation</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
12. BIOLOGICAL RESOURCES— 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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>

Impact BI-1: The proposed project would not 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; on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations; or on federally protected wetlands through direct removal, filling, hydrological interruption, or other means. (No Impact)

The project site is located within a densely developed urban area in San Francisco. It is nearly entirely covered with buildings or impervious surfaces. Five London Plane street trees (*Platanus x acerifolia*) line the sidewalk along Market Street within the project site.

Historically, urban development has dominated this area of San Francisco, including the project site, and the native habitat has been removed. Although some parts of San Francisco support riparian habitat and several sensitive natural plant communities, none of these features are present on the project site or in its vicinity. There are no federally protected wetlands on or near the

project site, and no potential for candidate, sensitive, or special-status species to be found within the project site or in the project vicinity.

Implementation of the proposed project would not directly or indirectly affect any candidate, sensitive, or special-status species, or any riparian habitat identified in local, regional, state, or federal plans, policies, or regulations. None of the proposed project's construction-related activities would have a substantial adverse effect on federally protected wetlands through direct removal, filling, hydrological interruption, or other means. Therefore, the proposed project would have no impact under Topics 13a, 13b, and 13c.

Impact BI-2: The proposed project would not substantially interfere 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. (*Less than Significant*)

Nesting Birds

The *San Francisco Breeding Bird Atlas* synthesizes extensive records of avian breeding on the San Francisco Peninsula and shows a diverse assemblage of bird species breeding in San Francisco despite urbanized conditions in most areas. Native species that have been recorded in the area around the project site, defined by the atlas as "Downtown San Francisco," include house finch (*Carpodacus mexicanus*), brown-headed cowbird (*Molothrus ater*), Brewer's blackbird (*Euphagus cyanocephalus*), dark-eyed junco (*Junco hyemalis*), white-crowed sparrow (*Zonotrichia leucophrys*), song sparrow (*Melospiza melodia*), American robin (*Turdus migratorius*), common raven (*Corvus corax*), American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), and mourning dove (*Zenaida macroura*).¹⁴¹ All of these species are capable of habituating to disturbance levels typical of an urban area and are protected by Section 3008 of the California Fish and Game Code (CFGF) and the federal Migratory Bird Treaty Act (MBTA).

Existing street trees within the project site have the potential to support native nesting birds protected under Section 3008 of the CFGF or the MBTA. Removal or pruning of these trees during nesting bird season (February 1 through August 31) could result in nest destruction or injury or mortality of nestlings, which would be considered a significant impact. Compliance with the requirements of the MBTA and the CFGF would ensure that there would be no significant impact as a result of tree removal and construction disturbances. These requirements may include the following actions:

- Vegetation removal activities for the proposed project will be conducted during the non-breeding season (i.e., September through February) to avoid impact to nesting birds or

¹⁴¹ *San Francisco Breeding Bird Atlas*, June 1, 2003, accessed from <http://www.markeaton.org/sffo1/Breeding%20Ecology/San%20Francisco%20Breeding%20Bird%20Atlas.pdf>, on October 6, 2012.

preconstruction surveys will be conducted for work scheduled during the breeding season (March through August).

- Preconstruction surveys will be conducted by a qualified ornithologist, authorized by the California Department of Fish and Wildlife to conduct such activities, to determine if any birds are nesting in or in the vicinity of the vegetation to be removed. The preconstruction survey will be conducted within 15 days prior to the start of work from March through May (since there is higher potential for birds to initiate nesting during this period), and within 30 days prior to the start of work from June through August.
- If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist, in consultation with the California Department of Fish and Wildlife, will determine the extent of a construction-free buffer zone to be established around the nest until the young have fledged.

Compliance with federal and state regulations would ensure that this impact would be less than significant.

Planning Code Section 139, Standards for Bird-Safe Buildings

The Planning Commission adopted Standards for Bird-Safe Buildings on July 14, 2011.¹⁴² Required treatments under this ordinance are codified in Planning Code Section 139, Standards for Bird-Safe Buildings. The purpose of the standards is to establish requirements for new building construction and replacement façades to reduce bird mortality from circumstances that are known to pose a high risk to birds. The two circumstances regulated by Planning Code Section 139 are “location-related hazards,” where the siting of a structure creates increased risk to birds, and “feature-related hazards,” which may create increased risk to birds regardless of where the structure is located.

The project site is located in a fully developed urban area, does not provide habitat for any rare or endangered species, is not located on or in the vicinity of a native wildlife nursery site, and is not located within 300 feet of the San Francisco Bay waterfront. Therefore, the proposed high-rise tower is not subject to location-related standards of Planning Code Section 139(c)(1), incorporating the Standards for Bird-Safe Buildings.

Feature-related hazards can occur throughout the City. As set forth in Planning Code Section 139(c)(2), they include free-standing glass walls, wind barriers, skywalks, balconies, and greenhouses on rooftops that have unbroken glazed segments 24 sq. ft. and larger in size. A structure that contains any such feature-related hazard, like the proposed project tower, would be required under Planning Code Section 139 to employ Bird-Safe Glazing Treatment on 100 percent of the glazing on feature-related-hazards.

¹⁴² San Francisco Planning Department, Standards for Bird-Safe Buildings, Adopted by the Planning Commission on July 14, 2011. Available online at http://www.sf-planning.org/ftp/files/publications_reports/bird_safe_bldgs/Standards%20for%20Bird%20Safe%20Buildings%20-%202011-30-11.pdf. Accessed September 13, 2012.

Compliance with Planning Code Section 139(c)(2), Standards for Bird-Safe Buildings, would ensure that the proposed project's impact on bird migration and local movement would be less than significant.

Conclusion

Compliance with applicable local, state, and federal requirements protecting biological resources would ensure that potential impacts of the proposed project related to the movement of native resident wildlife species, migratory wildlife corridors, or native wildlife nursery sites would be considered less than significant.

Impact BI-3: The proposed project would not conflict with the City's local policies or ordinances protecting biological resources, such as the tree ordinance. (*Less than Significant*)

The proposed project would include redevelopment of the project site with a 400-foot-tall residential tower and streetscape improvements. The building site component of the project site (Lots 1-5) contains no trees. Five London Plane street trees are located along Market Street within the streetscape improvement area component of the project site, west of the Muni Metro entrance. The proposed project would comply with San Francisco Planning Code Section 138.1 and Section 309, which require the planting of new street trees in the event of new building construction. As such, the proposed project would not conflict with local tree preservation ordinances. The proposed project would also not conflict with any other local policies or ordinances protecting other biological resources within the project site (including Planning Code Section 139, discussed above). Thus, the proposed project would have a less-than-significant impact with regard to conflict with local ordinances and policies protecting biological resources.

Impact BI-4: The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. (*No Impact*)

No habitat conservation plans, natural community conservation plans, or other approved conservation plans apply to the project area. Therefore, the proposed project would have no impact on any approved habitat conservation plans.

Cumulative Impacts

Impact C-BI-1: The proposed project, in combination with other past, present or reasonably foreseeable future projects in the site vicinity, would not result in a considerable contribution to significant cumulative impacts to biological resources. (*Less than Significant*)

The proposed project, combined with reasonably foreseeable future projects, would result in increased population and development in the project vicinity. The project site is currently fully

developed with buildings and impervious surfaces. On-site vegetation consists of five street trees along Market Street. Wildlife species on and in the vicinity of the project site (if any) are those that have adapted to the urban environment such as birds that nest in street trees, and are able to co-exist with people and the built environment. The vegetation that could occur on and around the project site represents an urban environment rather than a wildland condition. No nearby sites contain any special status species. Moreover, because projects must comply with federal, state, and local regulations that protect biological resources, there would be no significant project-level impacts on biological resources, and no significant cumulative impact on biological resources. For these reasons, the proposed project would not have a cumulatively considerable contribution to significant cumulative impacts on biological resources, and no mitigation measures are necessary.

<u>Topics:</u>	<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>
13. GEOLOGY AND SOILS—					
Would the project:					
a) Expose people or structures to 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Change substantially the topography or any unique geologic or physical features of the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

As shown on Map 4, Seismic Hazard Zones, San Francisco, 2012, in the Community Safety Element of the *General Plan*, the project site is not in a landslide zone.¹⁴³ Therefore, Topic 14a(iv) is not applicable to the proposed project.

The proposed project would not use septic tanks or alternative wastewater disposal systems. The proposed project would be connected to and served by the City's combined stormwater/sewer system. Therefore, Topic 14e is not applicable to the proposed project.

A *Preliminary Geotechnical Study*¹⁴⁴ was prepared for the project site; the results and recommendations are summarized below. The purpose of the *Preliminary Geotechnical Study* is to develop recommendations regarding the geotechnical aspects of project design and construction.

The project site is immediately underlain by 10 to 20 feet of fill consisting of loose to medium-dense sand that may also contain debris, such as brick and concrete fragments. The fill is underlain by native fine-grained, wind-deposited, medium-dense to dense Dune sand that reaches approximate depths of 15 to 25 feet below ground surface (bgs). Underneath this layer is a 5- to 10-foot-deep marsh deposit consisting of soft to hard silty clay with sand and loose to medium-dense clayey sand. Beneath the marsh deposit is the Colma Formation, which consists of dense to very dense sand with variable silt and stiff to hard clay content and clay with variable sand content. The Colma Formation likely extends to very stiff to hard Old Bay clay deposits and/or bedrock, which is likely present at depths of more than 200 feet bgs. Groundwater is approximately 18 feet bgs and fluctuates by about 2 feet on a seasonal basis.¹⁴⁵

The existing buildings and parking lot on the project site as well as the existing underground Muni entrance would be demolished as part of the proposed project. Excavation to a maximum depth of 50 feet bgs would be required for the three below-grade basement levels and the mat foundation on the western portion of the project site (a portion of Lot 1 and Lots 2-5). The depth of excavation for construction of a new Muni entrance on Oak Street on the easternmost portion of the project site (most of Lot 1 [All Star Café]) would extend to approximately 16 feet bgs. In total, approximately 30,000 cubic yards of demolition debris and 50,000 cubic yards of soil would be removed from the project site. Since groundwater is expected to be encountered approximately 18 to 20 feet bgs, dewatering of the excavated area would be required, with plans subject to SFPUC review.

¹⁴³ San Francisco Planning Department, *San Francisco General Plan*, Community Safety Element, p. 13. Available online at http://www.sf-planning.org/ftp/General_Plan/Community_Safety_Element_2012.pdf. Accessed September 19, 2014.

¹⁴⁴ Langan Treadwell Rollo, *Preliminary Geotechnical Study, One Oak Street* (hereinafter "*Preliminary Geotechnical Study*"), January 6, 2015. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

¹⁴⁵ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, pp. 2-3.

The project site is near the underground tunnels for the BART system and Muni and the underground Van Ness Muni Metro station. According to BART drawings, the bottom of the BART structure is approximately 70 feet bgs at Market Street adjacent to the building site. The BART Zone of Influence (ZOI) extends about 50 feet into the project site.¹⁴⁶ The Muni ZOI extends about 66 feet into the project site because the Muni structures are closer to the project site.¹⁴⁷ BART has developed guidelines for construction near their subway structures (i.e., within the BART ZOI).¹⁴⁸ The design of the foundation, shoring, and building lateral/sliding resistance systems for the proposed project must consider the BART guidelines, and BART engineers will be required to review the final plans. In addition, calculations must be submitted to BART to demonstrate that proposed project would not adversely affect the BART station or tunnels under both static and seismic load conditions.

The *Preliminary Geotechnical Study* provided recommendations regarding the proposed project's construction.¹⁴⁹ These recommendations take into consideration the proximity of the BART ZOI and Muni facility, and include, but are not limited to, foundations, shoring, and underpinning. According to the *Preliminary Geotechnical Study*, the proposed building could be supported on a mat foundation varying in thickness from about 12 feet at the elevator core to about 8 feet outside of the elevator core. The bottom of the mat would extend below the BART ZOI into the Colma Formation and would not constitute additional loading on the BART and Muni structures. The easternmost portion of the project site would be excavated to a depth of 16 feet bgs and would be developed as the new Oak Street entrance to Muni. Since the subway entrance foundation pressure would be expected to be less than the pressure of the existing soil, a mat foundation may be feasible; however, some over-excavation of the marsh deposit layer (present between 15 to 30 feet bgs) may be required to expose the Colma Formation, which is better suited for supporting the proposed mat foundation. The portion of the mat foundation that requires over-excavation to reach the Colma Formation would be supported on a mat or pile-supported mat. Alternatively, soil cement columns that would transfer foundation loads into the dense sand of the Colma Formation could be used. For the portion of this mat within the BART ZOI and Muni ZOI (the portion closest to Market Street), it would likely need to be supported on drilled piers or auger cast piles that extend to a depth of 10 feet below the BART ZOI. Since the foundation pressure from the new Muni entrance would be expected to be less than the existing soil pressure, BART requirements for double casing drilled piers or auger cast piles within their ZOI would not be needed.¹⁵⁰

¹⁴⁶ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, Appendix Figure 6.

¹⁴⁷ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, Appendix Figure 7.

¹⁴⁸ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, pp. 6-7.

¹⁴⁹ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, pp. 7-9.

¹⁵⁰ Double casing provides a permanent void that would not allow load transfer onto the BART and Muni structures.

Recommendations for the shoring system are premised on the need to limit the movement of the shoring to less than ½ inch, to maintain at-rest soil conditions at 50 percent higher than active pressures, and to limit the draw-down of groundwater outside the site to less than 2 feet below the original groundwater level (as required by BART).¹⁵¹ The *Preliminary Geotechnical Study* recommends that shoring along Market Street be stiffer than elsewhere and that additional lateral support (potentially internal bracing due to BART restrictions on tie-backs within the BART ZOI) be added along the Market Street side of the excavation. The *Preliminary Geotechnical Study* also recommends that the shoring system be impervious and include an impervious wall that extends to a depth of 25 feet below the bottom of the excavation on at least one-half of the project site perimeter. A properly installed soldier-pile and lagging system on the other half of the site perimeter, especially where the excavation penetrates into and through the marsh deposit, would also be part of a shoring system to minimize loss of groundwater. And finally, the *Preliminary Geotechnical Study* recommends the use of steel piles placed in slant-drilled holes because of the groundwater/ground loss issue associated with the instability of the marsh deposit. This system is recommended as the most appropriate method for avoiding surcharging of the shoring and basement walls of the proposed building and to support adjacent building loads supported on shallower foundations during construction.

Impact GE-1: The proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides. (*Less than Significant*)

Fault Rupture

The Alquist-Priolo Earthquake Fault Zoning Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The project site is not located within an Alquist-Priolo Earthquake Fault Zone as established by the California Geological Survey (CGS), and no active or potentially active faults exist on or in the immediate vicinity of this site.¹⁵² For these reasons, the potential for surface fault rupture is low. This impact would be less than significant, and no mitigation measures are necessary.

Ground Shaking

Like the rest of the San Francisco Bay Area, the project site is subject to ground shaking in the event of an earthquake on regional fault lines. The United States Geological Survey estimates

¹⁵¹ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, pp. 8-9.

¹⁵² California Geological Survey, Table 4, Cities and Counties Affected by Alquist-Priolo Earthquake Fault Zones as of January 2010. Available online at <http://www.consrv.ca.gov/cgs/rghm/ap/Pages/affected.aspx>. Accessed September 19, 2014.

that there is a 63 percent probability of a strong earthquake (Moment magnitude¹⁵³ [Mw] 6.7 or higher) occurring in the San Francisco Bay region during the 30-year period between 2007 and 2036.¹⁵⁴ The nearest faults that could cause substantial ground shaking in the project vicinity are the San Andreas Fault, located approximately 11 miles west; the San Gregorio Fault, located approximately 17 miles west; and the Hayward Fault, located approximately 18 miles northeast.¹⁵⁵

ABAG has prepared maps that show areas of the City subject to ground shaking during an earthquake. The project site is in an area subject to “very strong” ground shaking from a major earthquake along the Peninsula segment of the San Andreas Fault and “strong” ground shaking from a major earthquake along the northern Hayward Fault.¹⁵⁶ In addition, the CGS estimates that peak ground accelerations¹⁵⁷ (expressed as the acceleration due to earth’s gravity in g) within the project area would be 0.509 g.¹⁵⁸

Although the potential for “strong” to “very strong” seismic ground shaking is present, the intensity of earthquake ground motion in the project vicinity would depend on the characteristics of the generating fault, the distance to the earthquake’s epicenter, the magnitude and duration of the earthquake, and site geologic conditions. In the event of an earthquake that exhibits “strong” to “very strong” seismic ground shaking, considerable damage could occur to existing buildings on the project site, potentially injuring building occupants and neighbors. The proposed building would be designed in accordance with the site-specific recommendations determined by a site-specific design-level geotechnical investigation and would be constructed in conformance with accepted building and engineering standards, thereby ensuring the new building would withstand seismic damage from “strong” or “very strong” ground shaking. The final plans for the proposed building would be reviewed by the Department of Building Inspection (DBI), ensuring that seismically induced ground shaking would be addressed in the building design process. DBI would also review the proposed building permit applications for compliance with the 2013 San Francisco Building Code and for implementation of recommendations in the site-

¹⁵³ An earthquake is classified by the amount of energy released, expressed as the magnitude of the earthquake. Traditionally, magnitudes have been quantified using the Richter scale. However, seismologists now use a moment magnitude (Mw) scale because it provides a more accurate measurement of the size of major and great earthquakes.

¹⁵⁴ United States Geological Survey, Earthquake Hazards Program. Available online at <http://earthquake.usgs.gov/regional/nca/ucurf/>. Accessed September 19, 2014.

¹⁵⁵ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, p. 3.

¹⁵⁶ Association of Bay Area Governments, Earthquake and Hazards Program, Hazard Maps and Information, Earthquake Shaking, Future Earthquake Shaking Scenarios, Static Shaking Maps for Future Earthquake Scenarios. Available online at <http://www.abag.ca.gov/cgi-bin/pickmapx.pl>. Accessed September 19, 2014.

¹⁵⁷ Acceleration of gravity (g) = 980 centimeters per second squared. Acceleration of 1.0 g is a rate of increase in speed equivalent to a car traveling 328 feet from rest in 4.5 seconds.

¹⁵⁸ California Geological Survey, Probabilistic Seismic Hazards Mapping Ground Motion Page. Available online at <http://redirect.conservation.ca.gov/cgs/rghm/pshamap/pshamap.asp>. Accessed September 19, 2014.

specific design-level geotechnical investigation that address seismic hazards. Damage and injury from ground shaking cannot be entirely avoided; however, adherence to current commercial and regulatory practices, including building code requirements, can reduce the potential for injury and damage. For these reasons, the proposed project would not expose persons or structures to substantial adverse effects related to ground shaking. This impact would be less than significant, and no mitigation measures are necessary.

Liquefaction, Lateral Spreading, and Seismic Settlement

Strong shaking during an earthquake can cause ground failure as a result of soil liquefaction, lateral spreading, or seismic settlement. Liquefaction refers to the loss of strength of saturated soils during ground shaking. Lateral spreading is horizontal ground movement of relatively flat-lying soil deposits towards a free face such as an excavation and is generally associated with liquefaction of subsurface soils at or near the bottom of an exposed surface. Seismic densification is a phenomenon in which non-saturated, cohesionless soil is densified by earthquake vibrations, causing differential settlement.

As shown on Map 4, Seismic Hazard Zones, San Francisco, 2012, in the Community Safety Element of the *General Plan*, the project site is in a liquefaction zone.¹⁵⁹ As discussed in the *Preliminary Geotechnical Study*, the sands below the groundwater level appear to be sufficiently dense and/or have sufficient cohesion to resist liquefaction during a large earthquake on one of the nearby faults.¹⁶⁰ Based on the composition of the subsurface soils and the relatively flat topography of the project site, the *Preliminary Geotechnical Study* concludes that the potential for lateral spreading at the project site is low.¹⁶¹ The loose to medium-dense sand above the groundwater level is susceptible to seismic densification. The proposed excavation would extend below the loose to medium-dense sand, so seismic densification should not affect the proposed structure.¹⁶²

To ensure compliance with all San Francisco Building Code provisions regarding structural safety, when DBI reviews the site-specific design-level geotechnical investigation and building plans for a proposed project, it will determine necessary engineering and design features for the project to reduce potential damage to structures from liquefaction, lateral spreading, and seismic settlement. DBI could require that additional site-specific soils report(s) be prepared in conjunction with the building permit applications. Potential damage to structures from geologic hazards on a project site would be minimized through the DBI requirement for a site-specific design-level geotechnical investigation and review of the building permit application pursuant to

¹⁵⁹ San Francisco Planning Department, *San Francisco General Plan*, Community Safety Element, p. 13. Available online at http://www.sf-planning.org/ftp/General_Plan/Community_Safety_Element_2012.pdf. Accessed September 19, 2014.

¹⁶⁰ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, p. 6.

¹⁶¹ Langan Treadwell Rollo, *Preliminary Geotechnical Study*, p. 6.

¹⁶² Langan Treadwell Rollo, *Preliminary Geotechnical Study*, p. 6.

its implementation of the Building Code. Any changes incorporated into the foundation design required to meet the Building Code standards that are identified as a result of the DBI permit review process would constitute minor modifications of the project and would not require additional environmental analysis.

For these reasons, implementation of the proposed project would not expose people or structures to potential adverse effects, including the risk of loss, injury, or death, due to liquefaction, lateral spreading, or seismic settlement. This impact would be less than significant, and no mitigation measures are necessary.

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

The project site is covered with impervious surfaces. Implementation of the proposed project would require excavation to a depth of about 50 feet below the existing ground surface including space for the mat foundation. Soil movement for site preparation and excavation activities could create the potential for wind-borne and waterborne soil erosion. The project site is relatively flat; therefore, substantial erosion would not be expected as a result of these activities. Furthermore, the construction 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. This impact would be less than significant, and no mitigation measures are necessary.

Impact GE-3: The proposed project would not 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. (*Less than Significant*)

As discussed under **Impact GE-1**, the potential for landslides, liquefaction, lateral spreading, and seismic densification at the project site is low, indicating that the project site is likely not located on a geologic unit or soil that is unstable. Potential damage to the proposed project from geologic hazards on the project site would be minimized through DBI's requirement that a site-specific design-level geotechnical investigation be submitted for review as part of the building permit application process. In addition, DBI would review the proposed project for compliance with the seismic safety standards of the Building Code. For these reasons, implementation of the proposed project would not cause the soil underlying the project site to become unstable and result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. This impact would be less than significant, and no mitigation measures are necessary.

The project site is near the underground BART and Muni tunnels and the underground Van Ness Muni Metro station. Construction of the proposed project would disturb the soil around these

underground structures. BART has developed guidelines for construction near their subway structures, and these guidelines cover construction activities including excavation, dewatering, shoring, and underpinning. In addition, the BART guidelines would play a role in the design of the building foundation. Compliance with these guidelines would ensure that the proposed construction activities would have little to no impact on the underground BART and Muni structures. This impact would be less than significant, and no mitigation measures are necessary.

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

San Francisco is within an area where less than 50 percent of the soil consists of clay with high swelling potential (i.e., expansive soils). Expansive soils shrink or swell substantially with changes in moisture content and generally contain a high percentage of clay particles. As discussed above, the soils underlying the project site consist of sand; silty clay; clayey sand; sand with variable silt and clay content; clay with variable sand content; Old Bay clay deposits; and/or bedrock. The underlying soils do not contain a high percentage of clay particles and generally have low expansion potential. The potential for substantial risks to life or property related to the presence of expansive soils would be low. This impact would be less than significant, and no mitigation measures are necessary.

Impact GE-5: The proposed project would not change substantially the topography or any unique geologic or physical features of the site. (*No Impact*)

The project site is flat and has been developed since the late 1800s. There is no topography or any unique geologic or physical features that could be changed substantially through implementation of the proposed project. There would be no impact, and no mitigation measures are necessary.

Cumulative Impacts

Impact C-GE-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a substantial contribution to a significant cumulative impact related to geology and soils. (*Less than Significant*)

Environmental impacts related to geology and soils are generally site-specific. Nearby reasonably foreseeable future projects, which include those proposed under the *Market and Octavia Area Plan*, would be subject to the same seismic safety standards and design review procedures applicable to the proposed project. Compliance with the seismic safety standards and the design review procedures would ensure that the effects from nearby cumulative projects would be reduced to less-than-significant levels. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a cumulative impact related to geology and soils. This impact would be less than significant, and no mitigation measures are necessary.

<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>
14. HYDROLOGY AND WATER QUALITY— Would the project:					
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<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, in a manner that would result in substantial erosion of siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

The proposed project's foundation system would require excavation up to a depth of approximately 50 feet bgs including space for the mat foundation. Any groundwater encountered during construction of the proposed project would be subject to requirements of the San Francisco Industrial Waste Ordinance (Ordinance No. 199-77), which requires that groundwater discharges meet specified water quality standards before they may be discharged into the combined

stormwater/sewer system. The SFPUC's Bureau of Systems Planning, Environment, and Compliance must be notified of projects necessitating dewatering and may require water analysis before discharge.

Construction activities such as excavation, earthmoving, and grading 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, wastes, and other hazardous materials could carry pollutants to the combined stormwater/sewer system if proper handling methods were not employed.

After the proposed project has been completed and occupied, domestic wastewater from the project site would flow into the City's combined stormwater/sewer system, where it is treated to standards identified in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant (Southeast Plant) prior to discharge into San Francisco Bay. During dry weather, typically May 1 to October 15, all sanitary sewage generated at the project site is treated at the Southeast Plant, which currently operates at about 80 percent of its design capacity. During wet weather, typically October 16 to April 30, the combined stormwater/sewer system collects large volumes of stormwater runoff, and other facilities in the City provide additional treatment as needed before discharging treated effluent into the Bay. When combined flows exceed the total capacity of all of the facilities, excess flows receive primary treatment and are discharged through combined sewer overflow (CSO) structures located along the Bayside waterfront. These intermittent CSO discharges occur in compliance with the current NPDES Permit.

The additional dry-weather flow associated with the proposed project could be accommodated by the wastewater treatment system's existing capacity and would not violate any water quality standards. During wet weather, any net increase in wastewater flows could cumulatively contribute to an increase in the average volume of CSO discharges into the Bay. The Regional Water Quality Control Board has designated this portion of the Bay an impaired water body under Section 303(d) of the Clean Water Act, meaning that water quality standards are not expected to be met after implementation of technology-based effluent treatment measures. Any net increase in CSO discharges could be a concern, because these discharges contain pollutants for which the Bay is impaired (i.e., these pollutants are at or would reach levels that do not meet water quality standards). However, the City is undertaking a number of measures to reduce the quantity and frequency of overflows and improve the water quality of overflows.

After the proposed project has been completed and occupied, stormwater runoff from the project site would flow 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. In addition, the project sponsor would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) that would be reviewed, approved, and enforced by the

SFPUC. The SWPPP would specify best management practices and erosion and sedimentation control measures to prevent sedimentation from entering the City's combined stormwater/sewer system.

For the reasons discussed above, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality. This impact would be less than significant, and no mitigation measures are necessary.

Impact HY-2: The proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. (*Less than Significant*)

As discussed under Initial Study Topic 14, Geology and Soils, p. 135, groundwater is approximately 18 feet bgs and would be encountered at the planned excavation depths; thus, dewatering for the proposed project would be necessary. Dewatering of excavations during construction could temporarily lower groundwater levels in the project vicinity. However, any effects of groundwater dewatering would be temporary, and, once dewatering is completed, groundwater levels would return to normal. As a result, the proposed project would not deplete groundwater supplies or substantially interfere with groundwater recharge. This impact would be less than significant, and no mitigation measures are necessary.

Impact HY-3: The proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion, siltation, or flooding on or off site. (*Less than Significant*)

The project site has been developed since the late 1800s, and there are no surface water channels in the project vicinity. Since the project site and project vicinity are completely covered by impervious surfaces, the proposed project would not alter drainage patterns in a manner that would result in substantial erosion, siltation, or flooding. Runoff from the project site would drain into the City's combined stormwater/sewer system. This impact would be less than significant, and no mitigation measures are necessary.

Impact HY-4: The proposed project would not 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. (*Less than Significant*)

The project site has been developed since the late 1800s. Implementation of the proposed project would not result in an increase in impervious surfaces. The City's Stormwater Management Ordinance (Ordinance No. 83-10) requires the proposed project to maintain, reduce, or eliminate the existing volume and rate of stormwater runoff discharged from the project site. To achieve this objective, the proposed project would implement and install appropriate stormwater management systems that retain runoff on site, promote stormwater reuse, and limit (or eliminate altogether) site discharges from entering the City's combined stormwater/sewer system.

Compliance with the City's Stormwater Management Ordinance would ensure that the proposed project would not 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. This impact would be less than significant, and no mitigation measures are necessary.

Impact HY-5: The proposed project would not place housing within a 100-year flood hazard area and would not place within a 100-year flood hazard area structures that would impede or redirect flood flows. (No Impact)

Flood risk assessment and some flood protection projects are conducted by federal agencies, including the Federal Emergency Management Agency (FEMA) and the U.S. Army Corps of Engineers. The flood management agencies and cities implement the National Flood Insurance Program (NFIP) under the jurisdiction of FEMA and its Flood Insurance Administration.

In September 2007, FEMA published Preliminary Flood Insurance Rate Maps (FIRMs) for the City and County of San Francisco.¹⁶³ FIRMs identify areas that are subject to inundation during a flood having a 1.0 percent chance of occurrence in a given year (also known as a "base flood" or "100-year flood"). FEMA refers to the floodplain that is at risk from a flood of this magnitude as a Special Flood Hazard Area (SFHA). FEMA has tentatively identified SFHAs along the City's shoreline in and along San Francisco Bay consisting of Zone A (areas subject to inundation by tidal surge) and Zone V (areas of coastal flooding subject to wave hazards).

On June 10, 2008, legislation was introduced at the San Francisco Board of Supervisors to enact a Floodplain Management Ordinance to govern new construction and substantial improvements in flood-prone areas of San Francisco and to authorize the City's participation in the NFIP upon passage of the ordinance. In July 2008, the Department of Public Works prepared interim floodplain maps to support the implementation of the Floodplain Management Ordinance.¹⁶⁴ On August 5, 2008, the San Francisco Board of Supervisors adopted legislation to enact a Floodplain Management Ordinance. On March 23, 2010, the ordinance was amended to include additional construction standards and language regarding floodplain and flood-prone area maps.¹⁶⁵ The Department of Public Works will publish flood maps for the City to replace the interim floodplain maps. Applicable City departments and agencies have begun implementing new construction and substantial improvements in areas shown on the interim floodplain map.

¹⁶³ City and County of San Francisco, General Services Agency, Risk Management Program, FEMA Preliminary Flood Insurance Rate Maps, September 2007. Available online at <http://www.sfgsa.org/index.aspx?page=828>. Accessed September 26, 2014.

¹⁶⁴ City and County of San Francisco, General Services Agency, Risk Management Program, San Francisco's Interim Floodplain Maps, July 2008. Available online at <http://sfgsa.org/index.aspx?page=828>. Accessed September 26, 2014.

¹⁶⁵ San Francisco Board of Supervisors, Ordinance No. 56-10, adopted March 23, 2010. Available online at <http://www.sfbos.org/ftp/uploadedfiles/bdsupvrs/ordinances10/o0056-10.pdf>. Accessed September 26, 2014.

The project site is not located within a flood zone designated on the City's interim floodplain map.¹⁶⁶ In addition, the project site is not within an area identified by the SFPUC as prone to flooding during storms.¹⁶⁷ For these reasons, the proposed project would not place housing within a 100-year-flood hazard area and would not place within a 100-year flood hazard area structures that would impede or redirect flood flows. There would be no impact, and no mitigation measures are necessary.

Impact HY-6: The proposed project would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. (No Impact)

There are no dams or levees near the project site. As shown on Map 6, Potential Inundation Areas Due to Reservoir Failure, in the Community Safety Element of the *General Plan*, the project site would not be flooded in the event that an existing reservoir fails.¹⁶⁸ Implementation of the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving flooding as the result of the failure of a levee or dam. There would be no impact, and no mitigation measures are necessary.

Impact HY-7: The proposed project would not expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow. (No Impact)

As shown on Map 5, Tsunami Hazard Zones, San Francisco, 2012, in the Community Safety Element of the *General Plan*, the project site is not within a tsunami hazard zone.¹⁶⁹ As a result, the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow. There would be no impact, and no mitigation measures are necessary.

Some CEQA documents for projects in downtown San Francisco evaluate impacts related to sea level rise. The San Francisco Bay Conservation and Development Commission, which regulates development within 100 feet of the San Francisco Bay shoreline, has developed maps identifying shoreline areas that are vulnerable to sea level rise. These maps assume a forecast of 16 inches of sea level rise by 2050 and 55 inches by 2100. The project site is approximately 1.6 miles inland

¹⁶⁶ City and County of San Francisco, General Services Agency, Risk Management Program, San Francisco's Interim Floodplain Map, Northeast, Final Draft, July 2008. Available online at <http://sfgsa.org/index.aspx?page=828>. Accessed September 26, 2014.

¹⁶⁷ San Francisco Planning Department, Planning Director Bulletin No. 4: Review of Projects in Areas Prone to Flooding, April 2007. Available online at http://www.sf-planning.org/ftp/files/publications_reports/DB_04_Flood_Zones.pdf. Accessed September 26, 2014.

¹⁶⁸ San Francisco Planning Department, *San Francisco General Plan*, Community Safety Element, p. 17. Available online at http://www.sf-planning.org/ftp/General_Plan/Community_Safety_Element_2012.pdf. Accessed September 26, 2014.

¹⁶⁹ San Francisco Planning Department, *San Francisco General Plan*, Community Safety Element, p. 15. Available online at http://www.sf-planning.org/ftp/General_Plan/Community_Safety_Element_2012.pdf. Accessed September 26, 2014.

from the shoreline, and it would not be in the inundation zone for sea level rise of 16 inches by 2050 or 55 inches by 2100.^{170, 171} Therefore, the proposed project would not expose people or structures to impacts related to sea level rise. There would be no impact, and no mitigation measures are necessary.

Cumulative Impacts

Impact C-HY-1: The proposed project, 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*)

Cumulative development in the project vicinity, which includes development proposed under the *Market and Octavia Area Plan*, would result in an intensification of land uses, anticipated increases in water consumption and wastewater generation. The SFPUC has accounted for population growth in its service projections. Nearby reasonably foreseeable projects would be subject to the same water conservation, stormwater management, and wastewater discharge ordinances applicable to the proposed project. Compliance with these ordinances would reduce the effects of nearby cumulative projects to less-than-significant levels. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a cumulative impact related to hydrology and water quality.

<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>
15. HAZARDS AND HAZARDOUS MATERIALS— Would the project:					
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"/>

¹⁷⁰ San Francisco Bay Conservation and Development Commission, 16-Inch Sea Level Rise by Mid-Century, Central Bay. Available online at http://www.bcdc.ca.gov/planning/climate_change/maps/16/cbay.pdf. Accessed September 26, 2014.

¹⁷¹ San Francisco Bay Conservation and Development Commission, 55-Inch Sea Level Rise by End of Century, Central Bay. Available online at http://www.bcdc.ca.gov/planning/climate_change/maps/55/cbay.pdf. Accessed September 26, 2014.

<u>Topics:</u>	<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>
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 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) For a project within the vicinity of a private airstrip, would the project result in a safety hazard 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"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project site is not located 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, Topics 15e and 15f are not applicable to the proposed project.

Impact HZ-1: The proposed project 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*)

The proposed project consists of the construction of residential, retail, and parking uses. Although these proposed land uses typically use small quantities of hazardous materials, including cleaners, solvents, paints, toners, and disinfectants, these materials would generally be used in quantities too small to create a significant hazard to the public or the environment. 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.

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 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. This impact would be less than significant, and no mitigation measures are necessary.

Impact HZ-2: The proposed project would not 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. (*Less than Significant*)

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. One of the existing buildings on the project site was constructed during the 1920s, and the other building was constructed around 1980. Demolition of the existing buildings 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. As discussed above, one of the existing buildings on the project site was constructed during the 1920s, and the other building was constructed around 1980. Demolition of the existing buildings 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.

As discussed in the *Phase I Environmental Site Assessment at 1540 Market Street* (the July 2013 ESA), ¹⁷² there is a fill cap in the Oak Street sidewalk in front of the building at 1540 Market Street. There is no known underground storage tank (UST) at this location, so the purpose of the fill cap is uncertain. The fill cap could be related to an unregistered underground fuel or heating oil system. The July 2013 ESA recommends that the purpose of the fill cap be determined and that any associated UST be removed.

As recently as 2013, large batteries were stored in the basement of one of the buildings on the project site. These batteries were part of an electrical system backup unit that is no longer used. These batteries could result in an uncontrolled release of hazardous materials. The July 2013 ESA recommends that the batteries be removed for disposal or recycling if they are no longer being used.

¹⁷² John Carver Consulting, *Phase I Environmental Site Assessment at 1500 Market Street, San Francisco, California*, July 31, 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

The abatement of hazardous materials is regulated by federal, state, and local regulations. Compliance with these regulations would ensure that implementation of the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. This impact would be less than significant, and no mitigation measures are necessary.

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

There are four schools within a quarter-mile of the project site: the French-American International School and the Chinese American International School, both at 150 Oak Street (one-half block west), the Spectrum Center School at 95 Gough Street (0.1 mile southwest), and a Marin Day School campus at 1390 Market Street (0.1 mile northeast). As discussed under Impact HZ-1, the proposed project would include the use of common household items in quantities too small to create a significant hazard to the public or the environment. There would be no hazardous emissions from the proposed project, and no acutely hazardous materials, substances, or waste would be handled at the project site. This impact would be less than significant, and no mitigation measures are necessary.

Impact HZ-4: The project site is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 but would not result in a significant hazard to the public or the environment. (*Less than Significant*)

The existing building at 1540 Market Street is listed on the HAZNET database, which indicates that one or more businesses at this location disposed of hazardous waste in accordance with protocols established by the United States Environmental Protection Agency. One business disposed of photochemical and/or photo processing waste, and another business disposed of asbestos-containing waste that was generated during abatement of asbestos insulation.

As discussed in the July 2013 ESA, there is conflicting information regarding the existence of a UST at an unofficial address (15 Oak Street) associated with the project site. Although the project site is listed on a local UST database, other records indicate that one or more USTs were properly removed from the project site. The July 2013 ESA recommends that further investigation be conducted and, depending on the findings, that the following actions be taken: (1) if there are USTs at this location that are no longer being used, they should be removed, or (2) if the UST listing is the result of a clerical error, the error should be corrected.

The Planning Department has determined that the project site is known or suspected to contain contaminated soil and/or groundwater (i.e., it is within a Maher Area).¹⁷³ For this reason, the proposed project is required to comply with the provisions of Health Code Article 22A (the Maher Ordinance), which regulates the remediation of hazardous materials contained in soil and/or groundwater.

The abatement of hazardous materials is regulated by federal, state, and local regulations. Compliance with these regulations would ensure that implementation of the proposed project would not result in a significant hazard to the public or the environment. This impact would be less than significant, and no mitigation measures are necessary.

Impact HZ-5: The proposed project 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 involving fires. (*Less than Significant*)

In San Francisco, fire safety is ensured through the provisions of the San Francisco Building Code and the San Francisco Fire Code. During the review of the building permit application, the Department of Building Inspection and the Fire Department will review the project plans for compliance with all regulations related to fire safety, which may include the development of an emergency procedure manual or an exit drill plan for the residents of the proposed project. Compliance with fire safety regulations would ensure that the proposed project 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 involving fires.

Current emergency vehicle operations allow for the contraflow use of the one-way, westbound Oak Street (between Van Ness Avenue and Franklin Street) in order to gain access to Van Ness Avenue. With implementation of the proposed Oak Plaza, vehicle circulation on Oak Street would be changed from one-way westbound between Franklin Street and Van Ness Avenue, to two-way operations between Franklin Street and the proposed Oak Plaza. Emergency vehicles, however, would continue to have access through Oak Plaza. Rolled curb cuts at the east and west ends of the plaza would allow emergency vehicles to cross the plaza when necessary. In addition, the Van Ness Avenue stop bar for southbound vehicular traffic would be relocated to align with the northern edge of the fire lane so that emergency vehicles could turn onto Van Ness Avenue unimpeded. The proposed Oak Plaza and wind canopy would be designed to provide a 26-foot-wide emergency access zone, which includes a 14-foot-wide fire lane and 12 feet of additional clearance for emergency access to and from Van Ness Avenue. These dimensions meet the

¹⁷³San Francisco Planning Department, Expanded Maher Area Map, September 2013. Available online at http://www.sf-planning.org/ftp/files/publications_reports/library_of_cartography/Maher%20Map.pdf. Accessed October 9, 2014.

Better Streets Plan requirements for emergency vehicle access and would allow unimpeded emergency vehicle access from Oak Street onto Van Ness Avenue for emergency vehicles (ambulance, 35-foot fire truck, 57-foot ladder truck). The canopy would be at least 40 feet above the plaza, allowing appropriate vertical clearance for all emergency vehicles. Thus, emergency vehicles would be accommodated by the proposed Oak Plaza. In addition, and as part of the San Francisco Fire Department’s building permit review process, drawings for the proposed emergency access zone and wind screen canopy features in the proposed plaza would be reviewed by the Fire Department to ensure that emergency access to Van Ness Avenue and to the existing and proposed buildings in the immediate area would meet SFFD requirements.

This impact would be less than significant, and no mitigation measures are necessary

Cumulative Impacts

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

Environmental impacts related to hazards and hazardous materials are generally site-specific. Nearby cumulative projects, which include those proposed under the *Market and Octavia Area Plan*, would be subject to the same fire safety and hazardous materials cleanup ordinances applicable to the proposed project. Compliance with these ordinances would ensure that the effects of nearby cumulative projects would be reduced to less-than-significant levels. For these reasons, the proposed project would not combine with past, present and reasonably foreseeable future projects in the project vicinity to create a cumulative impact related to hazards and hazardous materials.

<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>
16. MINERAL AND ENERGY RESOURCES— 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"/>
c) Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact ME-1: The proposed project would not result in the loss of availability of a known mineral resource or a locally important mineral resource recovery site. (No Impact)

All land in the City and County of San Francisco, including the project site, is an urbanized area and is designated as Mineral Resource Zone 4 (MRZ-4) by the California Division of Mines and Geology (CDMG) under the Surface Mining and Reclamation Act of 1975.¹⁷⁴ This designation signifies that there is inadequate information available for assignment to any other MRZ, and the project site is not a designated area of significant mineral deposits. Since the project site does not contain any known mineral resources, the proposed project would not adversely affect mineral resources, either directly or indirectly. Moreover, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. The implementation of the proposed project would not result in the loss of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, there would be no impact on mineral resources, and no mitigation is necessary.

Impact ME-2: The proposed project would not encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner. (Less than Significant)

Construction of the proposed project would require electricity to operate construction equipment such as hand tools and lighting. Construction vehicles and equipment would primarily use diesel fuel, and construction workers would use gasoline, diesel, and electricity to travel to the site. Energy and fuel use during construction would not be expected to be wasteful, as such use would unnecessarily add to construction costs.

The *San Francisco General Plan* contains objectives and policies aimed at reducing energy consumption that would be implemented for the proposed project, including the requirement for the proposed project to meet basic standards established in the Green Building Ordinance with respect to energy and water use.

Because implementation of the proposed project would meet or exceed current state and local codes concerning energy consumption requirements, and because the proposed project would meet or exceed the standards in the City's Green Building Ordinance (the project sponsor intends to seek Build It Green certification), there would be less-than-significant impacts on energy resources, and no mitigation is necessary.

¹⁷⁴ California Division of Mines and Geology (CDMG), Open File Report 96 03 and Special Report 146 Parts I and II, 1986. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2009.0159E.

Cumulative Impacts

Impact C-ME-1: The proposed project, in combination with other past, present or reasonably foreseeable projects in the site vicinity, would not result in a cumulatively considerable contribution to significant impacts related to energy and mineral resources. (Less than Significant)

As discussed in Impact ME-1, above, no known minerals exist at the project site, and therefore the proposed project would not contribute to cumulative impacts on mineral resources.

In December 2002, the City adopted the *Electricity Resource Plan*, which includes implementation steps for strategies to maximize energy efficiency, develop renewable power, and ensure reliable power. In response to the Board of Supervisors’ guidance in its 2009 Ordinance 94-09, San Francisco Public Utilities Commission staff have developed an updated *Electricity Resource Plan*.¹⁷⁵ This update identifies proposed recommendations to work towards achieving the broad policy goals laid out in the 2002 Plan.

These efforts, together with conservation, will be part of the statewide effort to achieve energy self-sufficiency. The project-generated demand for electricity would be negligible in the context of overall demand within San Francisco and the state, and would not in and of itself require a major expansion of power facilities. Therefore, implementation of the proposed project, in combination with past, present or reasonably foreseeable projects in the project site vicinity, would not result in any cumulatively considerable contribution to a significant cumulative impact on mineral and energy resources, either directly or indirectly. No mitigation measures are necessary.

<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>
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17. AGRICULTURE AND FOREST RESOURCES: 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.

—Would the project

- | | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 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"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|

¹⁷⁵ San Francisco Public Utilities Commission, *San Francisco’s Updated Electricity Resource Plan*, Draft, March 2011, Executive Summary, pp. 1-20. Available online at <http://sfwater.org/index.aspx?page=700>. Accessed September 19, 2014.

<u>Topics:</u>	<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) 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"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)) or timberland (as defined by Public Resources Code Section 4526)?	<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 would not convert farmland or forest land to non-farm or non-forest use, nor would it conflict with existing zoning for agricultural uses or forest land. (No Impact)

The project site is located within a developed and wholly urbanized area of San Francisco. The California Department of Conservation’s Farmland Mapping and Monitoring Program identifies the site and all of San Francisco as “Urban and Built-up Land.”¹⁷⁶ There are no farmlands or forest land identified in San Francisco; thus, the project site has no agriculture and forest resources. Because the project site does not include agricultural uses and is not zoned for such uses, the proposed project would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. The proposed project would not conflict with existing zoning for agricultural uses or a Williamson Act contract. Also, the proposed project would not conflict with existing zoning for forest land or timberland (as defined by Public Resources Code Sections 12220(g) and 4526, respectively) or result in the rezoning of forest land or timberland. Further, the proposed project would not involve other changes to the existing environment that could result in conversion of farmland or forest use to non-forest use. Therefore, there would no impacts with respect to agricultural and forest resources, and no mitigation is necessary.

¹⁷⁶ California Department of Conservation, Farmland Mapping and Monitoring Program, San Francisco Bay Area Important Farmland 2010. Available at ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/regional/2010/bay_area_fmmp2010.pdf. Accessed on December 26, 2014.

Cumulative Impacts

Impact C-AF-1: The proposed project, in combination with other past, present and reasonably foreseeable future projects in the vicinity, would not result in a cumulatively considerable contribution to a significant cumulative impact on agricultural resources or forest land or timberland. (No Impact)

As discussed above, there are no existing agricultural or forest uses on the project site or in the project vicinity, nor is there any zoning related to agricultural or forest uses, nor are any such uses anticipated. The proposed project would not result in land use conflicts related to agricultural and forest-related land uses. Therefore, there would be no cumulatively considerable contribution to a significant cumulative impact with respect to agricultural or forest resources, and no mitigation is necessary.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
18. MANDATORY FINDINGS OF SIGNIFICANCE— Would the project:					
a) Have the potential to 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, 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 would be 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The EIR will address potential impacts, including cumulative impacts, related to the environmental topics of Transportation and Circulation, and Wind and Shadow. These topics, along with Compatibility with Existing Zoning and Plans and Policies, will be evaluated in an EIR prepared for the proposed project.

F. MITIGATION MEASURES AND IMPROVEMENT MEASURES

The project sponsor has agreed to implement the following mitigation measures which would reduce potentially significant impacts related to archaeological resources, paleontological resources, and hazardous building materials to a less-than-significant level.

Mitigation Measure M-CP-2: Archaeological Testing, Monitoring, Data Recovery, and Reporting.

Based on a reasonable presumption that pre-historic and historic archaeological resources may be present within the project site, the following measures shall be undertaken, consistent with the MO Plan EIR mitigation measures to avoid any potentially significant adverse effect from the proposed project on buried cultural resources.

- a. The project sponsor shall retain the services of a qualified archaeological consultant having expertise in California prehistoric and urban historical archaeology. The archaeological consultant's work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the Environmental Review Officer for review and comment, and shall be considered draft reports subject to revision until final approval by the Environmental Review Officer.

Predicting the location of potentially significant subsurface archaeological resources is never completely accurate; therefore, the possibility remains that important resources may be encountered in locations that have not been tested, and may become apparent during the course of construction. The Archaeological consultant shall be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure, or if archaeological resources are encountered during construction.

- b. Due to the potential for intact cultural resources within and beneath the fill layer underlying the existing building and parking lot on the property, the archaeological consultant shall undertake an archaeological testing program prior to and coinciding with mass excavation on the site. The archaeological testing shall include the following measures:
 1. A systematic core-sampling program shall be undertaken prior to excavation activity on the site to address uncertainties about prehistoric-period archaeological sensitivity of the geological strata that underlie the project site. A hydraulic coring device, or "Geoprobe," utilizing a dual-wall system to improve recovery will be used to obtain six core samples extending to the maximum depth of disturbance across the footprint of the area that will be impacted by mass excavation or pile driving (if a pile foundation system is required).
 2. Testing for historic-period resources includes mechanical excavation of test trenches and areal excavations in two specific areas of the project site identified in the ARD/TP that have the most potential to contain intact archaeological deposits and features that would be disturbed by excavation and construction activities.
- c. If potentially significant cultural resources are encountered during the testing program, the archaeological consultant shall determine if redirection of construction excavation is needed, and shall evaluate the significance of the find and discuss appropriate mitigation(s) in consultation with EP and the project sponsor. In consultation with EP, the project archaeological consultant shall develop avoidance measures or other appropriate mitigation, including data recovery, as needed. If data recovery is the preferred mitigation

alternative, the consultant shall develop an Archaeological Data Recovery Plan (ADRP) for submittal to EP for review and approval. Once approved the consultant shall implement the measures in the plan to recover any potentially significant data. The ADRP will reference the prehistoric and historic contexts and research design in the ARD/TP and will provide a detailed data recovery plan. The data recovery plan will include the following procedures:

1. Determination of the structure and stratigraphic integrity, the date of the deposition, and the range and quantity of associated artifacts, if possible;
 2. An appropriate portion of each feature will be excavated manually to assess its content and integrity;
 3. A detailed profile of the feature will be produced, and each layer investigated for contents and temporal affiliation;
 4. The field crew will produce plans to-scale, take digital photographs, and map all features and deposits using WSA's Trimble Geo-XT GPS Data Logger, which provides sub-meter accuracy;
 5. Diagnostic artifacts will be removed, bagged, and catalogued; and
 6. Soil color and texture samples will be recovered and soil profiles will be drawn, if applicable.
- d. Based on the results of the archaeological testing program, if EP, in consultation with the project archaeologist, determines that an archaeological monitoring program shall be implemented, the project archaeologist shall prepare an Archaeological Monitoring Plan (AMP) that will provide guidance to the archaeological monitor and the construction manager as to the procedures that are to be followed in the event that previously unknown or unanticipated buried cultural resources are encountered during excavation. In general, the AMP will include the following guidelines and recommendations:
1. Construction work should be stopped until the project archaeologist has had an opportunity to evaluate the significance of the find and discuss appropriate mitigation(s) in consultation with the construction manager, the archaeological monitor, and EP. At that time, it will also be determined if redirection of construction excavation is needed;
 2. Upon observing what is reasonably believed to be a cultural deposit or feature, the archaeological monitor shall immediately request the equipment operator to stop excavation and shall notify the construction manager, who shall direct that all construction activity stop within 25 ft. of the resource in order to permit an examination of the find. The archaeological monitor is not permitted to direct other movements of earth-moving machinery.
 3. If the archaeological monitor determines that the cultural object or feature is potentially significant, the archaeological monitor must then immediately notify the project archaeological consultant who shall initiate appropriate consultations with the construction manager and EP to determine the appropriate avoidance or mitigation measures. All information needed, including soil color or type, elevation, location, photographs, sketch maps, etc., shall be gathered as quickly as conditions permit to allow a final determination of the significance of the find.
 4. EP and the project archaeological consultant shall develop avoidance measures or other appropriate mitigation, and may include data recovery. If potentially significant cultural resources are identified during construction monitoring and it is decided that

data recovery is the preferred mitigation alternative, the project archaeological consultant shall develop an ADRP per the criteria outlined above in measure 3, for submittal to EP for review and approval, and shall implement the measures in the approved plan to recover any potentially significant data found during construction.

- e. In the unlikely event that human remains are encountered during implementation of archaeological testing, the remains must be treated in accordance with the requirements of CEQA Section 15064.5 and Section 7050.5(b) of the California Health and Safety Code, which states:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

1. The county coroner, upon recognizing the remains as being of Native American origin, is responsible to contact the NAHC within 24 hours, who then assigns a Native American Most Likely Descendant (MLD) to the Project. The MLD, or in lieu of the MLD, the NAHC, has responsibility to provide guidance as to the ultimate disposition of any Native American remains.
 2. In the event the remains are determined to be non-Native American, under CEQA Section 15064.5 (a) (4), the City and County of San Francisco, as lead agency, may determine that the remains constitute an historical resource. As such, the remains may have the potential to provide essential information on Gold Rush-era and later 19th-century diet, disease, mortality, and internment practices, among other important research topics.
- f. Upon completion of archaeological testing and monitoring, a draft Final Archaeological Resources Report (FARR) documenting the results of implementing the ARD/TP shall be prepared by the project archaeologist and submitted to EP for review. The content of the FARR shall be consistent with the City of San Francisco Guidelines. A final draft of the FARR shall be produced in response to comments provided by EP.
- g. Exposure of sub-surface archaeological deposits increases the risks of looting and destruction of valuable and spatially-sensitive archaeological information.¹⁷⁷ Consequently, prior to site preparation and excavation, a security fence shall be erected around the project parcel. Once surface hardscapes have been removed and archaeological testing begins, a security guard shall be employed to provide security during those periods when the site is otherwise unoccupied. It shall be the security guard's responsibility to

¹⁷⁷ William Self Associates, *Draft ARD/TP for 1510-1540 Market Street*.

insure that no unauthorized excavations occur and no cultural material is removed from the site.

- h. Upon the completion of the final report on archaeological investigations, the collection will be transferred to an appropriate facility for permanent curation where it will be available for study by researchers in the future. This facility will meet the standards set forth in *Curation of Federally Owned and Administered Archaeological Collections*. In addition to the artifacts, soil samples, etc., the facility will also receive copies of field notes and drawings, special studies, and the final report. The designated repository for the San Francisco Bay Area is the Archaeological Collections Facility at Sonoma State University.

Mitigation Measure M-CP-3: Paleontological Resources Monitoring and Mitigation Program

The project sponsor shall retain the services of a qualified paleontological consultant having expertise in California paleontology to design and implement a Paleontological Resources Monitoring and Mitigation Program. The PRMMP shall include a description of when and where construction monitoring would be required; emergency discovery procedures; sampling and data recovery procedures; procedure for the preparation, identification, analysis, and curation of fossil specimens and data recovered; preconstruction coordination procedures; and procedures for reporting the results of the monitoring program.

The PRMMP shall be consistent with the Society for Vertebrate Paleontology Standard Guidelines for the mitigation of construction-related adverse impacts to paleontological resources and the requirements of the designated repository for any fossils collected. During construction, earth-moving activities shall be monitored by a qualified paleontological consultant having expertise in California paleontology in the areas where these activities have the potential to disturb previously undisturbed native sediment or sedimentary rocks. Monitoring need not be conducted in areas where the ground has been previously disturbed, in areas of artificial fill, in areas underlain by nonsedimentary rocks, or in areas where exposed sediment would be buried, but otherwise undisturbed.

The consultant's work shall be conducted in accordance with this measure and at the direction of the City's ERO. Plans and reports prepared by the consultant shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Paleontological monitoring and/or data recovery programs required by this measure could suspend construction of the proposed project for as short a duration as reasonably possible and in no event for more than a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce potential effects on a significant paleontological resource as previously defined to a less-than-significant level.

Mitigation Measure M-NO-2: General Construction Noise Control Measures

To ensure that project noise from construction activities is minimized to the maximum extent feasible, the project sponsor and/or its construction contractors shall undertake the following:

- The project sponsor shall require the general contractor to ensure that equipment and trucks used for project construction utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).
- The project sponsor shall require the general contractor to locate stationary noise sources (such as compressors) as far from adjacent or nearby sensitive receptors as possible, to

muffle such noise sources, and to construct barriers around such sources and/or the construction site, which could reduce construction noise by as much as 5 dBA. To further reduce noise, the contractor shall locate stationary equipment in pit areas or excavated areas, if feasible.

- The project sponsor shall require the general contractor to use impact tools (e.g., jack hammers, pavement breakers, and rock drills) that are hydraulically- or electrically-powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used, along with external noise jackets on the tools, which could reduce noise levels by as much as 10 dBA.
- The project sponsor shall include noise control requirements in specifications provided to construction contractors. Such requirements could include, but not be limited to, performing all work in a manner that minimizes noise to the extent feasible; use of equipment with effective mufflers; undertaking the most noisy activities during times of least disturbance to surrounding residents and occupants, as feasible; and selecting haul routes that avoid residential buildings inasmuch as such routes are otherwise feasible.
- Prior to the issuance of building permits, along with the submission of construction documents, the project sponsor shall submit to the Planning Department and Department of Building Inspection (DBI) a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include (1) a procedure and phone numbers for notifying DBI, the Department of Public Health, and the Police Department (during regular construction hours and off-hours); (2) a sign posted on-site describing noise complaint procedures and a complaint hotline number that shall be answered at all times during construction; (3) designation of an on-site construction complaint and enforcement manager for the project; and (4) notification of neighboring residents and non-residential building managers within 300 feet of the project construction area at least 30 days in advance of extreme noise-generating activities (defined as activities generating noise levels of 90 dBA or greater) about the estimated duration of the activity.

Mitigation Measure M-NO-3: Vibration Attenuation

Prior to submittal of the building permit application, the project sponsor shall hire a qualified acoustical consultant to prepare a detailed site-specific vibration analysis to determine if future sensitive uses will be exposed to excessive vibration levels from Muni rail operations and to evaluate the extent of vibration-reducing design features that may be required to minimize the potential for vibration annoyance to future residents. The vibration analysis shall be submitted to the Department of Building Inspection for review and approval prior to issuance of the building permit, to ensure that necessary acoustical features are included in the final project design.

For the reasons discussed above, the proposed project would not expose the project residents to interior noise levels that are in excess of standards established in the *General Plan* and Title 24, and with implementation of Mitigation Measure M-NO-3 would not expose project residents to excessive vibration. Therefore, this impact would be less than significant. This topic will not be discussed in the EIR.

Mitigation Measure M-AQ-2: Construction Air Quality

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 U.S. Environmental Protection Agency (USEPA) or California Air Resources Board (ARB) Tier 2 off-road emission standards, and have been retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy. 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 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 onsite 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 an ARB 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 an ARB 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-AQ-2, below.

Table M-AQ-2: Off-Road Equipment Compliance Step-down Schedule

Compliance Alternative	Engine Emission Standard	Emissions Control
1	Tier 2	ARB Level 2 VDECS
2	Tier 2	ARB Level 1 VDECS
3	Tier 2	Alternative Fuel*
* Alternative fuels are not a VDECS		

How to use the table: If the ERO determines that the equipment requirements cannot be met, then the project sponsor would need to meet Compliance Alternative 1. If the ERO determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 1, then the Contractor must meet Compliance Alternative 2. If the ERO determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 2, then the Contractor must meet Compliance Alternative 3.

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), horsepower, 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, ARB 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 ERO 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 particulate matter: (1) Tier 4 certified engine, or (2) Tier 2 or Tier 3 certified engine that is equipped with a California Air Resources Board (ARB) Level 3 Verified Diesel Emissions Control Strategy (VDECS). A non-verified diesel emission control strategy may be used if the filter has the same particulate matter reduction as the identical ARB verified model and if the Bay Area Air Quality Management District (BAAQMD) approves of its use. The project sponsor shall submit documentation of compliance with the BAAQMD 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

Concurrently with this Initial Study, the San Francisco Planning Department has issued a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the One Oak Street Project. Together, the NOP and this Initial Study are called the NOP/Initial Study. The NOP/Initial Study (or a Notice of Availability of a NOP/Initial Study) is sent to owners of properties within 300 feet of the project site, neighborhood organizations, and other interested parties. Publication of the NOP/Initial Study initiates a 30-day public review and comment period. Comments received on the NOP/Initial Study will be considered in preparation of the EIR analysis.

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.

DATE _____

Sarah B. Jones
Environmental Review Officer
for
John Rahaim
Director of Planning

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