



SAN FRANCISCO PLANNING DEPARTMENT

Notice of Preparation of an Environmental Impact Report

Date: February 17, 2016
Case No.: 2014.0241E
Project Title: 1028 Market Street
Zoning: C-3-G District: Downtown General Commercial
120-X Height and Bulk District
Block/Lot: 0350/002
Lot Size: 15,077 square feet
Project Sponsor: Craig Young, LCL Global – 1028 Market Street LLC
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Lead Agency: San Francisco Planning Department
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PROJECT DESCRIPTION

The 1028 Market Street project site is located mid-block on the north side of Market Street between Taylor and Jones streets, to the east and west, respectively, in San Francisco's Downtown/Civic Center neighborhood. The project site block is bounded by Golden Gate Avenue to the north, Taylor Street to the east, Market Street to the south, and Jones Street to the west. The project site has two frontages – one on Market Street and one on Golden Gate Avenue – and shares its east and west property lines with the adjacent surface parking lot/two-story commercial building and the four-story mixed-use development.

The project site is developed with a 33,310-gross-square-foot (gsf), two-story, 37-foot-tall commercial building over a partial basement. The existing building, known historically as the Golden Gate Building, was constructed in 1907, and is considered a historical resource as a contributing structure to the Market Street Theatre and Loft National Register Historic District. The renovated storefront and ground floor space along Market Street has been used as a temporary food pavilion for local vendors since October 2014.

The project sponsor, LCL Global-1028 Market Street LLC, proposes demolition of the 33,310-gsf Golden Gate Building, and in its place, construction of a 13-story, 178,308-gsf mixed-use building with one below-grade basement level. The proposed building would have 148,119 gsf of residential uses with up to 186 residential units on the 2nd through 13th floors, 9,657 gsf of retail/restaurant uses at the ground floor, and 15,556 gsf of below-grade basement level space devoted to parking, circulation, bicycle storage, tenant storage, materials storage, and mechanical, electrical and plumbing systems. The ground floor would include the residential lobby, a mail room, a bicycle storage area, circulation spaces, and back of house functions. Approximately 7,457 square feet of common open space would be provided at the 2nd floor and on the rooftop. Private open space for 14 of the proposed 186 residential units would be provided on the 4th through 12th floors in the form of balconies and private terraces. The proposed project would include improvements to the Golden Gate Avenue right-of-way, specifically a 6-foot extension of the existing 10-foot-wide sidewalk along the project site frontage.

The proposed project would provide 42 subsurface parking spaces, including two service vehicle spaces, two handicap-accessible spaces, and one car-share space; and 123 Class 1 and 22 Class 2 bicycle parking spaces. The main entrance to the residential portion of the proposed building would be through a lobby entrance located at the east end of the Market Street frontage. Pedestrian access to the residential units would also be available from Golden Gate Avenue. Four separate retail/restaurant spaces would be located on Market Street, to the west of the main residential entrance, and on Golden Gate Avenue at the northwest corner of the project site. Vehicular access would be provided from a 12-foot-wide driveway on Golden Gate Avenue at the east end of the project site.

FINDING

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.

ALTERNATIVES

Alternatives to be considered for this project will include, but not be limited to, the No Project Alternative and one or more alternatives that preserve all or most of the historic resources at 1028 Market Street. This determination is based upon the criteria of the State CEQA Guidelines, Section 15126.6 (Consideration and Discussion of Alternatives to the Proposed Project).

PUBLIC SCOPING PROCESS

Written comments will be accepted until 5:00 p.m. on **March 18, 2016**. 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.

February 17, 2016
Date



Sarah B. Jones
Environmental Review Officer

INITIAL STUDY TABLE OF CONTENTS

1028 Market Street

<u>Section</u>	<u>Page</u>
ACRONYMS AND ABBREVIATIONS.....	iii
A. PROJECT DESCRIPTION	1
B. PROJECT SETTING	33
C. COMPATIBILITY WITH EXISTING ZONING AND PLANS.....	41
D. SUMMARY OF ENVIRONMENTAL EFFECTS	49
E. EVALUATION OF ENVIRONMENTAL EFFECTS.....	52
E.1. Land Use and Land Use Planning.....	52
E.2. Population and Housing.....	56
E.3. Cultural Resources.....	61
E.4. Transportation and Circulation	70
E.5. Noise	71
E.6. Air Quality	97
E.7. Greenhouse Gas Emissions.....	117
E.8. Wind and Shadow.....	119
E.9. Recreation	136
E.10. Utilities and Service Systems.....	141
E.11. Public Services.....	148
E.12. Biological Resources	151
E.13. Geology and Soils.....	155
E.14. Hydrology and Water Quality.....	164
E.15. Hazards and Hazardous Materials.....	170
E.16. Mineral and Energy Resources	176
E.17. Agricultural and Forest Resources.....	177
E.18. Mandatory Findings of Significance.....	179
F. MITIGATION MEASURES AND IMPROVEMENT MEASURES.....	180
G. PUBLIC NOTICE AND COMMENT	186
H. DETERMINATION.....	187
I. INITIAL STUDY PREPARERS.....	188

<u>List of Figures</u>	<u>Page</u>
Figure 1: Project Location.....	2
Figure 2: Existing Site Plan.....	3
Figure 3: Proposed Site Plan	6
Figure 4: Proposed Ground Floor Plan.....	8
Figure 5: Proposed 2 nd Floor Plan	10
Figure 6: Proposed 3 rd Floor Plan.....	11
Figure 7: Proposed 4 th Floor Plan.....	12
Figure 8: Proposed 5 th Floor Plan.....	13
Figure 9: Proposed 6 th Floor Plan.....	14
Figure 10: Proposed 7 th through 11 th Floor Plan	15

Figure 11: Proposed 12 th and 13 th Floor Plan	16
Figure 12: Proposed Roof Plan	17
Figure 13: Proposed Basement Level 1 Plan.....	18
Figure 14: Proposed Market Street (South) Elevation	20
Figure 15: Proposed Golden Gate Avenue (North) Elevation.....	21
Figure 16: Proposed West Elevations	23
Figure 17: Proposed East Elevations.....	24
Figure 18: Perspective View from Market Street (northwest)	25
Figure 19: Perspective View from Market Street (northeast).....	26
Figure 20: Perspective View from Golden Gate Avenue (southeast)	28
Figure 21: Perspective View from Overhead	29
Figure 22: Existing Zoning Districts	35
Figure 23: Existing Height and Bulk Districts	37
Figure 24: Cumulative Projects	40
Figure 25: San Francisco Land Use Compatibility Chart for Community Noise.....	75
Figure 26: Wind Tunnel Sensor Locations.....	121

List of Tables

Page

Table 1: Summary of Proposed Uses and Building Characteristics.....	7
Table 2: Cumulative Projects in the Project Vicinity.....	39
Table 3: Existing Noise Environment in the Project Site Vicinity	78
Table 4: Maximum Noise Levels from Construction Equipment	85
Table 5: Project Construction Noise Levels at Off-Site Sensitive Receptors	86
Table 6: Criteria Air Pollutant Significance Thresholds.....	99
Table 7: Daily Project Construction Emissions	106
Table 8: Off-Road Equipment Compliance Step-down Schedule	110
Table 9: Pedestrian Wind Study - Summary Wind Hazard and Comfort Results	124
Table 10: Wind Hazard Results	125
Table 11: Wind Comfort Results	129

ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACL	Absolute Cumulative Limits
ADRP	Archeological Data Recovery Plan
ACIP	Auger cast in place
AMP	Archeological Monitoring Program
ARB	California Air Resources Board
ARDTP	Archeological Research Design and Treatment Plan
ATP	Archeological Testing Plan
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BCDC	Bay Conservation and Development Commission
bgs	below grade surface
BMPs	best management practices
BMR	below market rate
CAA	Clean Air Act
CalEEMod	California Emissions Estimator Model
Cal/OSHA	State Occupational Safety and Health Administration
Caltrans	Californian Department of Transportation
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CCAA	California Clean Air Act
CGS	California Geological Survey
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO2e	carbon dioxide equivalents
CRHR	California Register of Historical Resources
CSO	Combined Sewer Overflow
dB	decibel
dba	decibel (A-weighted)
DBI	Department of Building Inspection
DEHP	bis (2-ethylhexyl) phthalate
DPH	Department of Public Health
DPM	diesel particulate matter
DPW	Department of Public Works
DSM	deep soil mixing
DTSC	Department of Toxic Substances Control
ERO	Environmental Review Officer
ESA	Environmental Site Assessment
ESLs	Environmental Screening Levels
FAR	floor area ratio
FARR	Final Archeological Resource Report
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration
GHG	greenhouse gas
gsf	gross square feet
g/hp-hr	gram per horsepower per hour
g/bhp-hr	gram per brake horsepower per hour

HCD	Californian Department of Housing and Community Development
HEPA	High Efficiency Particulate Air Filter
HRE	Historic Resources Evaluation
HVAC	heating, ventilation and air conditioning
in/sec	inches per second
IWMP	Integrated Waste Management Plan
L _{dn}	day-night noise level
LEED	Leadership in Energy and Environmental Design
Leq	equivalent continuous sound level
LUST	leaking underground storage tank
mgd	million gallons per day
mg/kg	milligram per kilogram
mg/L	milligram per liter
MLD	Most Likely Descendant
MLP	maximum load point
MTCO ₂ E	metric tons of carbon dioxide equivalent
mph	miles per hour
MRZ-4	Mineral Resource Zone 4
MSTL District	Market Street Theatre and Loft National Register Historic District
MTBE	methyl tertiary-butyl ether
MTC	Metropolitan Transportation Commission
MTCO ₂ E	metric ton of carbon dioxide equivalents
Muni	San Francisco Municipal Railway
Mw	moment magnitude
NAHC	California State Native American Heritage Commission
NAVD88	1988 North American Vertical Datum
NCT	Neighborhood Commercial Transit (zoning designation)
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NOX	oxides of nitrogen
NO ₂	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NRC	National Research Council
NSR	New Source Review
NWIC	Northwest Information Center
OPR	State Office of Planning and Research
OS	open space
PAHs	polynuclear aromatic hydrocarbons
PAR	Preliminary Archeological Review
PCBs	polychlorinated biphenyls
PM	particulate matter
PM _{2.5}	PM composed of particulates that are 10 microns in diameter or less
PM ₁₀	PM composed of particulates that are 2.5 microns in diameter or less
POPOS	privately owned public open spaces
ppm	parts per million
PPV	peak particle velocity
QAACL	Qualified Archaeological Consultants List
RED	Residential Enclave (zoning designation)
RMS	root mean square
ROG	reactive organic gases
RWQCB	Bay Area Regional Water Quality Control Board

SB	Senate Bill
SamTrans	San Mateo County Transit District
SEWPCP	Southeast Water Pollution Control Plant
sq. ft.	square feet
SFBAAB	San Francisco Bay Area Air Basin
SFCTA	San Francisco County Transportation Authority
SFFD	San Francisco Fire Department
sfh	square foot hours
SFMTA	San Francisco Municipal Transportation Agency
SFO	San Francisco International Airport
SFPD	San Francisco Police Department
SFPL	San Francisco Public Library
SFPUC	San Francisco Public Utilities Commission
SFUSD	San Francisco Unified School District
SO ₂	sulfur dioxide
SOMA	South of Market
SoMa	South of Market
STLC	soluble threshold limit concentration
SUD	Special Use District
TAAS	Theoretically Available Annual Sunlight
TACs	toxic air contaminants
TASC	Transportation Advisory Staff Committee
TBACT	Best Available Control Technology
TCLP	toxicity characteristic leaching procedure
TDM	Transportation Demand Management
TEP	Transit Effectiveness Project
TTLC	total threshold limit concentration
U.S. EPA	U.S. Environmental Protection Agency
USGS	United States Geological Survey
UST	underground storage tank
UWMP	Urban Water Management Plan
VDECS	verified diesel emission control strategy
VMT	vehicle miles traveled
WSA	Water Supply Assessment

Initial Study

1028 Market Street Project

Planning Department Case No. 2014.0241E

A. PROJECT DESCRIPTION

Project Location and Site Characteristics

The 1028 Market Street project site (Assessor's Block 0350, Lot 002) is located along the southern edge of San Francisco's Downtown/Civic Center neighborhood on the north side of Market Street (see **Figure 1: Project Location**).¹ It is located in the middle of a triangular-shaped block bounded by Golden Gate Avenue to the north, Taylor Street to the east, Market Street to the south, and Jones Street to the west. The 15,077-square-foot (sq. ft.) lot is irregularly shaped and slopes downward from north to south (Golden Gate Avenue to Market Street) with an elevation change of approximately 7 feet. The project site measures 154 feet from east to west along its Market Street frontage, 98 feet from east to west along its Golden Gate Avenue frontage, 182 feet from north to south along its western property line, and 101 feet from north to south along its eastern property line (see **Figure 2: Existing Site Plan**).

The project site is completely developed with an approximately 33,310-gross-square-foot (gsf), two-story commercial building over a partial basement² that measures 37 feet in height above street-grade.³ There is an existing utility vault under Golden Gate Avenue adjacent to the project site that extends between 3 to 13 feet into the public right-of-way.⁴ The building, known historically as the Golden Gate Building, was constructed in 1907 and is considered a contributor to the Market Street Theatre and Loft National Register Historic District (MSTL District).⁵ The Golden Gate Building was previously occupied by theater, retail, and restaurant uses and has been vacant since 2008. However, its storefront and ground floor space along Market Street was recently renovated and has been used as a temporary food pavilion for local vendors under short-term lease arrangements since October 2014. There are no off-street spaces for parking or loading on the project site, and there is no vehicular access.

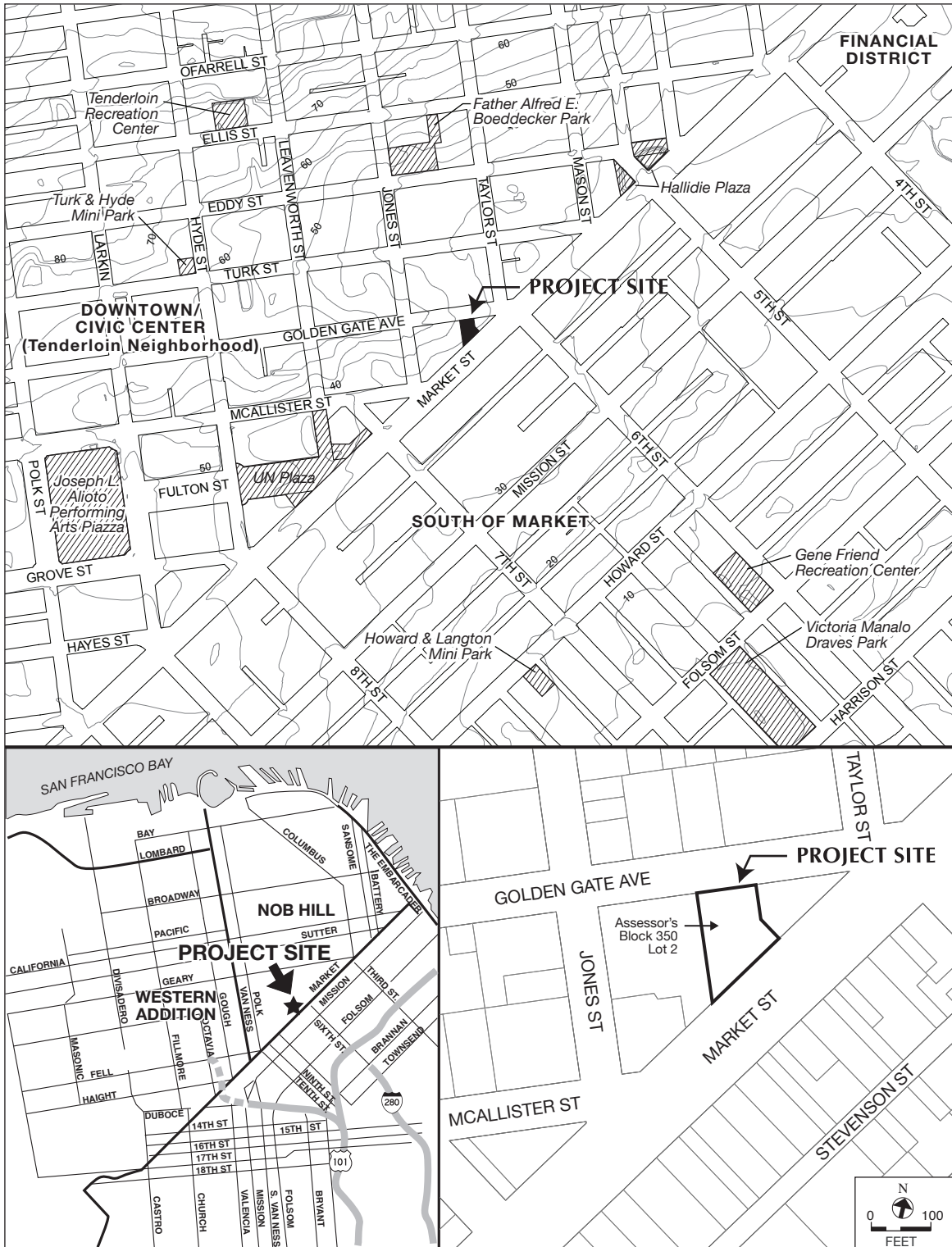
¹ Market Street is oriented in a northeast-southwest direction, but is referred to as an east-west street in this document. Taylor and Jones streets are oriented in a northwest-southeast direction, but are referred to as north-south streets in this document. This convention is used to describe the locations of other buildings and uses in relation to the project site.

² The basement partially extends into the Golden Gate Avenue public right-of-way.

³ Building heights are measured in feet above-grade (or ground surface) or in number of building stories. A building story may be the equivalent of about 10 feet, or 12 to 15 feet if it includes retail, at the ground floor and between 10 and 12 feet for the upper stories.

⁴ The project sponsor holds an encroachment permit for the sub-sidewalk basement.

⁵ The southern boundary of the Uptown Tenderloin National Register Historic District is partly defined by Golden Gate Avenue, Jones Street, and McAllister Street and is located immediately north and west of the project site. The Civic Center National Register Historic District is to the west.



SOURCE: Turnstone Consulting/SWCA, 2015

1028 MARKET STREET

2014.0241E

FIGURE 1: PROJECT LOCATION



SOURCE: Turnstone Consulting/SWCA, 2015

1026 MARKET STREET

2014.0241E

Number Of Stories #.# Muni Transit Stops - - - - - Market Street Theatre and Loft National Register Historic District Uptown Tenderloin National Register Historic District

FIGURE 2: EXISTING SITE PLAN

Pedestrian access is from Market Street and Golden Gate Avenue. The sidewalks on Market Street and Golden Gate Avenue adjacent to the project site are 35 feet wide and 10 feet wide, respectively. There is an approximately 75-foot-long vehicle pullout designated for commercial vehicle loading along the western portion of the project site's Market Street frontage. At this location the Market Street sidewalk narrows to 26 feet. There are seven mature street trees along the Market Street frontage of the project site and none along the Golden Gate Avenue frontage.

Immediately adjacent to and west of the project site at 1066 Market Street (Assessor's Block 0350, Lot 003) is a surface parking lot (accessed via Golden Gate Avenue) and a two-story commercial building (fronting Market Street) proposed for redevelopment with a 120-foot-tall mixed-use residential project. Immediately adjacent to and east of the project site at 1000 Market Street (Assessor's Block 0350, Lot 001) is the four-story San Christina Building, constructed in 1913.

The project site is in a Downtown General Commercial (C-3-G) Zoning District and a 120-X Height and Bulk District. A base floor area ratio (FAR) of 6:1 is permitted in the C-3-G District. A maximum FAR of 9:1 is allowable with the use of Transferable Development Rights (TDRs) and subject to applicable height and bulk limitations. The project site is also located in the Mid-Market area of downtown San Francisco, generally between 5th and 11th streets along the Market and Mission corridors, an area covered by the Mid-Market Special Use District (SUD), as analyzed in the Mid-Market Arts and Arts Education Special Use and Special Height and Bulk Districts and 950-974 Market Street Project Preliminary Mitigated Negative Declaration.

The project site fronts Market Street, which is a major transportation corridor through downtown San Francisco that runs southwest to northeast from the Twin Peaks, Upper Market, and Castro neighborhoods to the Ferry Building on The Embarcadero. The project site is well served by the local and regional public transit agencies. The San Francisco Municipal Transportation Agency (Muni) operates light rail vehicles underneath Market Street (J Church, KT Ingleside/Third Street, L Taraval, M Ocean View, N Judah), numerous buses and historic streetcars on Market Street (6 Haight/Parnassus, 7 Haight/Noriega, 7R Haight/Noriega Rapid, 9 San Bruno, 9R San Bruno Rapid, 21 Hayes, and F Market and Wharves), and express bus service on Golden Gate Avenue and Turk Street (Muni 7X Noriega Express). The Bay Area Rapid Transit District (BART) operates a regional subway system that runs underneath Market Street. The closest entry points to the underground Muni/BART stations are located one block west at United Nations (U.N.) Plaza at the intersection of Charles J. Brenham Place and Market Street (Civic Center Muni/BART station) and one block east at Hallidie Plaza at the intersection of Cyril Magnin and Market streets (Powell Muni/BART station). Golden Gate Transit operates surface buses that run on 7th, 8th, and Mission streets, and SamTrans operates surface buses on Mission Street.

Project Characteristics

The proposed project would require demolition of the 33,310-gsf Golden Gate Building. In place of the existing building, the project sponsor would construct a 13-story, 178,308-gsf mixed-use building with one below-grade basement level (see **Figure 3: Proposed Site Plan**). The proposed building would be 120 feet tall as measured from the center line on the easternmost building mass along Golden Gate Avenue (not including the 20-foot-tall mechanical penthouse) and would have residential floor-to-ceiling heights of 9 feet, 2 inches.

Proposed Uses

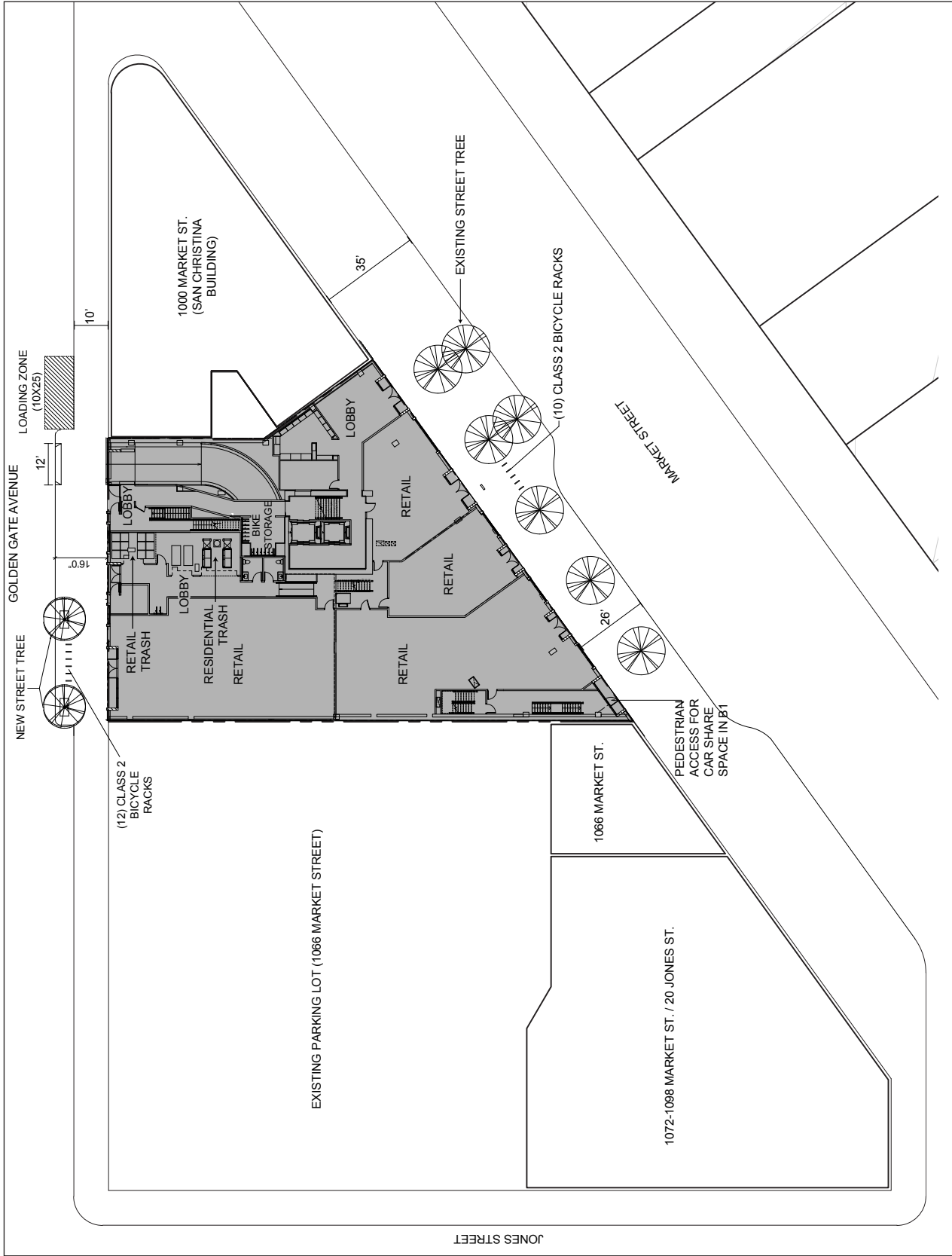
The proposed 178,308-gsf mixed-use building would have 148,119 gsf of residential uses with up to 186 residential units on the 2nd through 13th (see **Table 1: Summary of Proposed Uses and Building Characteristics**). The ground floor would include the residential lobby, mail room, bicycle storage area, circulation spaces, retail/restaurant uses, and back of house functions.

The commercial space would be developed into four separate retail/restaurant spaces, three along Market Street and one on Golden Gate Avenue. Primary pedestrian access to the residential portion of the proposed building would be provided through an entrance at the east end of the Market Street frontage. A secondary entrance for the residents would also be provided at the east end of the Golden Gate Avenue frontage, immediately west of the proposed garage driveway.

There would be a fitness center on the 2nd floor, a building management office on the 3rd floor, and tenant storage rooms on the 4th and 5th floors. All Class 1 bicycle parking spaces required for the residential uses would be provided in two separate bicycle storage rooms, one at the ground floor and the other on Basement Level 1. Access to the bicycle storage rooms would be from the Market Street and Golden Gate Avenue residential entrances.⁶ One Class 1 space for the retail/restaurant uses would be provided at the ground floor. The required Class 2 bicycle parking spaces for both the residential and retail components of the proposed project would be provided along the Market Street and Golden Gate Avenue sidewalks near the proposed residential and retail entrances.

The below-grade basement level space would be devoted to parking, circulation, bicycle storage, tenant storage, materials storage, and mechanical, electrical and plumbing systems. An approximately 12-foot-deep-by-42-foot-wide utility room for the proposed building's transformer would be located under the east end of the Golden Gate Avenue sidewalk. Access to the 42 vehicle parking spaces (including two service vehicle spaces, one car-share space, and two handicap-accessible spaces) would be provided from Golden Gate Avenue at the east end of the

⁶ The Class 1 spaces located in Basement Level 1 would be accessed from the ground floor via the residential lobby and centrally located elevators.



SOURCE: Solomon Cordwell Buenz

1028 MARKET STREET

2014.0241E

FIGURE 3: PROPOSED SITE PLAN

Table 1: Summary of Proposed Uses and Building Characteristics

Uses	New Construction (gsf)
Residential (Fitness Center, Management Office, Tenant Storage Space)	148,119 gsf
Residential Lobby, Bicycle Storage, Back of House, and Circulation Space	4,976 gsf
Retail/Restaurant	9,657 gsf
Parking, Building Storage, Bicycle Storage, Mechanical, and Circulation Space	15,556 gsf
Total	178,308 gsf
Characteristics	
Height	120 feet
No. of Stories	13 stories
No. of Residential Units	186
Studio Units	70
Junior One-Bedroom Units	26
One-Bedroom Units	21
Two-Bedroom Units	57
Three-Bedroom Units	12
No. of Parking Spaces	42
Service Vehicle ^a	2
Handicap-Accessible	2
Car-share	1
No. of Class 1 Bicycle Parking Spaces ^{b, c}	123
No. of Class 2 Bicycle Parking Spaces ^{d, e}	22

Notes:

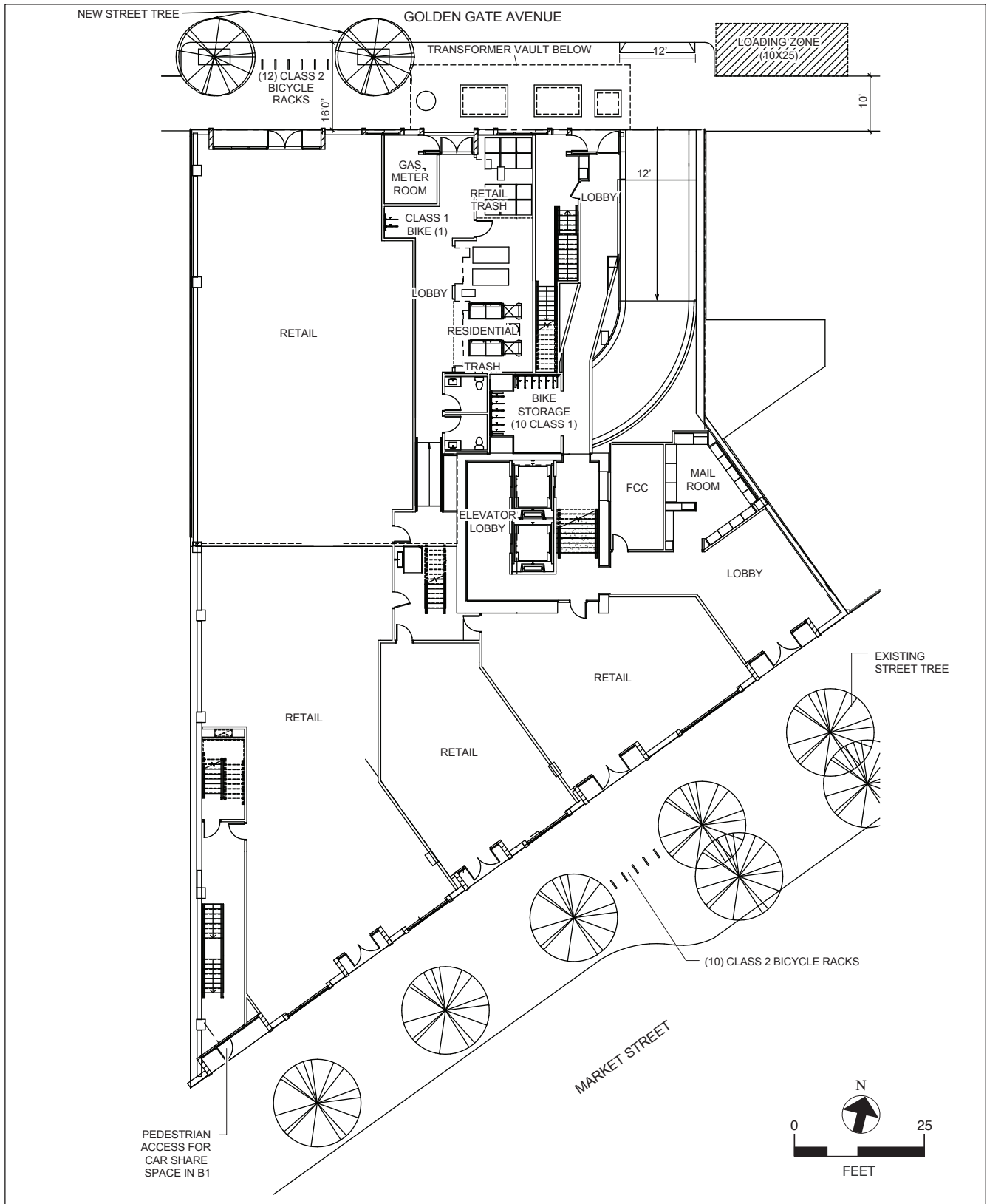
- ^a The substitution of two service vehicle spaces for each required off-street freight loading space provided that a minimum of 50 percent of the required number of spaces are provided for freight loading. Where the 50 percent allowable substitution results in a fraction, the fraction shall be disregarded (Planning Code Section 153(a)(6).
- ^b A Class 1 bicycle space protects the entire bicycle from theft or weather; examples include lockers, secure bike rooms, or attendant-monitored parking.
- ^c Planning Code-required Class 1 spaces for the residential (122) and retail/restaurant uses (1).
- ^d A Class 2 bicycle space is located in a publicly accessible, highly visible location intended for transient or short-term use by building visitors, guests, and patrons.
- ^e Planning Code-required Class 2 spaces for the residential (9) and retail/restaurant uses (13).

Source: Solomon Cordwell Buenz, January 2016

project site via a 12-foot-wide curb cut leading to a one-way, 12-foot-wide parking garage driveway with traffic signals at the top and bottom of the driveway. Pedestrian access to the garage would be from the ground floor via the residential lobby and centrally located elevators. Pedestrian access to the car-share space for car-share members who are not on-site residents would be provided from a separate entrance on the west end of the Market Street frontage.

Ground Floor

The 14,633-gsf ground floor would include 4,976 gsf of space for the residential and elevator lobbies; the mail and mechanical rooms; bicycle storage, and pedestrian and vehicular circulation (corridors, stairs, elevators, and garage driveway). (See **Figure 4: Proposed Ground Floor Plan.**) The residential lobby would be accessed at the east end of the Market Street and Golden



SOURCE: Solomon Cordwell Buenz

1028 MARKET STREET

2014.0241E

FIGURE 4: PROPOSED GROUND FLOOR PLAN

Gate Avenue frontages. Access to the residential floors above would be from the centrally located elevator lobby and stairs. The below-grade parking garage would be accessed via the 12-foot-wide driveway at the east end of the Golden Gate Avenue frontage. Back of house functions such as the residential and retail trash rooms would be accessed from a service entrance at the center of the Golden Gate Avenue frontage. The ground floor would also include 9,657 gsf of space for retail/restaurant uses, divided into three separate spaces along Market Street and one along Golden Gate Avenue. Each of the retail/restaurant spaces would have a separate entrance.

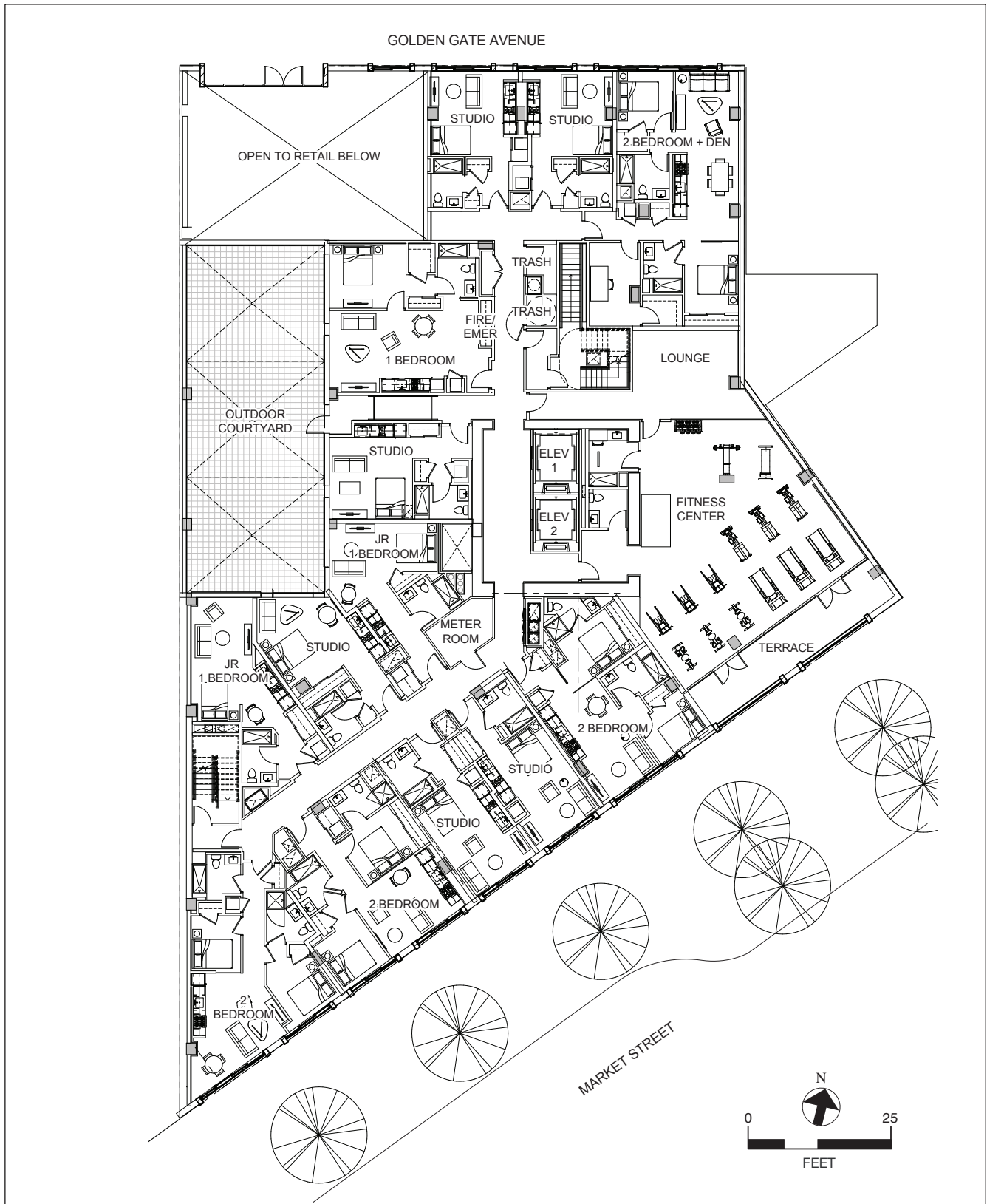
Floors 2 through 13

Residential uses would occupy a total of about 148,119 gsf of building area. The proposed project would provide up to a total of 186 residential units consisting of 70 studio units, 26 junior one-bedroom units, 21 one-bedroom units, 57 two-bedroom units, and 12 three-bedroom units on the 2nd through 13th floors (see **Figure 5: Proposed 2nd Floor Plan**, **Figure 6: Proposed 3rd Floor Plan**, **Figure 7: Proposed 4th Floor Plan**, **Figure 8: Proposed 5th Floor Plan**, **Figure 9: Proposed 6th Floor Plan**, **Figure 10: Proposed 7th through 11th Floor Plan**, and **Figure 11: Proposed 12th and 13th Floor Plan**). Each of the residential floors would have shared circulation and common areas as well as space for building services such as trash and telecommunication rooms. The project sponsor would meet its inclusionary housing obligation by either providing a minimum of 22 below market rate (BMR) on-site units, developing a minimum of 37 BMR off-site units within a mile of the project site (which would be subject to separate environmental review), or paying an in-lieu fee.

An approximately 1,890-gsf fitness center, with an outdoor terrace fronting Market Street, would be located on the 2nd floor. An approximately 780-gsf building management office would be located on the 3rd floor, and approximately 2,500 gsf of tenant storage space would be located on the 4th and 5th floors. Private open space (2,503 sq. ft.) for 14 units would be provided as private terraces/balconies on the 4th through 12th floors, and 9,179 sq. ft. of common open space would be provided on the 2nd floor (1,722 sq. ft.) and at the rooftop (7,457 sq. ft.). Mechanical equipment, building services such as trash and storage areas, and a diesel backup generator would be located in a rooftop penthouse on the central portion of the roof (see **Figure 12: Proposed Roof Plan**).

Proposed Parking, Loading, and Bicycle Parking

The proposed project would include one 15,556-gsf basement level with space devoted to parking and circulation; bicycle storage; and mechanical, electrical and plumbing systems (see **Figure 13: Proposed Basement Level 1 Plan**). A total of 42 parking spaces would be provided; 37 residential parking spaces, including handicap-accessible (2) and car-share (1) spaces, and two service vehicle parking spaces. No off-street parking is proposed for the 9,657 gsf of ground floor retail/restaurant uses. Residents would enter and exit the below-grade parking via the parking garage driveway at the east end of the Golden Gate Avenue frontage.

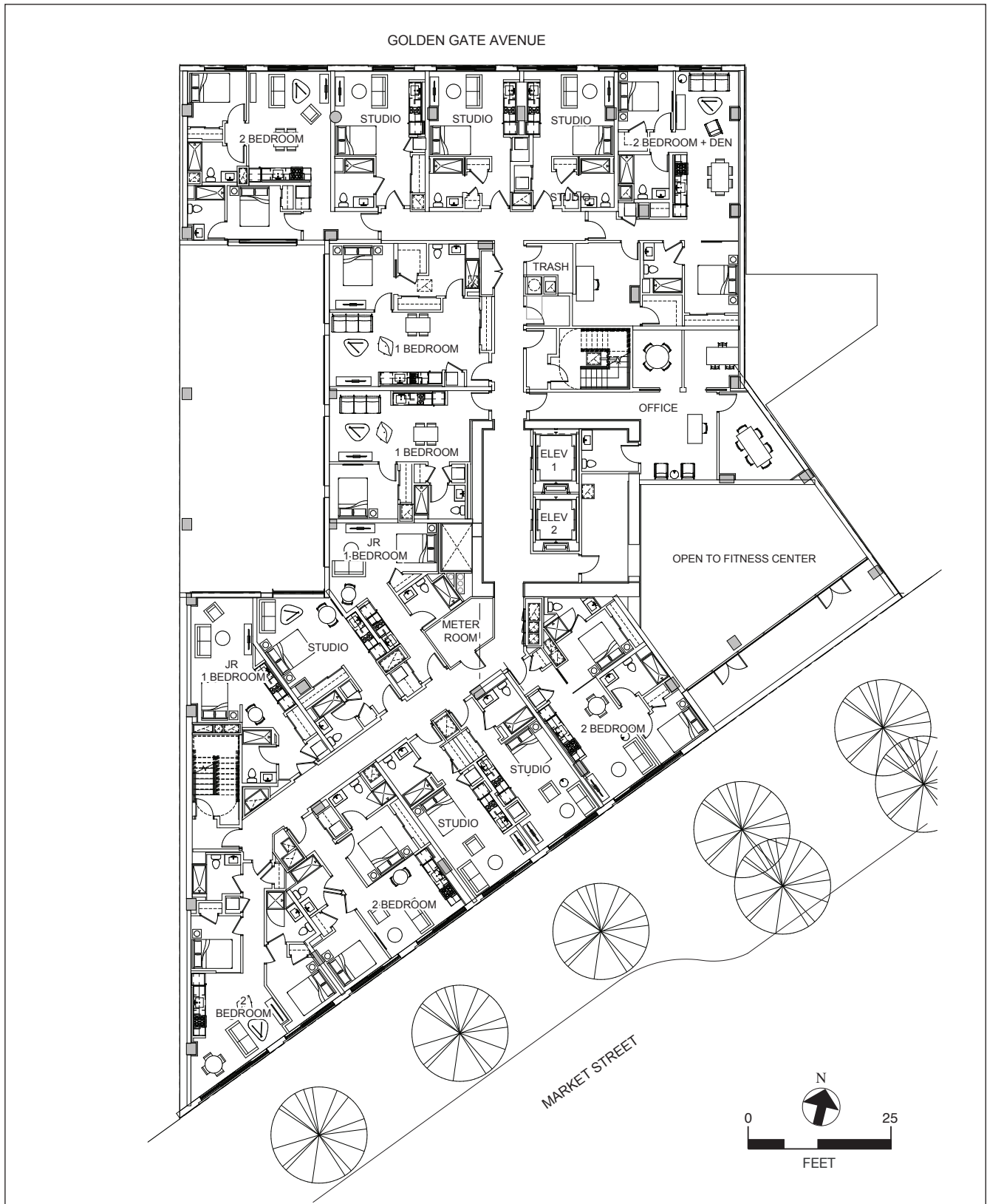


SOURCE: Solomon Cordwell Buenz

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FIGURE 5: PROPOSED 2ND FLOOR PLAN

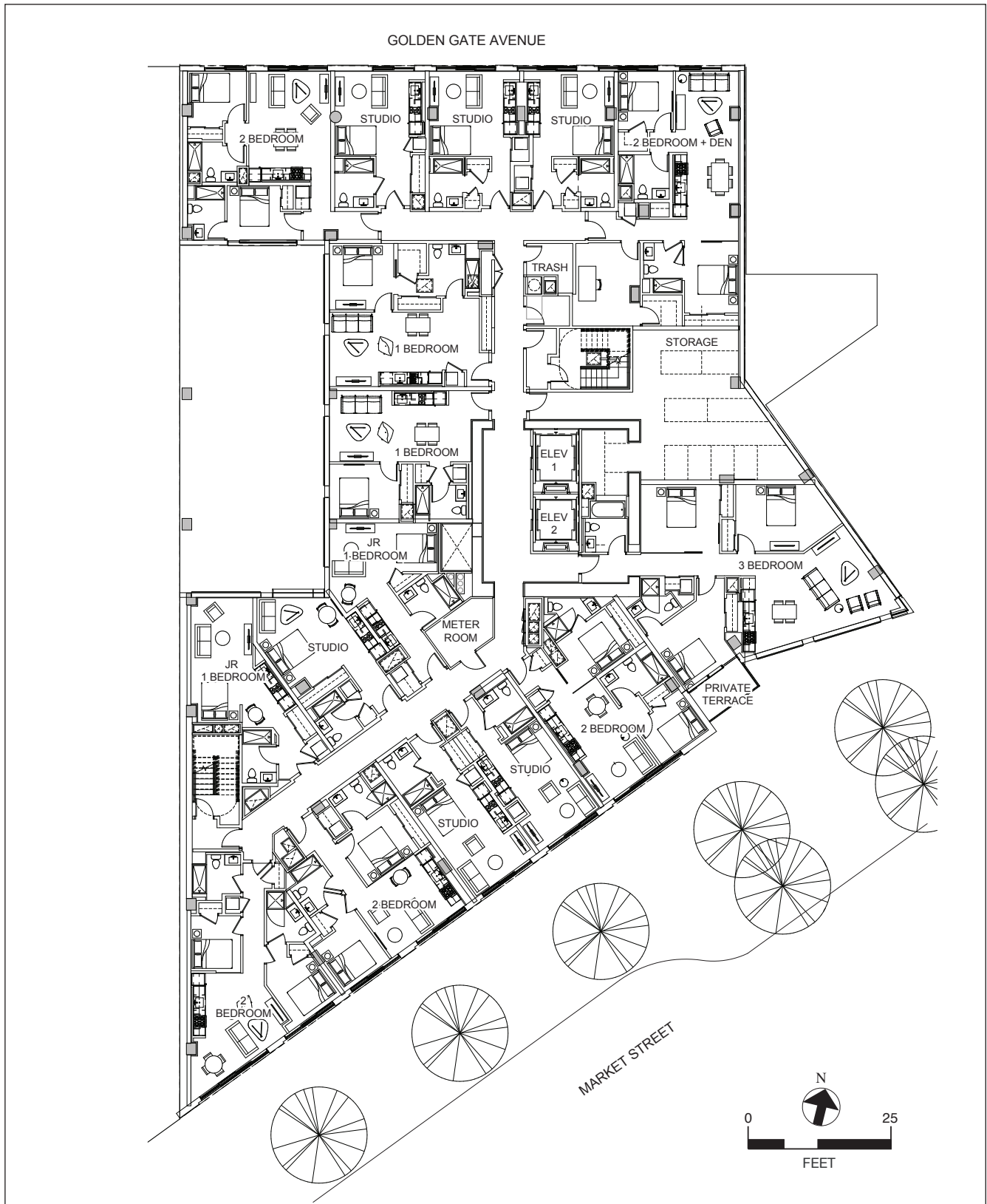


SOURCE: Solomon Cordwell Buenz

1028 MARKET STREET

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FIGURE 6: PROPOSED 3RD FLOOR PLAN

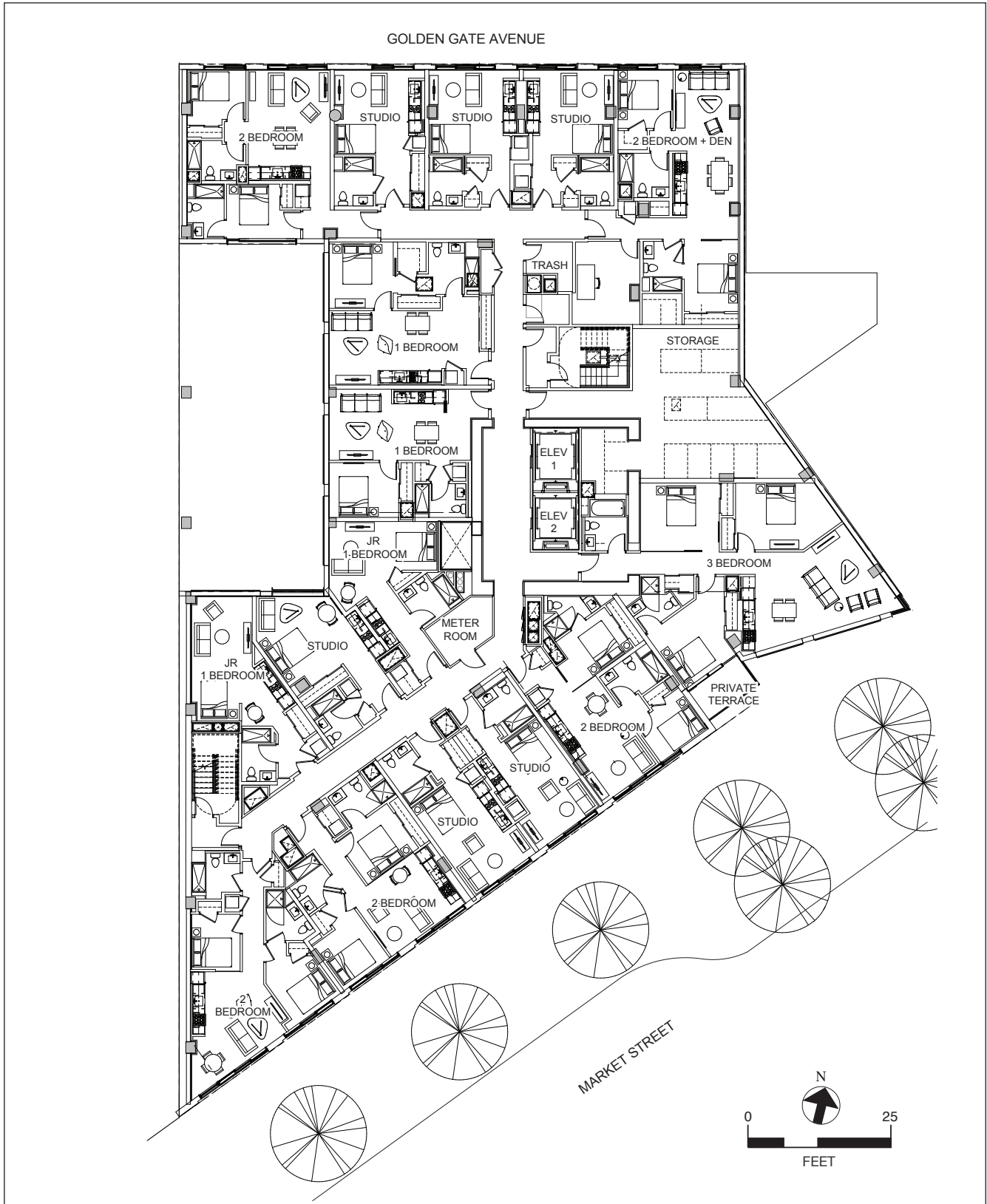


SOURCE: Solomon Cordwell Buenz

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FIGURE 7: PROPOSED 4TH FLOOR PLAN

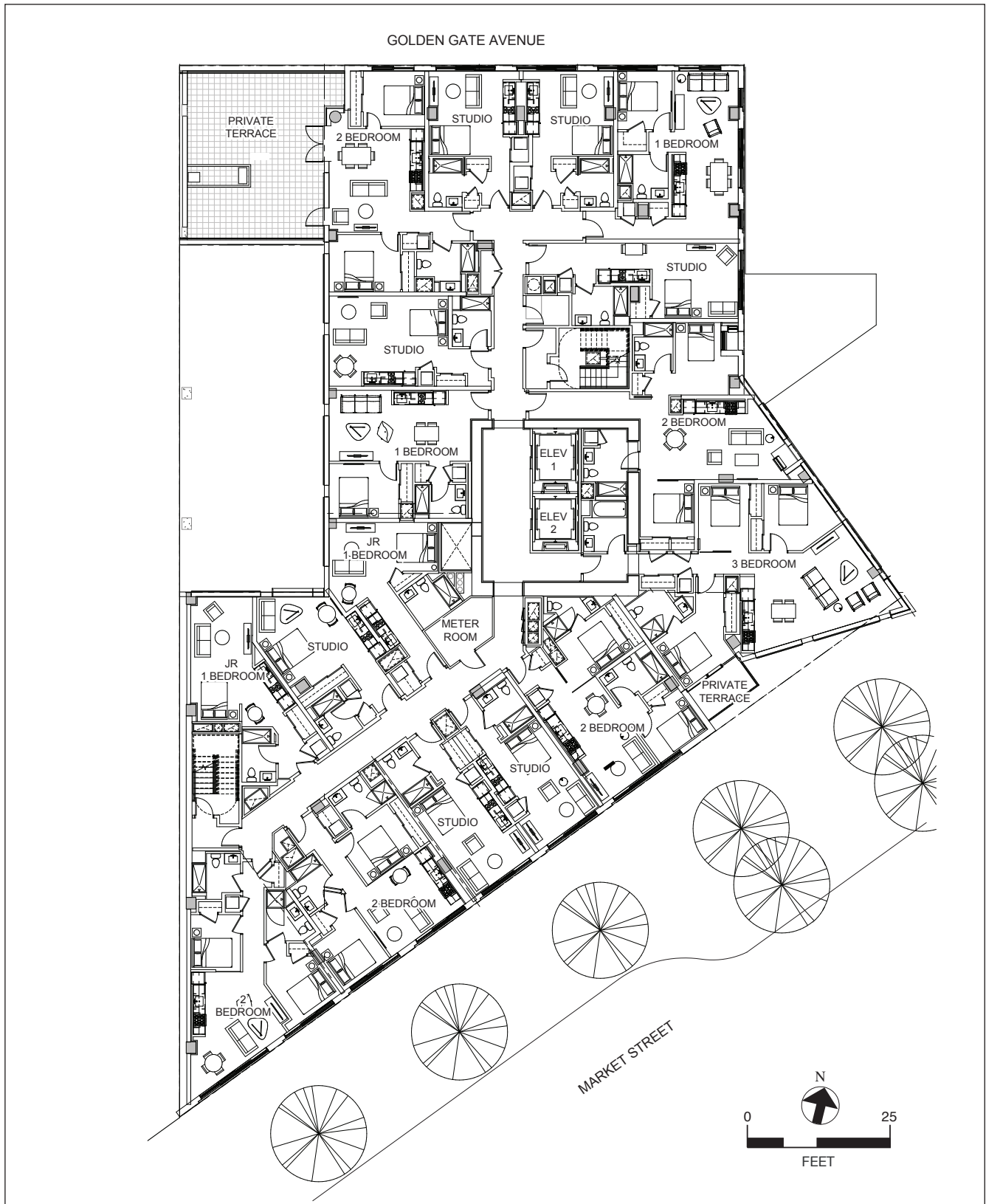


SOURCE: Solomon Cordwell Buenz

1028 MARKET STREET

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FIGURE 8: PROPOSED 5TH FLOOR PLAN

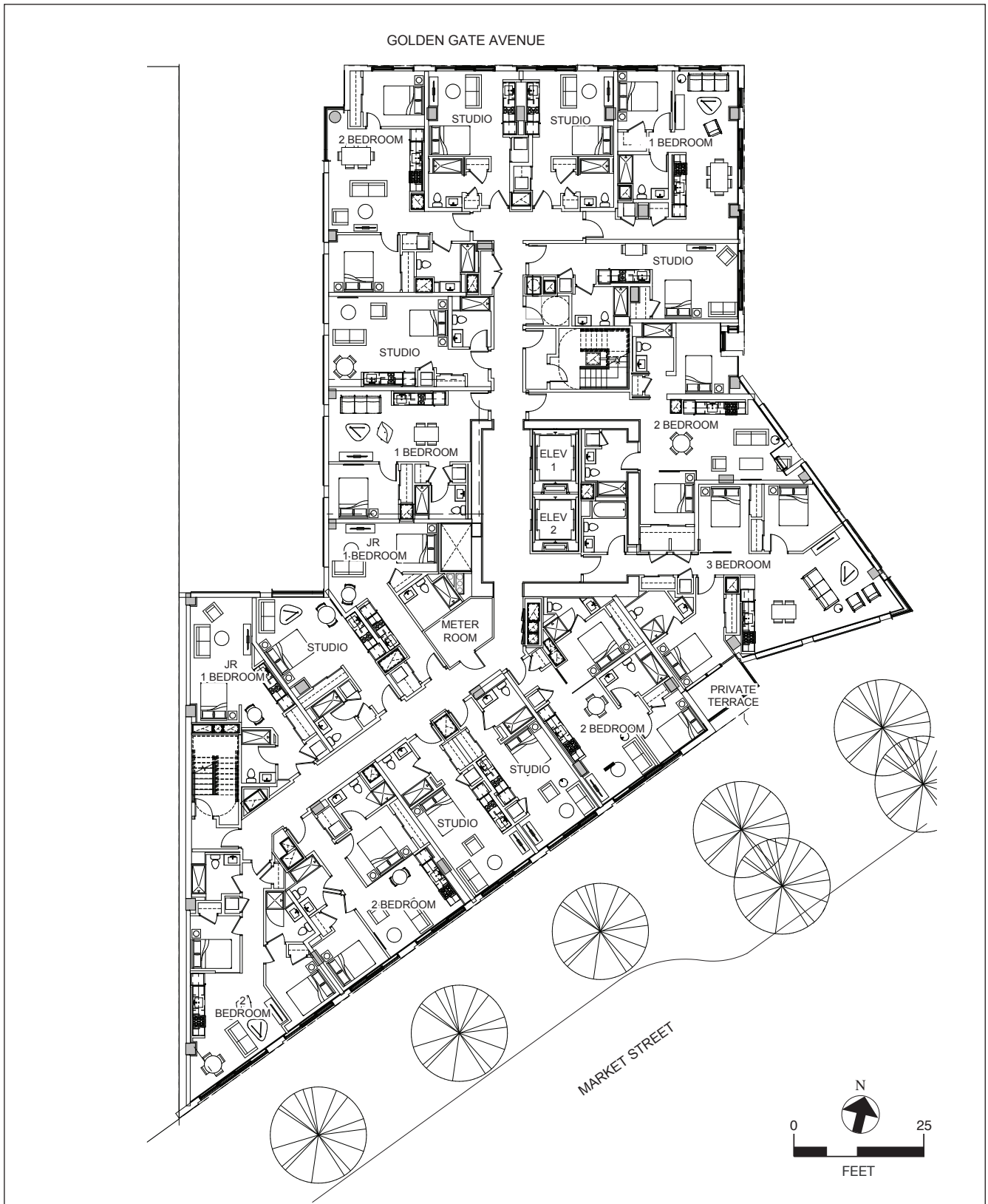


SOURCE: Solomon Cordwell Buenz

1028 MARKET STREET

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FIGURE 9: PROPOSED 6TH FLOOR PLAN

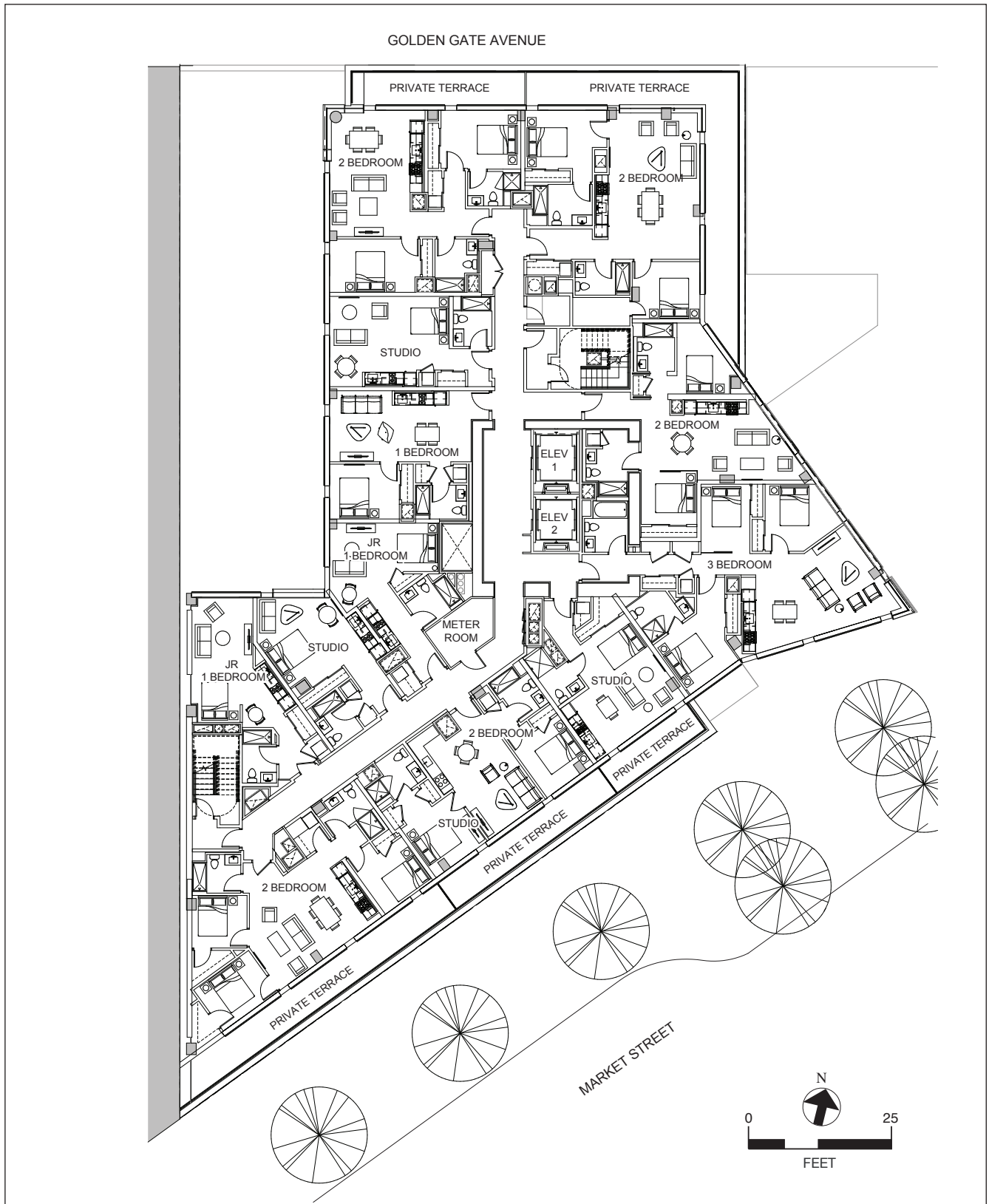


SOURCE: Solomon Cordwell Buenz

1028 MARKET STREET

2014.0241E

FIGURE 10: PROPOSED 7TH THROUGH 11TH FLOOR PLAN

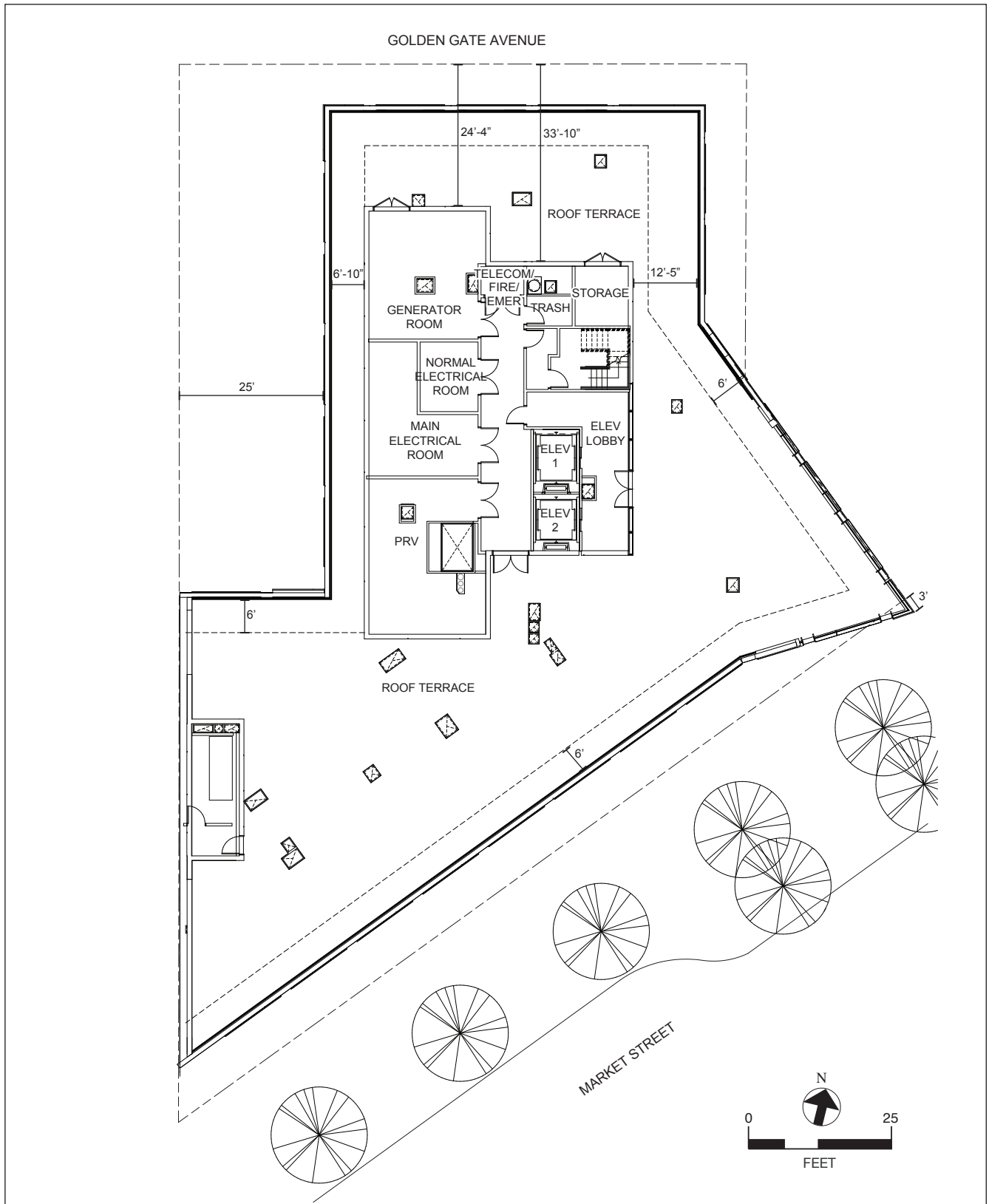


SOURCE: Solomon Cordwell Buenz

1028 MARKET STREET

2014.0241E

FIGURE 11: PROPOSED 12TH AND 13TH FLOOR PLAN

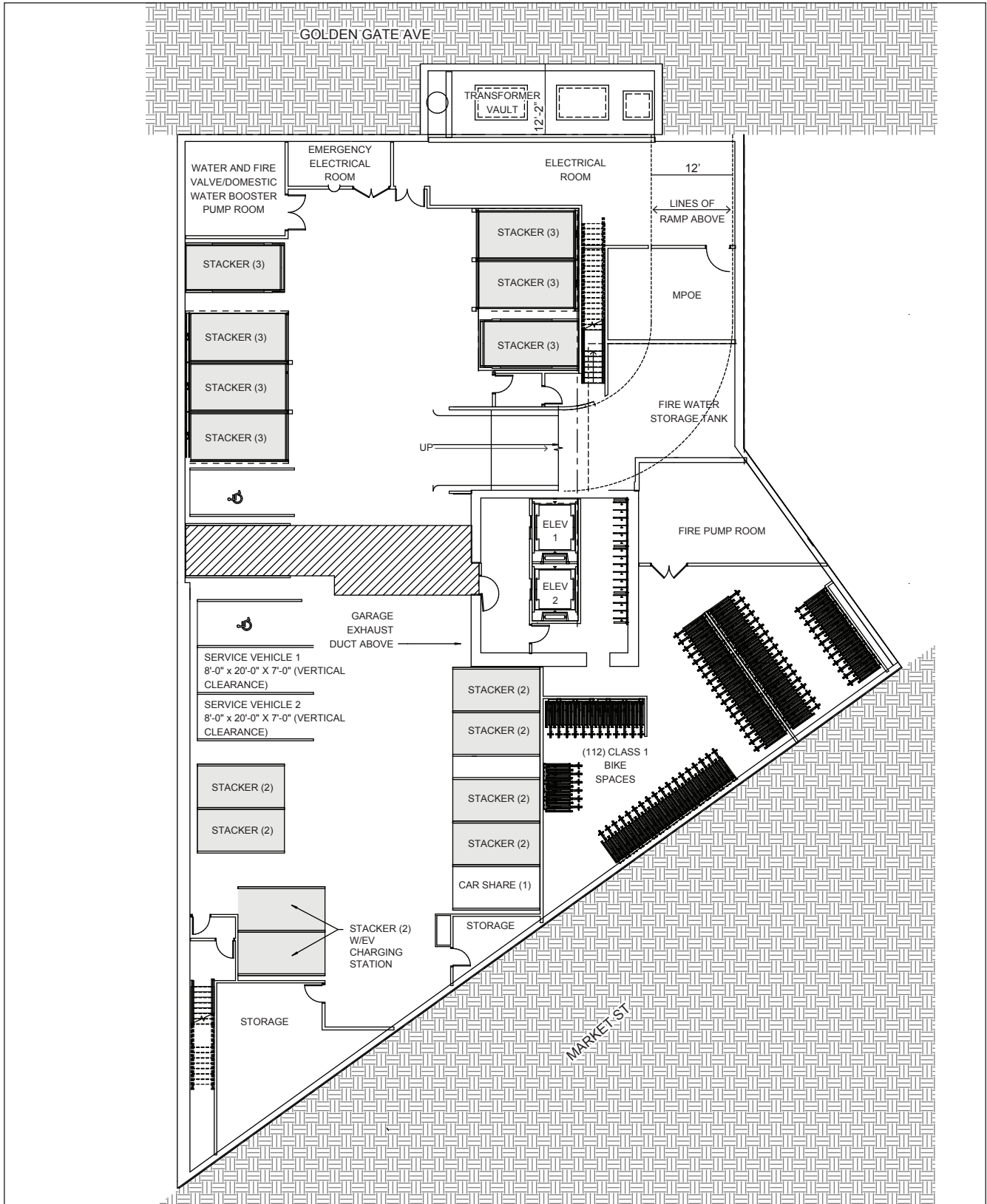


SOURCE: Solomon Cordwell Buenz

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2014.0241E

FIGURE 12: PROPOSED ROOF PLAN



SOURCE: Solomon Cordwell Buenz

1028 MARKET STREET

2014.0241E

FIGURE 13: PROPOSED BASEMENT LEVEL 1 PLAN

Thirty-seven parking spaces for residential uses would be accommodated within a mechanical stacker parking system.⁷ The mechanical stackers would be arrayed as three-car stackers on the northern portion of the basement and as two-car stackers on the southern portion of the basement. Drivers would be able to retrieve and return their own vehicles (i.e., they would be able to operate the mechanical parking stacker without assistance from a valet). The service vehicle, handicap-accessible, and car-share spaces would be separate from the mechanical stacker parking system.

The proposed project would not include an on-site off-street freight loading space as required under Planning Code Section 152.1 for C-3 Districts. Instead, the project sponsor would substitute two service vehicle spaces for the required off-street freight loading space as allowed under Planning Code Section 153(a)(6)).⁸ The project sponsor would also request through the San Francisco Municipal Transportation Agency (SFMTA) that on-street parking immediately to the east of the proposed parking garage entrance at the west end of the project site's Golden Gate Avenue frontage be converted to a metered commercial loading space (10 feet by 25 feet) that would be used for delivery and service vehicle trips as well as residential move-in and move-out activities.

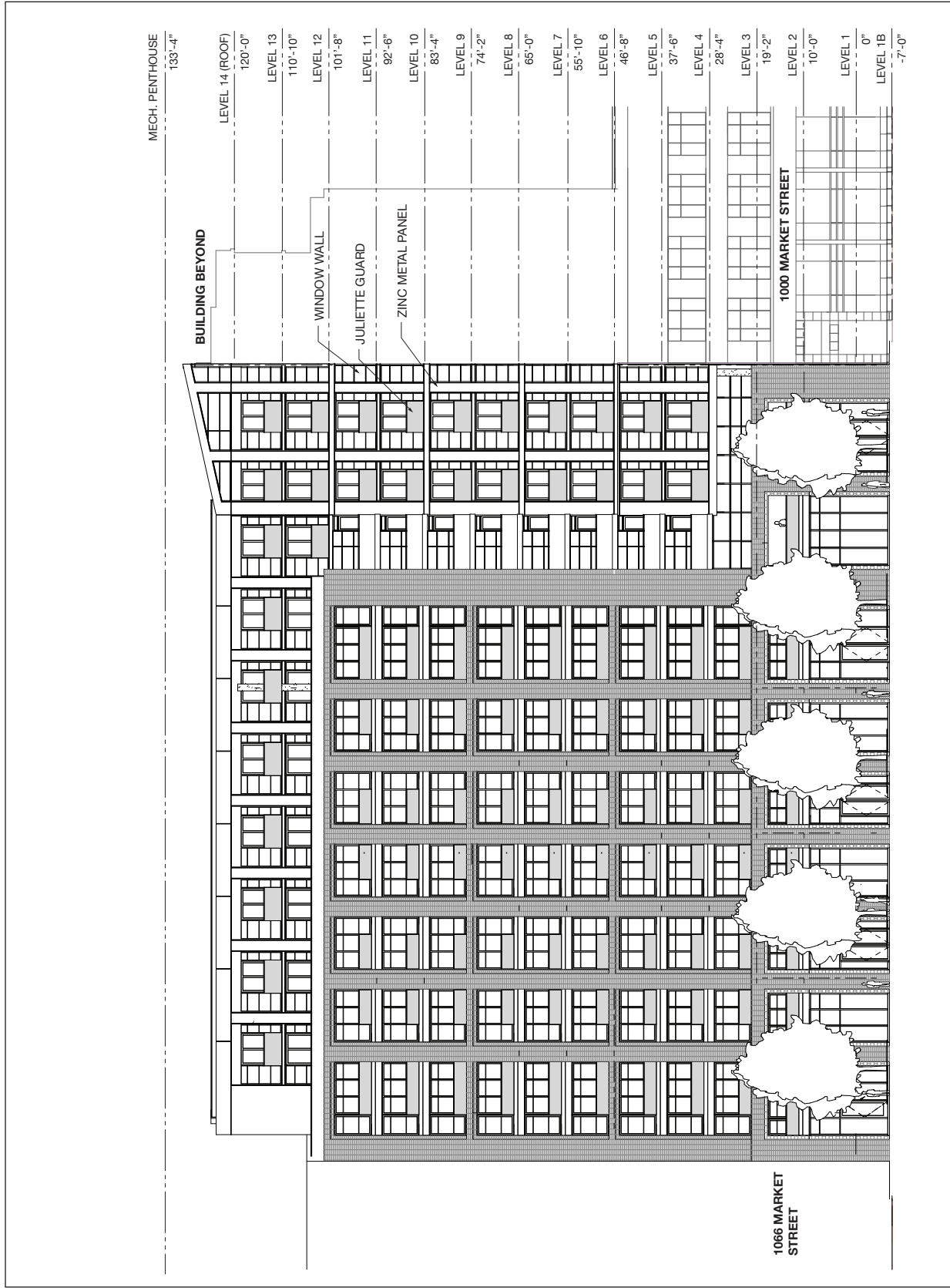
All Class 1 and Class 2 bicycle parking spaces for the residential and retail/restaurant uses would be provided in compliance with Planning Code Section 155.2.11. The proposed project would provide 122 Class 1 bicycle parking spaces on the ground floor and at Basement Level 1, with access via the Market Street and Golden Gate Avenue entrances. The proposed project would also provide one Class 1 bicycle parking space for the proposed retail/restaurant uses at the ground floor. A total of 22 Class 2 bicycle parking spaces would be provided on the Market Street (10) and Golden Gate Avenue (12) sidewalks near the proposed residential and retail/restaurant entrances.

Proposed Building Form and Design

The proposed 13-story, 178,308-gsf building would cover the entire lot with no ground floor setbacks from the north (Golden Gate Avenue), east, south (Market Street), and west property lines. The 120-foot-tall vertical volume would include a rooftop mechanical penthouse that would terminate approximately 20 feet above the roof for an overall height of 140 feet. In plan, the floor plates would match the irregular lot shape and would have a full height façade along Golden Gate Avenue and Market Street (see **Figure 14: Proposed Market Street (South) Elevation** and **Figure 15: Proposed Golden Gate Avenue (North) Elevation**). As described on p. 4, the adjacent parcel to the west of the project site at 1066 Market Street is proposed for

⁷ An at-grade electric charging station with a charging cord long enough to rise and fall with the stacker without getting unplugged from the car would be provided.

⁸ The Planning Code allows the substitution of two service vehicle spaces for each required off-street freight loading space provided that a minimum of 50 percent of the required number of spaces are provided for freight loading. Where the 50 percent allowable substitution results in a fraction, the fraction shall be disregarded.

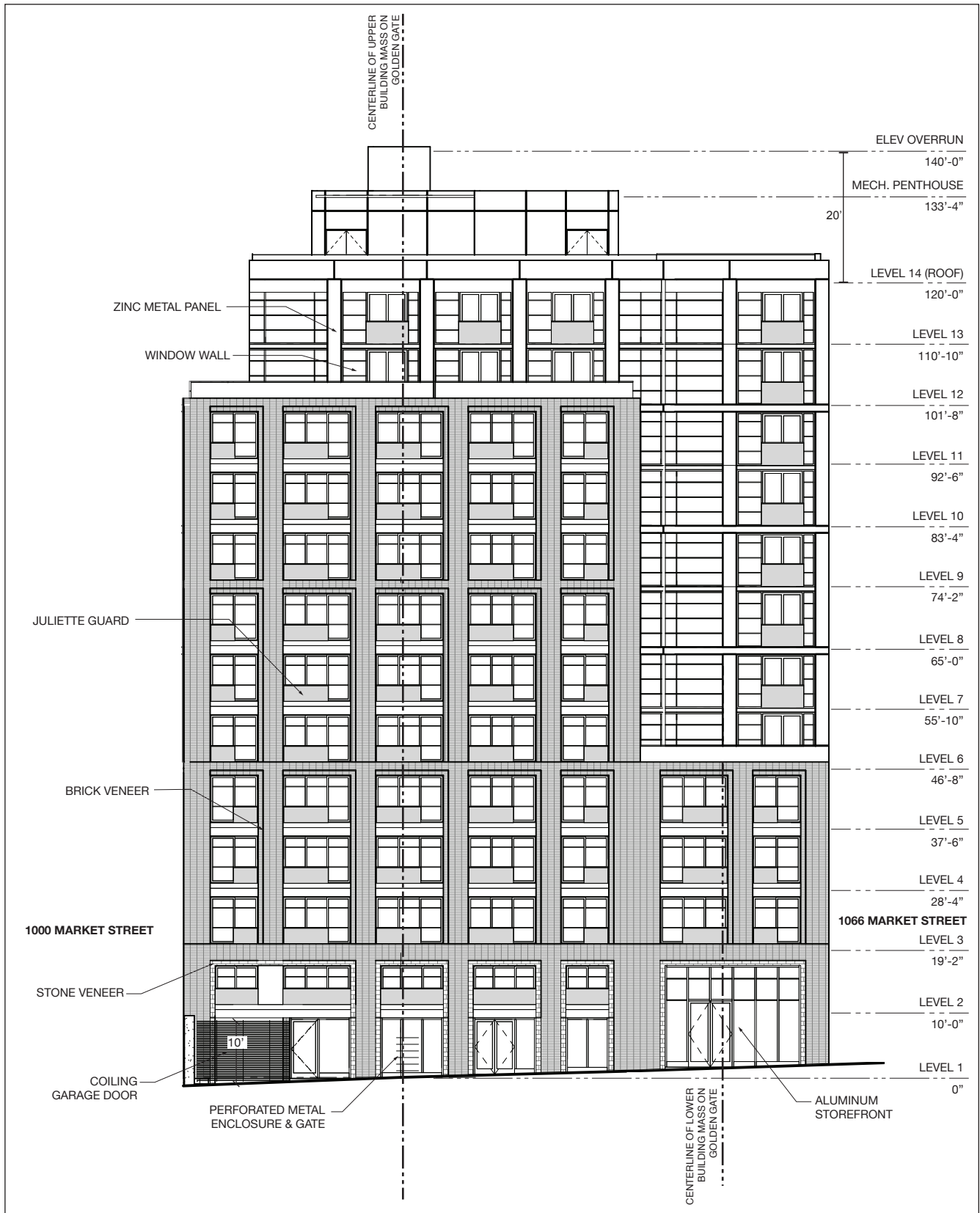


SOURCE: Solomon Cordwell Buenz

1028 MARKET STREET

2014.0241E

FIGURE 14: PROPOSED MARKET STREET (SOUTH) ELEVATION



SOURCE: Solomon Cordwell Buenz

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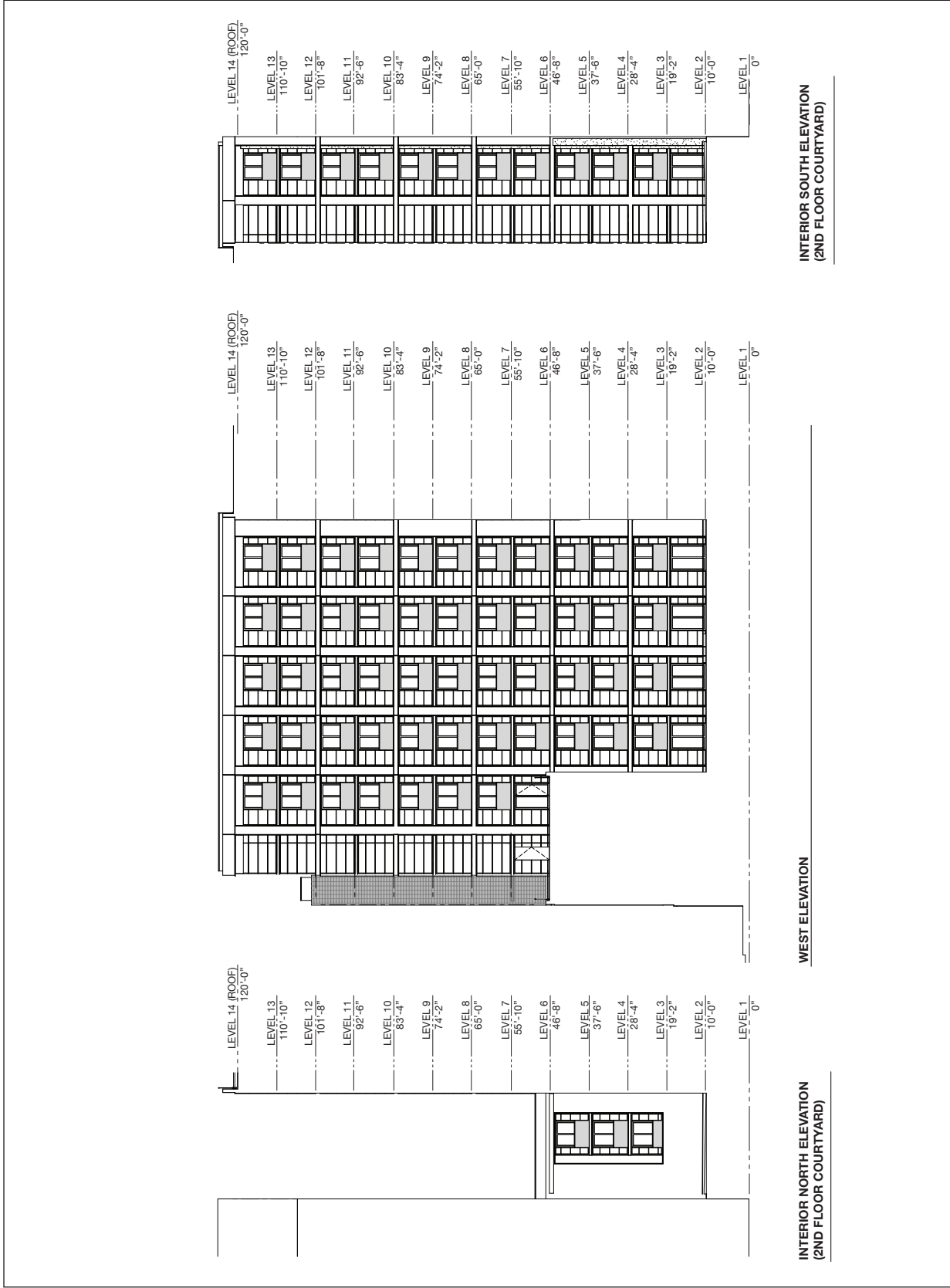
FIGURE 15: PROPOSED GOLDEN GATE AVENUE (NORTH) ELEVATION

redevelopment. Thus, the proposed building would be set back approximately 25 feet from the west property line starting at the 2nd floor to form an interior common open space and light court (see **Figure 16: Proposed West Elevations**). A shallow v-shaped east façade would be visible above the adjacent four-story San Christina Building at 1000 Market Street (see **Figure 17: Proposed East Elevations**).

The proposed building's elevations would be asymmetrical and contemporary in character. The Market Street (south) elevation would have a stepped and layered composition. The layers would be articulated through the use of different building materials. The Market Street elevation's first two stories would be clad with stone veneer all the way across to form a continuous base element at street level (see **Figure 14**). At the 3rd through 9th stories, the seven westernmost window bays would also be clad with brick veneer to form an 11-story façade plane along the Market Street property line. The three easternmost bays at the fourth floor and above would incorporate a setback intended to break up the vertical mass of the building along Market Street. Private terraces and balconies would be provided on the 4th through 11th floors. At the 12th floor the façade along the Market Street property line would be set back by 6 feet to break up the vertical mass of the Market Street façade. The setback portions of the Market Street façade would feature contrasting metal paneling combined with window walls. The roof line of the Market Street elevation would be flat, except at the east end, which would rise to culminate in a triangular point.

The Golden Gate Avenue (north) elevation would have a similar stepped and layered composition and would have the same combination of materials as the Market Street elevation (see **Figure 15**). The interior west elevation would be simpler (see **Figure 16**). It would include the same set of features as the north and south elevations - window walls, zinc panels, aluminum windows, and perforated metal railings except at the portion closest to Market Street, which would consist of a poured-in-place concrete panel in anticipation of the proposed development at 1066 Market Street. The triangular east end of the proposed building would create both a southeast and a northeast elevation along two façade planes (see **Figure 17**). Although the east elevation would be built along interior lot lines, it would be prominent rising beyond the adjacent San Christina Building when viewed from the east. The southeast elevation would feature window walls, zinc panels, aluminum windows, and perforated metal railings; the northeast elevation would feature window walls, zinc paneling, and brick veneer. At the 12th floor the façade along the northeast property line would be set back by 10 feet to break up the vertical mass of the east elevation.

The proposed building would have active street frontages along Market Street and Golden Gate Avenue. Along the Market Street frontage, the 17-foot-tall ground floor would feature the residential entrance at the east end of the project site and three retail storefronts to the west (see **Figure 18: Perspective View from Market Street [Northwest View]** and **Figure 19: Perspective View from Market Street [Northeast View]**). The Golden Gate Avenue frontage would be differentiated by an upper (13 stories) and lower (6 stories) building massing with a

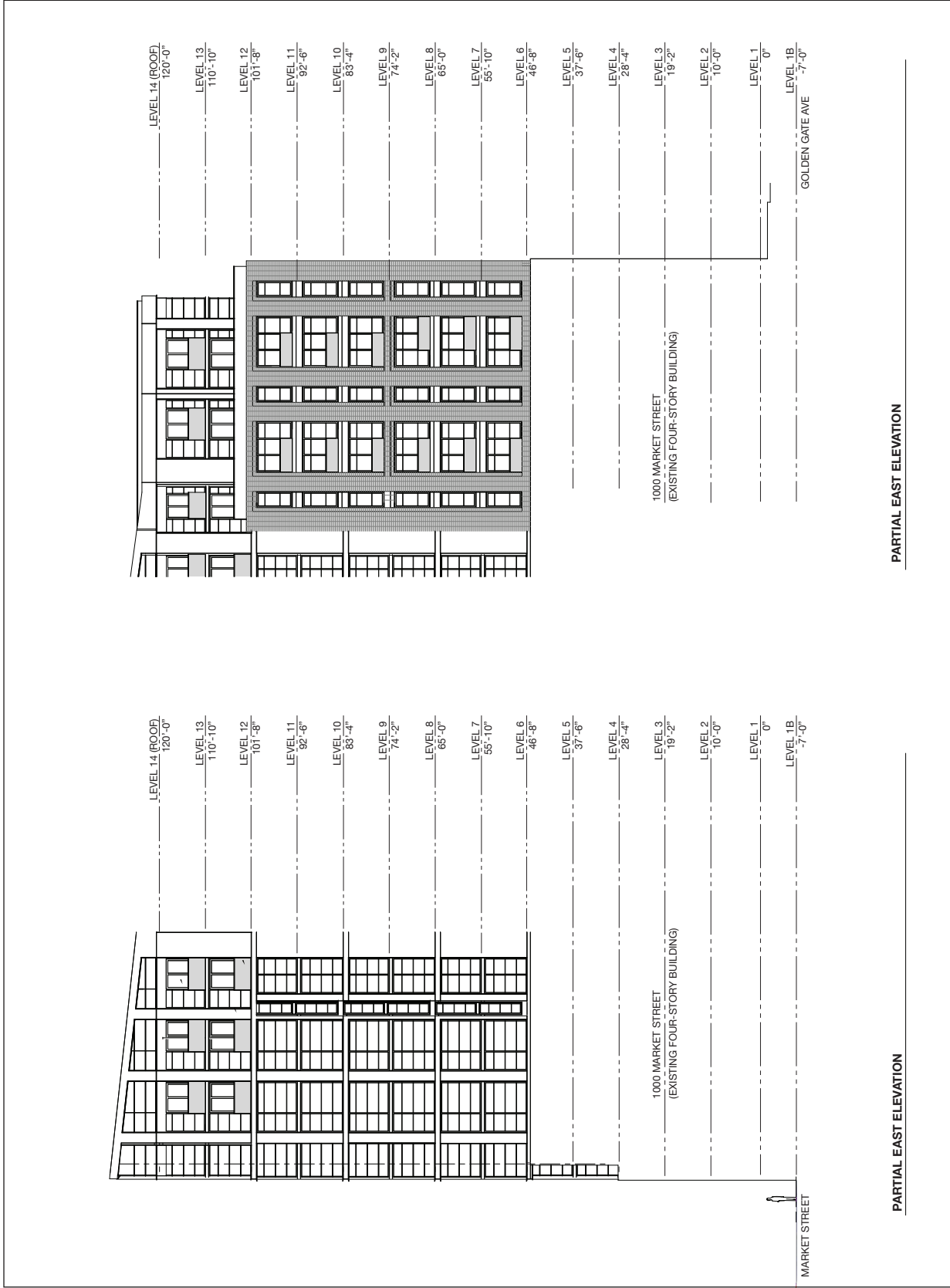


SOURCE: Solomon Cordwell Buenz

1028 MARKET STREET

2014.0241E

FIGURE 16: PROPOSED WEST ELEVATIONS



SOURCE: Solomon Cordwell Buenz

1026 MARKET STREET

2014.0241E

FIGURE 17: PROPOSED EAST ELEVATIONS



SOURCE: Solomon Cordwell Buenz

1028 MARKET STREET

2014.0241E

FIGURE 18: PERSPECTIVE VIEW FROM MARKET STREET (NORTHWEST VIEW)



SOURCE: Solomon Cordwell Buenz

1028 MARKET STREET

2014.0241E

**FIGURE 19: PERSPECTIVE VIEW FROM
MARKET STREET (NORTHEAST)**

double-height retail space at its west end, the parking garage entrance at its east end, and residential and service entrances at its center (see **Figure 20: Perspective View from Golden Gate Avenue [Southeast View]** and **Figure 21: Perspective View from Overhead**). The ground floor retail spaces would be defined with aluminum window wall assemblies and separate entries.

The proposed project would include integrated downward-pointing perimeter lighting designs along Market Street and Golden Gate Avenue to ensure nighttime safety. Exterior signage and sign illumination would be developed in accordance with the requirements set forth in the Market Street Special Sign District.

Proposed Streetscape Improvements

Improvements in the Market Street and Golden Gate Avenue public rights-of-way (e.g., the provision of new street trees or the widening of sidewalks) would be informed by Planning Code Section 138.1(c)(1), the *Better Streets Plan*, the Better Market Street Project, the Safer Market Street Project, and the *Tenderloin-Little Saigon Neighborhood Transportation Plan*. As shown on Figure 4 on p. 8, implementation of the proposed project would result in the widening of the Golden Gate Avenue sidewalk from its current 10-foot width to 16 feet. This sidewalk expansion would match that proposed for the adjacent development at 1066 Market Street and would be consistent with the SFMTA's proposed changes for this segment of Golden Gate Avenue, which includes the removal of one lane of traffic between Jones and Market streets in addition to the 6-foot sidewalk expansion.

Proposed Residential Open Space

A total of 2,503 sq. ft. of private open space for 14 of the 186 proposed residential units would be in the form of private terraces and balconies at the 4th through 12th floors (see **Figures 7-11**, pp. 12-16). The remaining 172 residential units would be served by the proposed 1,722-sq.-ft. common open space on the 2nd floor and the proposed 7,457-sq.-ft. common open space on the building's rooftop (see **Figures 5 and 12**, pp. 10 and 17). The rooftop level would be defined by a continuous rooftop common open space along its perimeter, separated by the uppermost portion of the building core that would house rooftop mechanical equipment, egress stairs, and the elevator overrun. The rooftop common open space would include two exercise areas, a sod lawn, gathering areas with built-in seating and cooking grills, and deep landscape planters.

Proposed Landscaping

The proposed building would cover the project site with impervious surfaces (buildings and paving), similar to existing conditions. As part of the project sponsor's compliance efforts related to the City's Stormwater Management Ordinance, the project sponsor would provide on-site landscaping on the 2nd floor courtyard and on the rooftop.



SOURCE: Solomon Cordwell Buenz

1028 MARKET STREET

2014.0241E

**FIGURE 20: PERSPECTIVE VIEW FROM
GOLDEN GATE AVENUE (SOUTHEAST)**



SOURCE: Solomon Cordwell Buenz

1028 MARKET STREET

2014.0241E

FIGURE 21: PERSPECTIVE VIEW FROM OVERHEAD

The project sponsor would retain the seven existing street trees on the Market Street sidewalk. According to Planning Code Section 138.1(c)(1), the project sponsor would be required to plant six new street trees along the Market Street and Golden Gate Avenue frontages. As shown on Figure 4 on p. 8, implementation of the proposed project would result in the widening of the Golden Gate Avenue sidewalk. Due to the presence of a vault under the eastern portion of the project site's Golden Gate Avenue frontage only two new street trees would be provided along the expanded portion of the Golden Gate Avenue sidewalk. All new and/or replacement trees on the Market Street and Golden Gate Avenue frontages would be planted in accordance with the standards set forth in Planning Code Section 138.1(c)(1) and the *Better Streets Plan*, the *Better Market Street Project*, the *Safer Market Street Project*, and the *Tenderloin-Little Saigon Neighborhood Transportation Plan*. If the Department of Public Works (DPW) determines that planting the full complement of required street trees would not be feasible due to site constraints or other reasons, the project sponsor may request a waiver to this requirement from the Zoning Administrator (Planning Code Section 138.1(c)(1)(C)(iii)). In this case, the project sponsor would pay an in-lieu street tree fee pursuant to Planning Code Section 428, which would be transferred to DPW.

Project Construction

Foundation and Excavation

The project site is near the underground tunnels for the BART system and Muni and construction drawings indicated that a portion of the project site is within the BART Zone of Influence (ZOI). According to the *Geotechnical Investigation* prepared for the proposed project, the proposed building would be supported by a deep foundation system consisting of a reinforced concrete mat bearing on non-displacement auger cast in place (ACIP) piles.^{9,10} For the portion of the proposed building foundation within the BART ZOI the mat would be designed as a structural slab that spans between pile caps and/or grade beams. In order to meet requirements that there be no load transfer from the proposed building to the BART and Muni tunnels, a permanent void or casing to at least 10 feet below the BART ZOI is required. The permanent void would be constructed by double-casing the ACIP piles within the BART ZOI. The proposed building's lateral resistance would be provided by the portion of the foundation outside of the BART ZOI. The below-grade construction would include reinforced and waterproofed concrete walls with water stops placed at

⁹ Langan Treadwell Rollo, *Geotechnical Investigation, 1028 Market Street, San Francisco, California*, June 2, 2014 (hereinafter "*Geotechnical Investigation*"), pp. 29 - 35. 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. 2014.0241E.

¹⁰ ACIP piles are installed by drilling to the required depth with a hollow-stem, continuous-flight auger. When the auger reaches the required depth, cement grout or concrete is injected through the bottom port of the hollow stem auger. Grout or concrete is injected continuously as the augers, still rotating in a forward direction, are slowly withdrawn, replacing the soil removed by the drilling operation. While the grout is still fluid, a steel reinforcing cage is inserted into the shaft. ACIP piles can range in diameter; however, 18- and 24-inch-diameter ACIP piles are typical.

all construction joints. The proposed project would have an estimated depth of excavation for the single basement level (including the elevator and stacker pits) of up to 23 feet below grade surface (bgs). The greatest depth of excavation would occur on the north portion of the site closest to Golden Gate Avenue where there is an existing partial basement. Up to 9,800 cubic yards of excavated soil and 630 cubic yards of demolition debris would be removed from the project site. Below-grade excavation would require temporary shoring to support the planned cuts. The recommended shoring system is a soldier pile and lagging system¹¹ with intermittent deep soil mixing (DSM) columns in combination with underpinning. Underpinning would be required along the east property line and a portion of the west property line to support adjacent structures (the five-story building at 1000 Market Street to the east and the two-story structure at 1066 Market Street to the west).¹²

Construction Phasing and Duration

The project sponsor estimates that construction of the proposed project would take approximately 20 months. Demolition would take about 3 weeks. Basement construction would take a little over 6 months with the following phases: about 7 weeks of excavation and shoring work and about 18 weeks to construct the mat and basement floor slabs and basement walls. Above-ground building construction, exterior finishing, and interior finishing would take a total of about 12 months, with some work overlap. The project sponsor estimates that the cost of construction of the proposed project would be approximately \$60 million dollars.

Required Project Approvals

The proposed project would require the approval actions listed below. These approvals may be considered in conjunction with the required environmental review, but will not be granted until the required environmental review has been completed.

Actions by the Planning Commission

- Certification of the Final EIR and adoption of CEQA Findings and adoption of a Mitigation Monitoring and Reporting Program.
- Adoption of *General Plan* Priority Policy Conformity findings.
- Approval of an application for a Planning Code Section 309 Downtown Project Authorization for the construction of a new building in a Downtown (C-3) Zoning District. The proposed project requires rear yard, wind (pedestrian comfort), and curb cut (Golden Gate Avenue) exceptions.

¹¹ Steel H-shaped soldier piles are installed in pre-drilled holes along the face of a planned cut to support timber lagging boards placed horizontally between the soldier piles during excavation. The soldier piles are braced for deep excavations with tie-back anchors that are secured in place behind the face of the planned cut.

¹² Langan Treadwell Rollo, *Geotechnical Investigation*, pp. 44 - 45.

- Approval of a conditional use authorization to allow exemption of affordable units from the calculation of Floor Area Ratio.
- Approval of a conditional use authorization to allow a residential density exceeding one unit for every 125 sq. ft. of lot area. This action will not be required if legislation for the proposed Mid-Market SUD is adopted prior to the entitlement hearing for the proposed project.

Actions by the Zoning Administrator

- Granting of a variance from the requirements related to dwelling unit exposure (Planning Code Section 140).
- Granting of a variance from the off-street loading requirements (Planning Code Section 152).
- Approval of Certificate(s) of Transfer and Notice(s) of Use of Transferable Development Rights to increase permitted FAR.

Actions by Other City Departments

- Approval of a site permit (*Planning Department and Department of Building Inspection*).
- Approval of demolition, grading, and building permits (*Planning Department and Department of Building Inspection*).
- Approval of permits for streetscape improvements in the public right-of-way, including a new curb cut on Golden Gate Avenue (*Department of Public Works*).
- Approval of a request for on-street loading zone on Golden Gate Avenue (*San Francisco Municipal Transportation Agency*).
- Approval of project compliance with the Stormwater Design Guidelines (*San Francisco Public Utilities Commission*).
- Approval of a Stormwater Control Plan (*San Francisco Public Utilities Commission*).
- Issuance of a certification of registration for a diesel backup generator (*San Francisco Department of Public Health*).
- Approval of an Enhanced Ventilation System (*San Francisco Department of Public Health*).

Actions by Other Government Agencies

- Approval of permit for installation, operation, and testing of diesel backup generator (*Bay Area Air Quality Management District*).
- Approval of proposed construction within the BART Zone of Influence (*BART*).

B. PROJECT SETTING

The project site is located at 1028 Market Street on the north side of Market Street, midblock between Taylor and Jones streets. The irregularly shaped lot is 15,077 sq. ft. and is completely developed with an approximately 37-foot-tall, 33,310-gsf, two-story commercial building with frontages on both Golden Gate Avenue and Market Street. The project site slopes from north to south (Golden Gate Avenue to Market Street) with an elevation change of approximately 7 feet.

The project site block is located along the Mid-Market corridor, which is generally defined as the area between 5th and 11th streets along Market Street. It is bounded by Golden Gate Avenue to the north, Market Street to the south, Jones Street to the west, and the beginning of Taylor Street to the east and is located along the southern edge of San Francisco's Downtown/Civic Center neighborhoods (which includes the Tenderloin neighborhood). To the north, east, south, and west of the project site are the Nob Hill neighborhoods, the Financial District, the South of Market neighborhoods, and the Western Addition neighborhoods, respectively (see **Figure 1**, p. 2). The immediate project area is characterized by a dense mix of hotel, entertainment, residential, retail, office, and institutional land uses with some structured and surface parking (see **Figure 2**, p. 3). Most residential and commercial buildings have ground floor retail uses and many were constructed in the decades immediately following the 1906 Earthquake and Fire.

In the project site vicinity Golden Gate Avenue is a one-way, eastbound-only, three-lane roadway with 10-foot-wide sidewalks and metered parking on both sides of the street including three yellow metered loading spaces on the north side of Golden Gate Avenue between Jones and Taylor streets. At the southeast corner of Jones Street and Golden Gate Avenue there is an inbound Muni bus stop (7X Noriega Express). At the northwest corner of Golden Gate Avenue and Taylor Street there is a 100-foot-long white zone on the north side of Golden Gate Avenue and a 50-foot-long white zone on the west side of Taylor Street. Market Street is a four-lane, east-west roadway with shared curbside lanes that accommodate buses, private vehicles, commercial vehicles, and bicycles and two Muni-only center lanes. The Market Street sidewalk is approximately 35 feet wide, narrowing to 26 feet at the parking bay located at the western end of the project site frontage. Taylor Street (on the north side of Market Street) is a one-way, northbound-only, three-lane roadway with 10-foot-wide sidewalks and metered parking on both sides of the street and a 50-foot-long passenger loading zone along the southwest curb in front of the Golden Gate Theatre. South of Market Street, Taylor Street becomes 6th Street, which is a four-lane, two-way roadway with 10-foot-wide sidewalks and metered parking on both sides of the street. Jones Street is a two-lane, one-way, southbound-only roadway with 15-foot-wide sidewalks and metered parking on both sides of the street.

The bus and streetcar stops closest to the project site are located on Market Street. The inbound stop for Muni's 6 Haight/Parnassus, 9 San Bruno, 9R San Bruno Rapid, 21 Hayes, and F Market and Wharves is located at the center lane transit boarding island on the west side of the Market Street/Taylor Street/6th Street intersection, and outbound stop for Muni's 6 Haight/Parnassus,

7 Haight/Noriega, 7R Haight/Noriega Rapid, 9 San Bruno, 9R San Bruno Rapid, and F Market and Wharves is located at the center lane transit boarding island on the east side of the intersection. Muni's inbound 7X Noriega Express has a stop on Golden Gate Avenue at the southeast corner of Jones Street. The closest outbound 7X Noriega Express stop is located on Turk Street, midblock between Taylor and Mason streets. In addition, there are two BART/Muni stations nearby: the Civic Center Muni/BART station, one block west of the project site at U.N. Plaza at the intersection of Charles J. Brenham Place and Market Street, and the Powell Muni/BART station, one block east at Hallidie Plaza at the intersection of Cyril Magnin and Market streets.

The project site block is zoned C-3-G (Downtown General Commercial). The blocks on both sides of Market Street between 5th and 8th streets are generally zoned C-3-G with some parcels zoned P (Public) and C-3-R (Downtown General Retail) (see **Figure 22: Existing Zoning Districts**). Blocks in the vicinity of the project site north of Golden Gate Avenue, east of Taylor Street, and west of Jones Street are predominately zoned RC-4 (Residential – Commercial High Density) with some parcels zoned C-3-G. Blocks further to the west and southwest are zoned P (Public) and contain U.N. Plaza, the Fulton Street Mall, Joseph L. Alioto Performing Arts Piazza, federal and state courthouses, and other government buildings. The project site is also located within the proposed Mid-Market Arts and Arts Education Special Use District (Mid-Market SUD) and the related Mid-Market Arts and Arts Education Special Height Districts, which is proposed to encompass all parcels fronting Market Street between 5th and 8th streets.¹³ To the north and west of the project site across Golden Gate Avenue and Jones Street is the North of Market Residential Special Use District.

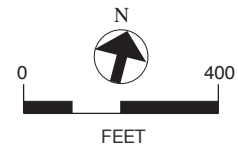
The project site is within the boundaries of the Market Street Theatre and Loft National Register District (MSTL District). Buildings within the MSTL District were constructed principally between 1900 and 1926. The MSTL District contains a collection of motion picture theaters, loft and office buildings, and small commercial buildings on both sides of Market Street with two grand intersections at Taylor Street/Golden Gate Avenue/Market Street/6th Street and Jones Street/McAllister Street/Market Street. Contributing buildings occupy their full lots and rise continuously straight up from the sidewalk, usually for two to eight stories with two- or three-part vertical compositions with flat roofs behind parapets, façade ornamentation, and prominent cornices. The Uptown Tenderloin National Register Historic District (Uptown Tenderloin District) is to the north and west across Golden Gate Avenue and Jones Street, respectively, and is characterized by a variety of multiple-story commercial, residential, hotel, and institutional buildings dating from 1906 to the 1930s. The Civic Center National Register Historic District is located to the west of the project site and is generally defined by the many

¹³ The related Mid-Market Arts and Arts Education Special Height District is proposed to encompass a subset of the parcels identified as part of the proposed Mid-Market SUD.



SOURCE: San Francisco Planning Department; Turnstone Consulting/SWCA, 2015

- C-3-G** DOWNTOWN-GENERAL
- C-3-R** DOWNTOWN RETAIL
- C-3-S** DOWNTOWN SUPPORT
- MUG** MIXED USE-GENERAL DISTRICT
- MUO** MIXED USE-OFFICE DISTRICT
- P** PUBLIC
- RC-4** RESIDENTIAL-COMMERCIAL, HIGH DENSITY
- RED** SOUTH OF MARKET RESIDENTIAL ENCLAVE
- RED-MX** RESIDENTIAL ENCLAVE-MIXED DISTRICT
- RSD** SOMA RESIDENTIAL-SERVICE
- RSD/SLR** SOMA RESIDENTIAL-SERVICE/SERVICE-LIGHT INDUSTRIAL
- WMUG** WSOMA MIXED-USE GENERAL DISTRICT
- PROJECT SITE



1028 MARKET STREET

2014.0241E

FIGURE 22: EXISTING ZONING DISTRICTS

institutional and civic buildings located along its central spine – U.N. Plaza, the Fulton Street Mall, and the Joseph L. Alioto Performing Arts Piazza.

The existing two-story commercial building on the project site was constructed in 1907 and is considered a contributing historic resource within the MSTL District. The four-story, 52-foot-tall San Christina Building (1000 Market Street), a contributing historic resource constructed in 1913, is adjacent to and east of the project site. The San Christina Building has three ground floor commercial spaces along Market Street with three residential/residential support floors above. Immediately adjacent to and west of the project site is a vacant two-story commercial building built in 1966, and a surface parking lot with access via Golden Gate Avenue. The vacant two-story commercial building and surface parking lot (1066 Market Street) are proposed for redevelopment with a 120-foot-tall, mixed-use residential building. The three-story commercial building at 1072-1098 Market Street/20 Jones Street to the west of the project site (at the northeast corner of Jones, McAllister, and Market streets) is a contributing historic resource constructed in 1911. The building contains seven ground floor commercial spaces along Market and Jones streets, offices on the second floor, and a mosque on the third floor (Masjid Darussalam Mosque). The project vicinity contains many architecturally notable buildings, including a number of loft and theater buildings. Prominent nearby structures include the Warfield Theatre (982 Market Street) and the Golden Gate Theatre (1 Taylor Street) to the north and northeast; the Hibernia Bank Building (1 Jones Street) and Renoir Hotel (1100 Market Street) to the west; and the Imperial Theatre (1077 Market Street), the Eastern Outfitting Building (1019 Market Street), and the Ede Building (1061 Market Street) on the south side of Market Street.

Buildings on the project site block range from two to four stories and are below the established height and bulk limits for the project site block, which is within a 120-X Height and Bulk District (see **Figure 23: Existing Height and Bulk Districts**). The block to the north of the project site across Golden Gate Avenue includes a 120-X Height and Bulk District and an 80-T-120-T Height and Bulk District between Taylor and Jones streets. The 120-X Height and Bulk District extends along the north side of Golden Gate Avenue (except for one parcel within the 80-T-120-T Height and Bulk District, which extends along the south side of Turk Street). Blocks to the east (east of Taylor Street) and west (west of Jones Street) are within 120-X and 80-T-120-T Height and Bulk Districts. Blocks to the south of the project site (across Market Street) are generally within 120-X and 90-X Height and Bulk Districts. Buildings along the south side of Market Street between 6th and 7th streets range from two to seven stories. There are four high-rise buildings within two blocks of the project site: the 15-story 995 Market Street building at the northeast corner of Market and 6th streets, the 18-story San Francisco Federal Building at the southwest corner of Stevenson and 7th streets, the 13-story 54 McAllister Street building at the intersection of McAllister Street and Charles J. Brenham Place, and the 28-story McAllister Tower Apartments at the northwest corner of McAllister and Leavenworth streets. Eastward down Market Street, towards the Financial District, development intensifies, with more mid- and high-rise hotel, retail, and commercial buildings.



SOURCE: San Francisco Planning Department; Turnstone Consulting/SWCA, 2015

HEIGHT AND BULK DISTRICTS

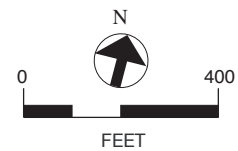
OS ← “Open Space” District

“Numbers” are Height Limits in feet. See Planning Code Section 250 and following.

“Letters” refer to Bulk Limits. See Planning Code Section 270.

00-Z-1 ← “Suffix Numbers” identify districts in which special regulations apply. See Planning Code Sections 263 and following.

 PROJECT SITE



1028 MARKET STREET

2014.0241E

FIGURE 23: EXISTING HEIGHT AND BULK DISTRICTS

Cumulative Setting

Past, present and reasonably foreseeable cumulative development projects within a ¼-mile radius of the project site are listed below in **Table 2: Cumulative Projects in the Project Vicinity**.

These cumulative projects are either under construction or the subject of an Environmental Evaluation Application on file with the Planning Department. Recently completed projects in the vicinity included the St. Anthony Foundation's Vera Haile Housing at 121 Golden Gate Avenue, the renovation of the Strand Theater at 1127 Market Street, and the development of several high-rise, mixed-use residential buildings in the South of Market area along 9th, 10th, and Mission streets.

In addition to the cumulative projects identified below the following area plans and transportation infrastructure plans are also considered part of the cumulative setting:

- **Central SoMa Plan:** The Central SoMa Plan (formerly the Central Corridor Plan) establishes a land use and transportation planning framework for the Central SoMa/Yerba Buena areas. The plan area encompasses a 28-block rectangle bounded by Market Street on the north, Townsend Street on the south, 2nd Street on the east, and 6th Street on the west.
- **Better Market Street Plan (BMSP):** The project (which is underway) 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 BMSP is to redesign, revitalize and reestablish Market Street as San Francisco's main thoroughfare and its cultural, civic, and economic center. As a coordinated multi-City agency effort, the BMSP would include transportation and streetscape improvements, including changes to roadway configuration and private vehicle access; traffic signals; surface transit, such as 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 BMSP area encompasses Market Street from Octavia Boulevard to The Embarcadero and potentially Mission Street between Valencia Street and The Embarcadero. The BMSP includes three Alternatives, with two design options.
- **Safer Market Street (SMSP):** The project (which is underway) is part of a coordinated multi-City agency effort to achieve Vision Zero, San Francisco's policy commitment to work towards eliminating all traffic-related fatalities by 2024. The SMSP aims to further Vision Zero efforts with the extension of transit-only lanes, introduction of turn restrictions for private automobiles between 3rd and 8th Streets at Market Street and supplemental safety treatments.

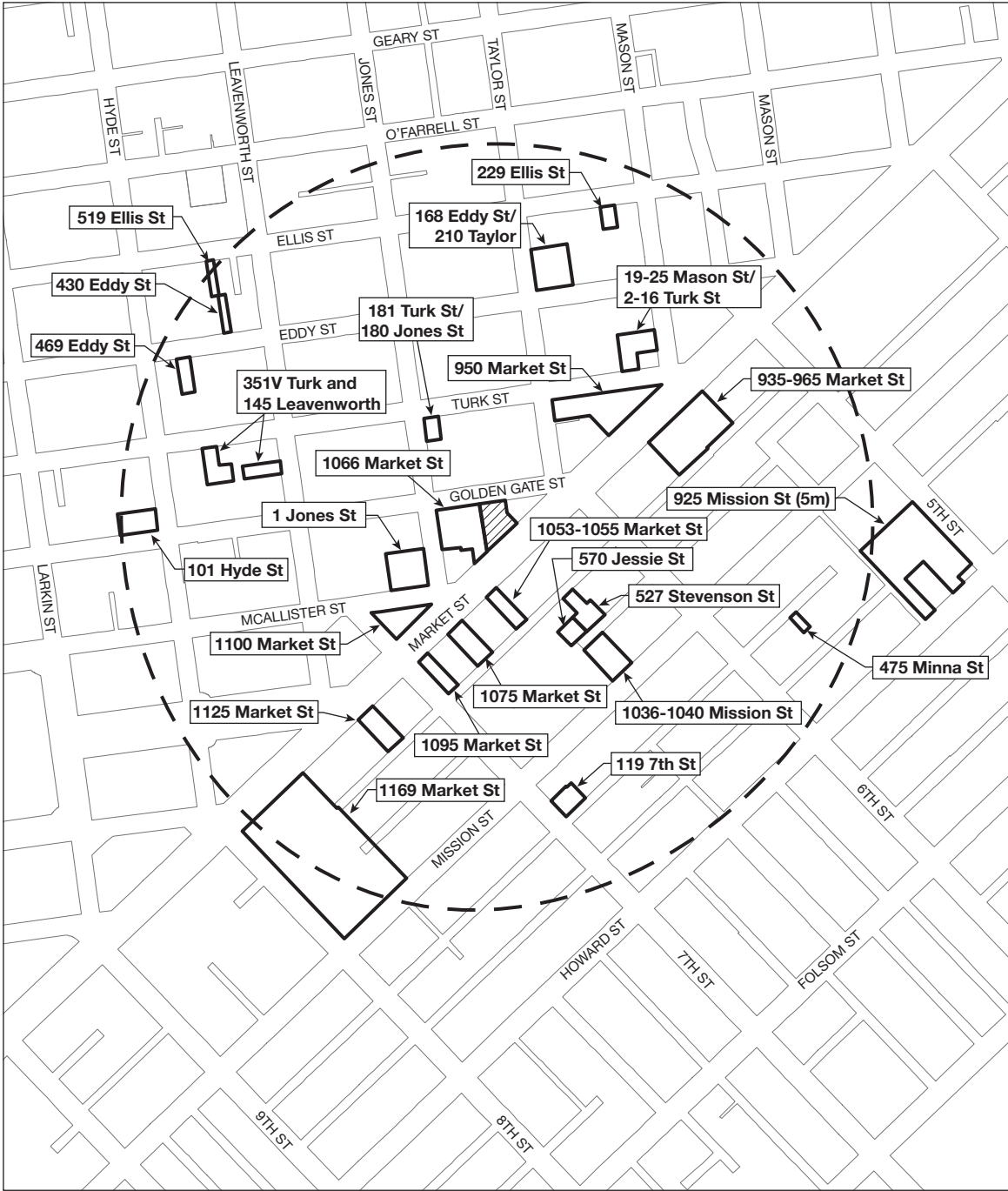
Refer to **Figure 24: Cumulative Projects** for the locations of the listed projects.

Table 2: Cumulative Projects in the Project Vicinity




Address	Case File No.	Dwelling Units	Hotel Rooms	Retail (gsf)	Commercial (gsf)	Non-Profit Arts (gsf)
1169 Market Street (Trinity Place) ^a	2002.1179E	1,900	--	60,000	--	--
475 Minna Street	2014.1422 ENV	15	--	--	--	--
469 Eddy Street	2014.0562E	29	--	2600	--	--
430 Eddy Street	2014.0400E	22	--	797	--	--
519 Ellis Street	2014.0506E	28	--	2541	--	--
1053-1055 Market Street	2014.0408E	--	155	4,000	--	--
1066 Market Street	2013.1753E	330	--	4,590	--	--
1075 Market Street	2013.1690E	90	--	9000	--	--
1095 Market Street (Grant Building) ^b	2014-000803PRJ	--	202	3,992	--	--
950 Market Street	2013.1049E	316	310	15,000	24,000	75,000
1125 Market Street	2013.0511E	--	160	5,562	19,156	--
351V Turk Street / 145 Leavenworth Street	2012.1531E	234	--	--	--	--
19-25 Mason Street / 2-16 Turk Street	2012.0678E	155	--	2,828	--	--
119 7 th Street	2012.0673E	39	--	1,974	--	--
101 Hyde Street	2012.0086E	85	--	4,780	--	--
925 Mission Street (5M)	2011.0409E	702	--	96,600	812,500	
1100 Market Street (Renoir Hotel) ^b	2012.1123E	--	--	--	--	--
1 Jones Street (Hibernia Bank Building) ^b	2011.0167E	--	--	--	--	--
527 Stevenson Street	2010.0948XV	67	--	210	--	--
229 Ellis Street	2009.0343E	18	--	5,704	--	--
168 Eddy Street / 210 Taylor Street	2007.1342	103	--	5,297	--	--
935-965 Market Street (Market Street Place) ^a	2005.1074E	--	--	--	264,010	--
570 Jessie Street	2005.1018E	47	--	--	--	--
181 Turk Street / 180 Jones Street	2005.0267E	32	--	--	--	--
1036-1040 Mission Street	2007.1464E	83	--	1,250	--	--
Totals		4,295	827	490,445	856,016	75,000

Notes:^a Under construction.^b Under renovation.

Source: San Francisco Planning Department Property Information Database and Active Permits in My Neighborhood Map. Available online at <http://propertymap.sfplanning.org/?dept=planning> and <http://www.sf-planning.org/index.aspx?page=2575>. Accessed June 16, 2015.



SOURCE: SWCA/Turnstone Consulting and San Francisco Planning Department
Property Information Database

-  Project Site
-  .25-Mile Buffer
-  Cumulative Projects



1028 MARKET STREET

2014.0241E

FIGURE 24: CUMULATIVE PROJECTS

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"/>

San Francisco Planning Code and Zoning Maps

The Planning Code 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 Uses

As shown on **Figure 22**, p. 35, the project site is in the C-3-G District. As stated in Planning Code Section 210.2, 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.” Within the C-3-G District, retail sales and service uses (including eating and drinking uses) on the ground floor and residential uses above ground floor, as proposed by the project, are principally permitted.

The project site is in the area covered by the proposed Mid-Market SUD. The Planning Department, in collaboration with the Office of Economic and Workforce Development, has proposed a Mid-Market SUD to encourage arts uses and achieve other land use objectives along the Mid-Market corridor. The Mid-Market SUD proposes to eliminate density limits for residential uses and provide height and FAR exemptions for arts uses (i.e., floor area devoted to arts uses would be exempt from the calculation of FAR, and buildings containing substantial amounts of space devoted to arts uses would be permitted up to a height of 180 feet, instead of the current height limit of 120 feet, without a zoning map amendment). No timetable has been set for adoption of the proposed Mid-Market SUD, and the proposed project is not dependent on its adoption.

Height and Bulk

As shown on **Figure 23**, p. 37, the project site is in a 120-X Height and Bulk District, which permits a maximum building height of 120 feet. The proposed project would be 120 feet tall with a 20-foot-tall enclosed mechanical penthouse extending above the roof parapet. Although this additional feature would extend above 120 feet, this feature is exempt per Planning Code Section 260(b). Bulk controls reduce the size of a building's floorplates as the building increases in height. Pursuant to Planning Code Section 270(a), there are no bulk controls in an "X" Bulk District. Thus, the proposed project would comply with the height and bulk controls.

Floor Area Ratio

The base FAR allowed for the project site is 6:1, which can be increased to 9:1 through the purchase of TDRs. Thus, the base FAR would allow for the development of a 90,462-gsf building and a maximum FAR would allow for the development of a 135,693-gsf building. With the purchase of TDRs, exceptions to FAR allowed under Planning Code Section 102.9, and discounts to FAR for the provision of on-site affordable housing, the proposed project would have a gross floor area of approximately 128,161 gsf, resulting in a FAR of approximately 8.5:1, approximately 37,700 gsf above the base FAR limit but within the allowable maximum FAR of 135,693 gsf.

Exceptions to Section 309 Review

The proposed project would seek a Downtown Project Authorization (Planning Code Section 309), including exceptions for provision of a rear yard (Planning Code Section 134), ground-level wind currents (Planning Code Section 148), and development of a curb cut on Golden Gate Avenue (Planning Code Section 155).

Planning Code Section 134 requires that any building containing a dwelling unit in a Downtown Commercial District must provide a rear yard equal to 25 percent of the total lot depth at all residential levels. The proposed project does not provide a rear yard that complies with this Planning Code requirement; therefore, it requires a rear yard exception under Planning Code Section 309. A Section 309 exception may be granted so long as the "building location and configuration assure adequate light and air to windows within the residential units and to the usable open space provided."¹⁴

Planning Code Section 148 requires that new construction in Downtown Commercial Districts not cause ground-level wind currents that exceed pedestrian comfort levels. This standard requires that wind speeds not exceed 11 miles per hour (mph) in areas of substantial pedestrian use for more than 10 percent of the time year round, between 7:00 AM and 6:00 PM. The

¹⁴ Planning Code Section 134(d) and 309(a)(1).

requirements of Planning Code Section 148 apply either when preexisting ambient wind speeds at a site exceed the comfort level and would not be eliminated as a result of the project, or when the project may result in wind conditions exceeding the comfort criterion. Exceptions from the comfort criterion may be granted through the Section 309 process, but no exception may be granted where a project would cause wind speeds at the site that would reach or exceed the hazard level of 26 mph for a single hour of the year. Under existing conditions at the project site 11 of the 38 street-grade test-point locations exceed the Planning Code's comfort criterion. A Section 309 exception is being sought because with the proposed project 15 of the 38 street-grade test-point locations were found to meet or exceed the Planning Code's comfort criterion.¹⁵ Refer to **Section E.8, Wind and Shadow**, for further information about the analysis.

Planning Code Section 155(r)(4) is intended to preserve the pedestrian character of certain downtown and neighborhood commercial districts and to minimize delays to transit service. In C-3 Districts along street frontages identified as Transit Preferential, City Pedestrian Network or Neighborhood Commercial Streets vehicular access to off-street parking or loading (except for the creation of new publicly accessible streets and alleys) is not permitted. The project proposes vehicular access to off-street parking along Golden Gate Avenue, which is a Neighborhood Commercial Street. Since Market Street cannot function as an alternative frontage for vehicular access, a Section 309 exception may be granted so long as the project clearly demonstrates that the final design of the parking access minimizes negative impacts to transit movement and to the safety of pedestrians and bicyclists to the fullest extent feasible.

Variances

Planning Code Section 140 requires at least one room within every dwelling unit to face directly onto an open area that is either (1) a public street or alley that is at least 25 feet in width, or a side yard or rear yard that meets the requirements of the Planning Code, or (2) an open area that is unobstructed and is no less than 25 feet in every horizontal dimension for the floor at which the dwelling unit in question is located and at the floor immediately above it, with an increase of five feet in every horizontal dimension at each subsequent floor. The proposed dwelling units that face onto Golden Gate Avenue and Market Street as well as those on the east elevation (5th floor and above) comply with this requirement; however, five dwelling units per floor on the 2nd through 5th floors that face the interior courtyard would not comply with this requirement. A variance from Planning Code Section 140 is being sought as part of the proposed project.

¹⁵ Rowan Williams Davies & Irwin, Inc. (RWDI), *1028 Market Street Pedestrian Wind Conditions Consultation Wind Tunnel Tests*, Appendix A, Table 1, October 14, 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. 2014.0241E.

Plans and Policies

San Francisco General Plan

The *San Francisco General Plan (General Plan)* establishes objectives and policies to guide land use decisions related to the physical development of San Francisco. It is comprised of ten elements, each of which addresses 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.

Two *General Plan* elements that are particularly applicable to planning considerations associated with the proposed project are the Housing and Urban Design elements. These elements are discussed in detail below. Other elements of the *General Plan* that are applicable to technical aspects of the proposed project include the Air Quality, Community Facilities, Community Safety, Housing, Recreation and Open Space, and Transportation elements. The proposed project's consistency with the individual policies contained in these more technical elements is discussed in the appropriate topical sections of this document or the EIR.

Objectives of the *General Plan's* Urban Design Element that are applicable to the proposed project include emphasizing the characteristic pattern which gives the City and its neighborhoods an image, a sense of purpose, and a means of orientation; conserving resources which provide a sense of nature, continuity with the past, and freedom from overcrowding; and moderating major new development to complement the City pattern, the resources to be conserved, and the neighborhood environment.

The proposed project would include the demolition of the existing building at 1028 Market Street, which is considered a historic architectural resource as a contributor to the MSTL District. For this reason, the proposed project would conflict with Policy 2.4 of the Urban Design Element, which calls for the preservation of notable landmarks and areas of historic, architectural, or aesthetic value. The physical environmental impacts that could result from this conflict will be discussed in the EIR (**Section 4.A, Cultural Resources**).

The Housing Element Update was originally adopted by the Planning Commission in March 2011 and certified by the California Department of Housing and Community Development (HCD) in July 2011.¹⁶ The key objective of the Housing Element is to promote the development of new housing in San Francisco and the retention of existing housing in a way that is protective of neighborhood identity, sustainable, and is served by adequate community infrastructure. A particular focus of the Housing Element is on the creation and retention of affordable housing,

¹⁶ Pursuant to a court order, the 2011 certification was set aside and a partially Revised Environmental Impact Report (Revised EIR) for the 2004 and 2009 Housing Element was later certified by the Planning Commission on April 24, 2014. No changes were made to the objectives or policies contained within the Housing Element as a result of this action.

which reflects intense demand for such housing, a growing economy (which itself puts increasing pressure on the existing housing stock), and a constrained supply of land (necessitating infill development and increased density). In general, the Housing Element supports projects that increase the City's housing supply (both market-rate and affordable housing), especially in areas that are close to the City's job centers and are well-served by transit. The proposed project, which is a mixed-use residential project with up to 186 residential units, would not obviously conflict with any objectives or policies in the Housing Element.

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 *Downtown Area Plan (Downtown Plan)*, which is centered on Market Street and covers an area roughly bounded by Washington Street to the north, The Embarcadero to the east, Folsom Street to the south, and Van Ness Avenue to the west. The *Downtown Plan* was designed to promote development in Downtown that sustains the neighborhood as a commercial, employment, and visitor center while protecting the area's existing housing stock. It places particular emphasis on reducing the use of private vehicles in favor of enhancing travel by bicycle, foot, and public transit. The *Downtown Plan* also promotes the development of different kinds of open space throughout Downtown, including a series of linked spaces around the high-density Downtown core. One of the fundamental concepts of the *Downtown Plan* is the expansion of the City's downtown office core south from its traditional center north of Market Street.

The proposed project would not obviously conflict with most of the objectives or policies in the *Downtown Plan*, with two exceptions. The proposed demolition of the existing building at 1028 Market Street would conflict with the following policies of the *Downtown Plan*:

- Policy 12.1: Preserve notable landmarks and areas of historic, architectural, or aesthetic value, and promote the preservation of other buildings and features that provide continuity with past development.
- Policy 12.3: Design new buildings to respect the character of older development nearby.

The physical environmental impacts that could result from this conflict will be discussed in the EIR (**Section 4.A, Cultural Resources**).

A conflict between a proposed project and a *General Plan* policy does not, in itself, indicate a significant effect on the environment within the context of the California Environmental Quality Act (CEQA). Any physical environmental impacts that could result from such conflicts are analyzed in this Initial Study. In general, potential conflicts with the *General Plan* are considered by the decisions-makers (typically the Planning Commission) independently of the environmental review process. Thus, in addition to considering inconsistencies that affect environmental issues, the Planning Commission considers other potential inconsistencies with the *General Plan*, independently of the environmental review process, as part of the decision to approve or disapprove a proposed project. Any potential conflict not identified in this environmental

document would be considered in that context and would not alter the physical environmental effects of the proposed project that are analyzed in this Initial Study.

Except for the conflicts related to the demolition of the building on the project site, which is considered a historic architectural resource as a contributor to the MSTL District, the proposed project would not obviously or substantially conflict with any goals, policies, or objectives of the *General Plan*, including those of the *Downtown Plan*. The compatibility of the proposed project with *General Plan* goals, policies, and objectives that do not relate to physical environmental issues will be considered by decision-makers as part of their decision whether to approve or disapprove the proposed project. Any potential conflicts identified as part of the process would not alter the physical environmental effects of the proposed project.

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, and the relevant subsections of Section E of this Initial Study addressing the environmental issues associated with the policies are (1) preservation and enhancement of neighborhood-serving retail uses 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 (Topic E.1(c) in **Section E.1, Land Use and Land Use Planning**); (3) preservation and enhancement of affordable housing (Topic E.2(b) in **Section E.2, Population and Housing**, with regard to housing supply and displacement issues); (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 (Topics E.13(a-d) in **Section E.13, Geology and Soils**); (7) preservation of landmarks and historic buildings (Topic E.3(a) in **Section E.3, Cultural Resources**); and (8) protection of parks and open space and their access to sunlight and vistas (Topics E.8(a) and (b) in **Section E.8, Wind and Shadow**, and Topics E.9(a) and (c) in **Section E.9, Recreation**).

The proposed demolition of the existing building at 1028 Market Street would conflict with Priority Policy No. 7. The physical environmental effects that could result from this conflict will be discussed in the EIR (**Section 4.A, Cultural Resources**).

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. As noted above, the proposed project's potential to conflict with the Priority Policies is discussed in **Section E**,

Evaluation of Environmental Effects, of this Initial Study, which provides information for use in the case report for the proposed project. The case report and approval motions prepared for the decision-makers would include the Planning Department's comprehensive project analysis and findings regarding the consistency of the proposed project with the Priority Policies.

In addition, the proposed project would comply with the City's Residential Inclusionary Affordable Housing Program requirements (Planning Code Section 415, et seq.), either by including a minimum of 22 BMR units on site, by constructing a minimum of 37 BMR units off site and within a mile of the project site, or by making an in-lieu payment.

Other Local Plans and Policies

In addition to the Planning Code and Zoning Maps, the *General Plan*, and the Accountable Planning Initiative, other local plans and policies that are relevant to the proposed project are discussed below.

- The *San Francisco Sustainability Plan* is a blueprint for achieving long-term environmental sustainability by addressing specific environmental issues including, but not limited to, air quality, climate change, energy, ozone depletion, and transportation. The goal of the *San Francisco Sustainability Plan* is to enable the people of San Francisco to meet their present needs without sacrificing the ability of future generations to meet their own needs.
- The *Climate Action Plan for San Francisco: Local Actions to Reduce Greenhouse Emissions* is a local action plan that examines the causes of global climate change and the human activities that contribute to global warming, provides projections of climate change impacts on California and San Francisco based on recent scientific reports, presents estimates of San Francisco's baseline greenhouse gas (GHG) emissions inventory and reduction targets, and describes recommended actions for reducing the City's GHG emissions.
- The *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 Safer Market Street Project is a plan that will help achieve Vision Zero, San Francisco's policy commitment to work towards eliminating all traffic-related fatalities. The Safer Market Street Project aims to help achieve Vision Zero with the extension of transit-only lanes, turn restrictions and supplemental safety treatments.
- The *Tenderloin-Little Saigon Neighborhood Transportation Plan* is a community-based transportation plan designed to prioritize community transportation needs and develop near and mid-term improvements in the Tenderloin and Little Saigon neighborhoods.

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

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*, which includes the region's Sustainable Communities Strategy, was prepared by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC). *Plan Bay Area* is a long-range integrated 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 and will be updated every four years.
- *Plan Bay Area* includes the population and employment forecasts from ABAG's *Projections 2013*, which is an advisory policy document used to assist in the development of local and regional plans and policy documents, and MTC's *2040 Regional Transportation Plan*, which is a policy document that outlines transportation projects for highway, transit, rail, and related uses through 2040 for the nine Bay Area counties.
- The *Regional Housing Needs Plan for the San Francisco Bay Area: 2014–2022* reflects projected future population growth in the Bay Area region as determined by ABAG and addresses housing needs across income levels for each jurisdiction in California. All of the Bay Area's 101 cities and nine counties are given a share of the Bay Area's total regional housing need. The Bay Area's regional housing need is allocated to each jurisdiction by the HCD and finalized through negotiations with ABAG.

- The Bay Area Air Quality Management District’s (BAAQMD) *Bay Area 2010 Clean Air Plan* updates the Bay Area 2005 Ozone Strategy, in accordance with the requirements of the California Clean Air Act (CCAA), to implement feasible measures to reduce ozone and provide a control strategy to reduce ozone, particulate matter (PM), air toxics, and greenhouse gas emissions throughout the region.
- The Regional Water Quality Control Board’s (RWQCB’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, due to the size and nature of the proposed project, it would not obviously or substantially conflict with any environmental plan or policy adopted for the purpose of avoiding an environmental effect.

Required Project Approvals

A list of required project approvals is provided in Section A, Project Description, pp. 31-32.

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 checked="" type="checkbox"/> Air Quality | <input type="checkbox"/> Biological Resources |
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Geology and Soils |
| <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Wind and Shadow | <input type="checkbox"/> Hydrology and Water Quality |
| <input checked="" type="checkbox"/> Cultural 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 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, 2014.¹⁷ Among other provisions, SB 743 amended CEQA by adding Public

¹⁷ Senate Bill 743 is available online at http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB743. Accessed July 22, 2015.

Resources Code Section 21099 regarding the analysis of aesthetics and parking impacts for certain urban infill projects in transit priority areas.¹⁸

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.” 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:

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

The proposed project meets each of the above three criteria and thus, this Initial Study does not consider aesthetics and the adequacy of parking in determining the significance of project impacts under CEQA.¹⁹

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 section of an Initial Study or EIR (such as project renderings) is included in the 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.

¹⁸ A “transit priority area” is defined as an area within one-half mile of an existing or planned major transit stop. A “major transit stop” is defined in California Public Resources Code Section 21064.3 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. A map of San Francisco Transit Priority Areas can be found online at <http://sfmea.sfplanning.org/Map%20of%20San%20Francisco%20Transit%20Priority%20Areas.pdf>. Accessed July 22, 2015.

¹⁹ San Francisco Planning Department, *Transit-Oriented Infill Project Eligibility Checklist, Case No. 2014.0241E, 1028 Market Street*, June 2, 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. 2014.0241E.

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 on-site 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 1028 Market 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 are:

- Cultural Resources (historic architectural resources only), and
- Transportation and Circulation (all topics).

These environmental topics will be evaluated in an EIR prepared for the proposed project.

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 (all topics),
- Population and Housing (all topics),
- Cultural Resources (archeological resources, human remains, tribal cultural resources),
- Noise (all topics),
- Air Quality (all topics),
- Greenhouse Gas Emissions (all topics),
- Wind and Shadow (all topics),
- Recreation (all topics),
- Utilities and Service Systems (all topics),
- Public Services (all topics),
- Biological Resources (all topics),
- Geology and Soils (all topics),
- Hydrology and Water Quality (all topics),
- Hazards and Hazardous Materials (all topics),

- Mineral and Energy Resources (all topics), and
- Agricultural and Forest Resources (all topics).

These items are discussed with mitigation measures, where appropriate, in Section E of this Initial Study, and require no environmental analysis in the EIR. All mitigation measures identified, including those for archaeological resources, construction noise, and air quality, are listed in **Section F, Mitigation Measures and Improvement Measures**; have been agreed to by the project sponsor; and will be incorporated into the proposed project. For items designated “Not Applicable” or “No Impact,” the conclusions regarding potential significant environmental effects are based upon field observations, staff and consultant experience and expertise on similar projects, and/or standard reference materials available within the San Francisco Planning Department, such as the California Natural Diversity Database and maps published by the California Department of Fish and Wildlife, the California Division of Mines and Geology Mineral Resource Zone designations, and the California Department of Conservation’s Farmland Mapping and Monitoring Program. For each checklist item, the evaluation has considered both individual and cumulative impacts of the proposed project.

E. EVALUATION OF ENVIRONMENTAL EFFECTS

<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 division of an established community would typically involve the construction of a physical barrier to neighborhood access, such as a new freeway, or the removal of a means of access, such as a bridge or a roadway. The proposed project would entail demolition of the existing two-story commercial building on the project site and construction of a 13-story, 120-foot-tall mixed-use building with residences above ground floor retail/restaurant uses. The proposed project would be incorporated into the existing street configuration within the extent of existing city lots; it would not alter the established street grid, and it would not permanently close any streets or

impede pedestrian or other travel through the neighborhood. Although portions of the sidewalks adjacent to the project site would likely be closed for periods of time during project construction, these closures would be temporary in nature and sidewalk access would be restored. The proposed project would neither construct a physical barrier to neighborhood access nor remove an existing means of access; thus, it would not physically divide the established community.

The established community surrounding the project site includes a mix of hotel, entertainment, institutional, office, parking, residential, and retail uses. The existing building – previously occupied by theater, retail, and restaurant uses – has been vacant since 2008, but was recently renovated for use as a temporary food pavilion. The proposed project would intensify the use of the site but would not alter the general land use pattern of the immediate area, which already includes buildings with commercial uses on the ground floor and residential uses above. The proposed project would not introduce any new land uses, such as industrial uses, that would either create potential conflicts through incompatible uses or result in disruptions to the community’s established land use patterns.

For these reasons, the proposed project would not physically divide an established community. This impact would be less than significant, and no mitigation measures are necessary. This topic will not be discussed in the EIR.

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

Land use impacts are also considered to be significant if the proposed project would conflict with any plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Environmental plans and policies are those, like the BAAQMD’s *2010 Clean Air Plan*, which directly address environmental issues and/or contain targets or standards that must be met in order to preserve or improve characteristics of the City’s physical environment.

The *General Plan* contains objectives and policies that guide land use decisions, as well as some objectives and policies that relate to physical environmental issues. As identified in **Section C, Compatibility with Existing Zoning and Plans**, pp. 44-47, demolition of the existing building would conflict with policies identified in the *General Plan*, the *Downtown Plan*, and The Accountable Planning Initiative. The physical environmental impacts that could result from these identified conflicts will be discussed in the EIR (**Section 4.A, Cultural Resources**). As further discussed on pp. 47-49, conflicts with objectives and policies of local and/or regional transportation and circulation plans and programs have not been identified. Any potential conflicts with transportation plans, policies, or regulations that could result in physical environmental effects will be discussed in the EIR (**Section 4.B, Transportation and Circulation**).

To the extent that the proposed project conflicts with any *General Plan* objectives and policies that do not relate to physical environmental issues, those conflicts would be considered by the decision-makers as part of their decision to approve or disapprove the proposed project.

As designed, the proposed project would not comply with Planning Code requirements related to rear yard depth (Section 134), ground-level wind currents (Section 148), and off-street parking (Section 155(r)(4)). The proposed project would comply with the off-street freight loading requirement (Section 152.1) through the allowed substitution of two service vehicle spaces (Section 153(a)(6)). As discussed in **Section C, Compatibility with Existing Zoning and Plans**, pp. 42-43, these conflicts would be addressed through the proposed project's entitlement process, including required variances and exceptions from Planning Code requirements. Zoning regulations, including those discussed above on pp. 41-43, are adopted for the purposes of regulating development, not specifically to avoid or mitigate an environmental effect.

The proposed project would not obviously or substantially conflict with applicable plans, policies, and regulations such that an adverse physical change would result. In addition, the proposed project would not obviously or substantially conflict with any such adopted environmental plan or policy.

For the reasons discussed above, the proposed project would not conflict with any plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. There would be a less-than-significant impact, and no mitigation measures are necessary. This topic will not be discussed in the EIR.

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

The proposed project would introduce residential, retail, and parking uses to the project site, land uses that already exist in the immediate project vicinity. The proposed residential use would be compatible with the existing residential uses in the project vicinity, which include multi-family residential buildings at 48 Golden Gate Avenue (70 feet north), 39 Taylor Street (280 feet northeast), 153 Turk Street (219 feet north), 161 Turk Street (252 feet north), and 111 Jones Street (243 feet northwest); single-room occupancy residential hotels at 39 Jones Street (229 feet west) and 20 6th Street (252 feet southeast); and senior housing at 121 Golden Gate Avenue (229 feet west). The proposed ground floor retail use would be compatible with the existing retail uses in the project vicinity, though in a number of cases existing ground floor retail space is currently unoccupied. Introducing residential and retail uses to the project site, uses that are encouraged in the C-3-G District, would not be out of character with the existing land use character of the immediate project vicinity.

Implementation of the proposed project would represent a change in the scale and architectural character of the site. The existing two-story commercial building (approximately 37 feet in height) would be eliminated and replaced by a 13-story, 120-foot-tall tower. The existing scale

and architectural character of the area is particularly diverse and is represented by preserved historic buildings and modern renovations alike. The immediate project area is characterized by a mix of low-rise and mid-rise buildings with hotel, residential, retail, office, entertainment, parking, and institutional uses as well as lots used for surface parking. The area's buildings range in height from two to seven stories. Travelling further east along the Market Street corridor, high-rise commercial towers become increasingly common. Other high-rise developments are scattered throughout the project vicinity, including the 15-story 995 Market Street building, the 18-story San Francisco Federal Building, the 13-story 54 McAllister Street building, and the 28-story McAllister Tower Apartments.

As discussed in **Section A, Project Description**, p. 19, the proposed building would include one main volume, a 13-story building core (120 feet tall plus a 20-foot-tall rooftop mechanical penthouse) that would cover the entire lot. As discussed in **Section C, Compatibility with Existing Zoning and Plans**, p. 42, the proposed building would comply with the height and bulk limits in the 120-X Height and Bulk District. As discussed in **Section B, Project Setting**, p. 36, there are four high-rise buildings within two blocks of the project site. Although the proposed project would be taller than the existing buildings on the project site block and in the project vicinity, it would be 15 stories shorter than the McAllister Tower Apartments and two stories shorter than 995 Market Street. Since there are already other existing high-rise buildings in the project vicinity, some of which are substantially taller than the proposed building, the addition of a 120-foot-tall tower would be generally compatible with the scale of existing and proposed new development in the project vicinity.

As discussed in **Section A, Project Description**, pp. 19-22, the dimensions of the proposed building would be articulated by setbacks of varying depths at different floor levels. Proposed setbacks would articulate built form elements to provide visual interest and integrate the building into the neighborhood's existing character. Therefore, the scale of the proposed project would not diminish or overwhelm the character of existing development in the project vicinity.

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

Cumulative Impacts

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

Nearby cumulative development projects identified in **Table 2** and shown on **Figure 24** on pp. 38-40, such as 1066 Market Street, 1075 Market Street, 1055 Market Street, and 950 Market Street as well as any future projects that may be developed on parcels within the proposed Mid-Market Arts and Arts Education Special Use and Special Height and Bulk Districts, would result

in the intensification of land uses in the project vicinity. These cumulative projects, similar to the proposed project, are infill projects that would not physically divide an established community by constructing a physical barrier to neighborhood access or removing a means of access. As with the proposed project, the cumulative projects may require modifications, exceptions, or variances to Planning Code requirements; however, the nearby cumulative development projects would not obviously or substantially conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The nearby cumulative development projects would introduce new infill residential, retail, commercial, hotel, and non-profit art-related uses to the project vicinity where these uses currently exist. This cumulative development would represent an incrementally more dense urban fabric in the project vicinity but would not introduce any incompatible uses, such as industrial uses, that would have a substantial impact on the existing character of the project vicinity. The proposed project and cumulative projects would be consistent with the envisioned land uses for this area. Thus, the proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulative land use impact.

<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>
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"/>

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

In general, a project would be considered growth inducing if its implementation would result in substantial population increases and/or new development that might not occur if the project would not be implemented. Implementation of the proposed project would entail demolition of the existing two-story commercial building and construction of a new mixed-use building with up to 186 dwelling units, 9,657 gsf of retail/restaurant space, and a 778-gsf building management office on the 3rd floor. The proposed project would therefore directly increase population and employment at the project site, and contribute to anticipated population growth in both the neighborhood and citywide context.

According to the U.S. Census Bureau's most recent American Community Survey (2009-2013), the City and County of San Francisco has a population of about 817,500 residents.²⁰ Census Tract 125.01, which includes the project site and its immediate vicinity, has a population of 3,336 residents.^{21,22} The population of census tracts within a ¼-mile radius of the project site is approximately 40,556 persons.²³ Based on an average household size for San Francisco of 2.27 persons per household, the addition of 186 dwelling units would increase the population at the project site by approximately 422 residents.^{24,25} This would represent a residential population increase of about 12.6 percent over the existing population within Census Tract 125.01, about 1.0 percent over the existing population within the project vicinity (census tracts within a ¼-mile of the project site), and about 0.05 percent over the existing citywide population. The population increase attributable to the proposed project would represent about 0.1 percent of the projected citywide increase in population of about 238,700 persons anticipated between 2015 and 2040.²⁶ The increase in the number of dwelling units under the proposed project is not considered substantial. Therefore, implementation of the proposed project would not directly induce substantial population growth in the project vicinity 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 it would not involve any extensions of area roads, utilities, or other infrastructure.

The proposed project would introduce commercial activity and employment to the site, estimated at approximately 31 employees, 28 associated with the retail/restaurant uses and 3 associated with the building management office.²⁷ San Francisco's employment base is projected to increase by

²⁰ U.S. Census Bureau, 2009-2013 5-Year American Community Survey, San Francisco County, American Community Survey Demographic and Housing Estimates. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?_afpt=table. Accessed July 17, 2015.

²¹ U.S. Census Bureau, 2009-2013 5-Year American Community Survey, Census Tract 125.01, American Community Survey Demographic and Housing Estimates. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?_afpt=table. Accessed July 17, 2015.

²² Census Tract 125.01 is irregularly shaped and is generally bounded by Turk, Taylor, and Ellis streets to the north, Powell Street to the east, Market Street to the south, and Leavenworth Street to the west.

²³ U.S. Census Bureau, 2009-2013 5-Year American Community Survey, Census Tracts 120, 121, 122.01, 122.02, 123.01, 123.02, 124.01, 124.02, 125.01, 125.02, and 176.01, American Community Survey Demographic and Housing Estimates. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?_afpt=table. Accessed July 17, 2015.

²⁴ Association of Bay Area Governments (ABAG), *Projections 2013*, p. 74. ABAG's household size projection for San Francisco for 2015 (2.27 persons) was used because it is more conservative.

²⁵ U.S. Census Bureau, 2009-2013 5-Year American Community Survey, Selected Housing Characteristics. Available online at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?_afpt=table. Accessed July 17, 2015. Census Tract 125.01 had an average household size of approximately 1.6 persons.

²⁶ ABAG, *Projections 2013*, p. 75. ABAG's projected residential population for San Francisco is 847,000 persons in 2015 and 1,085,700 persons in 2040.

²⁷ San Francisco Planning Department, *Transportation Impact Guidelines for Environmental Review*, October 2002, Appendix C, Table C-1. Employment factors of 350 gsf and 276 gsf per employee are used for general retail/restaurant and office uses, respectively. Based on 9,657 gsf of retail/restaurant space and 778 gsf of office space, there would be 31 employees.

approximately 142,080, from about 617,420 total jobs in 2015 to approximately 759,500 in 2040.²⁸ Even if all of the 31 employees associated with the proposed project were conservatively assumed to be new to San Francisco, the project-related employment growth would represent considerably less than 1 percent (0.02 percent) of the City's estimated job growth between the years 2015 and 2040. This estimated increase in employment would be negligible in the context of total jobs in San Francisco. Therefore, 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, residential and employment population increases on the project site would be noticeable, compared with existing conditions in Census Tract 125.01, which includes the project site. However, the project-related population and employment increases would not be substantial in relation to the existing number of residents and employees in the project vicinity, i.e., within Census Tract 125.01 and adjacent census tracts) and to the expected increases in the residential and employment populations of San Francisco. Therefore, the proposed project would not directly or indirectly induce substantial population growth or concentration of employment in the project vicinity 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. This topic will not be discussed in the EIR.

Impact PH-2: The proposed project would not displace substantial numbers of existing housing units or people and would not create demand for additional housing, necessitating the construction of replacement housing. (*Less than Significant*)

The project site consists of a vacant two-story commercial building; therefore, no residential, employee, or housing unit displacement would result from the proposed project. However, the estimated project-related employment increase (approximately 31 new employees) would result in an incremental increase in the demand for housing and would contribute to the City's broader need for additional housing.

In 2015, ABAG *Projections 2013* estimates indicate that there are approximately 362,440 households in San Francisco, and, by 2040, San Francisco is projected to have approximately 447,350 households.²⁹ Over this 25-year time period, the total number of San Francisco households would increase by approximately 84,910. According to the City's *2014 Housing Element*, San Francisco is projected to experience continued housing growth over this 25-year time period, with an annual average of approximately 3,400 new San Francisco households. According to ABAG *Projections 2013*, San Francisco has an estimated 1.27 workers per household.³⁰ Based on this assumption about workers per household and the conservative

²⁸ ABAG, *Projections 2013*, p. 75.

²⁹ ABAG, *Projections 2013*, p. 75.

³⁰ ABAG, *Projections 2013*, pp. 74 and 75, and City and County of San Francisco, *2014 Housing Element* (adopted April 27, 2015), Table I-12 on p. I.14.

assumption that all new employees would be new San Francisco residents, the estimated 31 new employees attributable to the proposed project would generate a potential demand for about 24 new dwelling units. Based upon information in ABAG's *Projections 2013* and the City's *2014 Housing Element*, the proposed project's employment-related housing demand could be accommodated by the City's projected housing growth between 2015 and 2040. The proposed project's employment-related housing demand would represent less than 1 percent (0.03 percent) of the City's estimated household growth between the years 2015 and 2040. This potential increase in employment-related housing demand would not be considered substantial in the context of total housing demand in San Francisco over the same time period (2015 to 2040). In addition, the actual increase in housing demand due to the proposed project may likely be lower, because some of the proposed project's employees may not be new to San Francisco.

In July 2013, ABAG projected regional housing needs in its *Regional Housing Needs Plan for the San Francisco Bay Area: 2014–2022*. According to this plan, San Francisco's projected housing need from 2014 to 2022 is 28,869 residential units, consisting of 6,234 within the very low income level (0-50 percent); 4,639 within the low income level (51-80 percent); 5,460 within the moderate income level (81-120 percent); and 12,536 within the above moderate income level (120 percent plus).³¹ The jurisdictional allocation for San Francisco translates into an average annual need of approximately 4,124 net new residential units. There is a particular need in the City for units affordable to very low-, low-, and moderate-income households. The proposed project is subject to the provisions of Planning Code Section 415: Inclusionary Affordable Housing Program, which requires projects of five or more residential units 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 number of residential units), within a separate building within 1 mile of the project site (equal to 20 percent of the project's overall number of residential units), or through an in-lieu payment to the Mayor's Office of Housing. The proposed project would add 186 new residential units and would comply with Planning Code Section 415 by providing a minimum of 22 BMR units on site (12 percent), providing a minimum of 37 BMR units off site (20 percent), or by paying the in-lieu fee. Therefore, the proposed project would contribute to the City's housing stock, including affordable housing stock, thereby helping to meet the City's overall housing demands.

In summary, demolition of the existing building would not remove existing housing units resulting in the displacement of residents nor would it displace employees. The proposed project's increase of 31 employees would not create substantial demand for additional housing because the demand would be very small compared to the total population of, and the available housing stock in, San Francisco and the Bay Area. Such a minor increase in demand would not

³¹ ABAG, *Regional Housing Need Plan for the San Francisco Bay Area: 2014 – 2022*, July 2013, Appendix C. Available online at http://www.abag.ca.gov/planning/housingneeds/pdfs/2014-22_RHNA_Plan.pdf. Accessed July 17, 2015.

necessitate the construction of new housing. This impact would be less than significant, and no mitigation measures are necessary. This topic will not be discussed in the EIR.

Cumulative Impacts

Impact C-PH-1: The proposed project in combination with past, present, and reasonably foreseeable future projects would not result in a cumulative impact related to population and housing. (*Less than Significant*)

The past, present, and reasonably foreseeable projects within a ¼-mile radius of the proposed project, identified in **Table 2** on p. 39, would add approximately 9,750 new residents in 4,295 dwelling units into the area.³² Overall, these nearby cumulative development projects (including the proposed project) would add 10,172 new residents in 4,481 dwelling units within a ¼-mile radius of the project site, which would represent a 25 percent increase in the area's residential population. These projects would be required to pay an affordable housing in-lieu fee or provide the required percentage of on-site BMR units (12 percent of the total number of residential units) or off-site BMR units (20 percent of the total number of residential units).

In addition, past, present, and reasonably foreseeable future projects would add up to approximately 856,016 gsf of commercial space, 490,445 gsf of retail space, 75,000 gsf of non-profit arts-related uses, and 827 hotel rooms to the project area. The addition of employment-generating square footage could result in approximately 5,519 new employees as follows: 3,102 from commercial uses, 1,401 from retail uses, 272 from non-profit arts-related uses, and 744 from hotel uses.³³

Based on the conservative assumption that all new employees would be new San Francisco residents and the conversion and demolition of existing buildings for the cumulative projects would not result in employment decreases, an estimated 5,550 new employees (including new employees associated with the proposed project) would be added within a ¼-mile radius of the project site. The 5,550 new employees would generate a potential demand for about 4,370 new dwelling units.³⁴ Based on information in ABAG's *Projections 2013* and the City's *2014 Housing Element*, the employment-related housing demand associated with the proposed project and nearby cumulative development projects could be accommodated by the City's projected housing growth between 2015 and 2040 of 84,910 units. Furthermore, the proposed project and nearby cumulative development projects would add to the City's housing stock and could potentially accommodate some of the new employment-related housing demand. In combination with the past, present, and reasonably foreseeable projects, the estimated

³² Assumes the City of San Francisco average of 2.27 persons per unit.

³³ San Francisco Planning Department, *Transportation Impact Guidelines for Environmental Review*, October 2002, Appendix C, Table C-1. Employment factors of 350 gsf and 276 gsf per employee are used for general retail/restaurant and office uses, respectively. The non-profit arts-related use are calculated using the office employment factor, and hotel uses are calculated at 0.9 employees per room.

³⁴ Assumes the *ABAG 2013 Projections* figure of 1.27 workers per household for San Francisco.

employment growth would account for approximately 5.2 percent of projected City-wide household growth. As described under **Impact PH-1**, the proposed project’s individual contribution to population and employment growth would not be considerable and represents a minimal percentage of overall population and employment increases in San Francisco. Furthermore, the likelihood that all of the employees would be new to San Francisco is low.

Over the last several years, the supply of housing has not met the demand for housing within San Francisco. As part of the planning process for *Plan Bay Area*, San Francisco identified Priority Development Areas, which are areas where new development to support the day-to-day needs of residents and workers in a pedestrian-friendly environment served by transit would be encouraged. The project site is within the Downtown-Van Ness-Geary Priority Development Areas identified in *Plan Bay Area*.³⁵ Therefore, although the proposed project in combination with other past, present, and reasonably foreseeable future projects would increase the population and employment in the area, it would not induce substantial population and employment growth, as this growth has been anticipated. Furthermore, the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in the displacement of substantial numbers of housing units or employees (jobs) as the majority of the approved and proposed projects would demolish vacant buildings, construct new buildings on surface parking lots, or intensify land uses.

For these reasons, the proposed project in combination with other past, present, and reasonably foreseeable future projects would not result in a cumulatively considerable population and housing impact.

<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 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 Planning Code?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

³⁵ ABAG, *Plan Bay Area*, Priority Development Area Showcase. Available online at <http://gis.abag.ca.gov/website/PDAShowcase/>. Accessed August 20, 2015.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
d) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact CP-1: Implementation of the proposed project would result in the demolition of the 1028 Market Street building, a historical resource for the purposes of CEQA. (Potentially Significant)

As discussed on pp. 5-7 in **Section A, Project Description**, the proposed project entails the demolition of an existing two-story commercial building constructed in 1907 (the Golden Gate Building), which has been identified as a potential historical resource, and the construction of a 13-story residential building with ground floor retail/restaurant uses. The Golden Gate Building is a contributing structure within the Market Street Theatre and Loft National Register Historic District (MSTL District). The project site is also adjacent to the Uptown Tenderloin National Register Historic District (Uptown Tenderloin District). The Civic Center National Register Historic District is located to the west of the project site and is generally defined by the institutional and civic buildings located along its central spine: U.N. Plaza, the Fulton Street Mall, and the Joseph L. Alioto Performing Arts Piazza.

The MSTL District contains a collection of motion picture theaters, loft and office buildings, and small commercial buildings on both sides of Market Street with two grand intersections at 6th Street/Taylor Street/Golden Gate Avenue/Market Street and Jones Street/McAllister Street/Market Street. The MSTL District includes 30 buildings between 6th and 7th streets (and slightly beyond in each direction) with 20 considered contributors to the district. Buildings occupy their full lots and rise continuously straight up from the sidewalk, usually for two to eight stories with two- or three-part vertical compositions with flat roofs behind parapets, façade ornamentation, and prominent cornices. Exterior materials are terra cotta, brick, galvanized iron, and some stucco. Fenestration on the upper stories is double-hung or Chicago-style windows, or both, sometimes with arcading in the top stories. Nearly all the ground stories within the district contain small shops and have been considerably altered; however, transom strips on mezzanines (or second stories) often exist in differing states of repair behind signage, and the upper stories are virtually intact on most buildings in the district.

The Uptown Tenderloin District is an irregularly shaped district, and its southern boundary includes Golden Gate Avenue, Jones Street and McAllister Street. This district encompasses a high-density residential area characterized by a variety of multiple-story commercial, residential, hotel, and institutional buildings dating from 1906 to the 1930s, with a few newer, non-contributory buildings. In general, contributing buildings are multi-unit apartment or hotels that occupy their full lots and rise continuously straight up from the sidewalk, usually for two to seven stories with façades of brick or reinforced concrete.

The demolition of a contributing building to a National Register Historic District is a potentially significant impact, as is the compatibility of a new structure within or adjacent to an existing National Register Historic District. Therefore, Topic E.4(a) will be addressed in the EIR. To evaluate the proposed project's potential impacts to a historical resource, a Historic Resources Evaluation will be prepared and the City will prepare a Historic Resources Evaluation Response, which will be summarized in the EIR.³⁶

Impact CP-2: Construction activities for the proposed project would result in a substantial adverse change in the significance of as-yet unknown archeological resources, should such resources exist beneath the project site. (*Less than Significant with Mitigation*)

The proposed project would require excavation for the reinforced concrete mat foundation and for the elevator and parking stacker pits. Due to construction requirements for projects within the BART ZOI, drilling would be required to approximately 73 feet bgs (or 55 feet below the basement level) for the placement of soil-cement columns to support the reinforced concrete mat foundation. The following information is based on the *Preliminary Archeological Review (PAR)* prepared by the San Francisco Planning Department³⁷ and the *Geotechnical Investigation* prepared by Langan Treadwell Rollo.³⁸

In the vicinity of the project site, Holocene-aged dune sand deposits blanket units of the underlying Marsh deposit. Geologic materials underlying the project site that would be disturbed by project grading and excavation consist of approximately 2 to 5 feet of fill on top of very loose to dense native sand, known locally as Dune sand. Below the Dune sand, several feet of Marsh deposit, consisting of very soft to stiff sandy clay and loose to medium dense clayey sand, would be encountered during excavation.³⁹ Excavation for the proposed 13-story mixed-use building with one basement level would extend beyond the fill to a depth of up to 23 feet bgs, with the greatest depth of excavation occurring along the northern portion of the project site. Approximately 9,800 cubic yards of soil would be removed from the project site.

The PAR reports that the general project area was initially developed in the 19th century and redeveloped soon after the 1906 Earthquake and Fire. The PAR indicated the possibility of encountering early, deeply prehistoric deposits due to the depth of the proposed excavation. Although there are no recorded prehistoric sites in the project vicinity, archeological deposits or features associated with prehistoric and historical archeological resources could be adversely affected by excavation activities resulting from the proposed project. Unless mitigated, ground-

³⁶ Galvin Preservation Associates Consulting, *Draft 1028-1056 Market Street Historic Resource Evaluation Parts 1 and 2*, February 2016. 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. 2014.0241E.

³⁷ San Francisco Planning Department, *Preliminary Archeological Review 1028 Market Street*, March 5, 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. 2014.0241E.

³⁸ Langan Treadwell Rollo, *Geotechnical Investigation*, p. 5.

³⁹ Langan Treadwell Rollo, *Geotechnical Investigation*, pp. 5 and 8.

disturbing construction activity within the project site, particularly within previously undisturbed soils, could adversely affect the significance of prehistoric or historical archaeological resources under California Register of Historical Resources (CRHR) Criterion 4 (Information Potential) by impairing the ability of such resources to convey important scientific and historical information.

Based on this analysis, the proposed project may adversely impact potentially significant subsurface prehistoric or historical archeological deposits and/or features that may be present under the project site. Furthermore, the research significance of prehistoric or historical archeological resources that may be present within the site is unknown; thus, it is not known if potential prehistoric or historical archeological deposits within the site would be significant under CEQA. In the absence of extant research or documentation to ascertain the research potential of such resources, it must be assumed that resources potentially present may be significant. Accordingly, in order to reduce potential impacts on significant prehistoric or historical archaeological resources, the project sponsor has agreed to comply with **Mitigation Measure M-CP-2: Archaeological Monitoring Program**, presented below.

Mitigation Measure M-CP-2: Archaeological Testing Program

Based on a reasonable presumption that archeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources. The project sponsor shall retain the services of an archaeological consultant from the rotational Department Qualified Archaeological Consultants List (QACL) maintained by the Planning Department archaeologist. The project sponsor shall contact the Department archeologist to obtain the names and contact information for the next three archeological consultants on the QACL. The archeological consultant shall undertake an archeological testing program as specified herein. In addition, the consultant shall be available to conduct an archeological monitoring and/or data recovery program if required pursuant to this measure. The archeological consultant's work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer (ERO). All plans and reports prepared by the consultant as specified herein 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. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to 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 to a less than significant level potential effects on a significant archeological resource as defined in CEQA Guidelines Sect. 15064.5 (a) and (c).

Consultation with Descendant Communities. On discovery of an archeological site⁴⁰ associated with descendant Native Americans, the Overseas Chinese, or other potentially

⁴⁰ By the term "archeological site" is intended here to minimally include any archeological deposit, feature, burial, or evidence of burial.

interested descendant group an appropriate representative⁴¹ of the descendant group and the ERO shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and to offer recommendations to the ERO regarding appropriate archeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archeological site. A copy of the Final Archaeological Resources Report shall be provided to the representative of the descendant group.

Archeological Testing Program. The archeological consultant shall prepare and submit to the ERO for review and approval an archeological testing plan (ATP). The archeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archeological testing program will be to determine to the extent possible the presence or absence of archeological resources and to identify and to evaluate whether any archeological resource encountered on the site constitutes an historical resource under CEQA.

At the completion of the archeological testing program, the archeological consultant shall submit a written report of the findings to the ERO. If based on the archeological testing program the archeological consultant finds that significant archeological resources may be present, the ERO in consultation with the archeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archeological testing, archeological monitoring, and/or an archeological data recovery program. No archeological data recovery shall be undertaken without the prior approval of the ERO or the Planning Department archeologist. If the ERO determines that a significant archeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

- A) The proposed project shall be re-designed so as to avoid any adverse effect on the significant archeological resource; or
- B) A data recovery program shall be implemented, unless the ERO determines that the archeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

Archeological Monitoring Program. If the ERO in consultation with the archeological consultant determines that an archeological monitoring program shall be implemented the archeological monitoring program shall minimally include the following provisions:

- The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils disturbing activities commencing. The ERO in consultation with the archeological consultant shall determine what project activities shall be archeologically monitored. In most cases, any soils- disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archeological monitoring because of the risk

⁴¹ An “appropriate representative” of the descendant group is here defined to mean, in the case of Native Americans, any individual listed in the current Native American Contact List for the City and County of San Francisco maintained by the California Native American Heritage Commission and in the case of the Overseas Chinese, the Chinese Historical Society of America. An appropriate representative of other descendant groups should be determined in consultation with the Department archeologist.

these activities pose to potential archaeological resources and to their depositional context;

- The archeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archeological resource;
- The archeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archeological consultant and the ERO until the ERO has, in consultation with project archeological consultant, determined that project construction activities could have no effects on significant archeological deposits;
- The archeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;
- If an intact archeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the deposit is evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archeological monitor has cause to believe that the pile driving activity may affect an archeological resource, the pile driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archeological consultant shall immediately notify the ERO of the encountered archeological deposit. The archeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archeological deposit, and present the findings of this assessment to the ERO.

Whether or not significant archeological resources are encountered, the archeological consultant shall submit a written report of the findings of the monitoring program to the ERO.

Archeological Data Recovery Program. The archeological data recovery program shall be conducted in accord with an archeological data recovery plan (ADRP). The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archeological resources if nondestructive methods are practical.

The scope of the ADRP shall include the following elements:

- *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis.* Description of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy.* Description of and rationale for field and post-field discard and deaccession policies.

- *Interpretive Program.* Consideration of an on-site/off-site public interpretive program during the course of the archeological data recovery program.
- *Security Measures.* Recommended security measures to protect the archeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report.* Description of proposed report format and distribution of results.
- *Curation.* Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains and Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and Federal laws. This shall include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The archeological consultant, project sponsor, ERO, and MLD shall have up to but not beyond six days of discovery to make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (CEQA Guidelines, Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. Nothing in existing State regulations or in this mitigation measure compels the project sponsor and the ERO to accept recommendations of an MLD. The archeological consultant shall retain possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of the human remains or objects as specified in the treatment agreement if such as agreement has been made or, otherwise, as determined by the archeological consultant and the ERO.

Final Archeological Resources Report. The archeological consultant shall submit a Draft Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report.

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

With implementation of **Mitigation Measure M-CP-2**, project construction would have a less-than-significant impact on prehistoric or historical archaeological resources, and this topic will not be discussed in the EIR.

Impact CP-3: Construction activities for the proposed project could result in the disturbance of human remains, including those interred outside of formal cemeteries, should such remains exist beneath the project site. (*Less than Significant with Mitigation*)

Given the historical use of the site, it is considered highly unlikely that human remains would be encountered at the project site during excavation and grading for the proposed project. However, in the unlikely event that human remains are encountered during construction, any inadvertent damage to human remains would be considered a significant impact. Accordingly, in order to reduce this potential impact to a less-than-significant level, the project sponsor has agreed to comply with **Mitigation Measure M-CP-2: Archeological Testing Program**, which includes the required procedures for the treatment of human remains, and is presented above.

With implementation of **Mitigation Measure M-CP-2**, the proposed project would have a less-than-significant impact related to the potential disturbance of human remains, and this topic will not be discussed in the EIR.

Impact CP-4: Construction activities for the proposed project could result in the disturbance of tribal resources, should such resources exist beneath the project site. (*Less than Significant with Mitigation*)

Tribal cultural resources are those resources that meet the definitions in Public Resources Code Section 21074. Tribal cultural resources are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are also either (a) included or determined to be eligible for inclusion in the CRHR or (b) included in a local register of historical resources as defined in Public Resources Code Section 5020.1(k). Based on discussions with Native American tribal representatives in San Francisco, prehistoric archeological resources are presumed to be potential tribal cultural resources. A tribal cultural resource is adversely affected when a project impacts its significance.

Pursuant to Assembly Bill 52, effective July 1, 2015, within 14 days of a determination that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency is required to contact the Native American tribes that are culturally or traditionally affiliated with the geographic area in which the project is located. Notified tribes have 30 days to request consultation with the lead agency to discuss potential impacts on tribal cultural resources and measures for addressing those impacts.

On October 8, 2015, the Planning Department mailed a “Tribal Notification Regarding Tribal Cultural Resources and CEQA” to the appropriate Native American tribal representatives who have requested notification. During the 30-day comment period, no Native American tribal representatives contacted the Planning Department to request consultation. Furthermore, as discussed above under **Impact CP-2** and **Impact CP-3**, the proposed project would have a less-than-significant impact related to the potential disturbance of historic and prehistoric archeological resources and human remains with implementation of **Mitigation Measure M-CP-2**. Thus, with implementation of **Mitigation Measure M-CP-2** the proposed project would not

cause a substantial adverse change in the significance of a tribal cultural resource. Therefore, the proposed project would have a less-than-significant impact on tribal cultural resources, and this topic will not be discussed in the EIR.

Cumulative Impacts

Impact C-CP-1: The proposed project in combination with past, present, and reasonably foreseeable future projects in the site vicinity could result in cumulative impacts to historic architectural resources. (*Potentially Significant*)

The project site is located in San Francisco's Downtown/Civic Center neighborhood along the Mid-Market corridor. The project site is developed with a two-story commercial building identified as a contributing structure to the MSTL District. The Mid-Market corridor has undergone various improvements and modernization at different times during the area's development without apparent widespread impairment to the overall historic character of the MSTL District. The *Downtown Plan* identifies "Significant" and "Contributory" buildings in the project area. When considered with past, present, and reasonably foreseeable future projects in the vicinity of the project site, the proposed demolition could result in a cumulatively considerable contribution to cumulative historic architectural resource impacts including cumulatively adverse effects on historic districts in the project vicinity. These topics will be discussed in the EIR.

Impact C-CP-2: The proposed project in combination with past, present, and reasonably foreseeable future projects could result in a substantial adverse change in the significance of as-yet unknown archeological resources; human remains, including those interred outside of formal cemeteries; and tribal resources should such resources exist on or beneath the project site. (*Less than Significant with Mitigation*)

Archeological resources and tribal cultural resources are non-renewable and finite, and all adverse effects to subsurface archeological resources and tribal cultural resources have the potential to erode a dwindling cultural/scientific resource base. Past, present, and reasonably foreseeable future development projects within San Francisco and the Bay Area region would include construction activities that could disturb archaeological resources and tribal cultural resources and could contribute to cumulative impacts related to the loss of significant historical, scientific, and cultural information about California, Bay Area, and San Francisco history and prehistory including the historic and prehistory of Native American peoples. Similar to the proposed project, development projects within San Francisco would be subject to the City's standard archeological and human remains mitigation measures, thereby reducing the potential for cumulative archeological-related and tribal-cultural-resource-related impacts.

As discussed above under **Mitigation Measure M-CP-2**, implementation of approved plans for the recovery, documentation, and interpretation of information about archaeological resources that may be encountered within the project site would enhance knowledge of prehistory and history. Furthermore, as discussed under **Mitigation Measure M-CP-2**, implementation of

standard mitigation related to the unearthing of human remains would preserve and realize the information potential of that potential resource. This information would be available to future archaeological studies, contributing to the collective body of scientific and historical knowledge. Implementation of **Mitigation Measure M-CP-2** would afford the same protections to tribal cultural resources in the case of accidental discovery and contribute to the preservation of important historic, scientific, and cultural knowledge related to Native America peoples. Since adverse effects to subsurface archeological resources and tribal cultural resources are site specific and standard mitigation would be imposed on future projects, with implementation of **Mitigation Measure M-CP-2: Archaeological Testing Program**, the proposed project’s contribution to cumulative impacts would not be cumulatively considerable. Therefore, this impact would be less than significant, and these topics will not be discussed in the EIR.

<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>
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 or a change in location, that results in substantial safety risks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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"/>

Construction and operation of the proposed project would generate auto, transit, pedestrian, and bicycle trips to and from the project site, would provide vehicular access and parking to the project site, and would modify existing access and egress points to the project site related to pedestrian access and loading. 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 and circulation impacts will be discussed in the EIR and will be based on the results of a Transportation Impact Study.

<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>
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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 fronts on Market Street and Golden Gate Avenue in downtown San Francisco. It 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 E.5(e) and E.5(f) are not applicable to the proposed project.

Market Street is the major transportation corridor through downtown San Francisco. Ambient noise along Market Street and in the project vicinity is primarily generated by vehicular traffic (cars, trucks, emergency and delivery vehicles, and Muni’s buses, light rail vehicles, and historic streetcars). Construction activities on nearby sites also contribute to ambient noise levels. In 2009 the San Francisco Planning Department produced a citywide map of background noise levels.⁴² The map indicates that the project site is generally subject to elevated ambient noise

⁴² 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, 2015.

levels, with modeled background noise levels above 70 dBA along Market Street and above 75 dBA along Golden Gate Avenue.

Some land uses and their associated users are considered more sensitive to ambient noise levels than others due to the types of activities typically involved with the land use and the amount of noise exposure (in terms of both exposure duration and insulation from noise). In general, occupants of residences, schools, daycare centers, hospitals, places of worship, and nursing homes are considered to be sensitive receptors (i.e., persons who are sensitive to noise based on their specific activities, age, health, etc.).

The proposed project would introduce new residents to the project site and would include common open spaces at the 2nd floor (an interior courtyard) and at the rooftop (see **Figure 5** and **Figure 12** on pp. 10 and 17, respectively). In addition, private balconies would be located on the 4th through 11th floors (fronting Market Street), and private terraces would be located on the 6th floor (fronting Market Street) and the 12th floor (along Golden Gate Avenue, the northeast property line, and Market Street) (see **Figures 7 - 11** on pp. 12 to 16).

This section discusses the proposed project's construction- and operation-related noise and vibration impacts on existing sensitive land uses in the project vicinity. It also discusses the impacts of introducing new noise sensitive receptors (in the form of residents) to a project site in an area with elevated ambient noise levels. This discussion is based on the noise measurements conducted by Environmental Science Associates (ESA) and presented in a *Noise and Vibration Report*.⁴³

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

⁴³ Environmental Science Associates (ESA), *1028 Market Street Project Noise and Vibration Technical Report* (hereinafter "*Noise and Vibration Report*"), October 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. 2014.0241E.

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.⁴⁴ 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.⁴⁵ 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 *General Plan* contains Land Use Compatibility Guidelines for Community Noise for determining the

⁴⁴ 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.)

⁴⁵ California Department of Transportation (Caltrans), 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 October 28, 2015.

compatibility of various land uses with different noise levels.⁴⁶ (See **Figure 25: San Francisco Land Use Compatibility Chart for Community Noise.**) These guidelines, which are similar to state guidelines promulgated by the Governor’s Office of Planning and Research, indicate maximum acceptable ambient noise levels for various newly developed land uses. For residential uses, the maximum satisfactory noise level without incorporating noise insulation into a project is 60 dBA DNL,^{47,48} while the guidelines indicate that residential development should be discouraged at noise levels above 70 dBA DNL. Where ambient noise levels exceed 65 dBA DNL, a detailed analysis of noise reduction requirements is typically necessary before final review and approval, and new residences must include noise insulation features. The Land Use Compatibility Guidelines for Community Noise are based on maintaining an interior noise level of 45 dBA as required in Section 2909(a) of the Noise Ordinance and by the California Noise Insulation Standards in Title 24, Part 2 of the California Code of Regulations prior to the January 2014 California Building Code update.

The California Building Standards Commission updated the California Code of Regulations, Title 24, Part 2 (California Building Code), Chapter 12 (Interior Environment), Section 1207, which establishes requirements with respect to sound transmission controls. The update to Section 1207 became effective as of January 2014 and establishes material requirements in terms of sound transmission class (STC) rating of not less than 50 dBA for all common interior walls, partitions, and floor/ceiling assemblies between adjacent dwelling units or between dwelling units and adjacent public areas such as halls, corridors, stairs, or service areas.⁴⁹ Section 1207, as revised, no longer includes an interior performance standard of 45 dBA, nor does it require a demonstration of how the units have been designed to meet the former interior performance standard. Although Section 1207 has been updated, the code changes were not intended to reduce or eliminate the requirements for sound transmission control in California.⁵⁰

⁴⁶ *San Francisco General Plan*, Environmental Protection Element, Policy 11.1, Land Use Compatibility Chart for Community Noise. Available online at http://www.sf-planning.org/ftp/general_plan/I6_Environmental_Protection.htm. Accessed August 6, 2015.

⁴⁷ Sound pressure is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 dB to 140 dB corresponding to the threshold of pain. Because sound pressure can vary by over one million times within the range of human hearing, a logarithmic loudness scale allows reporting the sound intensity numbers within a convenient range. Owing to the variation in sensitivity of the human ear to various frequencies, sound is “weighted” to emphasize frequencies to which the ear is more sensitive, in a method known as A-weighting, and is expressed in units of dBA.

⁴⁸ DNL is the average equivalent sound level during a 24-hour day, obtained after the addition of 10 dB to sound levels during nighttime hours (10:00 p.m. to 7:00 a.m.).

⁴⁹ The STC is used as a measure of a material’s ability to reduce sound. The STC is equal to the number of decibels a sound is reduced as it passes through a material.

⁵⁰ California Building Standards Commission, *Initial Statement of Reasons for Proposed Building Standards of the Department of Housing and Community Development Regarding the Amendment of the 2013 California Building Code California Code of Regulations, Title 24, Part 2*, pp. 3-4, March 26, 2014.

Figure 25: 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	[Light Gray Bar from 55 to 60]						
Transient Lodging - Motels, Hotels	[Light Gray Bar from 55 to 60] [Medium Gray Bar from 65 to 75] [Dark Gray Bar from 75 to 85]						
School Classrooms, Libraries, Churches, Hospitals, Nursing Homes, etc.	[Light Gray Bar from 55 to 60] [Medium Gray Bar from 65 to 70] [Dark Gray Bar from 70 to 85]						
Auditoriums, Concert Halls, Amphitheaters, Music Shells	[Light Gray Bar from 55 to 60] [Medium Gray Bar from 65 to 70] [Dark Gray Bar from 70 to 85]						
Sports Arenas, Outdoor Spectator Sports	[Light Gray Bar from 55 to 60] [Medium Gray Bar from 65 to 75] [Dark Gray Bar from 75 to 85]						
Playgrounds, Parks	[Light Gray Bar from 55 to 60] [Medium Gray Bar from 65 to 70] [Dark Gray Bar from 70 to 85]						
Golf Courses, Riding Stables, Water-Based Recreation Areas, Cemeteries	[Light Gray Bar from 55 to 60] [Medium Gray Bar from 65 to 75] [Dark Gray Bar from 75 to 85]						
Office Buildings – Personal, Business, and Professional Services	[Light Gray Bar from 55 to 60] [Medium Gray Bar from 65 to 75] [Dark Gray Bar from 75 to 85]						
Commercial – Wholesale and Some Retail, Industrial/Manufacturing, Transportation, Communication, and Utilities	[Light Gray Bar from 55 to 60] [Medium Gray Bar from 65 to 75] [Dark Gray Bar from 75 to 85]						
Manufacturing – Noise-Sensitive Communications – Noise-Sensitive	[Light Gray Bar from 55 to 60] [Medium Gray Bar from 65 to 75] [Dark Gray Bar from 75 to 85]						

[Light Gray Bar] Satisfactory, with no special noise insulation requirements.

[Medium Gray Bar] 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.

[Dark Gray Bar] 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.

[Black Bar] 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/16_Environmental_Protection.htm. Accessed November 4, 2015.

In addition to Title 24 requirements, the San Francisco *2004 and 2009 Housing Element EIR* found that policies intended to promote housing near transit and other infrastructure, in proximity to neighborhood services, and within mixed-use areas would result in a significant impact with respect to exposing noise sensitive receptors to noise levels in excess of established standards and promoting residential development that may be substantially affected by existing noise levels.⁵¹ This conclusion was based on the finding that some of the areas targeted for increased housing development experience ambient noise levels above 75 dBA for which Title 24 compliance may not mitigate exterior noise on private open space or other site-specific conditions may warrant acoustical monitoring and analysis beyond that required for Title 24 compliance. As a result, the Planning Department identified Mitigation Measure M-NO-1: Interior and Exterior Noise to reduce the Housing Element's impact on noise sensitive receptors. This mitigation measure requires the preparation of a noise analysis for new residential development located along streets with noise levels above 75 dBA (L_{dn}).⁵²

In such areas, the required noise analysis shall include, at a minimum, a site survey to identify potential noise-generating uses within two blocks of the project site; and at least one 24-hour noise measurement (with maximum noise level readings taken at least every 15 minutes) prior to completion of the environmental review. The analysis shall demonstrate with reasonable certainty that Title 24 standards, where applicable, can be met and there are no particular circumstances about the proposed project site that appear to warrant heightened concern about noise levels in the vicinity. Should such concerns be present, the department may require the completion of a detailed noise assessment by person(s) qualified in acoustical analysis and/or engineering prior to the first project approval action, in order to demonstrate that acceptable interior noise levels consistent with those in the Title 24 standards can be attained.

In conjunction with noise analysis required for the siting of new sensitive receptors in areas with ambient noise levels above 75 dBA, Implementing Programs 17 and 18 also require that the Planning Department ensure, through its building permit review process, that open space required under the Planning Code for new residential uses in noisy areas be protected from existing ambient noise levels that could prove annoying or disruptive to users of the open space. Implementation of this measure could involve, among other things, site design that uses the building itself to shield on-site open space from the greatest noise sources, construction of noise barriers between noise sources and open space, and appropriate use of both common and private open space in multi-family dwellings. Implementation of this measure should be undertaken in a way that is consistent with other principles of urban design.

⁵¹ San Francisco Planning Department, *San Francisco 2004 and 2009 Housing Element Final EIR*, certified April 24, 2014 pp. V.G-38 to V.G-48. Available online at http://sfmea.sfplanning.org/2007.1275E_DEIR.pdf. Accessed August 6, 2015.

⁵² This mitigation measure has been incorporated into the *2014 Housing Element as Implementing Programs 17 and 18* (see Appendix C, Implementing Programs, pp. C-4 – C-5.) Available online at http://www.sf-planning.org/ftp/General_Plan/2014HousingElement-AllParts_ADOPTED_web.pdf. Accessed October 28, 2015.

The San Francisco Department of Building Inspection (DBI) will continue to require and enforce noise reduction standards for residential development based on an interior noise level standard of 45 dBA DNL. DBI will continue to review the final building plans to ensure that the common interior walls, partitions, and floor/ceiling assemblies for multi-family residential developments comply with San Francisco Building Code requirements and Title 24 requirements.⁵³

In May 2015 the City and County of San Francisco implemented a new Entertainment Commission outreach process for projects located within 300 feet of a Place of Entertainment, as defined by the San Francisco Planning Department. The San Francisco Planning Department has identified two permitted Places of Entertainment within a 300-foot radius of the project site: the Golden Gate Theatre at 1 Taylor Street, 70 feet north of the project site, and the Warfield Theatre at 982 Market Street, 230 feet northeast of the project site. Residential projects, such as the proposed project, are subject to the new Entertainment Commission outreach process and will be required to show compliance with that process by including a copy of any comments and/or recommendations provided by the Entertainment Commission regarding the proposed project as well as the date(s) when those comments were provided. Furthermore, for projects subject to the Entertainment Commission outreach process that are approved, a Notice of Special Restriction that states all of the restrictions of Administrative Code Section 116.8 and any other conditions that the Planning Commission or Department places on the property must be recorded with the City and County of San Francisco Assessor-Recorder.

Existing Ambient Noise Levels

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 residences, and other places where low interior noise levels are essential to the use. Land uses within the project area are described in **Section B, Project Setting** on pp. 33-36.

The closest sensitive land use is a mixed-use building adjacent to the project site at 1000 Market Street (the San Christina Building) with ground floor retail uses and residences/housing support services above. Other sensitive land uses within 300 feet of the project site are multi-family residential buildings at 48 Golden Gate Avenue (70 feet north), 39 Taylor Street (280 feet northeast), 153 Turk Street (219 feet north), 161 Turk Street (252 feet north), and 111 Jones Street (243 feet northwest); single room occupancy residential hotels at 140 Jones Street (246 feet northwest), 39 Jones Street (229 feet west), and 20 6th Street (252 feet southeast); senior housing

⁵³ San Francisco Department of Building Inspection, 2013 San Francisco Building Code, Administrative Bulletin No. AB-026, "Noise Insulation Enforcement Procedures," December 21, 1984 (Updated 01/01/14 for code references). Available online at http://sfdbi.org/sites/sfdbi.org/files/migrated/FileCenter/Documents/Administrative_Bulletins/2013_AB/AB_026_updated_010114.pdf. Accessed August 6, 2015.

at 121 Golden Gate Avenue (229 feet west); and a hotel at 1100 Market Street (the Renoir Hotel [292 feet southwest]). The closest public schools to the project site are the Bessie Carmichael Elementary School and the Tenderloin Elementary School, both of which are 2,500 feet west of the project site. The DeMarillac Academy, a private middle school serving grades 4 through 8, is located at 175 Golden Gate Avenue about 590 feet west of the project site.

In addition to the above sensitive receptors, two mosques are located within 300 feet of the project site (Masjid Darussalam Mosque [20 Jones Street, 45 feet west of the project site] and AlSabeel Masjid Noor Al-Islam Mosque [118 Jones Street, 169 feet northwest of the project site]).⁵⁴ St. Boniface Catholic Church is located at 133 Golden Gate Avenue about 550 feet west of the project site. There are also two entertainment uses within 300 feet of the project site: the Golden Gate Theatre at 1 Taylor Street, 70 feet north of the project site, and the Warfield Theatre at 982 Market Street, 230 feet northeast of the project site.

Two long-term (24-hour) and two short-term (15-minute) noise measurements were conducted to determine the ambient noise levels in the project vicinity (see **Table 3: Existing Noise Environment in the Project Site Vicinity**).⁵⁵ Sound level measurements were collected on the north (Golden Gate Avenue) and south (Market Street) sides of the project site at the 2nd floor windows to represent the closest height of the proposed future residential use. Short-term sound level measurements were taken to establish the existing daytime sound levels at the nearest noise-sensitive receptors, 1000 Market Street to the east and 48 Golden Gate Avenue to the north. Measured sound levels indicate that existing ambient noise levels in the project vicinity are 75 dBA or lower and are primarily generated by vehicle and bus traffic, Muni F Market and Wharves streetcar operations, distant construction activities, and pedestrians.

Table 3: Existing Noise Environment in the Project Site Vicinity

Location	Date and Time Period	Daytime Leq dB	Nighttime Leq dB	Nighttime L90 dB	L _{dn}
1. Second Story (Market Street side)	08/14/14 24-hour measurement	71	68	58	75
2. Second Story (Golden Gate Avenue side)	08/14/14 24-hour measurement	70	65	56	73
3. 1000 Market Street (east of project site)	07/28/15 2:47 - 3:02 p.m.	72	NA	NA	NA
4. 48 Golden Gate Avenue (70 feet north of project site)	08/21/15 2:34 - 2:44 p.m.	69	NA	NA	NA

Source: ESA, *Noise and Vibration Report*, October 2015

⁵⁴ Turnstone Consulting/SWCA, *Sensitive Receptors Map*, June 12, 2015.

⁵⁵ ESA, *Noise and Vibration Report*, p. 8.

Based on these measurements, the existing background noise levels indicate that ambient noise levels in the project vicinity are in the range of 69-72 dB (L_{eq}), with the highest level recorded on the south sidewalk of Golden Gate Avenue adjacent to the project site (Measurement Location 3). The lowest background noise level of 69 dB (L_{eq}) occurs on the north side of Golden Gate Avenue (Measurement Location 4), where the existing buildings on the north side of Market Street provide some acoustic shielding from traffic on Market Street. The estimated L_{dn} values at Measurement Locations 1 and 2 are 73 and 75 dBA, respectively. These levels are consistent with those reported in the *San Francisco General Plan's 2009 Background Noise Levels* map.

Field observations indicate that surrounding land uses do not conduct noticeably noisy operations primarily due to the fact that these residential, office, retail, and other commercial uses conduct their operations inside buildings and are not inherently noisy. Due to the proximity of the Golden Gate Theatre and the Warfield Theatre, the project sponsor is required to provide official notice of the proposed residential development to the City's Entertainment Commission pursuant to Planning Code Section 314.

Fundamentals of Groundborne Vibration and 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 most frequently used method to describe vibration impacts on buildings is peak particle velocity (PPV). PPV is defined as the maximum instantaneous peak of the vibration signal in inches per second (in/sec). The most frequently used method to describe the effect of vibration on the human body is the root mean square (RMS) amplitude. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS.⁵⁶ The decibel notation acts to compress the range of numbers required to describe vibration. The criteria for environmental impact from groundborne vibration and noise are based on the maximum RMS vibration levels for repeated events of the same source.⁵⁷

Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. The effects of groundborne vibration include movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. 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. Receptors sensitive to vibration include structures (especially older masonry structures), people (especially residents, the elderly, and

⁵⁶ Vibration velocity level is reported in decibels relative to a level of 1×10^{-6} inches per second and is denoted as VdB.

⁵⁷ Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment*, May 2006, pp. 8-1 to 8-3, Table 8-1. Available online at http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf. Accessed August 6, 2015.

sick), and vibration-sensitive equipment. Fragile buildings and underground facilities, in particular those that are considered historic, are included because groundborne vibration can result in structural damage. In extreme cases, 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. A vibration level that causes annoyance will be well below the damage threshold for normal buildings. 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.⁵⁸ 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.⁵⁹

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.⁶⁰ 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’s historic F Market and Wharves streetcars, which operate on Market Street approximately 60 feet south of the project site. Vibration is also caused by Muni light rail transit vehicles and BART trains in the subway system under Market Street. Because rubber tires provide vibration isolation, rubber-tire vehicles, such

⁵⁸ 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, 2015.

⁵⁹ *Ibid.* p. 12-1.

⁶⁰ 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, 2015.

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.⁶¹

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.⁶² The maximum vibration level monitored where streetcars negotiate a 90 degree turn was 75 vibration decibels (VdB) at 25 feet. The maximum vibration level monitored along a straightaway segment was 81 VdB at 25 feet. The latter value is representative of the project site along Market Street. The estimated vibration levels from Muni streetcar 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 28 feet north of the Muni and BART subway tunnels with the top of the Muni tunnel approximately 33 feet below Market Street and the bottom of the BART tunnel approximately 73 feet below Market Street at this location.⁶³ Therefore, values presented here represent a conservative potential for groundborne vibration levels on the project site from underground Muni and BART operations along Market Street.

Existing Sensitive Receptors

Similar to noise-sensitive land uses described on pp. 77-78, 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 and noise. Historic (and potentially fragile) structures are located immediately adjacent to the project site at 1000 Market Street and across Golden Gate Avenue at 48 Golden Gate Avenue (70 feet north of the project site). 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.

⁶¹ 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, 2015.

⁶² 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 October 28, 2015.

⁶³ Langan Treadwell Rollo, *Geotechnical Investigation*., p. 5.

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 fixed 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.

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. 73. 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 Renoir Hotel, two mosques, St. Boniface Catholic Church, and the DeMarillac Academy School campus to the west, and the Golden Gate Theatre and Warfield Theatre to the northeast.

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.⁶⁴ The proposed project would generate approximately 1,163 new daily vehicle trips, with approximately 166 of those trips occurring during weekday PM peak hour.⁶⁵

Daily traffic volumes on the roadway segments closest to the project site are as follows: Market Street - approximately 4,830 vehicles per day, Golden Gate Avenue - approximately 10,130 vehicles per day, Jones Street - approximately 7,690 vehicles per day, and Taylor Street - approximately 10,110 vehicles per day.⁶⁶ Based on a project-related increase of 1,163 daily vehicle trips and existing daily traffic volumes on area streets, traffic volumes would not double as a result of the proposed project. As discussed in the *Noise and Vibration Report*, peak-hour

⁶⁴ Caltrans, *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 October 28, 2015.

⁶⁵ Stantec Consulting, *Draft 1028 Market Street Transportation Impact Study*, Table 13, p. 42, January 8, 2016. 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. 2014.0241E.

⁶⁶ Stantec Consulting, e-mail communication between Joanna Liu and Peter Mye, January 8, 2016. A copy of this e-mail is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2014.0241E.

traffic noise levels would be less than or equal to 0.5 dB as a result of the project-generated traffic.⁶⁷ 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.⁶⁸

Fixed Noise Sources

The proposed project would include new fixed noise sources that would produce operational noise on the project site. The proposed HVAC equipment and the emergency generator⁶⁹ 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 measures are necessary, and this topic will not be discussed in the EIR.

⁶⁷ ESA, *Noise and Vibration Report*, Table 11, p. 26.

⁶⁸ 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.

⁶⁹ Although emergency generators are intended only to be used in periods of power outages, monthly testing of the emergency generator would be required.

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*)

Construction Noise

Sections 2907 and 2908 of the Noise Ordinance, which regulate construction noise, would minimize noise impacts from the proposed project's construction activities. 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 7:00 AM and 8:00 PM. Section 2907(b) requires that the intakes and exhausts of impact tools and equipment (e.g., jackhammers, impact wrenches) 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 8:00 PM and 7:00 AM if noise would exceed the ambient noise level by 5 dBA at the project site's property line, unless a special permit is authorized by the Director of Public Works. The proposed project would comply with the regulations set forth in the Noise Ordinance.

Table 4: Maximum Noise Levels from Construction Equipment shows the hourly noise levels (L_{max}) produced by various types of common construction equipment based on a distance of 50 feet between the equipment and receptor. It should be noted that L_{max} noise levels associated with the construction equipment would be generated only when the equipment is operated at full power. Typically, the operating cycle for a piece of construction equipment would involve one or two minutes of full-power operation followed by three or four minutes at lower power settings. The L_{max} noise levels shown in **Table 4** would therefore be expected to occur only occasionally throughout the construction day.

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. Construction activities would also involve the use of smaller power tools, generators, and other sources of noise. During each stage of development, there would be a different mix of equipment. Thus, construction activity noise levels at and near the project site would fluctuate depending on the particular type, number, and duration of use of the various pieces of construction equipment.

Table 4: Maximum Noise Levels from Construction Equipment

Construction Equipment	Noise Level at 50 Feet (dB, L _{max})	Noise Level at 100 Feet (dB, L _{max})
Dump Truck	76	70
Excavator	81	76
Air Compressor	78	72
Backhoe	78	72
Grader	85	79
Front End Loader	79	73
Dozer	82	76
Paver	77	71
Roller	80	74

Source: Federal Highway Administration, Roadway Construction Noise Model User's Guide, 2006.

Project-related construction activities would temporarily and intermittently contribute to ambient noise levels over the 20 months of construction, with more construction noise generated in the initial 8 months of project construction and relatively lower levels of construction noise in the subsequent 12 months. During project construction, the noise levels experienced at the nearest off-site receptors would fluctuate depending on the construction phase, equipment type, duration of use, and the distance between the source within the project site to the receptor. In some cases construction noise levels experienced by off-site noise sensitive receptors would be minimized due to the distance from the project site and the presence of intervening buildings.

Although the existing noise levels in the area are somewhat elevated (see **Table 3** on p. 78), the addition of construction noise near the closest off-site receptors to the east and north could be substantially noticeable at times given the relatively close proximity (adjacent and 70 feet away). **Table 5: Project Construction Noise Levels at Off-Site Sensitive Receptors** shows the estimated construction noise levels that would occur at the nearest off-site sensitive land uses during construction at the project site. The estimated noise levels were based on the concurrent operation of two excavators, a drill rig and a loader near the center of the project site. As shown, the estimated construction noise levels generated by the proposed project would range from 66 to 88 dB Leq at the nearest sensitive receptors. As a practical matter, San Francisco considers noise generated by standard construction equipment within the time restrictions of the Noise Ordinance to be a less-than-significant impact. However, the estimated construction noise levels indicate that localized increases in noise would be more than 10 dBA above existing ambient noise and may therefore be perceived as a doubling of loudness. Consequently, while the temporary construction noise effects would not exceed the standards in the Noise Ordinance, **Improvement Measures I-NO-2a** and **2b** are recommended to restrict project construction activities to between 7:00 a.m. and 8:00 p.m. to ensure compliance with this restriction, to obviate the need to demonstrate the magnitude of potential noise level increases outside of these hours, and to reduce the temporary noise effects associated with an increase in ambient daytime noise levels at the nearby sensitive receptors during project construction.

Table 5: Project Construction Noise Levels at Off-Site Sensitive Receptors

Nearest Off-site Sensitive Land Uses	Location	Approximate Distance to Project Site (feet) ^a	Existing Monitored Daytime Noise level (dB L _{eq})	Estimated Construction Noise Level (dB L _{eq}) ^b	Resultant Noise Level (dB L _{eq})	Increase over Existing (dB L _{eq})
Residences	1000 Market Street	25	72	88	88	+16
Residences	48 Golden Gate Avenue (north side)	70	69	79	80	+11
Residences	111 Jones Street (west side)	300	70	66	72	+2

Notes:

^a The approximate distances are measured from the approximate center of the project site to the nearest sensitive-receptor property line, consistent with FTA guidance.

^b For the purpose of conducting a conservative analysis, it is assumed that four pieces of construction equipment used during the grading phase at the project site would be operating concurrently.

Source: ESA, *Noise and Vibration Report*, October 2015

Improvement Measure I-NO-2a:

The Applicant shall restrict construction activities to between the hours of 7:00 a.m. and 8:00 p.m. from Monday through Saturday, as feasible. If nighttime work is required for concrete pours or other specific activities, the Applicant shall obtain authorization in advance from the Department of Building Inspection and limit the duration of nighttime work to no more than two consecutive 24-hour periods. Further, no construction activity shall be undertaken on Sundays and recognized City and County of San Francisco holidays.

Improvement Measure I-NO-2b:

Incorporate the following practices into the construction contract agreement documents to be implemented by the construction contractor:

- Provide enclosures and mufflers for stationary equipment and shroud or shield impact tools;
- Use construction equipment with lower noise emission ratings whenever possible, particularly for air compressors;
- Provide sound-control devices on equipment no less effective than those provided by the manufacturer;
- Locate stationary equipment, material stockpiles, and vehicle staging areas as far as practicable from Golden Gate Avenue;
- Prohibit unnecessary idling of internal combustion engines; and,
- Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, noise barriers or noise blankets. The placement of such attenuation measures shall be reviewed and approved by the Director of Public Works prior to issuance of development permits for construction activities.

Therefore, although construction noise may be perceived by some as an occasional annoyance, with implementation of **Improvement Measures I-NO-2a** and **I-NO-2b**, the proposed project's temporary and less-than-significant construction-related noise impacts would be minimized to the extent practicable.

Groundborne Vibration During Construction

Older buildings can be damaged by excessive vibration associated with construction activities. Vibration levels are measured as peak particle velocity (PPV) in inches per second (in/sec). The FTA damage criteria for groundborne vibration are as follows:

- a PPV of 0.2 in/sec or greater for non-engineered timber and masonry buildings (Category 3),
- a PPV of 0.3 in/sec or greater for engineered concrete and masonry buildings (no plaster) (Category 2), and
- a PPV of 0.5 in/sec or greater for reinforced-concrete, steel or timber (no plaster) (Category 1).⁷⁰

The California Department of Transportation's (Caltrans) *Transportation and Construction Vibration Guidance Manual* (dated September 2013) does not include official standards for vibration. However, guidelines are provided for assessing vibration damage potential to various types of buildings, ranging from 0.08 – 0.12 in/sec PPV for extremely fragile historic buildings, ruins, and ancient monuments to 0.50 – 2.0 in/sec PPV for modern industrial/commercial buildings.⁷¹

The project site is adjacent to the BART/Muni Civic Center Subway Station and above the underground BART and Muni tunnels. Adjacent to the site, the top of the Muni tunnel is approximately 33 feet below Market Street and the bottom of the BART tunnel is approximately 73 feet below Market Street. The tunnels are approximately 28 feet from the property line, as measured from the closest point of the tunnel. Due to construction requirements for projects within the BART ZOI, drilling would be required to approximately 73 feet bgs (or 55 feet below the basement level) for the placement of soil-cement columns to support the reinforced concrete mat foundation. Approximately 9,800 cubic yards of soil would be removed from the project site.

Construction recommendations from the *Geotechnical Investigation* take into consideration the proximity of the BART/Muni facility and include, but are not limited to, foundations, shoring, and underpinning. According to the *Geotechnical Investigation*, the proposed building should be

⁷⁰ FTA, *Transit Noise and Vibration Impact Assessment*, May 2006, p. 12-3, Table 12-3. Available online at http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf. Accessed October 28, 2015.

⁷¹ Caltrans, *Transportation and Construction Vibration Guidance Manual*, September 2013, p. 38. Available online at http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf. Accessed August 6, 2015.

supported on a deep foundation system resting on drilled piles bearing on soil strata below the BART ZOI.⁷² Below-grade excavation would require temporary shoring to support the planned cuts. The recommended shoring system is a soldier pile and lagging system⁷³ with intermittent DSM columns in combination with underpinning. Where the planned excavation extends below the adjacent buildings' foundations (the five-story building at 1000 Market Street to the east and the two-story structure at 1066 Market Street to the west) and a soldier pile and lagging system is used for temporary shoring, these buildings would be underpinned, as necessary.

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, equipment used for site preparation, shoring, underpinning, and foundation construction activities, such as drills, could generate varying degrees of temporary groundborne vibration, with the highest levels expected in the first 6 months of construction during the 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 excavated soils throughout the day and throughout the 20-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.

Typical PPV measurements for construction equipment that would be used for construction of the proposed 13-story building and that would have the potential to create temporary groundborne vibration would result in PPV levels of between 0.003 to 0.089 in/sec at 25 feet from the source.⁷⁴ This corresponds to 0.19 in/sec PPV at 15 feet.⁷⁵ This estimated value is well below the threshold for causing damage to the adjacent structure at 1000 Market Street and to 48 Golden Gate Avenue to the north (PPV of 0.5 in/sec or greater).⁷⁶ Furthermore, the adjacent structure has been rehabilitated and modernized and the building loads of the adjacent buildings would be supported. DBI is responsible for reviewing the building permit application to ensure that proposed construction activities, including shoring and underpinning, comply with all applicable procedures and requirements. For these reasons, groundborne vibration generated as a result of construction activities associated with the proposed project would not materially impair adjacent or nearby buildings.

⁷² Langan Treadwell and Rollo, *Geotechnical Investigation*, p. 5.

⁷³ Steel H-shaped soldier piles are installed in pre-drilled holes along the face of a planned cut to support timber lagging boards placed horizontally between the soldier piles during excavation. The soldier piles are braced for deep excavations with tie-back anchors that are secured in place behind the face of the planned cut.

⁷⁴ ESA, *Noise and Vibration Report*, p. 24, Table 9.

⁷⁵ For the groundborne vibration analysis, approximate distances are measured from the nearest reasonable location of equipment on the project site to the nearest sensitive-receptor structure located off site. For adjacent structures a distance of 15 feet is conservatively employed, unless pile driving is proposed.

⁷⁶ ESA, *Noise and Vibration Report*, p. 24, Table 10.

The closest sensitive receptor is the residential land use at 1000 Market Street (adjacent and to east of the project site). Caltrans' *Transportation and Construction Vibration Guidance Manual* (dated September 2013) does not include official standards for vibration annoyance potential. However, this manual provides guidelines for assessing construction vibration annoyance in PPV for transient sources, e.g., a single isolated vibration event such as blasting, with a PPV of 0.04 in/sec being barely perceptible, a PPV of 0.25 in/sec being distinctly perceptible, a PPV of 0.9 in/sec being strongly perceptible.⁷⁷ The groundborne vibration level at the closest off-site sensitive receptor would be a PPV of 0.19 in/sec, which is below the threshold for being distinctly perceptible (PPV of 0.04 in/sec).⁷⁸

Thus, with respect to building damage and human annoyance, the construction-related groundborne vibration effects on the adjacent structures and closest off-site sensitive receptors would not exceed the identified thresholds. This impact would be less than significant.

Conclusion

Construction activities would be the main sources of noise and vibration generated at the project site. Demolition of the existing two-story structure on the project site and construction of the proposed project would not include activities that could produce excessive noise or vibration (e.g., the use of explosives for demolition or pile driving for the building foundation). The proposed project's construction activities would be temporary in nature; once construction has been completed, noise and vibration produced by construction equipment and construction vehicles would cease. As discussed above, the proposed project's construction activities would result in a temporary increase in groundborne vibration levels but would not materially impair the adjacent structures or be perceptible by the nearest off-site sensitive receptor at 1000 Market Street.⁷⁹ Thus, construction activities would result in less-than-significant construction noise and construction-related groundborne vibration and groundborne noise impacts on existing noise-sensitive receptors in the immediate project vicinity as well as the immediately adjacent and nearby historic structures. With implementation of **Improvement Measures I-NO-2a** and **2b** these less-than-significant construction-related impacts would be further reduced. No mitigation measures are necessary and these topics will not be discussed in the EIR.

⁷⁷ ESA, *Noise and Vibration Report*, p. 19, and Caltrans, *Transportation and Construction Vibration Guidance Manual*, September 2013, p. 38. Available online at http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf. Accessed October 28, 2015.

⁷⁸ ESA, *Noise and Vibration Report*, p. 20, Table 10.

⁷⁹ ESA, *Noise and Vibration Report*, pp. 23-24.

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

Exposure to Existing Noise Levels

The proposed project would introduce new residential, retail, and parking land uses to a developed, mixed-use neighborhood. A reconnaissance of the project vicinity (approximately two blocks in each direction) was performed to assess the potential of other noise sources in the area other than transportation-related sources. The only observed potential noise sources with a direct line-of-sight would be associated with operations of the Golden Gate Theatre and the Warfield Theatre. As discussed above on pp. 77-79, existing ambient noise levels along the Market Street and Golden Gate Avenue sides of the project site indicate that noise exposure from all sources (not just traffic) are 75 dBA (L_{dn}) and 73 dBA (L_{dn}), respectively (see **Table 3** on p. 78).

The proposed project would introduce a new residential land use into an area where ambient noise levels are in excess of established local and state standards. The proposed project would also include Planning Code-required private and common open space for the project's residents as described on p. 72. The exterior noise levels are in excess of the 60 dBA (L_{dn}) threshold requiring preparation of a detailed noise analysis, as specified in San Francisco's Land Use Compatibility Chart for Community Noise. The noise analysis will identify noise reduction requirements and needed noise insulation features to be included in the design of the building and will be reviewed and approved by DBI in conjunction with the building permit review process. 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. 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. Since the noise measurements taken along the Market Street and Golden Gate Avenue sides of the project site indicate that noise exposure from all sources (not just traffic) would not exceed the *2014 Housing Element* threshold of 75 dBA (L_{dn}), Implementing Programs 17 and 18 would not apply to the proposed project.

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, Golden Gate Avenue, and, to a lesser extent, Taylor Street.

Adherence to the Title 24 standards, as enforced through DBI's permit review process, would ensure a reduction of the exterior-to-interior noise level by 30 dBA through the suggested use of

exterior wall and window/wall assemblies with a minimum STC rating of 35.⁸⁰ Examples of STC 35 window/wall assemblies include a single layer of ¼-inch laminated glass or a one-inch-thick insulated glazing unit consisting of two layers of ¼-inch glass separated by a ½-inch airspace. Other glazing combinations could be used to achieve the same or better acoustical performance. In order to achieve the interior noise standard of 45 dBA, the windows and sliding glass doors of the dwelling units would have to remain closed. For this reason, the proposed project would include air conditioning and/or other forms of mechanical ventilation.

In addition, 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. Furthermore, any specific noise abatement or notification requirements identified by the Entertainment Commission through the required hearing process for the siting of a residential developments near Places of Entertainment shall be included in the project design. This may include requiring lessors and sellers of residential property to disclose to lessees and purchasers potential noise and other inconveniences associated with nearby Places of Entertainment to be recorded in a Notice of Special Restrictions.

Exposure to Existing Groundborne Vibration

Typical sources of existing groundborne vibration in San Francisco are large-scale construction projects that involve pile driving or underground tunneling, and Muni's historic F Market and Wharves streetcars. Vibration is also caused by Muni light rail transit vehicles and BART trains in the subway system under Market Street. The proposed project would place new residential uses approximately 60 feet north of Muni's F Market and Wharves centerline. Muni operates its underground light rail system in a tunnel at a 28-foot lateral distance and 33 feet below grade, and BART operates its transit system in a tunnel whose top is at approximately 55 feet below grade. These three rail systems each generate vibration that dissipates rapidly with distance from the source rail. Of the three rail systems, Muni's F Market and Wharves historic streetcar operates at-grade and would represent the greatest source of vibration. Because rubber tires provide vibration isolation, rubber-tire vehicles, such as Muni buses, trucks, and automobiles, rarely

⁸⁰ ESA, *Noise and Vibration Report*, p. 28.

create substantial groundborne vibration effects unless there is a discontinuity or bump in the road that causes the vibration.⁸¹

As discussed above on p. 81, the vibration velocity level of 81 VdB is representative of the project site along Market Street because of its distance from the straightaway segment of Muni's F Market and Wharves streetcar tracks. The estimated vibration levels from Muni streetcar operations do not include attenuation due to material dampening from soil between the source and receiver, and would likely represent a worst-case assessment. For residences and other buildings where people normally sleep, such as hotels and hospitals, the FTA has established a vibration impact criterion of 72 VdB for frequent events (70 or more vibration events of the same source per day).⁸² A vibration velocity level of 65 VdB is considered to be the approximate threshold of perception for many people while 75 VdB is considered to be the approximate dividing line between barely perceptible and distinctly perceptible levels for many people.⁸³ Vibration levels exceeding this threshold could interfere with sleep or other activities.

The Muni F Market and Wharves historic streetcar tracks are located at-grade and would represent the greater source of vibration of the three transit operations. Potential vibration effects are estimated using measured vibration values specific to operation of the relatively rigid historic streetcars of the Muni F Market and Wharves and adjusting these values to account for the distance of the proposed building from the tracks as well as for the coupling loss associated with the building foundation. Thus, accounting for a distance of 60 feet from the rail centerline, the vibration velocity level at the project site is estimated to be reduced by 7 VdB to about 74 VdB.⁸⁴ The FTA estimates that a vibration isolation system that is incorporated into a building can reduce the vibration level by 5 to 13 VdB in a receiving building, depending on the weight of the building.⁸⁵ A conservative reduction of 5 VdB would result in an effective vibration velocity level that is below the 72 VdB vibration impact criterion, meaning that vibration generated by Muni's F Market and Wharves historic streetcars would not interfere with sleep or other residential activities.

As discussed above on p. 81, grade surface vibration estimates from Muni light rail trains operating in tunnels at a depth of 20 feet below grade indicate that vibration velocity levels within concrete and steel buildings are expected to be 62 VdB at a distance of 25 feet from the track. This value is representative of the project site along Market Street, where the Muni subway tunnel

⁸¹ FTA, *Transit Noise and Vibration Impact Assessment*, p. 7-9. Available online at http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf. Accessed October 28, 2015.

⁸² ESA, *Noise and Vibration Report*, p. 20 Table 6, and *Transit Noise and Vibration Impact Assessment*, pp. 8-2 to 8-3.

⁸³ FTA, *Transit Noise and Vibration Impact Assessment*, p. 7-8, Table 7-1. Available online at http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf. Accessed October 28, 2015.

⁸⁴ ESA, *Noise and Vibration Report*, p. 27.

⁸⁵ FTA, *Transit Noise and Vibration Impact Assessment*, p. 10-8, Table 10-1. Available online at http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf. Accessed October 28, 2015.

is approximately 33 feet below grade, as well as approximately 28 feet laterally from the project frontage on Market Street. Applying a 2 VdB loss for a distance of 28 feet from the track centerline would result in an effective vibration velocity level of 60 VdB from operations of the underground Muni light rail trains. This predicted vibration velocity level would be less than FTA's groundborne vibration impact criterion for frequent events (72 VdB for residences and buildings where people normally sleep). Operation of the BART system, which is further underground, would be expected to be similar to those of the Muni light rail system based on FTA ground surface vibration curves. Given their respective distances from the project site, the underground Muni and BART operations would result in vibration levels that are lower than those associated with Muni's F Market and Wharves streetcars, and these operations would not interfere with sleep or other residential activities on the project site. With respect to potential cumulative vibration effects, data indicate that vibration velocity levels below 60 VdB are generally imperceptible; thus, the contributions of both Muni and BART rail operations would not meaningfully contribute to the vibration velocity levels contributed by the F Market and Wharves operations and the F Market and Wharves vibration velocity levels would represent the worst case scenario.

Compliance with applicable state and local standards and regulations would ensure that impacts related to the siting of sensitive land uses in an area with elevated ambient noise levels would be less-than-significant. In addition, the siting of sensitive land use along a rail transit corridor with a streetcar frequency in excess of 70 runs per day would not expose newly sited sensitive receptors to excessive groundborne vibration or groundborne noise. Thus, 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, or vibration levels that are in excess of FTA standards. Therefore, this impact would be less than significant. No mitigation measures are necessary and these topics will not be discussed in the EIR.

Cumulative Impacts

Impact C-NO-1: The proposed project in combination with past, present, and reasonably foreseeable future projects would not create a significant cumulative noise or vibration impact. (*Less than Significant*)

Mobile and Fixed Noise Sources

As described above, vehicular traffic is the primary contributor to ambient noise levels in San Francisco. Based on anticipated citywide and regional economic growth and development, 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 that would be generated by the proposed project (approximately 1,163 daily vehicle trips and 166 weekday P.M. peak hour trips) and other reasonably foreseeable projects identified in **Table 2** on p. 39, such as 1066 Market Street, 1075 Market Street, and 1055 Market Street, would

contribute to the cumulative noise environment. In contrast, the proposed changes to Market Street under the Better Market Street Plan and Safer Market Street Plan could result in a diminution of traffic along Market Street and adjacent roadways. The project-related contribution of 166 weekday P.M. peak hour trips would represent a small fraction of existing traffic volumes, and an even smaller fraction of the cumulative increase to weekday P.M. peak hour traffic volumes by 2040. In addition, the project-related contribution to cumulative traffic volumes at traffic intersections in the project vicinity would represent less than 6 percent of total traffic volumes in 2040. The project-related contribution to traffic noise in 2040 would not be considerable because it would represent a minor proportion of the overall traffic volumes. Thus, when considered in combination with the cumulative projects, future traffic volumes would not be anticipated to result in a doubling of traffic volumes on adjacent streets. Therefore, the cumulative impact of traffic-generated noise levels in the project vicinity would not cause noise-sensitive receptors 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.

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. With the exception of 1066 Market Street, which is on the adjacent parcel to the west, there is well over 100 feet between all of the reasonably foreseeable future projects and the 1028 Market Street site. This distance provided sound attenuation of up to 6 dBA, thus ambient noise levels at and adjacent to the project site would not be affected by stationary equipment on the sites of the future projects. Further, 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. 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 above under **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. 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.

In conclusion, project operational noise from mobile and fixed 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.

Construction

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. Among the cumulative projects within a ¼-mile radius of the project site the 1066 Market Street project (immediately west of the project site), the 1055 Market Street project (approximately 170 feet southwest of the project site's south property line), and the 1075 Market Street project (approximately 290 feet southwest of the project site's south property line) would be the closest projects 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 overlap or occur within the same time period.

Construction activities for other cumulative projects within a roughly ¼-mile radius of the project site, such as 1036-1040 Mission Street, 181 Turk Street/180 Jones Street, 950-974 Market Street, and 101 Hyde Street would not contribute to cumulative construction noise in the project vicinity because of their distance from the project site and the presence of intervening structures while others (1 Jones Street, 1100 Market Street, and 1095 Market Street) would generate negligible contributions due to the fact that the proposed work would be interior renovation and exterior rehabilitation work. And finally, there are two cumulative projects that are under construction (1169 Market Street and 935-965 Market Street) and would not overlap with construction of the proposed project. Therefore, the cumulative noise analysis does not consider those reasonably foreseeable future projects.

The reasonably foreseeable future projects at 1066 Market Street, 1055 Market Street, and 1075 Market Street project 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 construction sites could experience temporary and intermittent increases to ambient noise levels. As with the proposed project, construction activities at the sites of the closest cumulative projects 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**, estimated construction noise near the closest off-site receptors would range from 66 to 88 dB Leq, which represents the worst-case scenario for the simultaneous operation of two excavators, a drill rig and a loader near the center of the project site. As further described above, the proximity of off-site sensitive receptors to project

construction activities would result in temporary and intermittent construction noise impacts that would be noticeable at times given the relatively close proximity (adjacent and 70 feet away) of the off-site receptors. 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 4** on p. 85. Noise-sensitive receptors closest to the project site at 1000 Market Street and 48 Golden Gate Avenue would be between 70 and 100 feet away from 1066 Market Street and over 300 feet from 1075 Market Street and 1055 Market Street and thus would experience reduced noise levels from construction activities that would occur at those locations. Noise-sensitive receptors at other locations such as 111 Jones Street, 121 Golden Gate Avenue, and 39 Jones Street would be closer to 1066 Market Street, over 150 feet from 1028 Market Street, and over 300 feet away from 1075 Market Street and 1055 Market Street. 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 **Improvement Measures I-NO-2a** and **2b** 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.

Similar to construction noise, construction vibration would be localized and the proposed project would not require high-impact activities, such as jackhammering. As stated above, the vibration from construction activity is typically below the threshold of perception when the activity is more than 50 feet from the receiver. Residents in the project vicinity would not be expected to be exposed to excessive ground-borne vibration.

For the reasons discussed above, the proposed project, in combination with the past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable noise impact. Therefore, this topic will not be discussed in the EIR.

<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>
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"/>
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 (PM), air toxics, and greenhouse gas (GHG) emissions 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 GHG 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), 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 attainment or unclassified for most criteria pollutants with the exception of ozone, PM_{2.5}, and PM₁₀; for these pollutants, the SFBAAB is designated as non-attainment under either the state or federal standards.⁸⁶ 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.⁸⁷

Land use projects may contribute to regional criteria air pollutants during the construction and operational phases of a project. **Table 6: Criteria Air Pollutant Significance Thresholds** identifies air quality significance thresholds. This table is 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.

Ozone Precursors

As discussed previously, the SFBAAB is currently designated as non-attainment for ozone and PM. Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO_x). The potential for a project to result in a cumulatively considerable net increase in criteria air pollutants, which may contribute to an existing or projected air quality violation, is based on the state and federal CAA emissions limits for stationary sources. To ensure that new stationary

⁸⁶ "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.

⁸⁷ Bay Area Air Quality Management District (BAAQMD), *California Environmental Quality Act Air Quality Guidelines*, May 2011 (hereinafter "*CEQA Air Quality Guidelines*"), p. 2-1.

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).⁸⁸ These levels represent emissions 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.

Table 6: 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 ^a	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	

Note:

^a ROG = Reactive Organic Gas

Source: BAAQMD, 2011

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})*⁸⁹

The BAAQMD has not established an offset limit for PM_{2.5}. However, the emissions limit in the federal New Source Review for stationary sources in nonattainment areas is an appropriate significance threshold. For PM₁₀ and PM_{2.5}, the emissions limit under the New Source Review is 15 tons per year (82 lbs. per day) and 10 tons per year (54 lbs. per day), respectively. These emissions limits represent levels at which a source is not expected to have an impact on air quality.⁹⁰ Similar to ozone precursor thresholds identified above, land use development projects

⁸⁸ BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009 (hereinafter “*Revised Draft Options and Justification Report*”), p. 17.

⁸⁹ PM₁₀ is often termed “coarse” PM and is made of particulates that are 10 microns in diameter or smaller. PM_{2.5}, termed “fine” PM, is composed of particles that are 2.5 microns or less in diameter.

⁹⁰ BAAQMD, *Revised Draft Options and Justification Report*, p. 16.

typically result in PM emissions as a result of increases in vehicle trips, space heating and natural gas combustion, landscape maintenance, and construction activities. Therefore, the above thresholds can be applied to the construction and operational phases of land use projects. Again, because construction activities are temporary in nature, only the average daily thresholds are applicable to construction phase emissions.

Fugitive Dust

Fugitive dust emissions are typically generated during construction phases. Studies have shown that the application of best management practices (BMPs) at construction sites significantly controls fugitive dust and individual measures have been shown to reduce fugitive dust by anywhere from 30 to 90 percent.^{91,92} The BAAQMD has identified a number of BMPs to control fugitive dust emissions from construction activities.⁹³ The City's Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) requires a number of measures to control fugitive dust and the BMPs employed in compliance with the City's Construction Dust Control Ordinance are an effective strategy for controlling construction-related fugitive dust.

Other Criteria Pollutants

Regional concentrations of CO in the Bay Area have not exceeded the state standards in the past 11 years and 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 parts per million (8-hour average) or 20.0 parts per million (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 development projects, development projects would not result in a cumulatively considerable net increase in CO or SO₂, and quantitative analysis is not required.

⁹¹ BAAQMD, *Revised Draft Options and Justification Report*, p. 27.

⁹² Western Regional Air Partnership, *2006 WRAP Fugitive Dust Handbook*, September 7, 2006, p. 3-16. Available online at http://www.wrapair.org/forums/dejf/fdh/content/FDHandbook_Rev_06.pdf. Accessed October 17, 2015.

⁹³ BAAQMD, *CEQA Air Quality Guidelines*, pp. 8-3 to 8-5.

Local Health Risks and Hazards

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

Unlike criteria air pollutants, TACs do not have ambient air quality standards but are regulated by the 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.⁹⁴

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 PM_{2.5} are strongly associated with mortality, respiratory diseases, and impaired lung development in children, and other endpoints such as hospitalization for cardiopulmonary disease.⁹⁵ 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.⁹⁶ 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.

⁹⁴ 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.

⁹⁵ San Francisco Department of Public Health, *Assessment and Mitigation of Air Pollutant Health Effects from Intra-Urban Roadways: Guidance for Land Use Planning and Environmental Review*, May 2008.

⁹⁶ California Air Resources Board (ARB), Fact Sheet, "The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines," October 1998.

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,” were identified based on health-protective criteria that considers estimated cancer risk, exposures to fine PM, proximity to freeways, and locations with particularly vulnerable populations. The project site is located within an Air Pollutant Exposure Zone. Each of the Air Pollutant Exposure Zone criteria is discussed below.

Excess Cancer Risk

The above 100 per one million persons (100 excess cancer risk) criterion is based on United States Environmental Protection Agency (USEPA) guidance for conducting air toxic analyses and making risk management decisions at the facility and community-scale level.⁹⁷ As described by the BAAQMD, the USEPA considers a cancer risk of 100 per one million to be within the “acceptable” range of cancer risk. Furthermore, in the 1989 preamble to the benzene National Emissions Standards for Hazardous Air Pollutants rulemaking,⁹⁸ 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.⁹⁹

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 conclude that the current federal annual PM_{2.5} standard of 15 microgram per cubic meter ($\mu\text{g}/\text{m}^3$) should be revised to a level within the range of 13 to 11 $\mu\text{g}/\text{m}^3$, with evidence strongly supporting a standard within the range of 12 to 11 $\mu\text{g}/\text{m}^3$. The Air Pollutant Exposure Zone for San Francisco is based on the health protective PM_{2.5} standard of 11 $\mu\text{g}/\text{m}^3$, as supported by the USEPA’s Particulate Matter Policy Assessment, although lowered to 10 $\mu\text{g}/\text{m}^3$ to account for uncertainty in accurately predicting air pollutant concentrations using emissions modeling programs.

⁹⁷ BAAQMD, *Revised Draft Options and Justification Report*, p. 67.

⁹⁸ 54 Federal Register 38044, September 14, 1989.

⁹⁹ BAAQMD, *Revised Draft Options and Justification Report*, p. 67.

Proximity to Freeways

According to the ARB, studies have shown an association between the proximity of sensitive land uses to freeways and a variety of respiratory symptoms, asthma exacerbations, and decreases in lung function in children. Siting sensitive uses in close proximity to freeways increases both exposure to air pollution and the potential for adverse health effects. As evidence shows that sensitive uses in an area within a 500-foot buffer of any freeway are at an increased health risk from air pollution, lots that are within 500 feet of freeways are included in the Air Pollutant Exposure Zone.¹⁰⁰

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/m³.¹⁰¹

The above citywide health risk modeling was also used as the basis in 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.

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.

¹⁰⁰ ARB, *Air Quality and Land Use Handbook: A Community Health Perspective*, p. 4, April 2005. Available online at <http://www.arb.ca.gov/ch/landuse.htm>. Accessed April 21, 2015.

¹⁰¹ San Francisco Planning Department and San Francisco Department of Public Health, *2014 Air Pollutant Exposure Zone Map (Memo and Map)*, April 9, 2014. These documents are part of San Francisco Board of Supervisors File No. 14806, Ordinance No. 224-14 Amendment to Health Code Article 38.

Impact AQ-1: The proposed project's 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 vehicles. However, ROG's are also emitted from activities that involve painting, other types of architectural coatings, or asphalt paving. The proposed project's construction activities include excavation of the project to a depth of 23 feet bgs, the removal of excavated soil, the construction of the building, and the application of paint, coatings, and varnishes. During the project's approximately 20-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 PM 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 PM exposure can cause health effects at levels that are lower than national standards. The current health burden of PM demands that, where possible, public agencies take feasible available actions to reduce sources of PM exposure. According to the ARB, reducing PM_{2.5} concentrations to state and federal standards of 12 µg/m³ in the San Francisco Bay Area would prevent between 210 and 1,300 premature deaths.¹⁰²

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 PM to the local atmosphere. Depending on exposure, adverse health effects can occur due to this PM in general and also due to specific contaminants such as lead or asbestos that may be constituents of soil.

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 on-site workers, minimize public nuisance complaints, and to avoid orders to stop work by the DBI.

¹⁰² ARB, *Methodology for Estimating Premature Deaths Associated with Long-term Exposure to Fine Airborne Particulate Matter in California*, Draft Staff Report, Table 4d, December 7, 2009.

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 sq. ft. of soil comply with specified dust control measures whether or 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 mph. During excavation and dirt-moving activities, contractors shall wet sweep or vacuum the streets, sidewalks, paths, and intersections where work is in progress at the end of the workday. Inactive stockpiles (where no disturbance occurs for more than seven days) greater than 10 cubic yards or 500 sq. ft. of excavated material, backfill material, import material, gravel, sand, road base, and soil shall be covered with a 10-millimeter (0.01-inch) polyethylene plastic (or equivalent) tarp, braced down, or use other equivalent soil stabilization techniques. City of San Francisco Ordinance 175-91 restricts the use of potable water for soil compaction and dust control activities undertaken in conjunction with any construction or demolition project occurring within the boundaries of San Francisco, unless permission is obtained from the 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.

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. This topic will not be discussed in the EIR.

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 6**, 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 proposed 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 greenfield¹⁰³ 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 consists of a 13-story, 120-foot-tall building containing up to 186 dwelling units, approximately 9,657 gsf of retail/restaurant space, and an underground garage with 42 parking spaces. The size of proposed construction activities would be below the criteria air pollutant screening sizes for the “apartment, high-rise, 249 dwelling units” land use type identified in the BAAQMD’s *CEQA Air Quality Guidelines*. However, the excavation and removal of approximately 9,800 cubic yards of soil and 630 cubic yards of demolition debris would exceed the BAAQMD’s *CEQA Air Quality Guidelines* construction screening criterion of 10,000 cubic yards. Thus, quantification of construction-related criteria air pollutant emissions is required for the proposed project.

Construction-related criteria air pollutants generated by the proposed project were quantified using the California Emissions Estimator Model (CalEEMod) and provided within an Air Quality Technical Memorandum.¹⁰⁴ 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 20-month period with approximately 22 working days per month. Emissions were converted from tons/year to lbs/day using the estimated construction duration of 440 working days. As shown in **Table 7: Daily Project Construction Emissions**, unmitigated project construction emissions would be below the threshold of significance for all criteria air pollutants and would result in a less-than-significant construction criteria air pollutant impact. This topic will not be discussed in the EIR.

Table 7: Daily Project Construction Emissions

	Pollutant Emissions (Average Pounds per Day) ^a			
	ROG	NO _x	Exhaust PM ₁₀	Exhaust PM _{2.5}
Unmitigated Project Emissions	11.54	42.04	2.15	2.04
Significance Threshold	54	54	82	54

Note:

^a Emission factors were generated by CalEEMod model for San Francisco County.

Sources: Aspen Environmental Group, November 2015; BAAQMD, 2011

¹⁰³ A greenfield site refers to agricultural or forest land or an undeveloped site earmarked for commercial, residential, or industrial projects.

¹⁰⁴ Aspen Environmental Group, *Air Quality Technical Memorandum, 1028 Market Street Project*, November 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. 2014.0241E.

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*)

As discussed above, San Francisco, in partnership with BAAQMD, has modeled and assessed air pollutant impacts from mobile, stationary, and area sources within the City. This assessment has resulted in the identification of the Air Pollutant Exposure Zone, based on significance thresholds discussed above for excess cancer risk, fine PM, proximity to freeways, and health vulnerable locations. The project site is located within an Air Pollutant Exposure Zone, meaning that existing excess cancer risk exceeds 100 per one million and/or ambient PM_{2.5} concentrations exceed 10 µg/m³.

The closest sensitive land use is a mixed-use building adjacent to the project site at 1000 Market Street (the San Christina Building) with ground floor retail uses and residences/housing support services above. Other sensitive land uses within 300 feet of the project site are multi-family residential buildings at 48 Golden Gate Avenue (70 feet north), 39 Taylor Street (280 feet northeast), 153 Turk Street (219 feet north), 161 Turk Street (252 feet north), and 111 Jones Street (243 feet northwest); single room occupancy residential hotels at 140 Jones Street (246 feet northwest), 39 Jones Street (229 feet west), and 20 6th Street (252 feet southeast); senior housing at 121 Golden Gate Avenue (229 feet west); and a hotel at 1100 Market Street (the Renoir Hotel [292 feet southwest]). The closest public schools to the project site are the Bessie Carmichael Elementary School and the Tenderloin Elementary School, both of which are 2,500 feet west of the project site. The DeMarillac Academy, a private middle school serving grades 4 through 8, is located at 175 Golden Gate Avenue about 590 feet west of the project site. In addition to the above sensitive receptors, two mosques are located within 300 feet of the project site (Masjid Darussalam Mosque [20 Jones Street, 45 feet west of the project site] and AlSabeel Masjid Noor Al-Islam Mosque [118 Jones Street, 169 feet northwest of the project site]).¹⁰⁵ St. Boniface Catholic Church is located at 133 Golden Gate Avenue about 550 feet west of the project site.

The proposed project would introduce new sensitive receptors (in the form of new residential units) to the project site.

With regards to construction emissions, off-road equipment (which includes construction-related equipment) is a large contributor to DPM emissions in California, although since 2007, the ARB has found the emissions to be substantially lower than previously expected.¹⁰⁶ 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 fourth largest source of

¹⁰⁵ Turnstone Consulting/SWCA, *Sensitive Receptors Map*, June 12, 2015.

¹⁰⁶ 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 pp. 1-2 and p. 13 (Figure 4).

DPM emissions in California.¹⁰⁷ For example, revised PM emission estimates for the year 2010, which DPM is a major component of total PM, have decreased by 83 percent from previous 2010 emission estimates for the SFBAAB.¹⁰⁸ 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.¹⁰⁹

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 emissions standards were phased in between 1996 and 2000, and Tier 4 Interim and Final emissions standards for all new engines would be phased in between 2008 and 2015. To meet the Tier 4 emissions standards, engine manufacturers are required to produce new engines with advanced emissions-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.¹¹⁰

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.”¹¹¹

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

¹⁰⁷ Ibid, p. 13 (Figure 4).

¹⁰⁸ ARB, “In-Use Off-Road Equipment, 2011 Inventory Model.” Available online at http://www.arb.ca.gov/msei/categories.htm#inuse_or_category. Accessed April 27, 2015.

¹⁰⁹ 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, p. 2.

¹¹⁰ United States Environmental Protection Agency (USEPA), “Clean Air Nonroad Diesel Rule: Fact Sheet,” May 2004.

¹¹¹ BAAQMD, *CEQA Air Quality Guidelines*, p. 8-6.

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 20-month construction period. Project construction activities would result in short-term emissions of DPM and other TACs. The project site is located in an area that already experiences poor air quality and project construction activities would generate additional air pollution, affecting nearby sensitive receptors and resulting in a significant impact. Implementation of **Mitigation Measure M-AQ-2: Construction 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.¹¹² 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. 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 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall have engines that meet or exceed either USEPA or California 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-

¹¹² 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 USEPA's *Exhaust and Crankcase Emissions Factors for Nonroad Engine Modeling – Compression Ignition* has estimated Tier 0 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 USEPA'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 grams per horsepower per hour (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 grams per brake horsepower per hour [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).

- road emission standards automatically meet this requirement.
2. Where access to alternative sources of power are available, portable diesel engines shall be prohibited.
 3. Diesel engines, whether for off-road or on-road equipment, shall not be left idling for more than two minutes, at any location, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment (e.g., traffic conditions, safe operating conditions). The Contractor shall post legible and visible signs in English, Spanish, and Chinese, in designated queuing areas and at the construction site to remind operators of the two minute idling limit.
 4. The Contractor shall instruct construction workers and equipment operators on the maintenance and tuning of construction equipment, and require that such workers and operators properly maintain and tune equipment in accordance with manufacturer specifications.

B. Waivers.

1. The Planning Department’s ERO or designee may waive the alternative source of power requirement of Subsection (A)(2) if an alternative source of power is limited or infeasible at the project site. If the ERO grants the waiver, the Contractor must submit documentation that the equipment used for 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 8** below.

Table 8: 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*

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.

** Alternative fuels are not a VDECS.

- C. Construction Emissions Minimization Plan.** Before starting on-site construction activities, the Contractor shall submit a Construction Emissions Minimization Plan (Plan) to the ERO for review and approval. The Plan shall state, in reasonable detail, how the Contractor will meet the requirements of Section A.
1. The Plan shall include estimates of the construction timeline by phase, with a description of each piece of off-road equipment required for every construction phase. The description may include, but is not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), 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 TACs primarily from an increase in motor vehicle trips. However, land use projects may also result in emissions of criteria air pollutants and TACs 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 operation, 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, which consists of a 13-story, 120-foot-tall building containing up to 186 dwelling units, approximately 9,657 gsf of retail/restaurant space, and an underground garage with 42 parking spaces, would result in 1,163 new daily vehicle trips. The proposed project would be below the criteria air pollutant screening sizes for the “apartment, high-rise, 510 dwelling units” land use type 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

during project operations and would result in a less-than-significant impact with respect to operational criteria air pollutants. This topic will not be discussed in the EIR.

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*)

As discussed above on p. 102, San Francisco, in partnership with BAAQMD, has modeled and assessed air pollutant impacts from mobile, stationary, and area sources within the City. This assessment has resulted in the identification of the Air Pollutant Exposure Zone, or areas within the City that deserve special attention when siting uses that either emit toxic air contaminants or uses that are considered sensitive to air pollution. The project site is located within an Air Pollutant Exposure Zone.

The closest sensitive land use is a mixed-use building adjacent to the project site at 1000 Market Street (the San Christina Building) with ground floor retail uses and residences/housing support services above. Other sensitive land uses within 300 feet of the project site are multi-family residential buildings at 48 Golden Gate Avenue (70 feet north), 39 Taylor Street (280 feet northeast), 153 Turk Street (219 feet north), 161 Turk Street (252 feet north), and 111 Jones Street (243 feet northwest); single room occupancy residential hotels at 140 Jones Street (246 feet northwest), 39 Jones Street (229 feet west), and 20 6th Street (252 feet southeast); senior housing at 121 Golden Gate Avenue (229 feet west); and a hotel at 1100 Market Street (the Renoir Hotel [292 feet southwest]). The closest public schools to the project site are the Bessie Carmichael Elementary School and the Tenderloin Elementary School, both of which are 2,500 feet west of the project site. The DeMarillac Academy, a private middle school serving grades 4 through 8, is located at 175 Golden Gate Avenue about 590 feet west of the project site. In addition to the above sensitive receptors, two mosques are located within 300 feet of the project site (Masjid Darussalam Mosque [20 Jones Street, 45 feet west of the project site] and AlSabeel Masjid Noor Al-Islam Mosque [118 Jones Street, 169 feet northwest of the project site]).¹¹³ St. Boniface Catholic Church is located at 133 Golden Gate Avenue about 550 feet west of the project site.

Additionally, the proposed project would introduce new sensitive receptors (in the form of 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 1,163 daily vehicle trips would be well below

¹¹³ Turnstone Consulting/SWCA, *Sensitive Receptors Map*, June 12, 2015.

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. This topic will not be discussed in the EIR.

The proposed project would introduce new stationary sources of emissions (which are subject to permitting requirements): a diesel-fueled back-up emergency generator and natural-gas-fired mechanical systems or boilers. The emergency generator and other mechanical systems would be located on the rooftop of the proposed 13-story building. The BAAQMD considers natural gas boilers “minor, low-impact sources” that do not present a health risk even in combination with other nearby sources. 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 limits 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 M-AQ-4: Best Available Control Technology for Diesel Generators** would reduce the magnitude of this impact to a less-than-significant level by reducing emissions by 89 to 94 percent compared to equipment with engines that do not meet any emission standards and without a VDECS. Therefore, although the proposed project would add a new source of TACs within an area that already experiences poor air quality, implementation of **Mitigation Measure M-AQ-4** would reduce this impact to a less-than-significant level. This topic will not be discussed in the EIR.

Mitigation Measure M-AQ-4: Best Available Control Technology for Diesel Generators

The project sponsor shall ensure that the backup diesel generator meets or exceeds one of the following emission standards for PM: (1) Tier 4 certified engine, or (2) Tier 2 or Tier 3 certified engine that is equipped with a California ARB Level 3 VDECS. A non-verified diesel emission control strategy may be used if the filter has the same PM reduction as the identical ARB verified model and if the 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 a 13-story mixed-use residential building with up to 186 dwelling 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 that achieves protection from PM_{2.5} equivalent to that associated with a Minimum Efficiency Reporting Value 13 Minimum Efficiency Reporting Value 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 with Article 38, the project sponsor has submitted an initial application to the Department of Public Health.¹¹⁴ 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. This topic will not be discussed in the EIR.

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*, this analysis considers whether the project would: (1) support the primary goals of the *2010 Clean Air Plan*, (2) include applicable control measures from the *Clean Air Plan*, and (3) avoid disrupting or hindering implementation of control measures identified in the *Clean Air Plan*.

The primary goals of the *Clean Air Plan* 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 GHG emissions. To meet the primary goals, the *Clean Air Plan* 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 *Clean Air Plan* 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 GHG emissions from motor vehicles is to channel future Bay Area growth into vibrant

¹¹⁴ LCL Global-1028 Market Street LLC, Application for Article 38 Compliance Assessment, September 30, 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. 2014.0241E.

urban communities where goods and services are close at hand and people have a range of viable transportation options. To this end, the *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 GHG emissions is discussed under **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 proposed project would be an infill development in an area with a wide variety of neighborhood-serving commercial uses in the immediate vicinity. The compact development of the proposed project and high availability of viable transportation options ensure that residents could bicycle, walk, or ride transit to and from the project site instead of taking trips via private automobile. These features ensure that the proposed project would avoid substantial growth in automobile trips and vehicle miles traveled. The proposed project's anticipated 1,163 new daily vehicle trips would result in a negligible increase in air pollutant emissions. Furthermore, the proposed project would be generally consistent with the *General Plan*, as discussed in **Section C, Compatibility with Existing Zoning and Plans**. Transportation control measures that are identified in the *Clean Air Plan* are implemented by the *General Plan* and the Planning Code, for example, through the City's Transit First Policy, bicycle parking requirements, and transit impact development fees. Compliance with these requirements would ensure that the proposed project includes relevant transportation control measures specified in the *Clean Air Plan*. Therefore, the proposed project would include applicable control measures identified in the *Clean Air Plan* to meet the *Clean Air Plan*'s primary goals.

Examples of projects that could cause the disruption or delay of *Clean Air Plan* control measures are those that would preclude the extension of a transit line or bike path or those that propose excessive amounts of parking above minimum parking requirements. The proposed project would add up to 186 dwelling units, approximately 9,675 gsf of retail space, 42 parking spaces (including one car-share space), and 123 Class 1 bicycle parking spaces and 22 Class 2 bicycle spaces to a dense, walkable urban area near a concentration of regional and local transit service. It would not preclude the extension of a transit line or a bike path or any other transit improvement, nor would it provide excessive vehicle parking, and thus it would not disrupt or hinder implementation of control measures identified in the *Clean Air Plan*.

For these reasons, the proposed project would not interfere with implementation of the *Clean Air Plan*. 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. This topic will not be discussed in the EIR.

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.¹¹⁵ Additionally, the proposed project consists of residential, retail, and parking uses that would not create significant sources of new odors. Therefore, odor impacts would be less than significant and will not be discussed in the EIR.

Cumulative Air Quality Impacts

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

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.¹¹⁶ 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 proposed project would add a new sensitive land use and new sources of TACs (e.g., new vehicle trips and stationary sources) within an area already adversely affected by air quality, resulting in a considerable contribution to cumulative health risk impacts on 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. 109-111, 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**, p. 113, which requires best available control technology to limit emissions from the project's emergency back-up generator.

¹¹⁵ Field observation on June 17, 2015.

¹¹⁶ BAAQMD, *CEQA Air Quality Guidelines*, May 2011, p. 2-1.

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 project's contribution to cumulative air quality impacts to a less-than-significant level. This topic will not be discussed in the EIR.

<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>
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"/>

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 has contributed and will contribute to global climate change and its associated environmental impacts.

The BAAQMD has prepared guidelines and methodologies for analyzing GHG emissions. 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 GHG emissions and describes the required contents of such a plan. Accordingly, San Francisco has prepared *Strategies to Address Greenhouse Gas Emissions (GHG Reduction Strategy)*,¹¹⁷ 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

¹¹⁷ 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>. Accessed August 11, 2015.

outlined in the BAAQMD's *2010 Clean Air Plan*, Executive Order S-3-05,¹¹⁸ and Assembly Bill 32 (AB 32), also known as the Global Warming Solutions Act.^{119, 120}

Given that the City's local GHG reduction targets are more aggressive than the state 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 Executive Order 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 GHG emissions 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 186 dwelling units, approximately 9,657 gsf of retail/restaurant space, and an underground garage with 42 parking spaces to a site that is currently vacant. Therefore, the proposed project would contribute to annual long-term increases in GHG emissions 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.

¹¹⁸ Executive Order S-3-05 sets forth a series of target dates by which statewide emissions of GHG emissions need to be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels (approximately 457 million metric tons of carbon dioxide equivalent [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).

¹¹⁹ San Francisco Department of Environment, *San Francisco Climate Action Strategy, 2013 Update*.

¹²⁰ The *Clean Air Plan*, Executive Order S-3-05, and Assembly Bill 32 goals, among others, are to reduce GHG emissions in the year 2020 to 1990 levels.

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, 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 backup diesel generators.

These regulations, as 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 the 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.¹²¹ 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 and this topic will not be discussed in the EIR.

<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>
8. WIND AND SHADOW—Would the project:					
a) Alter wind in a manner that substantially affects public areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

WIND

At a height of 120 feet (not including the 20-foot-tall rooftop mechanical penthouse) the proposed building is tall enough that it could affect ground-level wind currents on and around the project site. The proposed project would include common open spaces at the 2nd floor and on the rooftop.

¹²¹ Greenhouse Gas Analysis: Compliance Checklist, June 2, 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. 2014.0241E.

In addition, private balconies would be located on the 4th through 11th floors and private terraces would be located on the 6th and 12th floors.

This discussion is based on wind tunnel testing conducted by Rowan Williams Davies & Irwin, Inc. (RWDI) and presented in a *Pedestrian Wind Study*.¹²² This section discusses the impacts of the proposed project on ground-level wind currents at 48 test-point locations – 38 street-grade test-point locations on sidewalks in the immediate project vicinity and 10 above-grade test-point locations on the proposed common and private open spaces on the project site (see **Figure 26: Wind Tunnel Sensor Locations**).

Background

Existing Climate and Wind Conditions

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

Buildings and Wind Speed

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

¹²² RWDI, *1028 Market Street Pedestrian Wind Conditions Consultation Wind Tunnel Tests*, October 14, 2015 (hereinafter referred to as “*Pedestrian Wind Study*”). 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. 2014.0241E.

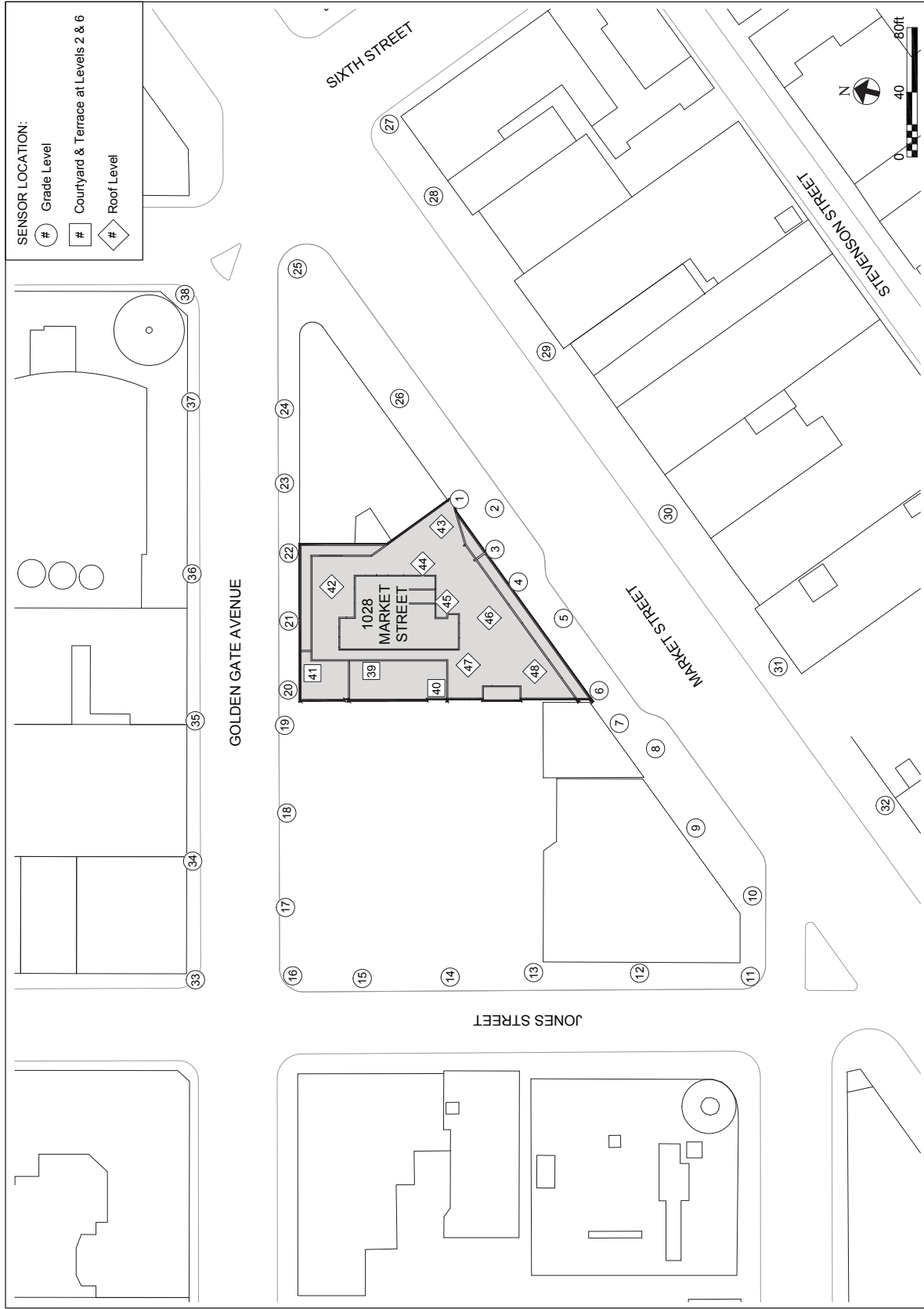


FIGURE 26: WIND TUNNEL SENSOR LOCATIONS

1028 MARKET STREET

2014.0241E

Wind Speed and Pedestrian Comfort

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

Regulatory Framework

Planning Code Section 148 establishes wind comfort and wind hazard criteria for C-3 Districts. Planning Code Section 148(a) establishes an equivalent wind speed¹²³ of 11 mph as the comfort criterion for areas of substantial pedestrian use and 7 mph as the comfort criterion in public seating areas. New buildings and additions to existing buildings may not cause ground-level winds to exceed these wind speeds more than 10 percent of the time year round between 7:00 a.m. and 6:00 p.m. If existing wind speeds exceed the comfort criteria, or when a project would result in exceedances of the comfort criteria, the Planning Commission may grant an exception pursuant to Planning Code Sections 148(a) and 309(a)(2) provided that the building or addition cannot be designed to meet the comfort criteria without creating an unattractive and ungainly building form and without unduly restricting the development potential of the site. Pursuant to Planning Code Section 148(a), no exception shall be allowed and no building or addition shall be permitted that causes equivalent wind speeds to reach or exceed the hazard level of 26 mph for a single hour of the year.¹²⁴

Approach to Analysis

Any proposed development project in a C-3 District in San Francisco that requires a wind tunnel analysis must follow the standard methodology established by the Planning Department. Under the standard methodology, the wind tunnel analysis relies on wind data collected from the United

¹²³ Pursuant to Planning Code Section 148(b), equivalent wind speed is defined as the mean hourly wind speed adjusted to incorporate the effects of gustiness or turbulence on pedestrians.

¹²⁴ Arens, E. *et al.*, "Developing the San Francisco Wind Ordinance and its Guidelines for Compliance," Building and Environment, Vol. 24, No. 4, p. 297-303, 1989. The wind hazard criterion is derived from the 26 mph hourly average wind speed that would generate a 3-second gust of wind at 20 meters per second, a commonly used guideline for wind safety. Because the original wind data on which the testing is based was collected at one-minute averages (i.e., a measurement of sustained wind speed for one minute, collected once per hour), the 26 mph hourly average is converted to a one-minute average of 36 mph, which is used to determine compliance with the 26 mph one-hour hazard criterion in the Planning Code.

States Weather Bureau weather station atop the Federal Building at 50 United Nations Plaza. Wind data from 7:00 a.m. and 6:00 p.m. are used, because this time period represents peak pedestrian activity in a downtown setting.

RWDI conducted a wind tunnel test of the proposed project using a 1:300 (1 inch = 25 feet) scale model of the proposed project and surrounding buildings within a 1,125-foot radius¹²⁵ of the project site. The scale model, which was equipped with permanently mounted wind speed sensors, was placed inside an atmospheric boundary layer wind tunnel. Using four wind directions (northwest, west-northwest, west, and west-southwest), wind tunnel tests were then conducted for the project site and vicinity using the following three test scenarios:

1. **Existing Conditions:** This scenario consists of the existing structures on the project site and the existing surrounding buildings.¹²⁶
2. **Existing Conditions Plus Proposed Project:** This scenario consists of the proposed project and the existing surrounding buildings.¹²⁷
3. **Existing Conditions Plus Cumulative:** This scenario includes Existing Conditions Plus Proposed Project and reasonably foreseeable future projects at 1036-1040 Mission Street, 570 Jessie Street, 1125 Market Street, 1075 Market Street, 1053 Market Street, 1066 Market Street, 935-965 Market Street, 950-974 Market Street, 19-25 Mason Street & 2-16 Turk Street, 168 Eddy Street/210 Taylor Street, 181 Turk Street/180 Jones Street, and 351 Turk Street/145 Leavenworth Street.¹²⁸ The reasonably foreseeable future projects included in the Existing Conditions Plus Cumulative scenario are within 1,125 feet of the project site and close enough that they could interact with the proposed project and alter ground-level wind conditions around or near the project site.

Wind speed measurements were recorded at 38 street-grade test-point locations for all three scenarios. Wind speed measurements were taken at an additional 10 above-grade test-point locations on the project site for the Existing Conditions Plus Proposed Project and Existing Conditions Plus Cumulative scenarios: at the 2nd floor courtyard, the 6th floor terrace, and on the rooftop deck. (See **Figure 26**, above). A summary of the wind tunnel test results are presented in **Table 9: Pedestrian Wind Study – Summary of Wind Comfort and Wind Hazard Results**. Detailed wind tunnel test results are shown in **Table 10: Wind Hazard Results**, on pp. 125-127, and **Table 11: Wind Comfort Results**, on pp. 129-131. Like many locations along the Market Street corridor, the vicinity of the project site can be characterized as windy. As reported in the *Pedestrian Wind Study* and discussed in more detail below, existing pedestrian-level wind speeds in the vicinity of the project site average are generally below 11 mph on the sidewalks in the vicinity of the project site. Higher wind speeds in excess of 11 mph are concentrated on the sidewalk to the south and west of the project site, along Market Street.

¹²⁵ The American Society of Civil Engineers has established a minimum standard of an 820-foot radius for wind tunnel testing.

¹²⁶ RWDI, *Pedestrian Wind Study*, Figure 1a.

¹²⁷ RWDI, *Pedestrian Wind Study*, Figure 1b.

¹²⁸ RWDI, *Pedestrian Wind Study*, Image 1 on p. 5 and Figure 1c.

Table 9: Pedestrian Wind Study – Summary of Wind Comfort and Wind Hazard Results

Wind Hazard Results	Existing	Existing + Project	Existing + Cumulative
Street-Grade Locations			
Range of Wind Speeds Exceeded One Hour/Year	12 – 30 mph	13 – 34 mph	11 – 32 mph
Average Wind Speed Exceeded One Hour/Year	18 mph	22	21
Hours Per Year Wind Speed Exceeds 36 mph ^a	0	0	0
Number of Hazard Criterion Exceedances	0 of 38	0 of 38	0 of 38
Above-Grade Locations ^b			
Range of Wind Speeds Exceeded One Hour/Year	-	16 – 46 mph	6 – 18 mph
Average Wind Speed Exceeded One Hour/Year	-	27	23
Hours Per Year Wind Speed Exceeds 36 mph ^a	-	39	0
Number of Hazard Criterion Exceedances	-	1 of 10	0 of 10
Wind Comfort Results			
	Existing	Existing + Project	Existing + Cumulative
Street-Grade Locations			
Range of Wind Speeds Exceeded 10 Percent of Time	6 – 15 mph	6 – 18 mph	6 – 18 mph
Average Wind Speed Exceeded 10 Percent of Time	10 mph	11 mph	11 mph
Percent of Time Wind Speed Exceeds 11 mph	8	12	13
Number of Comfort Criteria Exceedances	11 of 38	15 of 38	15 of 38
Above-Grade Locations ^b			
Range of Wind Speeds Exceeded 10 Percent of Time	-	8 – 22 mph	5 – 16 mph
Average Wind Speed Exceeded 10 Percent of Time	-	14 mph	11 mph
Percent of Time Wind Speed Exceeds 11 mph	-	21	13
Number of Comfort Criteria Exceedances	-	5 of 10	4 of 10

Notes:

^a The threshold wind speeds in the Planning Code were established by assuming wind speeds were all averaged for one hour, while the local wind data available from the old San Francisco Federal Building at 50 United Nations Plaza were recorded for a minute on each hour. Such a discrepancy has a more significant impact on strong winds that are related to hazardous conditions. Therefore, an equivalent wind speed of 36 mph (based on the actual one-minute averaged meteorological data), instead of the Planning Code value of 26 mph (based on the assumed one-hour averaged meteorological data), is commonly used in San Francisco for the assessment of hazardous winds.

^b Above-grade test-point locations are on the project site at the proposed common and private opens spaces on the 2nd floor courtyard (common), 6th floor terrace (private), and rooftop deck (common).

Source: RWDI, 1028 Market Street Pedestrian Wind Conditions Consultation Wind Tunnel Tests, October 14, 2015.

Impact WS-1: The proposed project would not alter winds in a manner that would substantially affect public areas. (*Less than Significant*)

Wind Hazard Analysis for the Proposed Project

Hazardous wind speeds were measured at 38 street-grade test-point locations for the Existing Conditions and the Existing Conditions Plus Proposed Project scenarios. In addition to the 38 street-grade test-point locations, 10 wind speed sensors were located on the proposed building in the Existing Conditions Plus Proposed Project scenario (Test-Points 39 to 48). The locations of the test-points are shown in **Figure 26**, on p. 121, and the wind tunnel test results are shown in **Table 10**. As discussed on p. 122, the wind tunnel test results presented in **Table 10** use the Planning Code Section 148 one-minute average of 36 mph for the wind hazard criterion.

Table 10: Wind Hazard Results

Existing Conditions					Existing Conditions Plus Proposed Project				Existing Conditions Plus Cumulative			
Location Number	Hazard Criterion (mph)	Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criterion	Exceeds	Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criterion	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criterion	Hours Change Relative to Existing	Exceeds
1	36	16	0	--	16	0	0	--	15	0	0	--
2	36	20	0	--	19	0	0	--	21	0	0	--
3	36	18	0	--	18	0	0	--	18	0	0	--
4	36	18	0	--	19	0	0	--	19	0	0	--
5	36	21	0	--	27	0	0	--	24	0	0	--
6	36	19	0	--	34	0	0	--	23	0	0	--
7	36	15	0	--	29	0	0	--	19	0	0	--
8	36	21	0	--	22	0	0	--	27	0	0	--
9	36	21	0	--	21	0	0	--	24	0	0	--
10	36	21	0	--	21	0	0	--	22	0	0	--
11	36	21	0	--	21	0	0	--	32	0	0	--
12	36	17	0	--	17	0	0	--	32	0	0	--
13	36	14	0	--	20	0	0	--	26	0	0	--
14	36	16	0	--	22	0	0	--	18	0	0	--
15	36	12	0	--	16	0	9	--	14	0	0	--
16	36	14	0	--	15	0	0	--	17	0	0	--
17	36	14	0	--	23	0	0	--	15	0	0	--
18	36	15	0	--	33	0	0	--	16	0	0	--
19	36	15	0	--	16	0	0	--	19	0	0	--

Existing Conditions					Existing Conditions Plus Proposed Project					Existing Conditions Plus Cumulative				
Location Number	Hazard Criterion (mph)	Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criterion	Exceeds	Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criterion	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criterion	Hours Change Relative to Existing	Exceeds		
20	36	13	0	--	16	0	0	--	19	0	0	--		
21	36	14	0	--	16	0	0	--	20	0	0	--		
22	36	12	0	--	18	0	0	--	20	0	0	--		
23	36	13	0	--	22	0	0	--	25	0	0	--		
24	36	22	0	--	27	0	0	--	29	0	0	--		
25	36	22	0	--	23	0	0	--	19	0	0	--		
26	36	20	0	--	17	0	0	--	19	0	0	--		
27	36	30	0	--	27	0	0	--	26	0	0	--		
28	36	29	0	--	22	0	0	--	23	0	0	--		
29	36	27	0	--	30	0	0	--	32	0	0	--		
30	36	25	0	--	34	0	0	--	30	0	0	--		
31	36	26	0	--	28	0	0	--	31	0	0	--		
32	36	24	0	--	24	0	0	--	26	0	0	--		
33	36	13	0	--	19	0	0	--	18	0	0	--		
34	36	14	0	--	19	0	0	--	17	0	0	--		
35	36	13	0	--	15	0	0	--	17	0	0	--		
36	36	14	0	--	26	0	0	--	18	0	0	--		
37	36	15	0	--	20	0	0	--	21	0	0	--		
38	36	16	0	--	13	0	0	--	11	0	0	--		
39	36	N/A	--	--	18	0	0	--	11	0	0	--		

Existing Conditions					Existing Conditions Plus Proposed Project					Existing Conditions Plus Cumulative			
Location Number	Hazard Criterion (mph)	Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criterion	Exceeds	Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criterion	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1 Hour per Year (mph)	Hours per Year Wind Speed Exceeds Hazard Criterion	Hours Change Relative to Existing	Exceeds	
40	36	N/A	--	--	17	0	0	--	10	0	0	--	
41	36	N/A	--	--	32	0	0	--	28	0	0	--	
42	36	N/A	--	--	36	0	0	--	34	0	0	--	
43	36	N/A	--	--	21	0	0	--	18	0	0	--	
44	36	N/A	--	--	23	0	0	--	20	0	0	--	
45	36	N/A	--	--	16	0	0	--	13	0	0	--	
46	36	N/A	--	--	30	0	0	--	29	0	0	--	
47	36	N/A	--	--	46	39	39	e	36	0	0	--	
48	36	N/A	--	--	34	0	0	--	29	0	0	--	
Average mph and total hours (street-grade test-points)		18	0		22	0	0		21	0	0		
Exceedances		0 of 38			0 of 38				0 of 38				
Average mph and total hours (above-grade test-points)		--	--	--	27	39	--	1	23	0	0		
Exceedances		---			1 of 10				0 of 10				

Under existing conditions, all test locations comply with the wind hazard criterion. With implementation of the proposed project, wind tunnel testing results indicate that the proposed project would not cause pedestrian-level wind speeds to exceed the hazard criterion at any of the wind speed sensor locations in the public right-of-way. However, one on-site wind speed sensor (Test-Point 47 on the southwest portion of the rooftop) reported wind speeds in excess of the hazard criterion. While the proposed project's wind hazard impacts would be less than significant, as it does not affect ground-level wind currents, the project sponsor has agreed to the following improvement measure that could improve usability of the new rooftop deck on the proposed building by reducing wind exposure.

Improvement Measure I-WS-1: Wind Reduction on New Rooftop Deck

To reduce wind and improve usability on the new rooftop deck, the project sponsor should provide wind screens or landscaping along the west perimeter of the new rooftop deck up to 8 feet in height. Suggestions include Planning Code compliant porous materials or structures (vegetation, hedges, screens, latticework, perforated or expanded metal) as opposed to a solid surface.

Wind Comfort Analysis for the Proposed Project

Under existing conditions, the average equivalent wind speed for the wind comfort analysis at the 38 street-grade test-point locations is 10 mph, with wind speeds ranging from 6 to 15 mph. The locations of the test-points are shown in **Figure 26**, on p. 121, and the wind tunnel test results are shown in **Table 11**. The highest wind speeds occur along the north side of Market Street in front of the project site and to the west toward the intersection of Market, Jones, and McAllister streets (Test-Points 5 and 8-11) and the south side of Market Street between the 5th and 6th streets (Test-Points 27-32). Under existing conditions, wind speeds at 27 of the 38 ground level test-points meet the wind comfort criterion, and 11 exceed it.

With implementation of the proposed project, the average equivalent wind speed for the wind comfort analysis at the 38 street-grade test-point locations would increase from 10 mph to 11 mph. Wind speeds would range from 6 to 18 mph, and the highest wind speeds would continue to occur along the north and south sides of Market Street (Test-Points 5, 8-11, and 27-32). Wind speeds would decrease at 6 locations, remain the same at 8 locations, and increase at 24 locations. The largest decrease in wind speed – 3 mph (from 15 to 12 mph) – would occur at the southwest corner of Market and 6th streets (Test-Point 27).

When compared to existing conditions, implementation of the proposed project would change wind patterns such that 4 new wind comfort exceedances (Test-Points 6, 7, 18, and 36) would be created. The wind speed would increase at each of the 4 locations at which a new wind comfort exceedance would be created. Test-Points 6 and 7 are immediately to the west of the project site. Test-Points 18 and 36 are on south and north sidewalks of Golden Gate Avenue, respectively.

Table 11: Wind Comfort Results

Existing Conditions					Existing Conditions Plus Proposed Project			Existing Conditions Plus Cumulative		
Location Number	Comfort Criterion (mph)	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Exceeds
1	11	9	3	--	8	2	--	8	1	--
2	11	11	10	--	11	10	--	11	10	--
3	11	10	6	--	10	5	--	10	5	--
4	11	11	10	--	11	10	--	10	7	--
5	11	12	14	e	15	26	e	13	21	e
6	11	11	10	--	18	39	e	13	19	e
7	11	9	2	--	12	13	e	11	10	--
8	11	12	15	e	12	17	e	15	26	e
9	11	12	14	e	12	15	e	13	20	e
10	11	12	15	e	12	16	e	13	19	e
11	11	12	15	e	12	16	e	14	23	e
12	11	9	3	--	9	3	--	16	28	e
13	11	7	0	--	9	5	--	13	18	e
14	11	8	1	--	11	10	--	9	4	--
15	11	6	0	--	8	2	--	7	1	--
16	11	7	0	--	8	1	--	9	3	--
17	11	7	0	--	10	8	--	7	1	--
18	11	8	1	--	15	25	e	9	2	--
19	11	8	1	--	9	4	--	10	6	--

Existing Conditions					Existing Conditions Plus Proposed Project			Existing Conditions Plus Cumulative		
Location Number	Comfort Criterion (mph)	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Exceeds
20	11	7	0	--	9	4	--	10	6	--
21	11	6	0	--	9	2	--	10	8	--
22	11	6	0	--	9	4	--	9	6	--
23	11	6	0	--	11	10	--	11	10	--
24	11	8	3	--	11	10	--	12	12	e
25	11	10	6	--	9	5	--	10	7	--
26	11	11	10	--	9	3	--	11	10	--
27	11	15	27	e	12	18	e	14	22	e
28	11	14	23	e	12	16	e	13	19	e
29	11	15	25	e	16	30	e	17	34	e
30	11	14	23	e	17	33	e	17	36	e
31	11	15	27	e	17	34	e	18	41	e
32	11	13	21	e	14	22	e	15	26	e
33	11	7	0	--	9	4	--	9	4	--
34	11	6	0	--	9	4	--	9	2	--
35	11	6	0	--	8	1	--	9	3	--
36	11	7	1	--	12	13	e	9	4	--
37	11	7	0	--	10	7	--	9	5	--
38	11	7	1	--	6	0	--	6	0	--
39	11	N/A	0	--	8	3	--	6	0	--

Existing Conditions					Existing Conditions Plus Proposed Project			Existing Conditions Plus Cumulative		
Location Number	Comfort Criterion (mph)	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Exceeds
40	11	N/A	0	--	9	2		5	0	
41	11	N/A	0	--	15	27	e	11	10	
42	11	N/A	0	--	18	36	e	16	28	e
43	11	N/A	0	--	11	10		10	5	
44	11	N/A	0	--	11	10		10	6	
45	11	N/A	0	--	8	2		7	0	
46	11	N/A	0	--	16	31	e	14	23	e
47	11	N/A	0	--	22	51	e	16	31	e
48	11	N/A	0	--	17	33	e	15	28	e
Average mph and % (all ground level test-points)		10	8%		11	12%		11	13%	
Exceedances		11 of 38			15 of 38			15 of 38		

The largest increase in wind speed – 7 mph – would occur at Test-Point 6 (from 11 to 18 mph) and Test-Point 18 (from 8 to 15 mph). Pedestrians in this area may notice the slightly windier conditions, but walking steadily would not be difficult. Wind speeds at Test-Point 7 and Test-Point 36 would increase by 3 and 5 mph, respectively. Wind speeds would exceed the comfort criterion at 5 of the 10 above-grade test-point locations on the project site – Test-Point 41 on the 6th floor terrace and Test-Points 42 and 46-48 on the rooftop deck.

In summary, implementation of the proposed project would not result in substantial changes to ground level wind conditions near the project site. The average equivalent wind speed would increase from 10 mph to 11 mph, and the number of locations with wind speeds that exceed the wind comfort criterion would increase by 4 (from 11 to 15). Exceeding the wind comfort criterion is not a significant wind impact under CEQA. However, the proposed project would require an exception from the wind comfort criterion requirements pursuant to Planning Code Section 243(c)(10)(B). The Planning Department considers an exceedance of the wind hazard criterion, not an exceedance of the wind comfort criterion, to be a significant impact under CEQA. Although there would be localized changes throughout the project vicinity, the overall ground level wind conditions would remain substantially the same with implementation of the proposed project.

Therefore, with implementation of the proposed project, pedestrians on the nearby sidewalks would experience an incremental increase (on average) in wind speeds but in no case would the slight increase result in an exceedance of the wind hazard criterion. For this reason, the proposed project would not alter wind in a manner that substantially affects public areas and this impact would be less than significant. No mitigation measures are necessary and this topic will not be discussed in the EIR.

Cumulative Impacts

Impact C-WS-1: The proposed project, in combination with past, present, or reasonably foreseeable future projects in the site vicinity, would not make a cumulatively considerable contribution to a significant cumulative wind impact. (*Less than Significant*)

Wind Hazard Analysis for Cumulative Conditions

Wind speeds were measured at 38 street-grade test-point locations for the Existing Conditions, the Existing Conditions Plus Project, and the Existing Conditions Plus Cumulative scenarios. In addition to the 38 street-grade test-point locations, 10 wind speed sensors were located on the proposed building in the Existing Conditions Plus Project and Existing Conditions Plus Cumulative scenarios (Test-Points 39 to 48). The street-grade and above-grade test-point locations are shown on **Figure 26**, on p. 121, and the detailed test results are shown in **Table 10**, on pp. 125-127. As discussed on p. 122, the test results presented in **Table 10** use the one-minute average of 36 mph for the wind hazard criterion.

Existing conditions related to hazardous winds (i.e., no exceedances of the wind hazard criterion) are discussed under **Impact WS-1** on pp. 124-128. With implementation of the proposed project and reasonably foreseeable future projects, wind tunnel testing results indicate that ground-level wind speeds would not exceed the wind hazard criterion. In addition, the one on-site wind speed sensor (Test-Point 47 on the southwest portion of the rooftop), which reported wind speeds in excess of the wind hazard criterion in the Existing Conditions Plus Proposed Project scenario, would not exceed the wind hazard criterion in the Existing Conditions Plus Cumulative scenario.

Wind Comfort Analysis for the Cumulative Conditions

Under existing conditions, wind speeds at 27 of the 38 street-grade test-point locations meet the wind comfort criteria and 11 exceed it. With implementation of the proposed project, in combination with the reasonably foreseeable future projects discussed on p. 123, the average equivalent wind speed for the wind comfort analysis at the 38 street-grade test-point locations would increase from 10 mph to 11 mph, with wind speeds ranging from 6 to 18 mph.

When compared to existing conditions, implementation of the proposed project and reasonably foreseeable future projects would change wind patterns. Overall, wind speeds would decrease at 5 locations, remain the same at 5 locations, and increase at 28 locations. The highest wind speeds would continue to occur along the north and south sides of Market Street, and wind speeds would increase on the south side of Golden Gate Avenue and the east side of Jones Street. A one (1) mph decrease in wind speeds would occur at 5 ground level test locations (Test-Points 1, 4, 27, 28, and 38).

When compared to existing conditions, implementation of the proposed project would change wind patterns such that 4 new exceedances (Test-Points 6, 12, 13, and 24) would be created. The wind speed would increase at each of the 4 locations at which a new wind comfort exceedance would be created. Test-Point 6 is immediately to the west of the project site, Test-Points 12 and 13 are on the east side of Jones Street, and Test-Point 24 is on the south side of Golden Gate Avenue to the east of the project site. The largest increases in wind speed would occur at Test-Point 12 (7 mph – from 9 to 16 mph) and Test-Point 13 (6 mph – from 7 to 13 mph). Pedestrians in this area may notice the slightly windier conditions, but walking steadily would not be difficult. Wind speeds at Test-Point 6 and Test-Point 24 would increase by 2 and 4 mph, respectively. Wind speeds would exceed the comfort criterion at 4 of the 10 Test-Points on the project site – Test-Points 42 and 46 - 48 on the rooftop deck – one fewer than under the Existing Conditions Plus Proposed Project scenario. Exceedances that would occur under the Existing Conditions Plus Proposed Project scenario (at Test-Points 18 and 36 on the south and north sidewalks of Golden Gate Avenue) would not occur under the Existing Conditions Plus Cumulative scenario.

In summary, implementation of the proposed project and reasonably foreseeable future projects would not result in substantial changes to ground level wind conditions on or near the project site.

The average equivalent wind speed would increase from 10 mph to 11 mph, and the number of locations with wind speeds that exceed the wind comfort criteria would increase by 4 (from 11 to 15). As discussed under **Impact WS- 1**, exceeding the wind comfort criteria is not a significant wind impact under CEQA. Although there would be localized changes throughout the project vicinity, the overall ground level wind conditions would remain substantially the same with implementation of the proposed project and reasonably foreseeable future projects. Furthermore, implementation of **Improvement Measure I-WS-1** would improve wind conditions at the rooftop deck.

For these reasons, implementation of the proposed project, in combination with reasonably foreseeable future projects, would not result in a significant cumulative wind impact. The proposed project would not make a cumulatively considerable contribution to a significant cumulative wind impact, and no mitigation is necessary. This topic will not be discussed in the EIR.

SHADOW

Impact WS-2: The proposed project would not create new shadow that substantially affects outdoor recreation facilities or other public areas. (*Less than Significant Impact*)

The project site is located on the north side of Market Street in a C-3-G Zoning District. The project sponsor proposes to demolish an existing two-story commercial building and construct a 13-story, 120-foot-tall building (plus a 20-foot-tall mechanical penthouse) in its place. The closest parks and open spaces are Father Alfred E. Boeddeker Park (Boeddeker Park) to the north and United Nations Plaza (U.N. Plaza) to the west. Boeddeker Park is under the jurisdiction of the Recreation and Park Commission and is subject to San Francisco Planning Code Section 295. U.N. Plaza is not under the jurisdiction of the Recreation and Park Commission.

Section 295 of the Planning Code was adopted in response to Proposition K (passed November 1984) in order to protect public open spaces under the jurisdiction of the Recreation and Park Commission from shadowing by new and altered structures during the period between one hour after sunrise and one hour before sunset, year round. Section 295 restricts new shadow upon public open spaces under the jurisdiction of the Recreation and Parks Department by any structure exceeding 40 feet in height unless the Recreation and Park Commission finds the shadow to be an insignificant effect. Pursuant to Section 147 of the Planning Code, new buildings and additions to existing buildings in C-3 Districts, South of Market Mixed Use Districts, and Eastern Neighborhoods Mixed Use Districts where the building height exceeds 50 feet shall be shaped, consistent with the dictates of good design and without unduly restricting the development potential of the site in question, to reduce substantial shadow impacts on public plazas and other publicly accessible spaces other than those protected under Planning Code Section 295.

Planning Code Section 295 of the Planning Code does not provide protection of sunlight for non-Recreation and Park properties, including U.N. Plaza; however, a shadow analysis for the proposed project was required pursuant to Planning Code Section 147 because the proposed new building is in a C-3-G Zoning District, would be over 50 feet tall, and was found to have the potential to cast new shadow on the northwest corner of the northern leg of U.N. Plaza near the intersection of McAllister and Leavenworth streets, potentially affecting its use or enjoyment.¹²⁹ In these situations the impact determinations are based on the amount of area shadowed, the duration of the shadow, and the importance of sunlight to the type of open space being shadowed. Since the proposed building at 1028 Market Street has the potential to cast new shadow on U.N. Plaza, the methodology used for Planning Code Section 295 properties was utilized to perform the shadow analysis because it is the City's vetted methodology for quantifying net new shadow resulting from a land use development project. Here, this methodology was employed to inform the discussion of shadow impacts under CEQA.

The results of the shadow study indicate that the proposed project would not cast any annual net new shadow on U.N. Plaza, as any new shadow would be obscured by existing buildings.¹³⁰ The shadow analysis also confirmed that the proposed project would not result in any net new shadows on Boeddeker Park. Furthermore, no privately owned, publicly accessible open spaces exist within reach of the shadow cast by the proposed project. Thus, the proposed project would not have a shadow impact on Planning Code Section 295 public open spaces or public plazas protected under Planning Code Section 147 as determined through the completion of a shadow analysis.

Other public spaces that would be affected by new shadow created by the proposed project include public sidewalks in the project vicinity. The proposed project would be approximately 83 feet taller (not including 20-foot-tall mechanical penthouse) than the existing building on the project site and would cast net new shadow on nearby sidewalks including those along Golden Gate Avenue, Jones Street, Taylor Street, and Market Street. However, because of the height of the proposed building and the configuration of existing multi-story buildings in the densely developed project vicinity, any project-related net new shadow that would result from construction of the proposed building would be limited in scope, and would not increase the total amount of shadow on public sidewalks above levels which are common and generally accepted in urban areas. The limited amount of increased shadow would not be considered a significant impact under CEQA. Therefore, no impacts from shadow on outdoor recreation facilities or other

¹²⁹ CADP Associates, *Revised Shadow Fan*, June 4, 2015 and *Shadow Calculations and Shadow Diagrams for 1028 Market Street*, July 2015. A copy of these graphics and calculation spreadsheets are available at the San Francisco Planning Department, 1650 Mission Street, Suite 400 as part of Case File No. 2014.0241E.

¹³⁰ Turnstone Consulting/SWCA, *Technical Memorandum - 1028 Market Street Shadow Analysis for United Nations Plaza Technical Memorandum*, October 28, 2015. A copy of the memo is available at the San Francisco Planning Department, 1650 Mission Street, Suite 400 as part of Case File No. 2014.0241E.

public areas would occur. No mitigation measures are necessary and this topic will not be discussed in the EIR.

Cumulative Impacts

Impact C-WS-2: New shadow from the proposed project, in combination with new shadow from reasonably foreseeable future projects, would not create new shadow that would substantially affect outdoor recreation facilities or other public areas. (No Impact)

Based on the information provided above, the proposed project would not cast any net new shadow on nearby public open spaces under the jurisdiction of the Recreation and Parks Commission or other City agencies. All other reasonably foreseeable projects within a ¼-mile radius of the project site and subject to Planning Code Section 295 and other controls would have to undergo a shadow analysis to determine and avoid substantial net new shading of public open spaces. Thus, the proposed project, in combination with other past, present, and reasonably foreseeable future projects in the vicinity, would not contribute to a cumulative shadow impact on public open spaces in the project vicinity. No mitigation measures are necessary and this topic will not be discussed in the EIR.

<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>
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"/>

Setting

The San Francisco Recreation and Parks Department (SFRPD) manages more than 220 parks, playgrounds, and open spaces throughout the City. SFRPD recreation facilities also include 25 recreation centers, nine swimming pools, five golf courses, and more than 300 athletic fields, tennis courts, and basketball courts.¹³¹ The following two SFRPD public parks, open spaces, and

¹³¹ San Francisco Recreation and Parks Department, Recreation Assessment Report, August 2004, p. 21. Available online at <http://sfrecpark.org/about/publications/2004-recreation-assessment/>. Accessed June 24, 2015.

recreation facilities are within a ¼-mile radius of the project site, and all of them are accessible by walking, bicycling, or transit (see **Figure 1** on p. 2):

- The 0.11-acre Turk & Hyde Mini Park at the northwest corner of Turk and Hyde streets (201 Hyde Street) is 0.23 mile northwest of the project site. It was created for preschoolers and includes children’s play structures, landscaping and related amenities;¹³² and
- The 0.97-acre Father Alfred E. Boeddeker Park at the northeast corner of Jones and Eddy streets (295 Eddy Street) is 0.14 mile north of the project site. It includes a basketball half-court, swings, a slide, play structures, and a community clubhouse.

Parks outside of the ¼-mile radius include:

- The 1.02-acre Gene Friend Recreation Center at the northwest corner of 6th and Folsom streets (270 6th Street) is 0.3 miles south of the project site. It includes a variety of activities for the public including basketball, a playground with a sand pit, art sculptures, a lawn area, an indoor gymnasium, an activity room, a weight room, lockers, a ping pong table, and a foosball table.¹³³
- The 2.52-acre Victoria Manalo Draves Park, between Folsom and Harrison streets and Sherman and Columbia Square streets, is located 0.38 miles south of the project site. It includes a softball field, basketball court, dual-level playground, picnic area, community garden, and a large, grassy field.
- The .20-acre Howard and Langton Mini Park is located on the southwest corner of Howard and Langton streets. The Mini Park is a community garden where members can grow produce and ornamental plants for personal use.
- The 5.38-acre Joseph L. Alioto Performing Arts Piazza is located on the block between Polk and Larkin streets and McAllister and Fulton streets, 0.34 miles east of the project site. The plaza offers two child play areas and open space.
- The 0.61-acre Tenderloin Recreation Center is located mid-block on Ellis Street, between Hyde and Leavenworth streets (570 Ellis Street), 0.28 miles north of the project site. The recreation center and adjacent playground offer a variety of activities from ping pong to basketball. There’s also a game court, a ball diamond, and a child-sized gym.

In addition, two public plazas, U.N. Plaza and Hallidie Plaza, are located within ¼-mile radius of the project site. U.N. Plaza, a 2.5-acre brick-paved pedestrian space approximately 0.10 mile southwest of the project site and adjacent to Market Street, hosts a weekly farmer’s market on Wednesdays and Sundays, food trucks on Tuesdays and Thursdays, and children’s or music

¹³² Renovation of this park has been identified as a capital improvement project under the 2012 Clean and Safe Neighborhoods Park Bond. Available online at <http://sfrecpark.org/project/hyde-turk-mini-park-improvement-project/>. Accessed August 13, 2015.

¹³³ The San Francisco Recreation and Parks Department is currently partnering with the Trust for Public Land on a feasibility study and concept design for the Gene Friend Recreation Center. Available online at <http://sfrecpark.org/project/gene-friend-rec-improvement-project/>. Accessed August 13, 2015.

events. Hallidie Plaza, a 1.4-acre space approximately 0.19 mile northeast of the project site, is located at the Powell Street BART station entrance and hosts food and retail kiosks.

Maps 1, 2, 3, 8, and 9 in the Recreation Assessment Report published by the SFRPD shows the project site to be outside the defined service area for the nearest multi-use/soccer fields, pools, outdoor basketball courts, and tennis courts, and within the service area for the nearest proposed SFRPD ballfield, Bessie Carmichael Ball Field at Victoria Manalo Draves Park (375 7th Street), and the nearest recreation centers, the Tenderloin Recreation Center (570 Ellis Street) and the Gene Friend Recreation Center (270 6th Street).¹³⁴ 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.”¹³⁵

The *San Francisco General Plan Recreation and Open Space Element (ROSE)* notes that “[S]afe, green open spaces are in short supply in dense communities, where low-income and minority populations tend to be concentrated, as well as large numbers of children and seniors. In the more densely populated, older areas of San Francisco, people often have less mobility and fewer financial resources to seek recreation outside of their neighborhood.”¹³⁶ The ROSE defines high needs areas as places where there is low access to open space; a conglomeration of high population density, high percentages of children, youth, seniors, and low income households; and in which the future population growth is projected to occur between now and 2040. These socio-demographic characteristics and future population growth projections are represented on Maps 5a, 5b, 5c, 5d, and 6 of the ROSE.¹³⁷ The project site is immediately adjacent to (but not within) an area of the City (the Tenderloin neighborhood) that exhibits higher population densities (Map 5a) and higher percentages of low income households (Map 5b), children and youth (Map 5c), and seniors (Map 5d) relative to the City as a whole. The project site itself is within an area with a higher percentage of low-income households relative to the City as a whole and an area designated to absorb future population growth an area designated to absorb future population growth (Map 6). 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

¹³⁴ San Francisco Recreation and Parks Department, Recreation Assessment Report, August 2004, Maps 1, 2, 3, 8, and 9. Available online at <http://sfrecpark.org/about/publications/2004-recreation-assessment/>. Accessed October 5, 2015.

¹³⁵ San Francisco Recreation and Parks Department, Recreation Assessment Report, August 2004, Maps 1, 2, 3, 8, and 9. Available online at <http://sfrecpark.org/about/publications/2004-recreation-assessment/>. Accessed October 5, 2015.

¹³⁶ City and County of San Francisco, *San Francisco General Plan: Recreation and Open Space Element*, April 2014, p. 20. Available online at <http://openspace.sfplanning.org/>. Accessed June 23, 2015.

¹³⁷ City and County of San Francisco, *San Francisco General Plan: Recreation and Open Space Element*, April 2014, Maps 5a through 5c and Map 6, pp. 22-24. Available online at <http://openspace.sfplanning.org/>. Accessed June 23, 2015.

ROSE).¹³⁸ As shown on Map 7, the project site is not within a high needs area; however it is but is immediately adjacent to such areas.

Impact RE-1: The proposed project would not increase the use of existing neighborhood 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. (Less than Significant)

As described under **Section E.2, Population and Housing**, implementation of the proposed project would add approximately 422 residents to the project area. This would represent an approximately 12.6 percent increase over the existing population of 3,336 in Census Tract 125.01, about 1.0 percent over the existing population within the project vicinity (Census Tracts within a ¼-mile of the project site), and about 0.05 percent over the existing citywide population. This residential population growth would increase the demand for parks, open space, and recreation facilities in the project area and citywide. Although project residents may use parks, open spaces, and other recreational facilities in the vicinity of the project site, the additional use of these recreational resources is expected to be modest. The increase in demand would not be in excess of amounts expected, provided for, or planned for in the project area and the City as a whole. Furthermore, the proposed project would provide Planning Code-required private and common open space for project residents. The 2,503 sq. ft. of private open space and 9,179 sq. ft. of common open space would partly offset the demand for open space generated by the project residents.

In conclusion, the project site is located within walking distance of several existing neighborhood public parks, open spaces, and recreational facilities and any use of these local recreational resources attributable to the project residents would be relatively minor compared with their existing use levels. Project residents could also use other public parks, open spaces, and recreational facilities throughout the City and region. Additionally, the provision of private/common open space and an on-site fitness center as part of the proposed project would provide recreational opportunities to the project residents, thereby reducing the demand on surrounding recreational resources. As described above, the Tenderloin neighborhood is identified as a high needs area that would receive priority for development of new parks or renovation of existing facilities and implementation of the policies included in the ROSE would address long-term needs associated with population increase in the project vicinity. Therefore, the proposed project would not result in a substantial increase in the use of existing regional and neighborhood parks or other recreational facilities within the project vicinity such that substantial deterioration of the facilities would occur or would be accelerated. Further, project-generated demand would not require the construction or expansion of recreational facilities, nor would it

¹³⁸ City and County of San Francisco, *San Francisco General Plan: Recreation and Open Space Element*, April 2014, Map 7, p. 24. Available online at <http://openspace.sfplanning.org/>. Accessed June 23, 2015.

physically degrade existing recreational resources. Therefore, the proposed project would have a less-than-significant impact on recreational resources, and no mitigation measures are necessary. This topic will not be discussed in the EIR.

Cumulative Impacts

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

By 2040, the population in San Francisco is estimated to reach 447,350 households, approximately 84,910 more new households than reported in *ABAG Projections 2013* for 2015. The citywide population increase between 2010 and 2040 would result in increased citywide demand for recreational resources in the future.

Past, present, and reasonably foreseeable future projects within a ¼-mile radius of the project site are identified in **Table 2** and shown on **Figure 24** on pp. 38-40. These nearby cumulative development projects would add up to 4,295 dwelling units to the project area. As discussed in **Section E.2, Population and Housing**, based on a conservative average of approximately 2.27 persons per household these projects could add up to 9,750 new residents to the project area. As described in **Impact RE-1**, the project area has been identified as “high need” with respect to its population density and share of low-income households, senior residents, and children, and has been designated as a high priority area for recreation and open space improvements.

Implementation of the proposed project would result in the introduction of approximately 422 new residents to the project area, which represents less than 5 percent of the projected population growth in the area, and would include Planning Code-required private and common open space for project residents. The provision of the required 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. Similar to the proposed project, the cumulative mixed-use residential projects would also include Planning Code-required private and common open space to partially meet the demand for recreational resources from future residents of those mixed-use projects. Although future residents of these nearby cumulative development projects would use some of the same public parks, open spaces, and recreation facilities as the residents of the proposed project, their use of these local recreational resources would be tempered by the availability of other recreational resources that may be closer such as the Gene Friend Recreation Center or Yerba Buena Gardens. Further, as noted above, implementation of the policies included in the ROSE would address long-term needs associated with population increase in the project vicinity. Therefore, when considered in combination with other past, present, or reasonably foreseeable future projects, the proposed project would not result in a cumulatively

considerable contribution to significant recreation-related cumulative impacts. No mitigation is necessary, and this topic will not be discussed in the EIR.

<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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 within an urban area that is well served by the combined sewer/stormwater collection, storage, and treatment facilities and is in an area where projected population and employment growth has been accounted for by the SFPUC. The project site is located in the Channel subdrainage area of the Bayside basin and is served by the City's combined sanitary

sewer and stormwater system.¹³⁹ 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 City's 2008 Bayside Permit prior to discharge into San Francisco Bay. The NPDES standards are set and regulated by the San Francisco Bay RWQCB. 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. During wet weather the capacity at the Southeast Water Pollution Control 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 (primary stormwater) is discharged from one of 36 combined sewer overflow structures located along the waterfront. The permit prohibits overflows from the combined sewer overflow during dry weather, and required wet-weather overflows to comply with the nine minimum controls specified in the EPA's Combined Sewer Overflow Control Policy.

Implementation of the proposed project would incrementally increase wastewater flows from the project site due to the introduction of about 422 residents and 31 employees. 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 2008 Bayside Permit. The SFPUC's infrastructure capacity plans account for projected population and employment growth. The proposed project would incorporate water-efficient fixtures, as required by Title 24 of the California Code of Regulations and the San Francisco Green Building Ordinance. Compliance with these regulations would reduce wastewater flows and the amount of potable water used for building functions. 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.

The project site has been developed since the late 1800s, and the proposed building footprint would cover the entire project site. Implementation of the proposed project would not result in an increase in impervious surfaces. The City's Stormwater Management Ordinance (Ordinance

¹³⁹ San Francisco is roughly divided into two major drainage areas: the Bayside and Westside basins, which are further divided into either 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://www.sfwater.org/modules/showdocument.aspx?documentid=984>. Accessed August 13, 2015.

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 wastewater facilities resulting from stormwater discharges and would minimize the potential for upsizing or constructing new facilities.

For the reasons discussed above, the proposed project would incrementally increase demand for and use of these services, but not in excess of amounts expected and provided for in this area. The proposed project would not exceed any applicable wastewater treatment requirements or otherwise conflict with RWQCB requirements, and the population increase associated with the proposed project would not exceed the capacity of the existing wastewater treatment provider or substantially increase the demand for wastewater treatment or stormwater drainage facilities requiring the construction of new facilities or expansion of existing facilities. No mitigation measures are necessary and this topic will not be discussed in the EIR.

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 per day of water to approximately 2.5 million people in San Francisco, Santa Clara, Alameda, San Mateo, and Tuolumne counties.¹⁴⁰ Approximately 96 percent of the water provided to San Francisco is supplied by the SFPUC Regional Water System, which is made up of water from the Hetch Hetchy Reservoir and Bay Area reservoirs in the Alameda Creek and Peninsula watersheds.¹⁴¹ The project site is currently served by this water delivery infrastructure.

Implementation of the proposed project, which consists of up to 186 dwelling units and 9,657 gsf of retail/restaurant space, would incrementally increase the demand for water in San Francisco. The proposed project's 422 new residents and the retail/restaurant space would use an estimated

¹⁴⁰ San Francisco Public Utilities Commission (SFPUC), *2010 Urban Water Management Plan for the City and County of San Francisco* (hereinafter "2010 UWMP"), adopted June 2011, p. 7, 14, 22-25. Available online at <http://sfwater.org/Modules/ShowDocument.aspx?documentID=1055>. Accessed June 22, 2015.

¹⁴¹ SFPUC, 2010 UWMP, p. 22-25.

22,017 gallons of water per day.¹⁴² The increase in water demand would not be substantial, would represent a small percentage of the projected demand for the City as a whole, and could be accommodated by the anticipated water supply for San Francisco.^{143,144} Additionally, the proposed project would be designed to incorporate water-conserving measures, such as low-flush toilets and urinals, as required by California State Building Code Section 402.0(c). During project construction, the project sponsor and project building contractor must comply with Ordinance 175-91, passed by the Board of Supervisors on May 6, 1991, which requires that non-potable water be used for dust-control activities.

Since project water demand could be accommodated by the existing and planned supply anticipated under the SFPUC's 2010 *Urban Water Management Plan for the City and County of San Francisco* and would use best-practice water conservation devices, it would not result in a substantial increase in water use on the project site that could not be accommodated by existing water supply entitlements and water resources. Therefore, the proposed project would result in less-than-significant impacts to water supply. No mitigation measures are necessary and this topic will not be discussed in the EIR.

Impact UT-3: The proposed project would be served by a landfill with sufficient permitted capacity. (*Less than Significant*)

The City's Mandatory Recycling and Composting Ordinance (Ordinance 100-09) requires residents and businesses in San Francisco to separate their refuse into recyclables, compostables, and trash. Recology (formerly Norcal Waste Systems, Inc.) provides solid waste collection, recycling, and disposal services for residential and commercial garbage, recycling, and composting in San Francisco through its subsidiaries: San Francisco Recycling and Disposal, Golden Gate Disposal and Recycling, and Sunset Scavenger. Materials are collected and hauled to the Recology transfer station/recycling center at 501 Tunnel Avenue, near the southeastern city limit, for sorting and subsequent transportation to other facilities. Recyclable materials are taken to Recology's Pier 96 facility, where they are separated into commodities (e.g., aluminum, glass, and paper) and transported to other users for reprocessing. Compostables (e.g., food waste, plant trimmings, soiled paper) are transferred to a Recology composting facility in Solano County, where they are converted to soil amendment and compost. The remaining material that cannot

¹⁴² SFPUC, 2010 UWMP, p. 34. The current consumption rate for residents in San Francisco is 50 gallons per day per capita. Commercial water use is estimated at 95 gallons per day per 1,000 sq. ft. of commercial land use (San Francisco Planning Department, Mission Bay Final EIR, Table L.3: Mission Bay Project Total Daily Water Demand, p. L.9). The anticipated new residential population of 422 persons x 50 gallons per day yields 21,100 gallons per day; and the 9,657 gsf [1,000 sq. ft.] of commercial uses x 95 yields 917 gallons per day. The anticipated total gallons per day usage for the proposed project would therefore be 22,207 gallons per day.

¹⁴³ The 2010 UWMP, pp. 66-69, projects that during normal precipitation years and multiple dry years, the SFPUC will have adequate supplies to meet projected demand through 2035.

¹⁴⁴ SFPUC, 2010 UWMP, pp. 70-72.

otherwise be reprocessed (“trash”) is transported to Altamont Landfill east of Livermore in Alameda County.

Since 1988, when the City and County of San Francisco initially contracted for the disposal of 15 million tons of solid waste at the Altamont Landfill, the majority of municipal solid waste generated by San Francisco has been transported to the Altamont Landfill. The Altamont Landfill has a permitted maximum daily disposal capacity of 11,500 tons per day, a maximum permitted capacity of 62 million cubic yards, and a remaining permitted capacity of 46 million cubic yards (or 74 percent of its permitted capacity); its estimated closure date is January 1, 2025.¹⁴⁵ In 2013, approximately 1.45 million tons of waste was transported to Altamont Landfill.¹⁴⁶ In 2013, San Francisco generated approximately 476,424 tons of solid waste and sent approximately 372,205 tons to the Altamont Landfill, about 26 percent of the total volume of waste received at that facility.¹⁴⁷

As of March 2013, San Francisco’s remaining capacity at the Altamont Landfill was about one million tons out of the original 15 million ton capacity. At current disposal rates, San Francisco’s available landfill space under the existing contract will run out in January 2016. In September 2015, San Francisco approved an Agreement with Recology, Inc. for the transport and disposal of the City’s municipal solid waste at the Recology Hay Road Landfill in Solano County. The City began disposing its municipal solid waste at Recology Hay Road Landfill in January 2016, and that practice is anticipated to continue for approximately nine years, with an option to renew the Agreement thereafter for an additional six years.¹⁴⁸

Recycling, composting, and waste reduction are expected to increasingly divert waste from the landfill, per California and local requirements. Under California’s Integrated Waste Management Act (Assembly Bill 939) all jurisdictions were required to divert 50 percent of their waste streams from landfill disposal by 2000. San Francisco met this threshold in 2003 and increased it to 69 percent in 2005 and 70 percent in 2006. San Francisco had a goal of 75 percent solid waste diversion by 2010, which it exceeded at 80 percent diversion, and has a goal of 100 percent solid

¹⁴⁵ California Department of Resources Recycling and Recovery (CalRecycle), Facility/Site Summary Details: Altamont Landfill & Resource Recovery (01-AA-0009). Available online at <http://www.calrecycle.ca.gov/SWFacilities/Directory/01-AA-0009/Detail/>. Accessed June 22, 2015.

¹⁴⁶ CalRecycle, 2013 Landfill Summary Tonnage Report. Available online at <http://www.calrecycle.ca.gov/SWFacilities/Landfills/tonnages>. Accessed June 22, 2015.

¹⁴⁷ CalRecycle, Jurisdiction Diversion/Disposal Rate Detail. Available online at <http://www.calrecycle.ca.gov/LGCentral/Reports/Viewer.aspx?P=OriginJurisdictionIDs%3d438%26ReportYear%3d2013%26ReportName%3dReportEDRSJurisDisposalByFacility>. Accessed August 16, 2015.

¹⁴⁸ San Francisco Planning Department, Agreement for Disposal of San Francisco Municipal Solid Waste at Recology Hay Road Landfill in Solano County, Case No. 2014.0653E, Final Negative Declaration, July 21, 2015. Available online at http://sfmea.sfplanning.org/2014.0653E_Revised_FND.pdf. Accessed August 16, 2015.

waste diversion or “zero waste” to landfill or incineration by 2020.¹⁴⁹ In 2012, the target disposal rate for San Francisco residents and employees was 6.6 pounds/resident/day and 10.6 pounds/employee/day. Both of these targeted disposal rates were met in 2012 (the most recent year reported), with San Francisco generating about 2.9 pounds/resident/day and about 4.2 pounds/per employee/per day.¹⁵⁰

The proposed project would be subject to the City’s Mandatory Recycling and Composting Ordinance, which requires the separation of refuse into recyclables, compostables, and trash, thereby minimizing solid waste disposal and maximizing recycling and composting. Although the proposed project could incrementally increase total waste generation from the City by increasing the number of residents and employees at the project site, the increasing rate of diversion through recycling and other methods would result in a decreasing share of total waste that requires deposition into the landfill. Given this, and given the existing and potential future long-term capacity available at the applicable landfill(s), the solid waste generated by the proposed project during operation would not result in the landfill exceeding its permitted capacity, and the proposed project would result in a less-than-significant solid waste generation impact. No mitigation measures are necessary and this topic will not be discussed in the EIR.

As described in the **Section A, Project Description**, p. 31, construction activities would result in an estimated 9,800 cubic yards of excess soils from the excavation activities at the project site and 600 cubic yards of demolition debris. Excavated soil and other materials (e.g., asbestos and lead-based paint) that is classified as a hazardous would be taken to a Class I facility for disposal in accordance with applicable laws and regulations for the disposal of hazardous waste. Soil not classified as hazardous waste would be disposed in a Class III permitted landfill such as the Altamont Landfill, or, more likely, would be reused at another site.

The proposed project would be subject to the City’s Construction and Demolition Debris Recovery Ordinance (San Francisco Ordinance No. 27-06), which requires mixed construction and demolition debris be transported by a Registered Transporter and taken to a Registered Facility that must recover for reuse or recycling and divert from landfill at least 65 percent of all received construction and demolition debris. The San Francisco Green Building Code also requires certain projects to submit a Recovery Plan to the Department of the Environment demonstrating recovery or diversion of at least 75percent of all demolition debris. The Altamont

¹⁴⁹ San Francisco Department of the Environment, Zero Waste Program, “San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate.” Available online at <http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america>. Accessed August 16, 2015.

¹⁵⁰ CalRecycle, Jurisdiction Diversion/Disposal Rate Detail. Available online at <http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionDetail.aspx?JurisdictionID=438&Year=2012>. Accessed August 16, 2015. These data do not provide separate averages for residential and non-residential generation, but merely different metrics for averaging overall citywide waste generation.

Landfill and Corinda Los Trancos Landfill are registered facilities that can accept such waste from San Francisco. The Corinda Los Trancos Landfill has a permitted maximum daily disposal capacity of 3,598 tons of waste per day, a maximum permitted capacity of 69 million cubic yards, and a remaining capacity of approximately 26.9 million cubic yards (or 39 percent of its permitted capacity); its estimated closure date is January 1, 2018. In 2013, San Francisco sent approximately 34,393 tons to the Corinda Los Trancos Landfill.¹⁵¹ Because the proposed project would be consistent with City ordinances and because the local landfills would have sufficient capacity to accept the remaining construction waste, the proposed project would be served by landfills with sufficient permitted capacity to accommodate the proposed project's solid waste disposal needs during construction. This impact would be less than significant. No mitigation measures are necessary and this topic will not be discussed in the EIR.

Impact UT-4: Construction and operation of the proposed project would follow all applicable statutes and regulations related to solid waste. (No Impact)

The California Integrated Waste Management Act of 1989 (Assembly Bill 939) requires municipalities to adopt an Integrated Waste Management Plan to establish objectives, policies, and programs related to waste disposal, management, source reduction, and recycling. Reports filed by the San Francisco Department of the Environment show that the City generated approximately 870,000 tons of waste material in 2000. By 2010, that figure decreased to approximately 455,000 tons. Waste diverted from landfills is defined as recycled or composted. San Francisco has a goal of 75 percent landfill diversion by 2010, and 100 percent by 2020.¹⁵² As of 2012, 80 percent of San Francisco's solid waste was being diverted from landfills, indicating that San Francisco met the 2010 diversion target.¹⁵³

San Francisco Construction and Demolition Ordinance (Ordinance No. 27-06) requires a minimum of 65 percent of all construction and demolition debris to be recycled and diverted from landfills. Furthermore, San Francisco Ordinance No. 100-09 (the Mandatory Recycling and Composting Ordinance) 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, as discussed in **Section E.15, Hazards and Hazardous Materials**, soils from excavation activities could be classified as a California hazardous waste. Accordingly, the proposed project would be required

¹⁵¹ CalRecycle, Jurisdiction Diversion/Disposal Rate Detail. Available online at <http://www.calrecycle.ca.gov/LGCentral/Reports/Viewer.aspx?P=OriginJurisdictionIDs%3d438%26ReportYear%3d2013%26ReportName%3dReportEDRSJurisDisposalByFacility>. Accessed August 16, 2015.

¹⁵² San Francisco Department of the Environment, Zero Waste FAQ. Available online at <http://www.sfenvironment.org/zero-waste/overview/zero-waste-faq>. Accessed June 22, 2015.

¹⁵³ San Francisco Department of the Environment, Zero Waste Program, "San Francisco Sets North American Record for Recycling and Composting with 80 Percent Diversion Rate." Available online at <http://www.sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america>. Accessed August 16, 2015.

to follow state and federal regulations related to the disposal of hazardous wastes, and hazardous wastes would be transported to a permitted disposal or recycling facility. The proposed project would comply with all applicable local, state, and federal laws and regulations pertaining to solid waste, and there would be no impact. This topic will not be discussed in the EIR.

Cumulative Impacts

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

Cumulative development in the project vicinity would result in an intensification of land uses, a cumulative increase in water consumption, and a cumulative increase in wastewater and solid waste generation. The SFPUC has accounted for such growth in its water demand and wastewater service projections, and the City has implemented various programs to divert 80 percent of its solid waste from landfills. Nearby cumulative development 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 development 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 significant cumulative impact on utilities and service systems.

<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>
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"/>

The proposed project’s impacts to parks and open spaces are discussed under **Section E.9, Recreation**. Impacts on other public services are discussed below.

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

Police and Fire Protection

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. The project site is within the service area of the San Francisco Fire Department's Battalion 3, and the closest fire station is Fire Station No. 1 at 935 Folsom Street, approximately 0.41 mile southeast of the project site.¹⁵⁴

The San Francisco Police Department (SFPD), headquartered at 850 Bryant Street, provides police protection in the City and County of San Francisco. The project site is within the San Francisco Police Department's Tenderloin District, and the closest police station is the Tenderloin Police Station at 301 Eddy Street, 0.15 mile northwest of the project site.¹⁵⁵

As stated in **Section E.2 Population and Housing**, p. 57, implementation of the proposed project would add about 422 residents and 31 employees on the project site, which could increase the demand for fire protection, emergency medical, and police protection services. However, the increase would be incremental, funded largely through project-related increases to the City's tax base, and would not be substantial given the overall demand for such services on a citywide basis. Fire protection, emergency medical, and police protection resources are regularly redeployed based on need in order to maintain acceptable service ratios. Moreover, the proximity of the project site to Fire Station No. 1 and the Tenderloin Police Station would help minimize Fire Department and Police Department response times should incidents occur at the project site. For these reasons, implementation of the proposed project would not require the construction of new or alteration of existing fire and police facilities. This impact would be less than significant, and no mitigation measures are necessary. This topic will not be discussed in the EIR.

Public Schools

The closest public schools to the project site are the Bessie Carmichael Elementary School and the Tenderloin Elementary School. Implementation of the proposed project would result in the construction of up to 186 dwelling units and an anticipated population increase of about 422 residents. Some of the new residents would consist of families with school-aged children who might attend schools operated by the San Francisco Unified School District (SFUSD), while others might attend private schools. The proposed project would generate about nine students for the SFUSD if all 186 dwelling units were market rate units; however, if the project sponsor were to meet the affordable housing requirements on site (164 market rate units and 22 BMR units)

¹⁵⁴ San Francisco Fire Department website, <http://www.sf-fire.org/index.aspx?page=176#divisions>. Accessed June 19, 2015.

¹⁵⁵ San Francisco Police Department website, <http://sanfranciscopolice.org/index.aspx?page=796>. Accessed June 19, 2015.

about 14 students would be added to the City's school-aged population.¹⁵⁶ The proposed project would generate an indirect and incremental increase in the demand for school services. The SFUSD is currently not a growth district, most facilities throughout the City are generally underutilized, and the SFUSD has more classrooms district-wide than are needed.¹⁵⁷ Furthermore, the proposed project would be required to pay a school impact fee based on the construction of net new residential square footage to fund SFUSD facilities and operations. For these reasons, implementation of the proposed project would not result in a substantial unmet demand for school facilities and would not require the construction of new or alteration of existing school facilities. This impact would be less than significant, and no mitigation measures are necessary. This topic will not be discussed in the EIR.

Libraries

The project-related increase in demand for library services would not be substantial given the overall demand for library services on a citywide basis. The San Francisco Public Library operates 28 branches throughout San Francisco,¹⁵⁸ and it is anticipated that the Main Library, which is 1,500 feet southwest of the project site, would be able to accommodate the minor increase in demand for library services generated by the 422 new residents. For these reasons, implementation of the proposed project would not require the construction of new or alteration of existing governmental facilities. This impact would be less than significant, and no mitigation measures are necessary. This topic will not be discussed in the EIR.

Cumulative Impacts

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

Cumulative development in the project vicinity would result in an intensification of land uses and a cumulative increase in the demand for fire protection, police protection, school services, and other public services. Implementation of the proposed project and reasonably foreseeable future projects would not exceed growth projections for San Francisco, as discussed in **Section E.2, Population and Housing**, pp. 60-61. The Fire Department, the Police Department, the SFUSD, and other City agencies have accounted and planned for such growth in providing public services to the residents of San Francisco. As a result, projected future development would not result in

¹⁵⁶ 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. Based on student generation rates of 0.25 students for BMR units and 0.05 students for market rate units.

¹⁵⁷ San Francisco Unified School District, *Capital Plan FY 2010-2019*, September 2009, pp. 19-20. Available online at <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/capital-plan-final-2010-2019.pdf>. Accessed June 19, 2015.

¹⁵⁸ San Francisco Public Library website, <http://sfpl.org/index.php?pg=0000000501>. Accessed June 19, 2015.

any service gap in citywide police, fire, and emergency medical services. And because there is no shortfall with respect to school or library services and because reasonably foreseeable projects would be subject to many of the same school impact fees pursuant to SB 50 there would not be any service gaps in citywide school and library services. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative impact on public services.

<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>
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, 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"/>
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 type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is located within a built urban environment and does not contain wetlands or wildlife habitat; nor are there any adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, state, or regional habitat conservation plans applicable to the project site. Therefore, implementation of the proposed project could not

conflict with the provisions of any such plan, and Topics E.12(c) and E.12(f) are not applicable to the proposed project.

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 and would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. (*No Impact*)

The project site is fully developed and located within a built urban environment. The project site does not include any candidate, sensitive, or special-status species, any riparian habitat, or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Implementation of the proposed project would not modify any natural habitat and would have no impact on any candidate, sensitive, or special-status species, or on any riparian habitat or other sensitive natural community. This topic will not be discussed in the EIR.

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

High-rise buildings are potential obstacles that can injure or kill birds in the event of a collision, and bird strikes are a leading cause of worldwide declines in bird populations. Planning Code Section 139, Standards for Bird-Safe Buildings, establishes building design standards to reduce avian mortality rates associated with bird strikes.¹⁵⁹ This ordinance focuses on location-specific hazards and building feature-related hazards. Location-specific hazards apply to buildings in, or within 300 feet of and having a direct line of sight to, an Urban Bird Refuge, which is defined as an open space “two acres and larger dominated by vegetation, including vegetated landscaping, forest, meadows, grassland, or wetlands, or open water.” The project site is not in or within 300 feet of an Urban Bird Refuge, so the standards related to location-specific hazards are not applicable to the proposed project. Feature-related hazards, which can occur on buildings anywhere in San Francisco, are defined as freestanding glass walls, wind barriers, skywalks, balconies, and greenhouses on rooftops that have unbroken glazed segments of 24 square feet or larger. The proposed project would comply with the feature-related standards of Planning Code Section 139 by using bird-safe glazing treatment on 100 percent of any feature-related hazards.

¹⁵⁹ San Francisco Planning Department, Standards for Bird-Safe Buildings July 14, 2011. Available online at <http://www.sf-planning.org/index.aspx?page=2506>. Accessed June 19, 2015.

Migrating birds do pass through San Francisco, but the project site does not contain habitat to support migrating birds. Nesting birds, their nests, and eggs are fully protected by the California Fish and Game Code (Sections 3503 and 3503.5) and the federal Migratory Bird Treaty Act. Thus, the proposed project would be subject to the Migratory Bird Treaty Act. Given compliance with Planning Code Section 139, the proposed project would not interfere substantially with the movement of any native resident or migratory wildlife species or with established native resident or migratory wildlife corridors. This impact would be less than significant, and no mitigation measures are necessary. This topic will not be discussed in the EIR.

Impact BI-3: The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (*Less than Significant*)

The San Francisco Board of Supervisors adopted legislation that amended the City's Urban Forestry Ordinance to require a permit from the Department of Public Works to remove any protected trees.¹⁶⁰ Protected trees include landmark trees, significant trees, or street trees located on private or public property anywhere within the territorial limits of the City and County of San Francisco. The designations are defined as follows:

- Landmark trees are designated by the Board of Supervisors upon the recommendation of the Urban Forestry Council, which determines whether a nominated tree meets the qualification for landmark designation by using established criteria (Section 810). Special permits are required to remove a landmark tree on private property or on City-owned property.
- Significant trees are those trees within the jurisdiction of the DPW, or trees on private property within 10 feet of the public right-of-way, that meet certain size criteria. To be considered significant, a tree must have a diameter at breast height of more than 12 inches, a height of more than 20 feet, or a canopy of more than 15 feet (Section 810(A)(a)). The removal of significant trees on privately owned property is subject to the requirements for the removal of street trees. As part of the determination to authorize removal of a significant tree, the Director of the Department of Public Works is required to consider certain factors related to the tree, including (among others) its size, age, species, and visual, cultural, and ecological characteristics (Section 810A(c)).
- Street trees are trees within the public right-of-way or on land within the jurisdiction of the Department of Public Works. Their removal by abutting property owners requires a permit.

The Market Street frontage of the project site includes seven existing street trees (all London Plane trees). There are no existing street trees along the Golden Gate Avenue frontage. There are no existing trees or other vegetation on the project site that would need to be removed as part of the proposed project. The proposed project would retain the seven existing street trees on the 35-foot-wide segment of its Market Street frontage. According to San Francisco Planning Code Section 138, the project sponsor would be required to plant six new street trees along the Market

¹⁶⁰ San Francisco Public Works Code, Article 16: Urban Forestry Ordinance, Section 808(a).

Street and Golden Gate Avenue frontages.¹⁶¹ As shown on **Figure 4** on p. 8, implementation of the proposed project would result in the widening of the Golden Gate Avenue sidewalk; however, due to the presence of a vault under the eastern portion of the project site's Golden Gate Avenue frontage, only two new street trees would be planted along the expanded portion of the Golden Gate Avenue sidewalk. All new and/or replacement trees on the Market Street and Golden Gate Avenue frontages would be planted in accordance with the standards set forth in the Planning Code, the *Better Streets Plan*, the Better Market Street Project, the Safer Market Street Project, and the *Tenderloin-Little Saigon Neighborhood Transportation Plan*. As a result, the proposed project would not conflict with any local policies or ordinances that protect biological resources. This impact would be less than significant, and no mitigation measures are necessary. This topic will not be discussed in the EIR.

Cumulative Impacts

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

Cumulative development in the project vicinity would result in the intensification of land uses within a dense urban environment that does not include any candidate, sensitive, or special-status species, any riparian habitat, or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. Cumulative development would add tall buildings that can injure or kill birds in the event of a collision. In addition, nearby cumulative development projects would result in the removal of existing street trees or other vegetation. However, nearby cumulative development projects would be subject to the same species and habitat protection plans, policies, or regulations as well as bird-safe building and urban forestry ordinances applicable to the proposed project. As with the proposed project, compliance with these ordinances would reduce the effects of nearby cumulative development projects to less-than-significant levels.

Implementation of the proposed project would not modify any natural habitat and would have no impact on any candidate, sensitive, or special-status species, any riparian habitat, or other sensitive natural community. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative impact related to biological resources. This topic will not be discussed in the EIR.

¹⁶¹ San Francisco Planning Code Section 138.1(c)(1).

<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. 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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

There would be no use of septic tanks or alternative wastewater disposal systems at the project site. Therefore, Topic E.14(e) is not applicable to the proposed project.

The analysis in this section is based on a *Geotechnical Investigation* prepared for the proposed project by Langan Treadwell Rollo in 2014.¹⁶² The scope of the report included reviewing, exploring, and analyzing the subsurface conditions regarding soil and groundwater at the project site.

The existing building sits on approximately two to five feet of fill that generally consists of very loose to medium dense sand with variable silt and clay content, and includes fragments of brick and concrete debris. The fill is underlain by about 10 to 20 feet of very loose to dense native sand, known locally as Dune sand. The Dune sand is underlain by about 10 to 15 feet of Marsh deposit, consisting of very soft to stiff sandy clay and loose to medium dense clayey sand. The bottom of the Marsh deposit was encountered at depths between about 33 to 35 feet below Market Street. The loose to medium dense sand in the Dune sand below the groundwater level and Marsh deposit could liquefy during a strong earthquake. The groundwater was observed at 27.5 feet below the existing first floor slab. Higher groundwater levels at the site likely represent perched groundwater on top of the Marsh deposit, a relatively impermeable clayey soil layer. Groundwater levels below the perched groundwater are likely influenced by seasonal fluctuations in rainfall.

Impact GE-1: The proposed project would result in less-than-significant impacts related to exposure of persons or structures to seismic and geologic hazards. (*Less than Significant*)

Fault Rupture

The project site is not within an Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act, and no known fault or potentially active fault exists on the project site. In a seismically active area, such as the San Francisco Bay Area, the remote possibility exists for future faulting in areas where no faults previously existed. The *Geotechnical Investigation* found no evidence of active faulting on the project site and concluded that the risk of surface faulting and consequent secondary failure from previous unknown faults is low.¹⁶³ Therefore, the potential for surface fault rupture is low, and this impact would be less than significant. No mitigation measures are necessary and this topic will not be discussed in the EIR.

Ground Shaking

The major active faults in the area are the San Andreas, Hayward, San Gregorio, and Calaveras Faults. The project site is located approximately 11.7 miles from the San Andreas Fault, the closest mapped active fault in the project vicinity. The Working Group for California Earthquake

¹⁶² Langan Treadwell Rollo, *Geotechnical Investigation, 1028 Market Street, San Francisco*, June 2, 2014 (hereinafter referred to as “*Geotechnical Investigation*”). 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. 2014.0241E.

¹⁶³ Langan Treadwell Rollo, *Geotechnical Investigation*, p. 11.

Probabilities estimates a 63 percent change of having one or more magnitude 6.7 magnitude or larger earthquakes in the San Francisco Bay Area over the next 30 years (2008-2038). During a major earthquake, strong to very strong ground shaking is expected to occur at the project site.¹⁶⁴

Although the potential for strong to very strong seismic ground shaking is present, the intensity of earthquake ground motion in the vicinity of the project site 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 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 California Building Code, and for implementation of recommendations in the site-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. Therefore, the proposed project would not expose persons or structures to substantial adverse effects related to ground shaking and the impact would be less than significant. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

Liquefaction

The site is within a liquefaction hazard zone, as designated by the California Geological Survey seismic hazard map for the area titled *State of California Seismic Hazard Zones, City and County of San Francisco, Official Map*, dated November 17, 2000.¹⁶⁵ These are areas where historic occurrence of liquefaction, or local geological, geotechnical, and groundwater conditions, indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Soils beneath the project site (e.g., Dune sand and Marsh deposit) in combination with a high water table, could liquefy during a major earthquake and settlements would range from zero to

¹⁶⁴ Langan Treadwell Rollo, *Geotechnical Investigation*, p. 10.

¹⁶⁵ California Department of Conservation, California Geological Survey, CGS Information Warehouse: Regulatory Maps, San Francisco North, *State of California Seismic Hazard Zones, City and County of San Francisco, Official Map*, November 17, 2000. Available at http://gmw.consrv.ca.gov/shmp/download/quad/SAN_FRANCISCO_NORTH/maps/ozn_sf.pdf. Accessed July 23, 2015.

three inches during a major earthquake. This settlement could be erratic and may vary significantly across the site. Seismic settlement will affect various other aspects of the planned development, including utilities connections into the building, building entrances, and sidewalks. Design of these elements will need to incorporate the effects of the predicted differential settlements between the building and outside ground.

The *Geotechnical Investigation* sets forth criteria and recommendations for foundation design, site preparation, shoring, below-grade walls, floor slabs, and seismic design to address the ground-shaking, liquefaction, and settlement potential on the site. The *Geotechnical Investigation* found the site suitable for development as proposed, providing that its recommendations were incorporated into the design and construction of the proposed building. The proposed project would comply with the latest San Francisco Building Code, which incorporates the California Building Code requirements, to reduce the associated risk of property loss and hazards to occupants to a less-than-significant level.

Potential seismic and geologic hazards would be addressed through compliance with the San Francisco Building Code, as implemented through the DBI permitting process. The final building plans and the structural report would be reviewed by DBI prior to issuance of a building permit. To ensure compliance with all San Francisco Building Code provisions regarding structural safety, DBI would determine necessary engineering and design features for the project to reduce potential damage to structures from ground shaking, liquefaction, and compressibility. The DBI requirement for a geotechnical report and review of the building permit application would result in less-than-significant impacts related to liquefaction. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

Seismically-Induced Landslides

The project site is flat and is not located within or near an area of seismically induced landslide susceptibility as identified in the Seismic Hazards Zone Map for the City and County of San Francisco.¹⁶⁶ Therefore, no impacts relating to seismically-induced landslides would occur. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

Corrosive Soils

A corrosivity evaluation was also performed as part of the *Geotechnical investigation*. The results of the analyses indicate the fill at the site is corrosive, the Marsh deposit is “moderately” corrosive and the Dune sand is “mildly” corrosive. Unprotected steel and concrete elements in

¹⁶⁶ California Department of Conservation, California Geological Survey, CGS Information Warehouse: Regulatory Maps, San Francisco North, *State of California Seismic Hazard Zones, City and County of San Francisco, Official Map*, November 17, 2000. Available online at http://gmw.consrv.ca.gov/shmp/download/quad/SAN_FRANCISCO_NORTH/maps/ozn_sf.pdf. Accessed July 23, 2015.

contact with soil will corrode; thus, protection of foundations, utilities, and other structural elements would be required. With the proper protection of the foundation and structural elements against corrosion, any impacts related to the presence of corrosive soils would be less than significant. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

Impact GE-2: The proposed project would not result in substantial soil erosion or the loss of topsoil and would not change substantially the topography or any unique geologic or physical features of the site. (*Less than Significant*)

The project site is entirely covered by impervious surfaces. Implementation of the proposed project would require excavation to the depth of about 23 feet below ground surface (bgs), and up to 9,800 cubic yards of excavated soil would be removed. Soil movement for site preparation and excavation activities could create the potential for wind- and water-borne soil erosion. The project site is relatively flat, and a partial basement extends below the existing building; 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, as discussed in **Section E. 14, Hydrology and Water Quality**. 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. Therefore, impacts related to soil erosion and changes to topography would be less than significant. No mitigation measures are necessary and this topic will not be addressed in the EIR.

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

Foundations

Implementation of the proposed project would require excavation up to a depth of 23 feet bgs. Factors influencing the selection of a safe, economical foundation system with adequate capacities include the relatively compressible Marsh deposit; potentially liquefiable Dune sand and Marsh deposit; concerns regarding total and differential settlement under static loads; and the nearby Muni and BART tunnels.

The BART and Muni light rail tunnels run beneath Market Street and are located south of the project site. BART has an established zone of influence (BART ZOI) that extends outward from the edge of the train tunnel and within which they have jurisdictional review of construction plans for all proposed projects. The top of the Muni tunnel is approximately 33 feet below Market Street and the bottom of the BART tunnel is approximately 73 feet below Market Street. The tunnels are approximately 28 feet from the south (Market Street) property line, as measured from the closest point of the tunnel. The project site is within the BART ZOI. BART has developed

guidelines for construction near their subway structure, including soil redistribution, shoring, pile depth, vibration, monitoring, dewatering, and loading. Recommendations from the site-specific, design-level Geotechnical Investigation would be incorporated into the design and construction of the foundation and shoring systems for the proposed building, and BART staff would review the plans to ensure that these guidelines for construction within the BART ZOI are met.

Considering the potential for liquefaction and settlement to occur within Dune sand and Marsh deposit below the groundwater level, and the anticipated total and differential consolidation settlement, the proposed building would be supported by a deep foundation system consisting of a reinforced concrete mat bearing on non-displacement ACIP piles.¹⁶⁷ For the portion of the proposed building foundation within the BART ZOI, the mat would be designed as a structural slab that spans between pile caps and/or grade beams. Due to construction requirements for projects within the BART ZOI, drilling would be required to approximately 73 feet bgs (or 55 feet below the basement level) for the placement of soil-cement columns to support the reinforced concrete mat foundation. In order to meet requirements that there be no load transfer from the proposed building to the BART and Muni tunnels a permanent void or casing to at least 10 feet below the BART ZOI is required.

Below-grade excavation would require temporary shoring to support the planned cuts. The recommended shoring system is a soldier pile and lagging system¹⁶⁸ with intermittent DSM columns in combination with underpinning. Where the planned excavation extends below the adjacent buildings' foundations (the five-story building at 1000 Market Street to the east and the two-story structure at 1066 Market Street to the west) and a soldier pile and lagging system is used for temporary shoring, these buildings would be underpinned, as necessary.

In addition to the review and approval process for project construction within the BART ZOI, as described above, the San Francisco Department of Building Inspection (DBI) would review the proposed project's final building foundation design and the site-specific, design-level Geotechnical Investigation to ensure compliance with San Francisco Building Code provisions related to structural safety. As part of the DBI review process of the site-specific, design-level Geotechnical Investigation and building plans for the proposed project, DBI would determine the adequacy of engineering and design features and whether additional background studies, such as site-specific soil reports, would be required in conjunction with permit applications. Past

¹⁶⁷ ACIP piles are installed by drilling to the required depth with a hollow-stem, continuous-flight auger. When the auger reaches the required depth, cement grout or concrete is injected through the bottom port of the hollow stem auger. Grout or concrete is injected continuously as the augers, still rotating in a forward direction, are slowly withdrawn, replacing the soil removed by the drilling operation. While the grout is still fluid, a steel reinforcing cage is inserted into the shaft. ACIP piles can range in diameter; however, 18- and 24-inch-diameter ACIP piles are typical.

¹⁶⁸ Steel H-shaped soldier piles are installed in pre-drilled holes along the face of a planned cut to support timber lagging boards placed horizontally between the soldier piles during excavation. The soldier piles are braced for deep excavations with tie-back anchors that are secured in place behind the face of the planned cut.

geological and geotechnical investigations would also be available for use by the DBI during its review of building permits for the project site. Background information provided to DBI would provide for the security and stability of adjoining properties as well as the subject property during construction. Therefore, potential damage to structures (including existing adjacent structures) from geologic hazards on the project site would be addressed through the DBI requirement for a site-specific, design-level Geotechnical Investigation and review of the building permit application, pursuant to its implementation of the Building Code, ensuring that this impact would be less than significant. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

Dewatering

Perched groundwater was encountered at 27.5 feet below the existing first floor slab. The perched groundwater is likely the result of the Marsh deposit, a relatively impermeable clayey soil layer. It is anticipated that limited, if any, dewatering would be required. If the groundwater level is lowered outside of the property boundary during dewatering, in the vicinity of the BART and MUNI tunnel, the groundwater level would need to be monitored, and recharging of groundwater near the tunnels may be required, pending review and approval by BART.

If dewatering were to be required during construction, it would be subject to the requirements of the City's Industrial Waste Ordinance (Ordinance Number 199-77), requiring that groundwater meet specified water quality standards before it may be discharged into the sewer system. The Bureau of Environmental Regulation and Management of the SFPUC must be notified of projects necessitating dewatering, and may require groundwater analysis before discharge. Potential degradation of groundwater quality as a result of dewatering during project construction would be addressed through the Bureau of Environmental Regulation and Management requirement for retention of groundwater pumped from the project site in a holding tank, and analysis of the quality of this groundwater before it is discharged to the combined sanitary and storm drain sewer system.

Should dewatering be necessary, the final soils report would address the potential settlement and subsidence impacts of this dewatering. Based on this discussion, the soils report would determine whether or not a lateral movement and settlement survey should be done to monitor any movement or settlement of surrounding buildings and adjacent streets. If a monitoring survey were recommended, DBI would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. Groundwater observation wells might be installed to monitor potential settlement and subsidence. If, in the judgment of the Special Inspector, unacceptable movement were to occur during construction, groundwater recharge would be used to halt this settlement. The project sponsor would delay construction if necessary. Costs for the survey and any necessary repairs to service lines under the street would be borne by the project sponsor. If dewatering were necessary, the project sponsor and its contractor would follow the geotechnical engineers' recommendations regarding

dewatering to avoid settlement of adjacent streets, utilities, and buildings that could potentially occur as a result of dewatering.

For the reasons discussed above, adherence to state, regional, and local Building Codes and guidelines for the design and construction of the proposed project would ensure that it would not be subject to material impairment as a result of being located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project. Adherence to these requirements would also ensure that the proposed project's impacts related to the foundation design in relation to the BART ZOI, dewatering, and building load and their potential to create on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse would be less than significant. No mitigation measures are necessary and this topic will not be discussed in the EIR.

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. (No Impact)

The City and County of San Francisco is within an area where less than 50 percent of the soil consists of clay having high swelling potential, i.e., expansive soils. Expansive soils are those that shrink or swell substantially with changes in moisture content and generally contain a high percentage of clay particles. Based on the subsurface information currently available from geotechnical investigations of nearby sites, the project site is likely predominantly underlain by sand and it is therefore unlikely that expansive clay exists at the site. Therefore, the potential for substantial risks to life or property related to the presence of expansive soils would not exist and there would be no impact. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

Impact GE-5: Construction activities for the proposed project could directly or indirectly result in damage to, or destruction of, as-yet unknown paleontological resources or sites or unique geologic features, should such resources, sites, or features exist on or beneath the project site. (Less than Significant)

The project site is located in a thoroughly urbanized area and is developed to the property line with a two-story commercial building (including a partial basement). As such, no rock outcroppings or exposures of undisturbed sediments occur on or near the project site, nor are there any unique geologic features present. Therefore, the proposed project would have no impact on unique geologic features. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

Paleontology is a multidisciplinary science that combines elements of geology, biology, chemistry, and physics in an effort to understand the history of life on earth. Paleontological resources are the fossilized remains or traces of animals, plants, and invertebrates, including their imprints, from a previous geological period. The fossil record is the only evidence that life on

earth has existed for more than 3.6 billion years. Fossils are considered non-renewable resources because the organisms from which they derive no longer exist. Thus, once destroyed, a paleontological resource can never be replaced.

Paleontological resources are lithologically dependent; that is, deposition and preservation of paleontological resources are related to the lithologic unit in which they occur. If the rock types representing a deposition environment conducive to deposition and preservation of fossils are not favorable, fossils will not be present. Lithological units that may be fossil-bearing include sedimentary and volcanic formations.

There are no known paleontological resources (fossils) at the project site. As described in the *Geotechnical Investigation*, the project site is underlain by approximately two to five feet of fill, 10 to 20 feet of loose to medium dense sand, referred to as Dune sand, and 10 to 15 feet of Marsh deposit consisting of very soft to stiff sandy clay and loose to medium dense clayey sand. Beneath the Marsh deposit is a dense to very dense silty sand to the maximum depth explored (76.5 feet below street-grade) referred to as the Colma formation.¹⁶⁹ These formations are not fossil-bearing and thus do not exhibit the potential to contain fossils.

Excavation would not go beyond 16 feet bgs except along the north portion of the site closest to Golden Gate Avenue where there is an existing partial basement. At that location, excavation for the parking stacker pit would extend up to 23 feet bgs. Due to construction requirements for projects located within the BART ZOI, drilling to approximately 73 feet bgs (into the dense sands of the Colma formation that underlies the Marsh deposit) would be required to place soil-cement columns that would support the reinforced concrete mat foundation at the required depth below the BART ZOI line (10-foot minimum).

The limited excavation for the proposed project (including drilling to approximately 73 feet bgs for the placement of the soil-cement columns) would not be expected to adversely affect paleontological resources because it would not extend into fossil-bearing formations (i.e., into lithological units or rock types representing a deposition environment conducive to deposition and preservation of fossils). Thus, due to the low potential for encountering fossils, the proposed project would have a less-than-significant impact on paleontological resources. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

Cumulative Impacts

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

¹⁶⁹ Langan Treadwell Rollo, *Geotechnical Investigation*, pp. 5-6, Figure 3, and Appendix A.

The proposed project would result in less-than-significant impacts related to the exposure of persons or structures to seismic and geologic hazards and site-specific hazards such as unstable soils; soil erosion and the loss of topsoil; alterations to the topography or any unique geologic or physical features of the site; and the loss of paleontological resources. In addition, geology and soils impacts are generally site-specific and localized and do not have cumulative effects with other projects. Therefore, the proposed project would not make a considerable contribution to related cumulative impacts, if any. Other reasonably foreseeable future project's building plans would be reviewed by DBI and BART (if within the BART ZOI), and potential geologic hazards would be addressed during the building permit review process. As discussed above under **Impact GE-5**, the proposed project would have a less-than-significant impact on paleontological resources; therefore, it could not contribute to a significant cumulative impact or combine with past, present, and reasonably foreseeable future development projects to generate a significant cumulative impact on paleontological resources. Therefore, the cumulative impacts to geology and soils would be less than significant.

In summary, the proposed project would have a less-than-significant impact on exposing people or structures to potential substantial adverse effects related to geology and soils or the destruction of paleontological resources or unique geologic features. The proposed project would not be located on unstable soil, or soil that would become unstable as a result of the project. The project would not be located on expansive soil, have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems, or substantially change the topography or any unique geologic or physical features of the site.

For all of the above reasons, the proposed project would result in less-than-significant project-specific and cumulative impacts related to geology and soils. No mitigation measures are necessary, and 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>
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"/>

<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>
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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 23 feet bgs. Because the groundwater level may vary due to the annual amount of rainfall, it is unknown if groundwater would be present during excavation. If any groundwater is encountered during construction of the proposed project, it 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. Runoff from the project site would drain into the City's combined stormwater/sewer system, ensuring that such runoff is properly treated to meet the City's 2008 Bayside NPDES Permit and USEPA Combined Sewer Overflow Control Policy. 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 sediment from entering the City's combined stormwater/sewer system. The City of San Francisco's Construction Runoff Control Program would enforce City requirements through periodic and unplanned site inspections. Compliance with these regulatory requirements would ensure that water quality impacts related to violation of water quality standards or degradation of water quality due to discharge of construction-related stormwater runoff would be less than significant. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

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 **Section E.13, Geology and Soils**, groundwater depths vary due to annual rainfall fluctuations. Dewatering of excavations during construction may occur and 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. In addition, the proposed project would not rely on wells for its water supply; it would be connected to existing SFPUC infrastructure. The existing building and proposed project both cover the entire project site, representing no change in groundwater recharge. 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. This topic will not be discussed in the EIR.

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 Mid-Market area has been developed since the late 1800s. Since the project site and the project vicinity are 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. This topic will not be discussed in the EIR.

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 occupied by a two-story commercial building (built to the property line) since 1907. Similar to the existing building, the proposed building footprint would cover the entire project site; thus, 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. This topic will not be discussed in the EIR.

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. (*Less than Significant*)

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 under the jurisdiction of FEMA and its Flood Insurance Administration.

In September 2007, FEMA published Preliminary Flood Insurance Rate Maps for the City and County of San Francisco.¹⁷⁰ Flood Insurance Rate Maps 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. FEMA has tentatively identified Special Flood Hazard Area 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).

¹⁷⁰ City and County of San Francisco, General Services Agency, Risk Management, San Francisco Floodplain Management Program, FEMA Preliminary Flood Insurance Rate Maps, September 2007. Available online at http://sfgov.org/sfc/riskmanagement/index_828_8a9d.html. Accessed June 18, 2015

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 National Flood Insurance Program 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.¹⁷¹ 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.¹⁷² 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.

The project site is not located within a flood zone designated on the City's interim floodplain map.¹⁷³ 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. The project site is within an area identified by the SFPUC as prone to flooding during storms.¹⁷⁴ During the building permit review process, the SFPUC would require design features necessary to minimize the potential of a sewer backup during storm events and minimize the potential of street storm flow from entering the property. This impact would be less than significant, and no mitigation measures are necessary. This topic will not be discussed in the EIR.

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.¹⁷⁵ Thus,

¹⁷¹ City and County of San Francisco, General Services Agency, Risk Management, San Francisco Floodplain Management Program, San Francisco's Interim Floodplain Maps, July 2008. Available online at http://sfgov.org/sfc/riskmanagement/index_828_8a9d.html. Accessed June 18, 2015.

¹⁷² 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 June 29, 2015.

¹⁷³ City and County of San Francisco, General Services Agency, Risk Management, San Francisco Floodplain Management Program, San Francisco's Interim Floodplain Map, Northeast, Final Draft, July 2008. Available online at http://sfgov.org/sfc/riskmanagement/index_828_8a9d.html?page=828. Accessed June 18, 2015.

¹⁷⁴ 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 June 18, 2015.

¹⁷⁵ San Francisco Planning Department, *San Francisco General Plan*, Community Safety Element, Map 6, Potential Inundation Areas Due to Reservoir Failure, p. 17. Available online at http://www.sf-planning.org/ftp/General_Plan/Community_Safety_Element_2012.pdf. Accessed June 18, 2015.

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, and no impact would occur. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

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.¹⁷⁶ Furthermore, the project site would not be in the inundation zone for sea level rise of 16 inches by 2050, or 55 inches by 2100 as forecasted by the San Francisco Bay Conservation and Development Commission and mapped by the National Oceanic and Atmospheric Administration.^{177,178} 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, mudflow, or sea level rise, and no impact would occur. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

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 would result in an intensification of land uses, a cumulative increase in water consumption, and a cumulative increase in wastewater generation. The SFPUC has accounted for such growth in its service projections. Nearby cumulative development projects would be subject to the same water conservation, stormwater management, and wastewater discharge ordinances applicable to the proposed project. As with the proposed project, compliance with these ordinances would reduce the effects of nearby cumulative development 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 significant cumulative impact related to hydrology and water quality. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

¹⁷⁶ San Francisco Planning Department, *San Francisco General Plan*, Community Safety Element, Map 5, Tsunami Hazard Zones, San Francisco, 2012, p. 15. Available online at http://www.sf-planning.org/ftp/General_Plan/Community_Safety_Element_2012.pdf. Accessed June 18, 2015.

¹⁷⁷ National Oceanic and Atmospheric Administration, Sea Level Rise and Coastal Flooding Impacts, Data Viewer. Available online at <http://coast.noaa.gov/slr/>. Accessed June 18, 2015.

¹⁷⁸ San Francisco Bay Conservation and Development Commission, *Living with a Rising Bay: Vulnerability and Adaptation in San Francisco Bay and on its Shoreline*, p. 23, October 6, 2011. Available online at <http://www.bcdc.ca.gov/BPA/LivingWithRisingBay.pdf>. Accessed June 18, 2015.

<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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 E.15(e) and E.15(f) are not applicable to the proposed project.

A *Phase I Environmental Site Assessment* (ESA) was conducted at 1028 Market Street by Environmental Service in 2013.¹⁷⁹ The analysis in this section is based on the Phase I ESA.

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's residential and retail/restaurant uses would involve the use of relatively small quantities of hazardous materials such as paints, cleaners, toners, solvents, and disinfectants for routine purposes. These products are labeled to inform users of potential risks and to instruct them in appropriate handling procedures. Routine use consumes or neutralizes most of these materials resulting in little hazardous waste. Businesses are required by law to ensure employee safety by identifying hazardous materials in the workplace, providing safety information to workers who handle hazardous materials, and adequately training all employees. For these reasons, 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. Thus, impacts would be less than significant. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

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*)

Prior Uses of the Site

Based on historic topographic maps and Sanborn Fire Insurance Maps, by 1887 the project site was developed with two large stores at 1230-1234 Market Street, and several smaller stores at 1220-1226 Market Street. The site was improved, filled in, and had no discernible area between the previously identified buildings. Presumably many of these improvements were lost in the 1906 earthquake, as the existing building located at 1028 Market Street, known historically as the Golden Gate Building, was built in 1907. In addition, the addresses associated with the project site changed between 1897 and 1907, when the current building was constructed soon after the 1906 earthquake. The Golden Gate Building's original use was for ground-level stores and an upstairs loft warehouse. Subsequently, building alterations were completed to accommodate a movie theatre, and it has housed several movies theatres, intermittently, between 1923-1990. Other historical uses in the building include restaurants, retail, dry cleaning, and a billiard hall.

Past dry-cleaning operations at the project site are possible from 1935-1944. The operations are not obviously associated with transfer equipment or tetrachloroethylene (PCE). The Phase I ESA

¹⁷⁹ Environmental Service, *Phase I Environmental Site Assessment of 1028-1056 Market Street, San Francisco*, March 21, 2013 (hereinafter referred to as "*Phase I ESA*"). 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. 2014.0241E.

indicated that it is unlikely that commercial PCE-based transfer dry cleaning equipment was used at the locations due to their historical timeframe prior to PCE-use. Clothes pressing and “spotting” are more likely in the context of pre-World War II dry cleaning.¹⁸⁰ Nearby operations at 40 Golden Gate Avenue (1925-1959) and 151 Turk Street (1940-1954) could potentially also have entailed a dry cleaning call-office or on-premises dry cleaning. However, the adjacent sites would pose a reduced or minimal risk of environmental impairment, as periods of operation either pre-date PCE use or only slightly overlap the beginning of its common usage.

The Environmental Data Resources (EDR) search of the State Water Resources Control Board leaking underground storage tank (LUST) database reported eight unique cases within a ½-mile of the project site. All of the eight cases are considered closed and closure letters have been issued.¹⁸¹ No environmental risk is associated with the reported LUSTs.

The space located at 35 Golden Gate Avenue on the adjoining eastern parcel, now the San Christina Building at 1000 Market Street, was reported in the EDR search as an auto repair site. However, there are no obvious indicators, such as a roll-up door or old sign that corroborates this past use. Independent searches of historic San Francisco City Directories showed that there was no automotive repair listing at 35 Golden Gate Avenue.¹⁸²

Hazardous materials are not anticipated to be encountered on site based on the conclusions of the Phase 1 ESA. Nevertheless, if encountered, the abatement of hazardous materials is regulated by local, state, and federal regulations.

Asbestos-Containing Materials

The project site is occupied by a building that was constructed in 1907. Given the age of the existing building, asbestos-containing materials were likely utilized during building construction and remodeling (prior to 1980). Approximately 0.8 tons of asbestos-containing ceiling surface material was removed and disposed of according to a permit record from 2009.¹⁸³ An unspecified quantity of ceiling surfacing was also removed from the second floor in 1990. However, a recent screening identified asbestos in floor coverings, window putty, pipe insulation, joint compound, and restroom mirror mastic within the existing building.¹⁸⁴

The California Department of Toxic Substance Control considers asbestos hazardous and removal is required. Asbestos-containing materials must be removed in accordance with local and state regulations, BAAQMD, the California Occupational Safety and Health Administration (CAL

¹⁸⁰ Environmental Service, *Phase I ESA*, p. 2.

¹⁸¹ Environmental Service, *Phase I ESA*, p. 19.

¹⁸² Environmental Service, *Phase I ESA*, p. 2.

¹⁸³ Environmental Service, *Phase I ESA*, p. 21.

¹⁸⁴ Environmental Service, *Phase I ESA*, p. 27.

OSHA), and California Department of Health Services requirements. This includes materials that could be disturbed by the proposed demolition and construction activities.

Specifically, Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. The California legislature vests the BAAQMD with the authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and the BAAQMD is to be notified ten days in advance of any proposed demolition or abatement work. Any asbestos-containing material disturbance at the project site would be subject to the requirements of BAAQMD Regulation 11, Rule 2: Hazardous Materials—Asbestos Demolition, Renovation, and Manufacturing. The local office of CAL OSHA must also be notified of asbestos abatement to be carried out. Asbestos abatement contractors must follow state regulations contained in Title 8 of California Code of Regulations Section 1529 and Sections 341.6 through 341.14, where there is asbestos related work involving 100 gsf or more of asbestos-containing material. The owner of the property where abatement is to occur must have a Hazardous Waste Generator Number assigned by and registered with the Office of the California Department of Health Services. The contractor and hauler of the material are required to file a Hazardous Waste Manifest that details the hauling of the material from the site and the disposal of it. Pursuant to California law, DBI would not issue the required permit until the applicant has complied with the requirements described above.

These regulations and procedures already established as part of the building permit review process would ensure that any potential impacts due to asbestos would be reduced to a less-than-significant level. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

Lead-Based Paint

For buildings constructed prior to 1978, it is highly likely that lead-based paint was used in their construction. A previous survey found detectable lead concentrations in interior and exterior paint samples at the project site.¹⁸⁵ Work that could result in disturbance of lead-based paint must comply with Section 3423 of the Building Code, Work Practices for Exterior Lead-Based Paint on Pre-1979 Buildings and Steel Structures. Section 3423 identifies prohibited practices that may not be used in disturbance or removal of lead paint, and notification requirements. Where there is any work that may disturb or remove lead paint on the exterior of any building, or the interior of occupied buildings built prior to or on December 31, 1978, Section 3407 requires specific notification and work standards and identifies prohibited work methods and penalties.

¹⁸⁵ Environmental Service, *Phase I ESA*, p. 29.

These regulations and procedures, already established as part of the review process for building permits, would ensure that potential impacts of the proposed project due to the presence of lead-based paint would be reduced to a less-than-significant level. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

Radon

The Phase I ESA did not test for the presence of naturally-occurring environmental hazards (e.g., radon). However, the Phase I ESA conducted a search based on the Radon Database for California for the nearby zip codes 94101-94105, in which the project site is located. One of 68 tests for radon within the search area was reported to have a radon level greater than or equal to 4 picocuries per liter, the USEPA action level. Based on the radon survey data, there is not an expectation or likelihood that radon levels would exceed the USEPA action level. Therefore, radon does not pose an environmental risk and there would be no impact on the proposed project. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

In conclusion, compliance with applicable federal, state, and local regulations would ensure that implementation of the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable conditions involving the release of hazardous materials into the environment. This impact would be less than significant. No mitigation measures are necessary and this topic will not be discussed in the EIR.

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. (No Impact)

There is one school within a ¼-mile radius of the project site – the private DeMarillac Academy (approximately 590 feet west of the project site). No schools are proposed for development within a ¼-mile radius of the project site. 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. The proposed residential and retail/restaurant uses would not generate hazardous emissions and would not be expected to handle hazardous or acutely hazardous materials, substances, or waste within a ¼-mile radius of an existing or proposed school. Any hazardous materials currently on the site, such as asbestos or lead-based paint, would be removed during or prior to demolition of the existing building and prior to project construction, and would be handled in compliance with applicable laws and regulations, as described under **Impact HZ-2**. There would be no potential for such materials to affect the nearest school. Thus, the proposed project would have no impact with respect to the handling of hazardous materials within ¼-mile radius of an existing or proposed school. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

Impact HZ-4: The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment. (No Impact)

The project site was listed on the Hazardous Waste Information System (HazNet) database. As discussed under **Impact HZ-2**, records indicate the transport and disposal of 0.8 tons of asbestos-containing material in 2009. An unspecified quantity of asbestos-containing ceiling surfacing was also removed from the second floor in 1990. These actions indicate the proper removal and disposal of asbestos-containing material and do not represent a significant hazard to the public or the environment. Any remaining asbestos-containing materials would be abated prior to demolition of the existing building, as discussed under **Impact HZ-2**. The project site was not listed on any other State hazardous materials databases. Therefore, the proposed project would have no impact with respect to creating a significant hazard to the public or the environment. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

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 Building Code and the Fire Code. During the review of the building permit application, the DBI and the Fire Department would 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 and employees 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. This impact would be less than significant, and no mitigation measures are necessary. This topic will not be discussed in the EIR.

Cumulative Impacts

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

Environmental impacts related to hazards and hazardous materials are generally site-specific. Nearby cumulative development projects would be subject to the same fire safety and hazardous materials handling and disposal regulations applicable to the proposed project. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative impact related to hazards and hazardous materials. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

<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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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"/>

All land in the City and County of San Francisco, including the project site, is designated Mineral Resource Zone 4 (MRZ-4) by the California Division of Mines and Geology under the Surface Mining and Reclamation Act of 1975.¹⁸⁶ This designation indicates that there is inadequate information available for assignment to any other MRZ. Thus, the project site is not a designated area of significant mineral deposits or a locally important mineral resource recovery site. There are no operational mineral resource recovery sites in the project vicinity whose accessibility or operations would be affected by the construction or operation of the proposed project. Therefore, Topics E.16(a) and E.16(b) are not applicable to the proposed project.

Impact ME-1: 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*)

In California, energy consumption in buildings is regulated by Title 24 of the California Code of Regulations. Title 24 includes standards that regulate energy consumption for the heating, cooling, ventilation, and lighting of residential and nonresidential buildings. In San Francisco, documentation demonstrating compliance with Title 24 standards is required to be submitted with a building permit application. Compliance with Title 24 standards is enforced by the San Francisco DBI. The proposed project would comply with the standards of Title 24 and the requirements of the San Francisco Green Building Ordinance and would be built to Leadership in Energy and Environmental Design Silver standards or its GreenPoint Rated equivalent, thus minimizing the amount of fuel, water, or energy used. The proposed project would not encourage activities that result in the use of large amounts of fuel, water, or energy, or use them in a wasteful manner. This impact would be less than significant, and no mitigation measures are necessary. This topic will not be discussed in the EIR.

¹⁸⁶ California Division of Mines and Geology, Open File Report 96-03, 1996, and Special Report 146 Parts I and II, 1986.

Cumulative Impacts

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

As discussed above, San Francisco is not a designated area of significant mineral deposits and does not have locally important mineral resource recovery sites. Implementation of nearby cumulative development projects would also not affect any operational mineral resource recovery sites. In addition, nearby residential and nonresidential cumulative development projects would be required by the DBI to conform to current state and local energy conservation standards, including Title 24 of the California Code of Regulations. As a result, the proposed project in combination with other past, present or reasonably foreseeable projects would not cause a wasteful use of energy or other non-renewable natural resources. The project-generated demand for electricity would be negligible in the context of overall demand within San Francisco, the greater Bay Area, and the State, and would not in and of itself require any expansion of power facilities. The City plans to reduce GHG emissions to 25 percent below 1990 levels by the year 2017 and ultimately reduce GHG emission to 80 percent below 1990 levels by 2050, which would be achieved through a number of different strategies, including energy efficiency. Therefore, the energy demand associated with the proposed project would not substantially contribute to a cumulative impact on existing or proposed energy supplies or resources. For these reasons, the proposed project would not combine with past, present, and reasonably foreseeable future projects in the project vicinity to create a significant cumulative impact on mineral and energy resources. No mitigation measures are necessary, and this topic will not be discussed in the EIR.

<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>
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 type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<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>
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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>

The project site does not contain agricultural uses, and it is not zoned for such uses. The California Department of Conservation’s Farmland Mapping and Monitoring Program identifies the project site as Urban and Built-Up Land, which is defined as “... land [that] is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.”¹⁸⁷ Because the project site does not contain agricultural uses and is not zoned for such uses, the proposed project would not convert any prime farmland, or Farmland of Statewide Importance to non-agricultural use, and it would not conflict with existing zoning for agricultural use or a Williamson Act contract, nor would it involve any changes to the environment that could result in the conversion of farmland. Therefore, Topics E.17 (a), (b) and (e) are not applicable to the proposed project.

The project site does not contain forest land or timberland and is not zoned for such uses. Forest land is defined as “land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits” (Public Resources Code Section 12220(g)). Timberland is defined as “land, other than land owned by the federal government and land designated by the board (State Board of Forestry and Fire Protection) as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species uses to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis after consultation with the district committees and others” (Government Code Section 51104(g)). Because the project site does not contain forest land and is not zoned for such uses, the proposed project would not convert any forest land to non-forest use, and it would not

¹⁸⁷ California Department of Conservation, San Francisco Bay Area Important Farmland 2010. Available online at ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/regional/2010/bay_area_fmmp2010.pdf. Accessed June 2, 2015.

conflict with existing zoning for forest land or timberland use, nor would it involve any changes to the environment that could result in the conversion of forest land. Therefore, Topics E.17(c), (d), and (e) are not applicable to the proposed project.

<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>
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 Cultural Resources (historic architectural resources only) and Transportation and Circulation. These topics, along with Compatibility with Existing Zoning and Plans, will be evaluated in an EIR prepared for the proposed project.

F. MITIGATION MEASURES AND IMPROVEMENT MEASURES

The following mitigation measures have been identified to reduce potentially significant environmental impacts resulting from the proposed project to less-than-significant levels. In addition, improvement measures have also been agreed to by the project sponsor to further reduce less-than-significant impacts.¹⁸⁸

Mitigation Measures

Mitigation Measure M-CP-2: Archaeological Testing Program

Based on a reasonable presumption that archeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources. The project sponsor shall retain the services of an archeological consultant from the rotational Department Qualified Archeological Consultants List (QACL) maintained by the Planning Department archeologist. The project sponsor shall contact the Department archeologist to obtain the names and contact information for the next three archeological consultants on the QACL. The archeological consultant shall undertake an archeological testing program as specified herein. In addition, the consultant shall be available to conduct an archeological monitoring and/or data recovery program if required pursuant to this measure. The archeological consultant's work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer (ERO). All plans and reports prepared by the consultant as specified herein 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. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to 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 to a less than significant level potential effects on a significant archeological resource as defined in CEQA Guidelines Sect. 15064.5 (a) and (c).

Consultation with Descendant Communities. On discovery of an archeological site¹⁸⁹ associated with descendant Native Americans, the Overseas Chinese, or other potentially interested descendant group an appropriate representative¹⁹⁰ of the descendant group and the ERO shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and to offer recommendations to the ERO regarding appropriate archeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated

¹⁸⁸ *Agreement to Implement Mitigation Measures, Case No. 2014.0241E, 1028 Market Street, February 10, 2016.* 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. 2014.0241E.

¹⁸⁹ By the term "archeological site" is intended here to minimally include any archeological deposit, feature, burial, or evidence of burial.

¹⁹⁰ An "appropriate representative" of the descendant group is here defined to mean, in the case of Native Americans, any individual listed in the current Native American Contact List for the City and County of San Francisco maintained by the California Native American Heritage Commission and in the case of the Overseas Chinese, the Chinese Historical Society of America. An appropriate representative of other descendant groups should be determined in consultation with the Department archeologist.

archeological site. A copy of the Final Archaeological Resources Report shall be provided to the representative of the descendant group.

Archeological Testing Program. The archeological consultant shall prepare and submit to the ERO for review and approval an archeological testing plan (ATP). The archeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archeological testing program will be to determine to the extent possible the presence or absence of archeological resources and to identify and to evaluate whether any archeological resource encountered on the site constitutes an historical resource under CEQA.

At the completion of the archeological testing program, the archeological consultant shall submit a written report of the findings to the ERO. If based on the archeological testing program the archeological consultant finds that significant archeological resources may be present, the ERO in consultation with the archeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archeological testing, archeological monitoring, and/or an archeological data recovery program. No archeological data recovery shall be undertaken without the prior approval of the ERO or the Planning Department archeologist. If the ERO determines that a significant archeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

- A) The proposed project shall be re-designed so as to avoid any adverse effect on the significant archeological resource; or
- B) A data recovery program shall be implemented, unless the ERO determines that the archeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

Archeological Monitoring Program. If the ERO in consultation with the archeological consultant determines that an archeological monitoring program shall be implemented the archeological monitoring program shall minimally include the following provisions:

- The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils disturbing activities commencing. The ERO in consultation with the archeological consultant shall determine what project activities shall be archeologically monitored. In most cases, any soils- disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archeological monitoring because of the risk these activities pose to potential archaeological resources and to their depositional context;
- The archeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archeological resource;
- The archeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archeological consultant and the ERO until the ERO has, in consultation with project archeological consultant, determined that project construction activities could have no effects on significant archeological deposits;

- The archeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;
- If an intact archeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the deposit is evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archeological monitor has cause to believe that the pile driving activity may affect an archeological resource, the pile driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archeological consultant shall immediately notify the ERO of the encountered archeological deposit. The archeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archeological deposit, and present the findings of this assessment to the ERO.

Whether or not significant archeological resources are encountered, the archeological consultant shall submit a written report of the findings of the monitoring program to the ERO.

Archeological Data Recovery Program. The archeological data recovery program shall be conducted in accord with an archeological data recovery plan (ADRP). The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archeological resources if nondestructive methods are practical.

The scope of the ADRP shall include the following elements:

- *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis.* Description of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy.* Description of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program.* Consideration of an on-site/off-site public interpretive program during the course of the archeological data recovery program.
- *Security Measures.* Recommended security measures to protect the archeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report.* Description of proposed report format and distribution of results.
- *Curation.* Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains and Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils

disturbing activity shall comply with applicable State and Federal laws. This shall include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The archeological consultant, project sponsor, ERO, and MLD shall have up to but not beyond six days of discovery to make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (CEQA Guidelines. Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. Nothing in existing State regulations or in this mitigation measure compels the project sponsor and the ERO to accept recommendations of an MLD. The archeological consultant shall retain possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of the human remains or objects as specified in the treatment agreement if such as agreement has been made or, otherwise, as determined by the archeological consultant and the ERO.

Final Archeological Resources Report. The archeological consultant shall submit a Draft Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report.

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

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 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall have engines that meet or exceed either USEPA or California 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 ERO or designee may waive the alternative source of power requirement of Subsection (A)(2) if an alternative source of power is limited or infeasible at the project site. If the ERO grants the waiver, the Contractor must submit documentation that the equipment used for 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 8** below.

Table 8: 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*

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.

** Alternative fuels are not a VDECS.

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

1. The Plan shall include estimates of the construction timeline by phase, with a description of each piece of off-road equipment required for every construction phase. The description may include, but is not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), 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.

Mitigation Measure M-AQ-4: Best Available Control Technology for Diesel Generators

The project sponsor shall ensure that the backup diesel generator meet or exceed one of the following emission standards for PM: (1) Tier 4 certified engine, or (2) Tier 2 or Tier 3 certified engine that is equipped with a California ARB Level 3 VDECS. A non-verified diesel emission control strategy may be used if the filter has the same PM reduction as the identical ARB verified model and if the 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.

Improvement Measures

Improvement Measure I-NO-2a:

The Applicant shall restrict construction activities to between the hours of 7:00 a.m. and 8:00 p.m. from Monday through Saturday, as feasible. If nighttime work is required for concrete pours or other specific activities, the Applicant shall obtain authorization in advance from the Department of Building Inspection and limit the duration of nighttime work to no more than two consecutive 24-hour periods. Further, no construction activity shall be undertaken on Sundays and recognized County holidays.

Improvement Measure I-NO-2b:

Incorporate the following practices into the construction contract agreement documents to be implemented by the construction contractor:

- Provide enclosures and mufflers for stationary equipment and shroud or shield impact tools;
- Use construction equipment with lower noise emission ratings whenever possible, particularly for air compressors;
- Provide sound-control devices on equipment no less effective than those provided by the manufacturer;
- Locate stationary equipment, material stockpiles, and vehicle staging areas as far as practicable from Golden Gate Avenue;
- Prohibit unnecessary idling of internal combustion engines; and,

- Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, noise barriers or noise blankets. The placement of such attenuation measures shall be reviewed and approved by the Director of Public Works prior to issuance of development permits for construction activities.

Improvement Measure I-WS-1: Wind Reduction on New Rooftop Deck

To reduce wind and improve usability on the new rooftop deck, the project sponsor should provide wind screens or landscaping along the west perimeter of the new rooftop deck up to 8 feet in height. Suggestions include Planning Code compliant porous materials or structures (vegetation, hedges, screens, latticework, perforated or expanded metal) as opposed to a solid surface.

G. PUBLIC NOTICE AND COMMENT

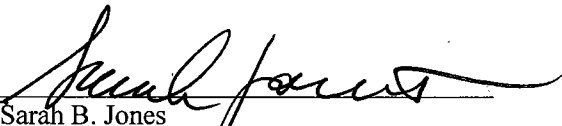
Concurrently with this Initial Study, the San Francisco Planning Department has issued a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the 1028 Market Street Project. Together, the NOP and this Initial Study are called the NOP/Initial Study. The NOP/Initial Study (or a Notice 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 February 17, 2016


Sarah B. Jones
Environmental Review Officer
for
John Rahaim
Director of Planning

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