



SAN FRANCISCO PLANNING DEPARTMENT

Initial Study

Preliminary Mitigated Negative Declaration

Date: October 17, 2018
Case No.: **2015-016326ENV**
Project Title: **Seawall Lots 323 and 324 – Hotel and Theater Project**
Zoning: C-2 (Community Business) Use District
Waterfront 3, Special Use District
40-x Height and Bulk District
Block/Lot: 0138/001
0139/002
Lot Size: 59,750 square feet
Project Sponsor Jay Wallace
TZK Broadway, LLC
(415) 955-1100 ext. 4007
Lead Agency: San Francisco Planning Department
Staff Contact: Laura Lynch (415) 575-9045
Laura.Lynch@sfgov.org

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

PROJECT DESCRIPTION:

The project site includes two Port of San Francisco (Port) assessor's parcels, Assessor's Block 0138, Lot 001 and Assessor's Block 0139, Lot 002, and two Port right-of-way parcels. These parcels compose approximately 59,750 square feet (1.37-acre) of Port property, with primary frontages along The Embarcadero, Broadway, and Davis Street. The Port currently leases the project site to a parking operator.

The project sponsor, TZK Broadway LLC, proposes to demolish the existing 250 space parking lot and construct a mixed-use development consisting of three components: an approximately 29,570-gross-square-foot (gsf) entertainment venue that would house Teatro ZinZanni's historic *spiegel tent*¹ and 285-seat dinner-theater-entertainment venue and program; an approximately 118,000-square-foot, four-story hotel with 192 rooms; and an approximately 14,000 gsf, privately financed and maintained public park, all built to conform with the 40-X height and bulk district.

¹ The Zinzanni spiegel tent, the Palais Nostalgique, is a 100+ year old European cabaret tent constructed of wood, stained glass, red velvet and gold fabric. The spiegel tent was constructed by renowned craftsman Willem Klessens. The tent is 29 feet tall with a circumference of 211 feet. It has historically been used to host a variety of entertainment uses such as dances, wine tastings, cabarets, and celebrations.

No off-street parking is proposed at the project site. Parking would occur through valet services and offsite parking at existing nearby facilities. Approximately 20 class I bicycle parking spaces and 28 class II bicycle parking spaces are proposed. Construction on the project site is estimated to take up to approximately 22 months.

FINDING:

This project could not have a significant effect on the environment. This finding is based upon the criteria of the Guidelines of the State Secretary for Resources, Sections 15064 (Determining Significant Effect), 15065 (Mandatory Findings of Significance), and 15070 (Decision to prepare a Negative Declaration), and the following reasons as documented in the Initial Evaluation (Initial Study) for the project, which is attached.

Mitigation measures are included in this project to avoid potentially significant effects. See section F, Mitigation Measures and Improvement Measures on page 169.

Initial Study

Seawall Lots 323 and 324 – Hotel and Theater Project

(Planning Department Case No. 2015.016326ENV)

October 2018

Table of Contents

Section	Page
A. PROJECT DESCRIPTION	1
A.1. Project Summary	1
A.2. Existing Conditions	1
A.3. Project Characteristics	2
A.4. Construction Activities and Schedule	26
A.5. Required Approvals	27
B. PROJECT SETTING	31
B.1. Project Site and Surrounding Land Uses	31
B.2. Site Access and Transit	31
B.3. Cumulative Projects	32
C. COMPATIBILITY WITH EXISTING ZONING AND PLANS.....	35
C.1. San Francisco Planning Code and Zoning Maps	35
C.2. Local Plans and Policies	37
C.3. Regional Plans and Policies	45
D. SUMMARY OF ENVIRONMENTAL EFFECTS	47
D.1. Approach to Environmental Review	47
E. EVALUATION OF ENVIRONMENTAL EFFECTS.....	51
E.1. Land Use and Planning.....	51
E.2. Population and Housing	55
E.3. Cultural Resources	57
E.4. Transportation and Circulation.....	67
E.5. Noise.....	87
E.6. Air Quality.....	105
E.7. Greenhouse Gas Emissions	123
E.8. Wind and Shadow	127
E.9. Recreation.....	137
E.10. Utilities and Service Systems	141
E.11. Public Services	147
E.12. Biological Resources	149
E.13. Geology and Soils	153
E.14. Hydrology and Water Quality	163
E.15. Hazards and Hazardous Materials	169
E.16. Mineral and Energy Resources.....	175
E.17. Agriculture and Forestry Resources	177
E.18. Mandatory Findings of Significance	179
F. MITIGATION MEASURES AND IMPROVEMENT MEASURES.....	181
F.1. Mitigation Measures	181
F.2. Improvement Measures	186
G. PUBLIC NOTICE AND COMMENT	189
H. DETERMINATION	191
I. INITIAL STUDY PREPARERS	193

List of Tables

Table 1	Project Characteristics.....	5
Table 2	Estimated Quantities of Fill Materials.....	27
Table 3	Cumulative Projects	32
Table 4	Daily Vehicle Miles Traveled	71
Table 5	Project Person-Trips	72
Table 6	Project Person-Trips Generation by Mode	73
Table 7	Project Vehicle Trip Generation.....	73
Table 8	Project Trip Distribution Patterns.....	74
Table 9	General Plan Land Use Compatibility Chart for Community Noise.....	90
Table 11	Existing Ambient Noise Levels.....	93
Table 12	Predicted Existing Roadway Traffic Noise Levels.....	94
Table 13	Estimated Noise Levels from Proposed Project Outdoor Spaces.....	97
Table 14	Estimated Noise Levels from Proposed Entertainment Venue	98
Table 15	Roadway Traffic Noise Impacts – Project Level.....	99
Table 16	Noise Levels Generated by Typical Construction Equipment	101
Table 17	Vibration Levels Generated by Typical Construction Equipment	102
Table 18	Roadway Traffic Noise Impacts – Cumulative Level	104
Table 20	Criteria Air Pollutant Significance Thresholds	106
Table 21	Construction-related Criteria Air Pollutant Emissions Estimates	113

List of Figures

Figure 1	Project Location	3
Figure 2	Aerial View of Project Location.....	4
Figure 3	Proposed Site Plan.....	6
Figure 4	Proposed Ground-Floor Plan.....	7
Figure 5	Proposed Second-Floor Plan	8
Figure 6	Proposed Third-Floor Plan	9
Figure 7	Proposed Fourth-Floor Plan	10
Figure 8	Proposed Roof Plan	11
Figure 9	Proposed Public Park Plan	12
Figure 10	Northwest View of Proposed Project	13
Figure 11	South View of Proposed Project.....	14
Figure 12	Proposed Elevation – North, Broadway	20
Figure 13	Proposed Elevation – West, The Embarcadero	21
Figure 14	Proposed Elevation – South, Proposed Public Park	22
Figure 15	Proposed Elevation – East, Davis Street	23
Figure 16	Proposed Building Sections.....	24
Figure 17	Cumulative Projects Nearby.....	33
Figure 18	Noise Monitoring Locations.....	92
Figure 19	Proposed Project with Promenade Pier Structures and Public Space Evaluated.....	128
Figure 20	Proposed Project and Existing Shadow, June 20th, 7:00 p.m.	131
Figure 21	Proposed Project and Existing Shadow, June 20th, 7:30 p.m.	132
Figure 22	Proposed Project and Existing Shadow, December 20th, 3:00 p.m.	133
Figure 23	Proposed Project and Existing Shadow, December 20th, 3:30 p.m.	134
Figure 24	Proposed Project and Existing Shadow, December 20th, 4:00 p.m.	135

List of Acronyms

2015 UWMP	2015 Urban Water Management Plan
2017 Clean Air Plan	<i>Spare the Air, Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area, Final 2017 Clean Air Plan</i>
µg/m ³	micrograms per cubic meter
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ARB	California Air Resources Board
ADRP	archeological data recovery plan
ARDTP	archeological research design and treatment plan
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
bgs	below ground surface
bhp	boiler horsepower
“Blue Book”	<i>Regulations for Working in San Francisco Streets</i>
BMP	best management practice
C-2	Community Business zoning district
CALGreen Code	California Green Building Standards Code
<i>CBIA v. BAAQMD</i>	<i>California Building Industry Association v. Bay Area Air Quality Management District</i>
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CO	carbon monoxide
CRHR	California Register of Historical Resources
dB	decibel(s)
dBA	A-weighted decibel(s)
DBI	San Francisco Department of Building Inspection
DNL	day-night noise level
ERO	environmental review officer
ESA	environmental site assessment
FTA	Federal Transit Administration
GHG	greenhouse gas
gsf	gross square feet
hp	horsepower
HVAC	heating, ventilation, and air conditioning
lb/day	pounds per day
L _{dn}	day-night sound level
L _{eq}	equivalent noise level
LEED	Leadership in Energy and Environmental Design
MLD	Most Likely Descendant
MRZ	Mineral Resource Zone
MTCO _{2e}	metric tons of carbon dioxide equivalents
Muni	San Francisco Municipal Railway
Northeast Embarcadero Study	<i>Northeast Embarcadero Study: An Urban Design Analysis for the Northeast Embarcadero Area</i>
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OPR	Governor’s Office of Planning and Research
PM	particulate matter
PM _{2.5}	particulate matter equal to or less than 2.5 microns in diameter
PM ₁₀	particulate matter equal to or less than 10 microns in diameter
Port	Port of San Francisco
PRC	California Public Resources Code
Rec Park	Recreation and Park Commission
ROG	reactive organic gas
ROW	right-of-way
RWQCB	Regional Water Quality Control Board

SB	Senate Bill
SFBAAB	San Francisco Bay Area Air Basin
SFFD	San Francisco Fire Department
<i>SF Guidelines</i>	<i>Transportation Impact Analysis Guidelines for Environmental Review</i>
SFMTA	San Francisco Municipal Transportation Agency
SFPUC	San Francisco Public Utilities Commission
SFPW	San Francisco Public Works
SFRPD	San Francisco Recreation and Park Department
SO ₂	sulfur dioxide
TAC	toxic air contaminant
TAZ	transportation analysis zone
TDM	transportation demand management
U.S. EPA	U.S. Environmental Protection Agency
VdB	vibration decibel(s)
VMT	vehicle miles traveled
VOC	volatile organic compound
ZinZanni	Teatro ZinZanni

This page intentionally left blank.

A. PROJECT DESCRIPTION

A.1. PROJECT SUMMARY

The project site includes two Port of San Francisco (Port) assessor's parcels, Assessor's Block 0138, Lot 001 and Assessor's Block 0139, Lot 002, and two Port right-of-way (ROW) parcels. These parcels compose approximately 59,750 square feet of Port property, with primary frontages along The Embarcadero, Broadway, and Davis Street. The Port currently leases the project site to a parking operator. The project sponsor, TZK Broadway LLC, proposes to demolish the existing parking lot and construct a mixed-use development consisting of three components: an approximately 29,570-gross-square-foot (gsf) entertainment venue that would house Teatro ZinZanni's (ZinZanni's) historic *spiegel tent*² and dinner-theater-entertainment venue and program; an approximately 118,000-square-foot hotel with 192 rooms; and an approximately 14,000-gsf, privately financed and maintained public park.

A.2. EXISTING CONDITIONS

Project Location and Site Characteristics

The approximately 59,750-square-foot, triangle-shaped project site is on the western side of The Embarcadero, the northern side of Broadway, the eastern side of Davis Street, and the southern side of Green Street in the North Beach neighborhood (Figure 1). The project site is generally flat, with elevations ranging between approximately 6 and 10 feet above mean sea level. At its northeastern corner, the site slopes toward San Francisco Bay. The site's elevation is highest along Davis Street, at approximately 10 feet above mean sea level, and lowest along The Embarcadero, at approximately 6 feet above mean sea level.

The project site consists of the two Port parcels, Assessor's Block 0138, Lot 001, and Assessor's Block 0139, Lot 002. These parcels (referred to collectively in this document as the "Port parcels") are commonly referred to as Seawall Lots 323 and 324. The project site abuts two unused ROW parcels between The Embarcadero and Davis Street at the Vallejo Street junction. The proposed project would include an adjustment to the Davis Street property line at the corner of Davis and Vallejo streets (referred to in this document as the "Davis Street lot/street adjustment"). The Port parcels, ROW parcels, and Davis Street lot/street adjustment contribute to a total project site area of approximately 59,750 square feet (1.37 acres). The Port is the trustee of the site under the terms of the *Burton Act*.³

The project site is currently used as a surface parking lot, with approximately 250 striped self-parking stalls and two temporary wooden pay booths. The Port leases the site to a parking operator under a short-term lease. Some of the existing parking spaces are used by Port employees, and by the adjacent KGO-TV and KRON 4 news station for parking for their news vans.

² The Zinzanni spiegel tent, the Palais Nostalgique, is a 100+ year old European cabaret tent constructed of wood, stained glass, red velvet and gold fabric. The spiegel tent was constructed by renowned craftsman Willem Klessens. The tent is 29 feet tall with a circumference of 211 feet. It has historically been used to host a variety of entertainment uses such as dances, wine tastings, cabarets, and celebrations.

³ In 1968, the State of California transferred its responsibilities for the San Francisco waterfront to the City and County of San Francisco (City) through the Burton Act. As a condition of the transfer, the State required the City to create a Port Commission that has the authority to manage the San Francisco waterfront for the citizens of California. Although the Port is a department of the City and County of San Francisco, the Port receives no financial support from the City, and relies almost solely on the leasing of Port property for its revenues. For more information about Port history, see https://web.archive.org/web/20070903162440/http://www.sfgov.org/site/port_page.asp?id=31784 (accessed May 1, 2018).

Three existing curb cuts along the project frontage provide access to the existing surface parking lot: one curb cut on Broadway (28 feet long) and two curb cuts on Davis Street (28 feet and 20 feet long). The existing sidewalk is 15 feet wide along The Embarcadero and 10 feet wide along Broadway and 11 feet wide along Vallejo Street. Davis Street only has a short 10-foot-wide sidewalk along the southwest a portion of the proposed project site. The proposed project would remove six existing parallel on-street parking spaces and three existing on-street motorcycle parking spaces along the project frontage on the north side of Broadway, three existing parallel on-street parking spaces along the project frontage on the east side of Davis Street, 20 existing perpendicular on-street Port parking spaces along the project frontage on the east side of Davis Street, and six existing perpendicular on-street Port parking spaces along the project frontage on the north side of Vallejo Street. There are 28 street trees along the perimeter of the site; 22 trees are along The Embarcadero, four on Broadway, and two on Davis Street. Figure 2 shows an aerial view of the project location.

Land Use and Zoning

The project site is within the C-2 (Community Business) *zoning district* and the 40-X *height and bulk district* (40-foot maximum height, no bulk limit). The San Francisco General Plan (General Plan) land use designation for the project site is General Commercial. As shown on the Generalized Land Use Map for this subarea, the types of General Plan land use designations in the project area include a mixture of General Commercial, Light Industrial/Public Trust, and High Density Residential. The site is also within the Northeastern Waterfront Special Sign District,⁴ Northeast Waterfront Historic District,⁵ Waterfront Special Use District No. 3,⁶ and Northeast Waterfront Area Plan,⁷ and is governed by the Port's Waterfront Land Use Plan.⁸

A.3. PROJECT CHARACTERISTICS

Proposed Project

The proposed project would involve the demolition of the existing surface parking lot and construction of a new mixed-use development with three components:

- an entertainment venue, featuring the historic 40-foot-tall spiegel tent hosting its maximum 285-seat theater and entertainment venue and a kitchen, bar, bathrooms, and back-of-house area;
- a four-story hotel, consisting of a maximum of 192 guest rooms plus a lobby, guest services, restaurant, and bar areas at ground level and a rooftop bar for hotel guests and patrons⁹ only; and
- an approximately 14,000-gsf, privately owned, publicly accessible park.

⁴ San Francisco Planning Code section 608.15.

⁵ San Francisco Planning Code article 10, appendix D.

⁶ San Francisco Planning Code section 240.3.

⁷ San Francisco Planning Department, *Northeastern Waterfront Area Plan*, 1998 and Amendments by Resolution 16626 on July 31, 2003, http://www.sf-planning.org/ftp/General_Plan/NE_Waterfront.htm. This document (and all other documents cited in this report, unless otherwise noted) is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2015.016326ENV.

⁸ Port of San Francisco, *Waterfront Land Use Plan*, June 2004; Revised October 2009, <http://sfport.com/waterfront-land-use-plan-0>, accessed online August 2016.

⁹ Patrons are defined as visitors of the theater, restaurant or other amenities of the hotel that are not guests of the hotel



FIGURE 1 PROJECT LOCATION

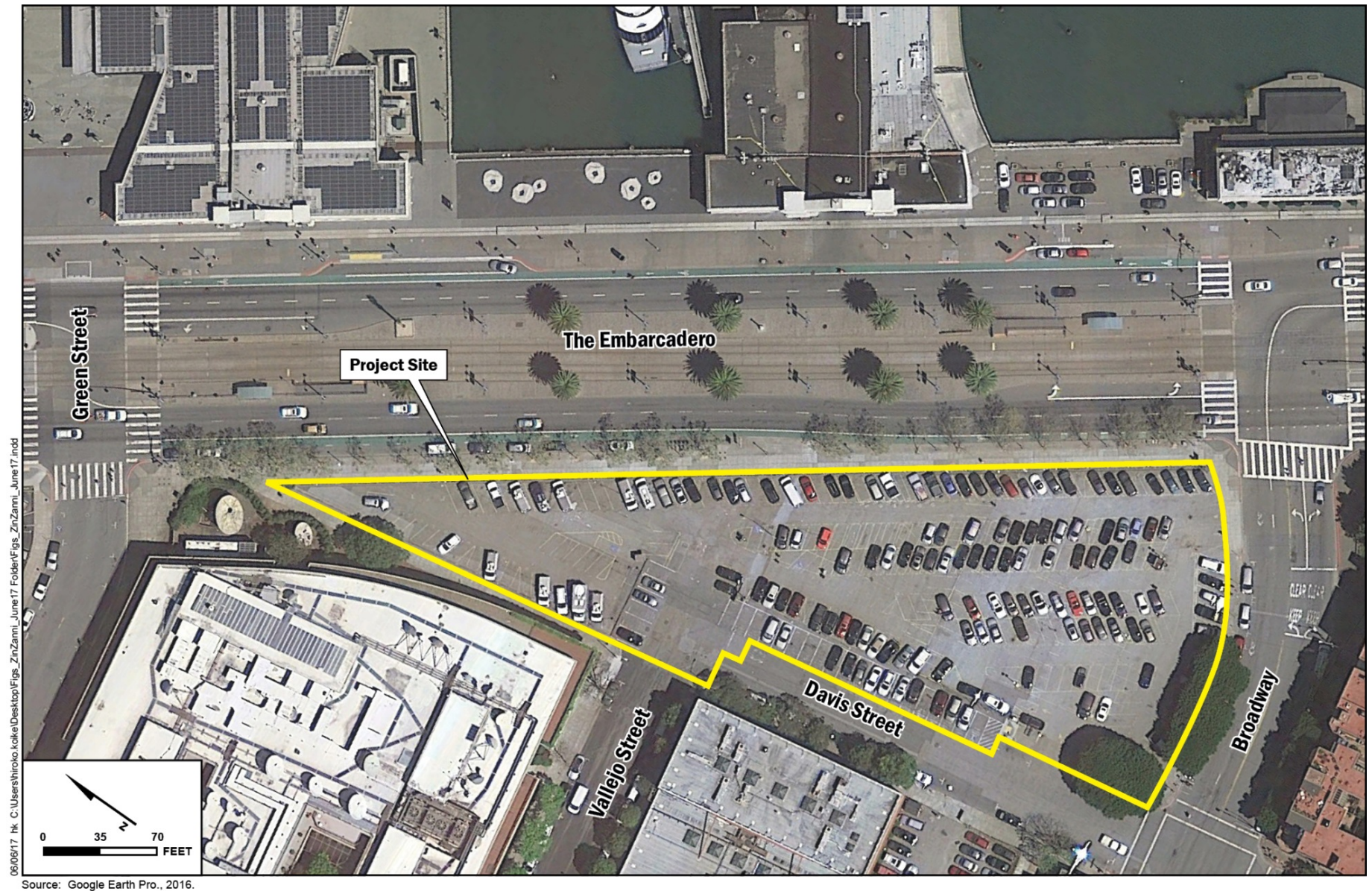


FIGURE 2 AERIAL VIEW OF PROJECT LOCATION

The proposed project would include a total of approximately 147,880 gsf, and would be 40 feet tall (up to 55 feet with mechanical equipment and elevator penthouses, as permitted by San Francisco Planning Code section 260[b][1]). Table 1 provides an overview of project characteristics. Figure 3 provides the proposed site plan, and Figures 4 through 7 shows the floor plans. Figure 8 portrays the proposed roof plan and Figure 9 provides details of the proposed public park plan. Figures 10 and 11 depicts renderings of the proposed project looking to the north and south, respectively.

TABLE 1 PROJECT CHARACTERISTICS

Lot		Dimensions
Size		59,750 square feet
Length		600 feet (Embarcadero)/210 feet (Broadway)/ 290 feet (Davis Street)
Proposed Building		Area (gsf)
Height		40 feet (4 stories) (55 feet with elevator penthouse)
Ground Floor (Hotel and Theater)	Hotel Lobby and Elevator Lobby Area	1,470
	ZinZanni Pre-function: ZinZanni Lobby and Lounge	3,040
	Restaurant Food and Beverage and Bar	4,420
	ZinZanni Retail and Retail Storage	1,950
	Spiegeltent	4,630
	Hotel Meeting Space ¹⁰	2,360
	Mechanical/Circulation/Back of House	26,270
<i>Total</i>		<i>44,140</i>
Level 2 ¹		31,490
Level 3 ¹		32,030
Level 4 ¹		32,030
Roof	Open Roof Terrace	3,970
	Elevator/Mechanical Penthouses	4,220
Total		147,880
Uses		Area (gsf)
Entertainment Venue, Including Venue Back of House and Circulation		21,570
Hotel, Including Hotel Back of House and Circulation		121,890
Restaurant Food and Beverage		4,420
Open Space		Publicly Accessible ² 14,000
		Common ³ 3,970
		Private ⁴ 0
Vehicle Parking Spaces		Number
		0
Bicycle Parking Spaces		Class I 20 (on ground floor)
		Class II 28 (in three locations along project frontage); 15 existing (along The Embarcadero)
Loading Spaces		2

Notes:

¹ Proposed room numbers: Level 2, 59 rooms; level 3, 67 rooms; and level 4, 66 rooms.

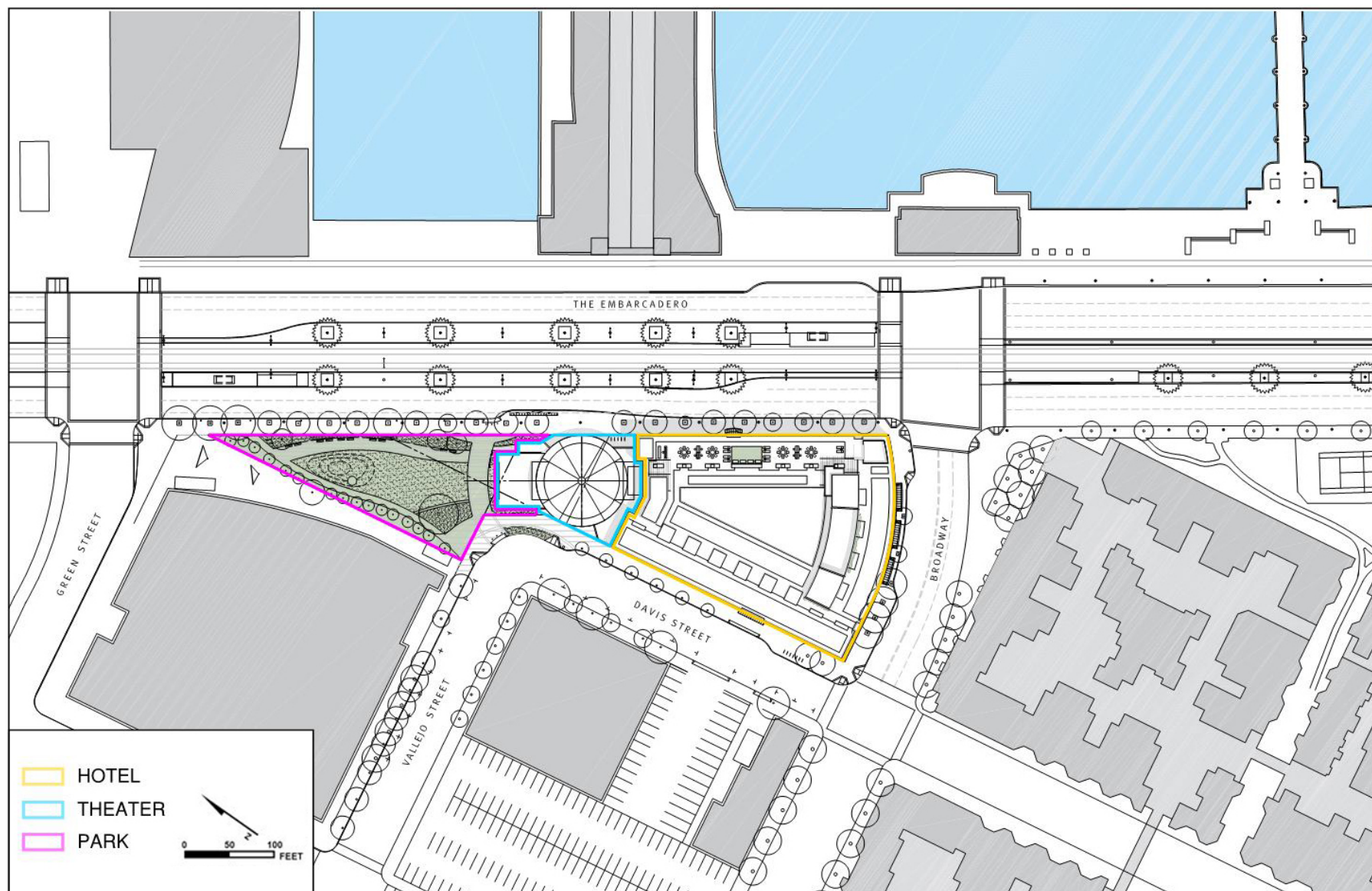
² Publicly accessible open space provided as a park in the northern corner of the site.

³ Common open space provided as an open roof terrace that would be accessible to hotel guests and patrons only.

⁴ No private open space (including patios/decks off of hotel rooms) would be provided.

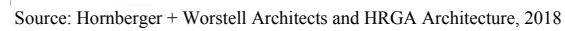
Source: Hornberger + Worstell Architects and HRGA Architects, 2018

¹⁰ Meeting space may be rented by hotel guests or patrons of the hotel that are not staying at the hotel.

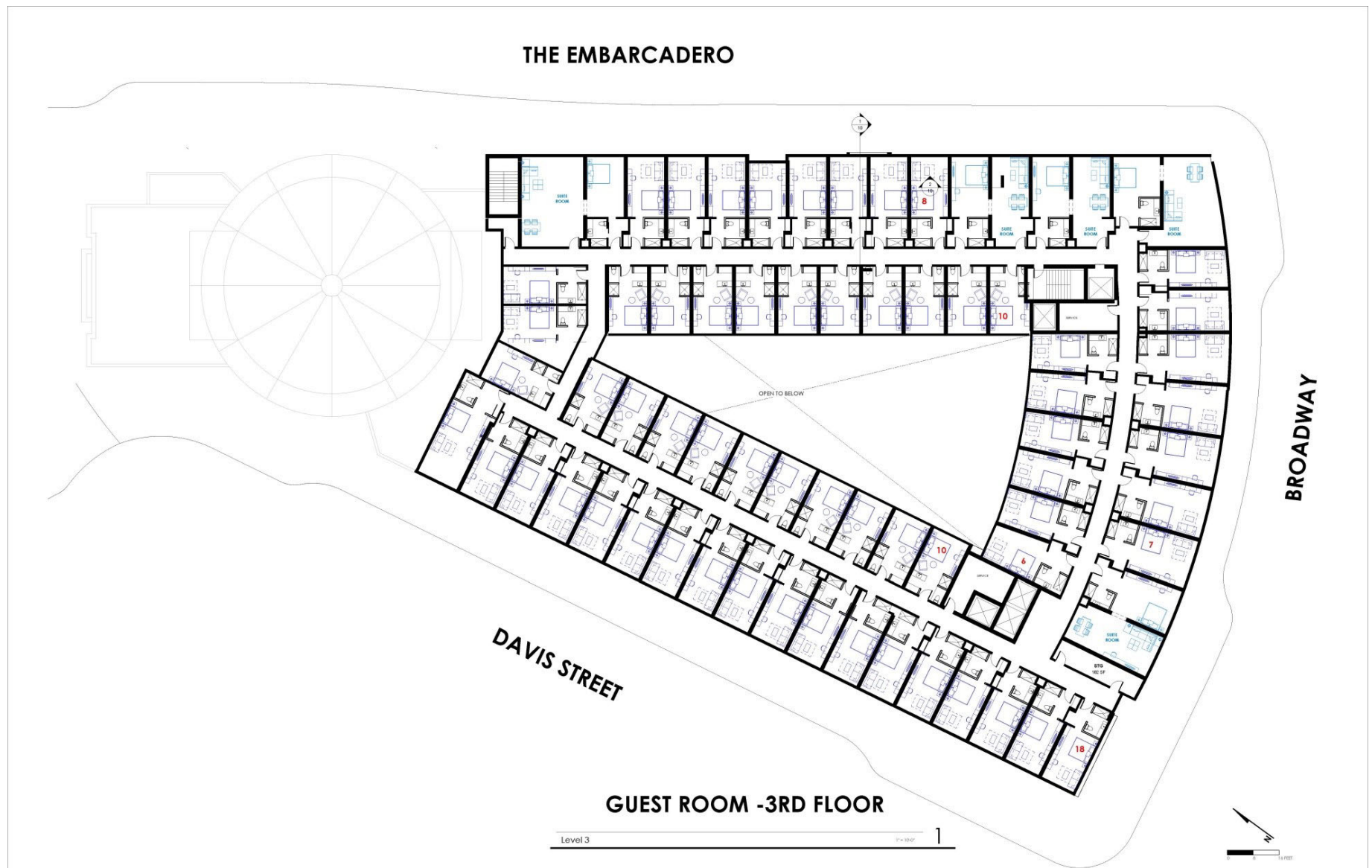


Source: Hornberger + Worstell Architects 2018

FIGURE 3 **PROPOSED SITE PLAN**

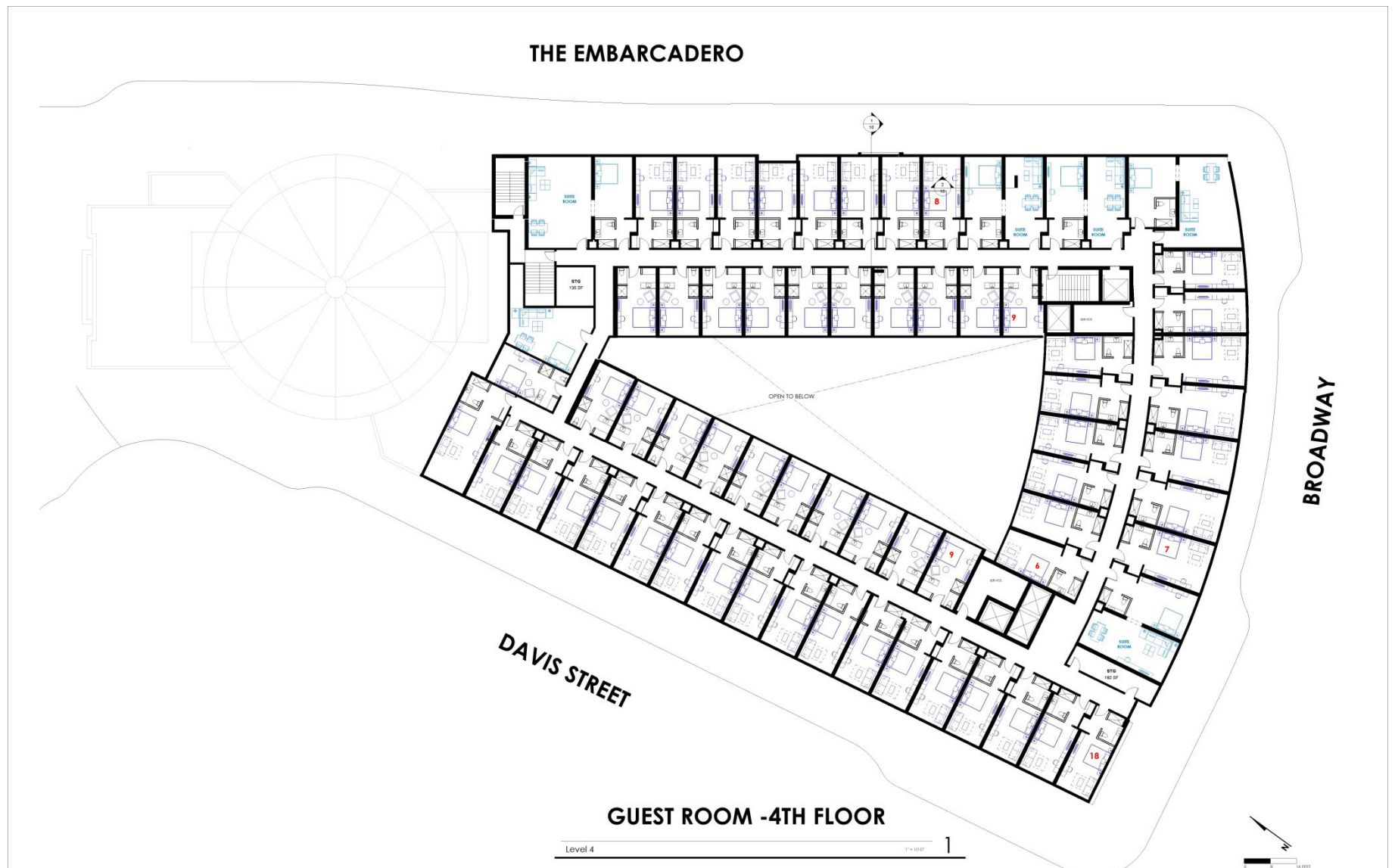


Case No. 2015.016326ENV
Initial Study –October 2018



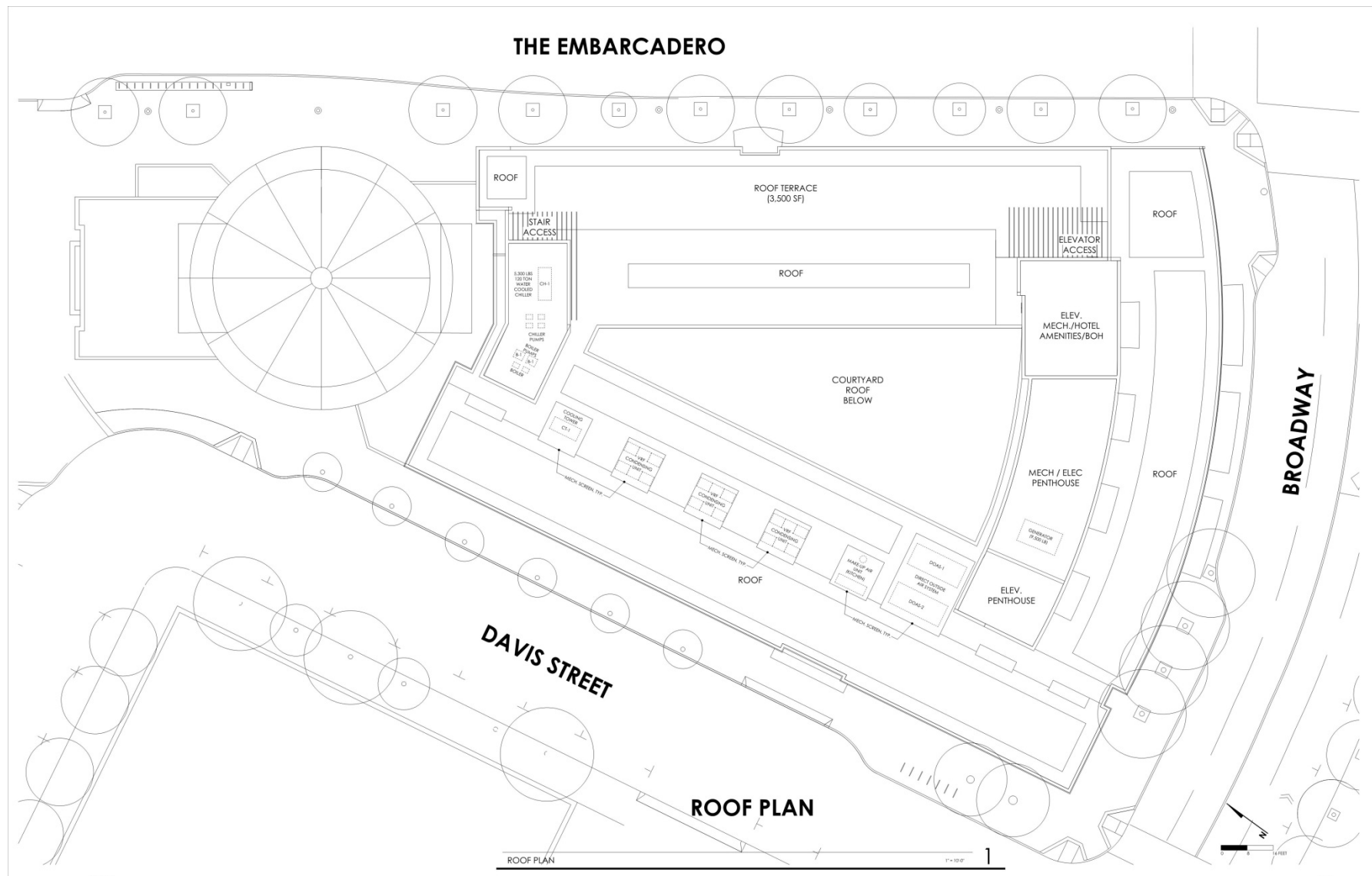
Source: Hornberger + Worstell Architects and HRGA Architecture, 2018

FIGURE 6 **PROPOSED THIRD-FLOOR PLAN**



Source: Hornberger + Worstell Architects and HRGA Architecture, 2018

FIGURE 7 **PROPOSED FOURTH-FLOOR PLAN**



Source: Hornberger+Worstell Architects, 2018

FIGURE 8 PROPOSED ROOF PLAN



Source: Hornberger+Worstell Architects, 2018

FIGURE 9 PROPOSED PUBLIC PARK PLAN



Source: Hornberger+Worstell Architects and HRGA Architecture, 2018

FIGURE 10 NORTHWEST VIEW OF PROPOSED PROJECT



Source: Hornberger+Worstell Architects and HRGA Architecture, 2018

FIGURE 11 **SOUTH VIEW OF PROPOSED PROJECT**

Project Building Characteristics

Entertainment Venue

The entertainment venue would include approximately 26,100 gsf to house the historic spiegel tent and seating for the entertainment venue, kitchen, bar, bathrooms, welcoming areas, ticket booth, merchandise area, lobby and circulation space, and back-of-house activities. The entertainment venue would be located inside a clear gazebo-like structure, constructed of glass and metal with steel or metal supports, at the northern end of the site adjacent to the public park. The glass gazebo-like structure would be clear to allow pedestrians walking past the structure to view the historic spiegel tent and see through the backstage area during daylight hours. The structure's roofline would be glass with metal.

The entertainment venue is expected to accommodate up to a maximum of 285 patrons and would operate from 8 a.m. to 2 a.m. Monday through Sunday. Entertainment venue patrons would be encouraged to arrive at the venue approximately 30 minutes to 1 hour before shows begin. Event times would follow the following approximate schedule:

- Monday–Saturday, 6:30 p.m. to midnight
- Sunday midday, 11:30 a.m. to 3 p.m., and/or Sunday evening, 5:30 to 10 p.m.

The proposed project's entertainment venue would include a small outdoor raised stage area located at the south end of the public park, attached to the back-of-house portion of the entertainment venue. Operable doors on the northern side of the entertainment venue structure would open up onto the outdoor stage area. The operable doors would remain closed during regularly scheduled performances at the entertainment venue. The outdoor raised stage that would be located in the public park could be used for small-scale community and neighborhood events; small-scale theater performances by local schools and community groups; and other neighborhood events, such as weekly exercise classes or a children's dance or singing performance. The public park would be approximately 14,000 square feet and would have limited capacity because of its size, which would restrict the size of events that could take place. Activities that would occur in the public park would allow for passage of pedestrian traffic through the site.

Hotel

The hotel component would include a total of approximately 118,00 gsf, of which 14,560 gsf would be at ground level for entry and drop-off areas for guests, the front desk, a concierge, gathering space, retail, restaurant and café uses, back-of-house uses, and elevator and stairwell access. The hotel would also include a restaurant and bar. Operating hours for the restaurant would be approximately 6 a.m. to midnight, 7 days a week. The bar portion of the hotel would be permitted to remain open until 2 a.m., although it is anticipated to close earlier on weekdays. The restaurant and bar would include an outdoor patio along the eastern side of the building, along The Embarcadero. Above the ground-level floor, the proposed project would include approximately three floors of hotel uses totaling 95,560 gsf and 192 hotel guest rooms. The hotel would also include an approximately 3,970-gsf rooftop deck, serving food and beverages from the hotel's bar and restaurant services, for use by hotel guests and patrons only.

The roof would include wind-protected outdoor spaces for hotel guests and patrons. Vertical metal screening walls would be integrated with the other exterior building materials designed to allow for plants to grow vertically and create a green screen effect that would shield the rooftop mechanical devices from view. The roof would likely be designed with a small array of solar panels as well as low-impact-design stormwater facility. Figure 8 shows the proposed roof plan.

Mechanical Equipment

The mechanical and elevator penthouses would take up 4,220 square feet on the roof of the proposed building. The elevator penthouses are combined with staircases in two locations. The mechanical room would have equipment to serve theater and hotel operations to maintain the temperature. The theater's main mechanical system would be a chilled water system consisting of one 120-ton, 5,300-pound water-cooled chiller and two 100-pound primary and secondary chiller pumps that

would be located inside the mechanical room. For heating, a hot water system would consist of two condensing-type heating hot water boilers in the roof mechanical room, each rated at 1,000 thousand British thermal units per hour. Some mechanical equipment on the roof would also be located outside of the mechanical room on the roof, where outside air is required to operate. This equipment would include the heat pumps, a 4,500-cubic-foot-per-minute air scrubber/pollution unit for the main kitchen exhaust, and the make-up air unit consisting of an evaporative cooling module and hot water heating. This mechanical equipment would be screened by green vegetation on the roof. The building's air handler would be located in the second-floor mechanical room and supply ducting would be routed to below grade to serve the theater. The air handler would provide approximately 8,500 cubic feet per minute. In addition, an 800-kilowatt, diesel-powered emergency generator would be located in the mechanical penthouse.

Public Park

The proposed project would construct an approximately 14,000-gsf public park in the northern portion of the site parallel to The Embarcadero, as depicted in Figure 9. The park would consist of both landscaping and hardscape, with benches and lighting in and around the park. The park would include pathways for pedestrian access from The Embarcadero through to Vallejo and Davis streets.

The public park would provide space for a variety of informal activities, such as family and community picnics, and gatherings, neighborhood yoga and tai chi classes, programming for toddlers and young children, educational events for elementary school students, and pedestrian strolling, and sitting. The park would also include view mounds to allow visitors to "get up to see the bay," as well as moveable and permanent seating and tables, wayfaring, lighting, historic signage, and public art features. Additionally, the park would include iconic statuary art at the intersection of Davis and Vallejo streets, marking the park as an important destination across from the waterfront.

The public park would be used for informal passive activities on weekdays and weekends during normal business hours, subject to Port requirements. The park may also include temporary events, approximately one time per week, under the management of the project sponsor, in accordance with the terms and lease with the Port¹¹ and the City's event policies. Activities could involve hosting a food truck gathering, lunchtime music or lecture session, or activities related to local festivals or events in the vicinity or other parts of San Francisco, such as Sunday Streets. A portion of the public park may also be used for a pre-show activities related to the theater or hotel. For example, if a wedding were held at the hotel, guests could enjoy drinks outside before going inside for the celebration. Sound may be amplified up to approximately one time per week and the appropriate approvals would be obtained from the Port in advance.

The project sponsor would maintain the public park. Maintenance activities would include but would not be limited to providing sufficient trash containers and other recycling systems, and providing security to keep the park clean and safe. The public park would be open 24 hours a day and would be supervised by private security hired by the project sponsor, unless actual usage or public safety concerns require less frequent late-night use.

The public park area would include an easement for the San Francisco Fire Department (SFFD) to access the site from The Embarcadero or Davis Street through Vallejo Street right-of-way. Currently, SFFD has an easement on the site that runs north and south along the terminus of Davis Street to Green Street. An additional easement is recorded against the site for use by AT&T for its telephone conduit that runs through the ROW portion of the proposed park. The two existing easements would need to be terminated and replaced with new easements, with SFFD's easement serving as an emergency-vehicle access point between The Embarcadero and Vallejo Street. This access point would be protected by new movable bollards where none exist today.

¹¹ The Guidelines & Application for Special Events, <https://sfport.com/special-events-port>, set forth the applicable regulations governing special events at Port property.

Parking and Loading

Valet Services

The proposed project would not include off-street vehicle parking on the project site. Instead, parking for the proposed project would occur through offsite parking and valet services. The proposed valet service would park hotel guests' and patrons' vehicles at nearby off-street parking facilities to manage storage of vehicles brought to the site. Numerous existing parking lots and parking structures are located in the immediate vicinity of the site. The project sponsor proposes to use up to 50 parking spaces for the hotel use by a covenant agreement with Impark at one of its nearby locations.¹² The agreement states that the Four Embarcadero Center parking garage, which contains more than 2,000 parking stalls within a 10-minute walk from the project site, would be available. The proposed project valet service would primarily use the Impark lot at 847 Front Street for vehicle storage, and would therefore only travel one block to drop-off and retrieve hotel patron vehicles. The agreement also includes parking garages at Three Embarcadero Center (200 spaces) and 847 Front Street (60 spaces) that would also be available.

Parking for the entertainment venue would also occur at an off-site, self-parking location or locations close to the project site. An e-mail or text message sent to patrons would encourage taking public transit, cabs, or ridesharing services to the project site and would inform them of the many off-site, self-parking locations close to the theater, such as parking at 847 Front Street, Pier 19, 1000 Front Street, and One Maritime Plaza. Entertainment venue patrons would be directed to off-site, self-parking locations by the hotel's valet parking attendant, or would be allowed to access the hotel's valet services for a separate fee.

Loading

The proposed project would install a new 80-foot-long curbside passenger loading space ("white curb") along the northern side of Broadway to provide ingress and egress into the site for hotel guests, theater guests, and other patrons.¹³ The passenger loading space would be located adjacent to the hotel lobby entrance into the building and would be used in a curbside valet operation for hotel guests, theater patrons, and other patrons.

A proposed 142½-foot-long commercial loading zone would be established along the project frontage on the eastern side of Davis Street. The loading dock includes two spaces and a service area that would be used exclusively for deliveries, service providers including waste collection, and recycling. The proposed project would add a new loading dock along Davis Street, measuring 23 feet, 8 inches wide by 33 feet, 3 inches deep by 12 feet high. This loading dock would be designed to incorporate a roll-up door into the façade and an audible and visual signal would be included to alert pedestrians to truck movement at the dock.

Daily and quarterly deliveries for the entertainment venue would be accommodated at the proposed Davis Street loading dock. Daily deliveries for the entertainment venue would include food, supplies, and other products for the theater; quarterly deliveries for the entertainment venue may include equipment or materials needed to modify the theater when the theme of the show changes.

¹² The project sponsor has executed a letter of intent with Impark and a letter report from Impark dated January 19, 2017, describing its valet options in the immediate vicinity of the project site and Impark's conclusion, based on its valet services provided at other hotels in San Francisco that substantially less than a maximum of 50 spaces are needed. The letter of intent and the letter report are included in the transportation impact study as Appendix K. (CHS Consulting Group, *Seawall Lot 323 and 324 [Teatro Zinzanni] Project Final Transportation Impact Study*, May 2018.)

¹³ The proposed project is within the jurisdiction of the Port of San Francisco, which is outside the jurisdiction of the San Francisco Municipal Transportation Agency's Color Curb Program.

Trash and delivery services would occur on Davis Street in a 1,660-gsf enclosed loading dock area, which would have a roll-up door. The loading dock would provide two truck parking zones within the building to allow for both an *SU-30*¹⁴ vehicle and a delivery van. A dedicated recycling area and a separate trash room would also be directly adjacent to the loading zone. A security office, located within the loading dock area, would provide visual oversight for both the loading dock and the employee entrance.

Bicycle and Pedestrian Access

Bicycle Parking

The proposed project would include a total of 59 bicycle parking spaces, which would consist of 20 *class I* bicycle parking spaces and 43 *class II*¹⁵ bicycle parking spaces (28 new). Access to the class I bicycle parking spaces would be via a secured door into the building along Davis Street. The class I bicycle parking spaces would be provided for use by hotel and other employees only. The 43 class II bicycle parking spaces would be located on the sidewalk in front of the project site (14 new spaces along Davis Street and 10 new spaces along The Embarcadero, in addition to 15 existing spaces along The Embarcadero). The location of bicycle parking spaces within the public ROW would be subject to review and approval by the San Francisco Municipal Transportation Agency (SFMTA), the San Francisco Port Commission, and San Francisco Public Works (SFPW).

Pedestrian Access

The proposed project would provide several pedestrian entrances for hotel, entertainment venue, and restaurant and bar uses. The building's primary entrance would be through the hotel lobby area, located along the northern side of Broadway at the new white curb. The entertainment venue's primary access would be along The Embarcadero, although guests would be permitted to access the entertainment venue from the hotel's main Broadway entrance. The hotel's restaurant and bar would be accessible from street-level openings at the intersection of The Embarcadero and Broadway and along The Embarcadero, and from inside the hotel itself.

The proposed public park would include pathways for pedestrian access from The Embarcadero to Vallejo and Davis streets and around the perimeter of the proposed project. The pedestrian connection to The Embarcadero would also be wide enough to allow an emergency-vehicle to gain access when necessary for use by the San Francisco Fire or Police departments or for a maintenance truck, protected by movable bollards.

Transportation Demand Management Plan

As required by the City's Transportation Demand Management Program Ordinance (Ordinance 34-17, approved February 2017), the project sponsor would develop a transportation demand management (TDM) plan that would be subject to review and approval by the San Francisco Planning Commission as part of its deliberations on the proposed project. Ordinance 34-17 added section 169, Transportation Demand Management Program, to the San Francisco Planning Code. Under section 169.3, projects with 10 or more dwelling units, 10 or more group housing units, or 10,000 square feet or more of nonresidential space, or certain changes of use involving 25,000 square feet or more must develop a TDM plan. Compliance with the approved TDM plan would be adopted as a condition of approval for the proposed project (section 169.4[c]).

¹⁴ SU-30 is a single-unit truck design vehicle consisting of a two-axle truck with an overall length of 30 feet and a turning radius of 42 feet.

¹⁵ Section 155.1(a) of the Planning Code defines class I bicycle spaces as "spaces in secure, weather-protected facilities intended for use as long-term, overnight, and work-day bicycle storage by dwelling unit residents, nonresidential occupants, and employees" and defines class II bicycle spaces as "spaces located in a publicly-accessible, highly visible location intended for transient or short-term use by visitors, guests, and patrons to the building or use."

The TDM Program Ordinance states that before a certificate of occupancy can be issued, a property owner must facilitate a site inspection by the San Francisco Planning Department and document implementation of applicable aspects of the TDM plan. The property owner must also maintain a TDM coordinator, allow for planning department inspections, and submit periodic compliance reports throughout the life of the project.

For the proposed project, the project sponsor has agreed to implement the following TDM measures:

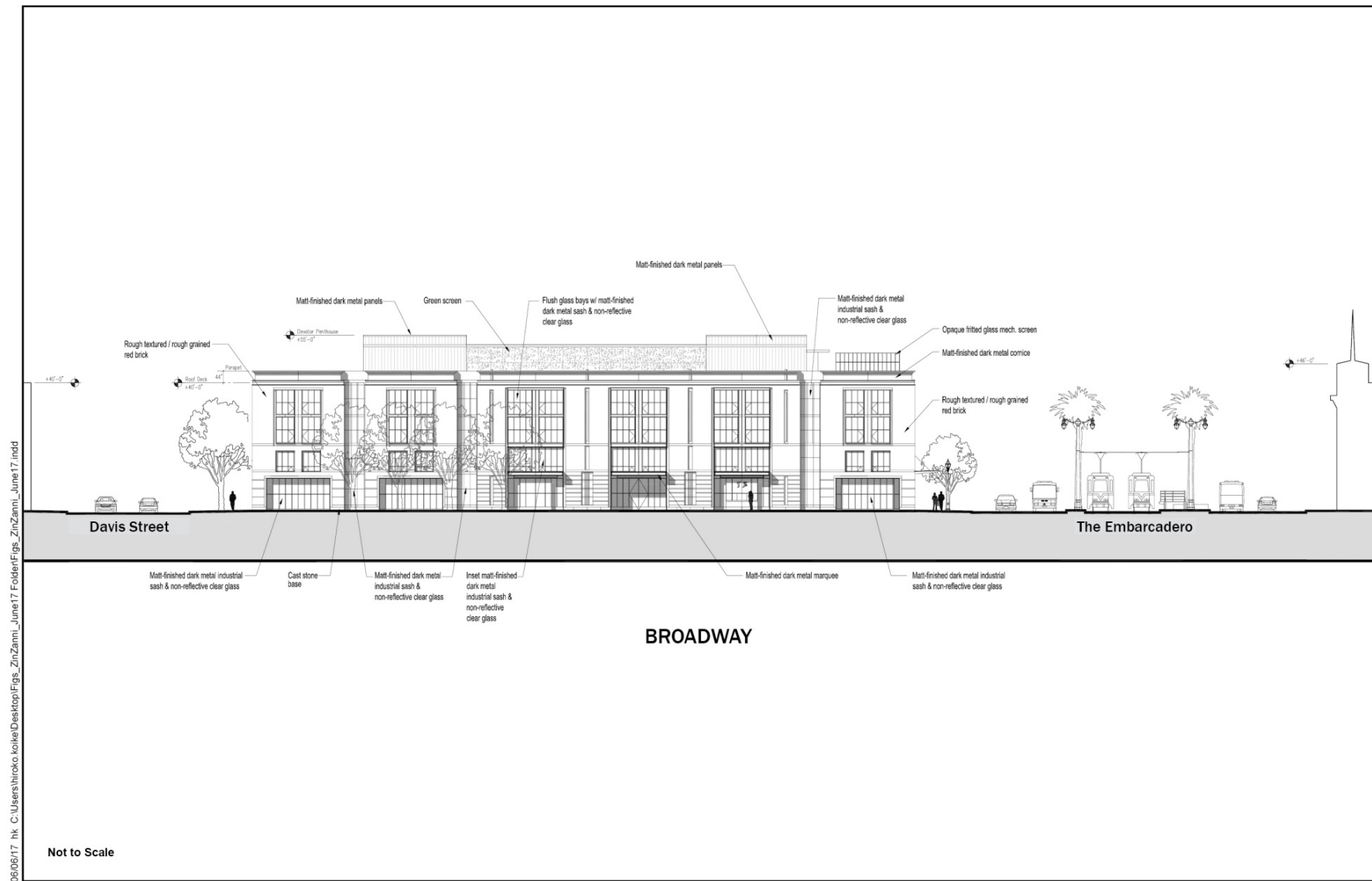
- **PKG-4: Parking Supply Options (Option E).** Provide less than or equal to 60 percent and greater than 50 percent of the neighborhood nonresidential parking rate.
- **ACTIVE-1: Improve Walking Conditions (Option A).** Complete streetscape improvements consistent with the Better Streets Plan and any local streetscape plan so that the public right-of-way is safe, accessible, convenient, and attractive to persons walking by providing bulb-outs along the Davis Street and Broadway sidewalks to shorten crosswalk distances and reduce vehicle speed.
- **ACTIVE-2: Bicycle Parking (Option A).** Provide class I and class II bicycle parking spaces for hotel, retail, and theater uses as required by the planning code.
- **ACTIVE-5A: Bicycle Repair Station.** Provide onsite tools and space for bicycle repair.
- **DELIVERY-1: Delivery Supportive Amenities.** Facilitate delivery services by providing a staffed reception area for receipt of deliveries, and offering one of the following: clothes lockers for delivery services, or temporary storage for package deliveries, laundry deliveries, and other deliveries.
- **INFO-2: Real-Time Transportation Information Displays.** Provide real-time transportation information on displays in prominent locations on the project site to highlight sustainable transportation options and support informed trip-making.

Architecture and Design

The project's architectural elements have been selected to comply with the character of the Northeast Waterfront Historic District. The building's exterior would be covered with a red brick veneer and the window fenestration would include multi-paned industrial sash patterns similar to buildings in the area. The mostly glass gazebo enclosing the historic spiegel tent would be circular in form, composed of nonreflective material, and would comply with the 40-foot height limit. Figures 12 through 15 show elevations for the proposed project and Figure 16 shows proposed building sections.

The proposed project would be developed to achieve *Leadership in Energy and Environmental Design (LEED)*¹⁶ Gold certification.

¹⁶ LEED is an internationally recognized green building certification system developed by the U.S. Green Building Council, which provides third-party verification that a building or community was designed and built using strategies aimed at improving performance across metrics that include energy savings, water efficiency, reduction of carbon dioxide emissions, improved indoor environmental quality, stewardship of resources, and sensitivity to impacts on resources.



Source: Hornberger+Worstell Architects, 2017.

FIGURE 12 PROPOSED ELEVATION – NORTH, BROADWAY

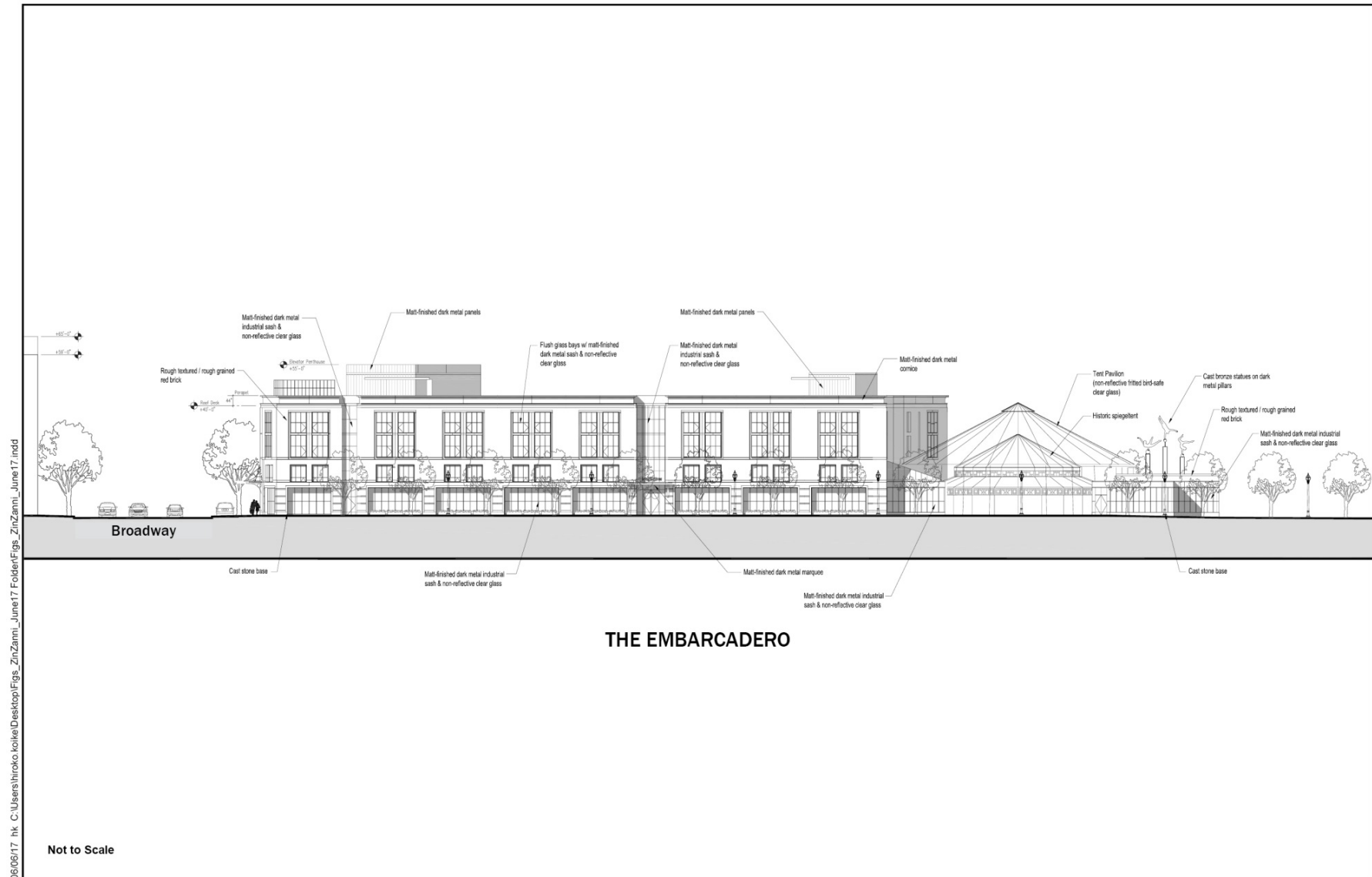


FIGURE 13 PROPOSED ELEVATION – WEST, THE EMBARCADERO

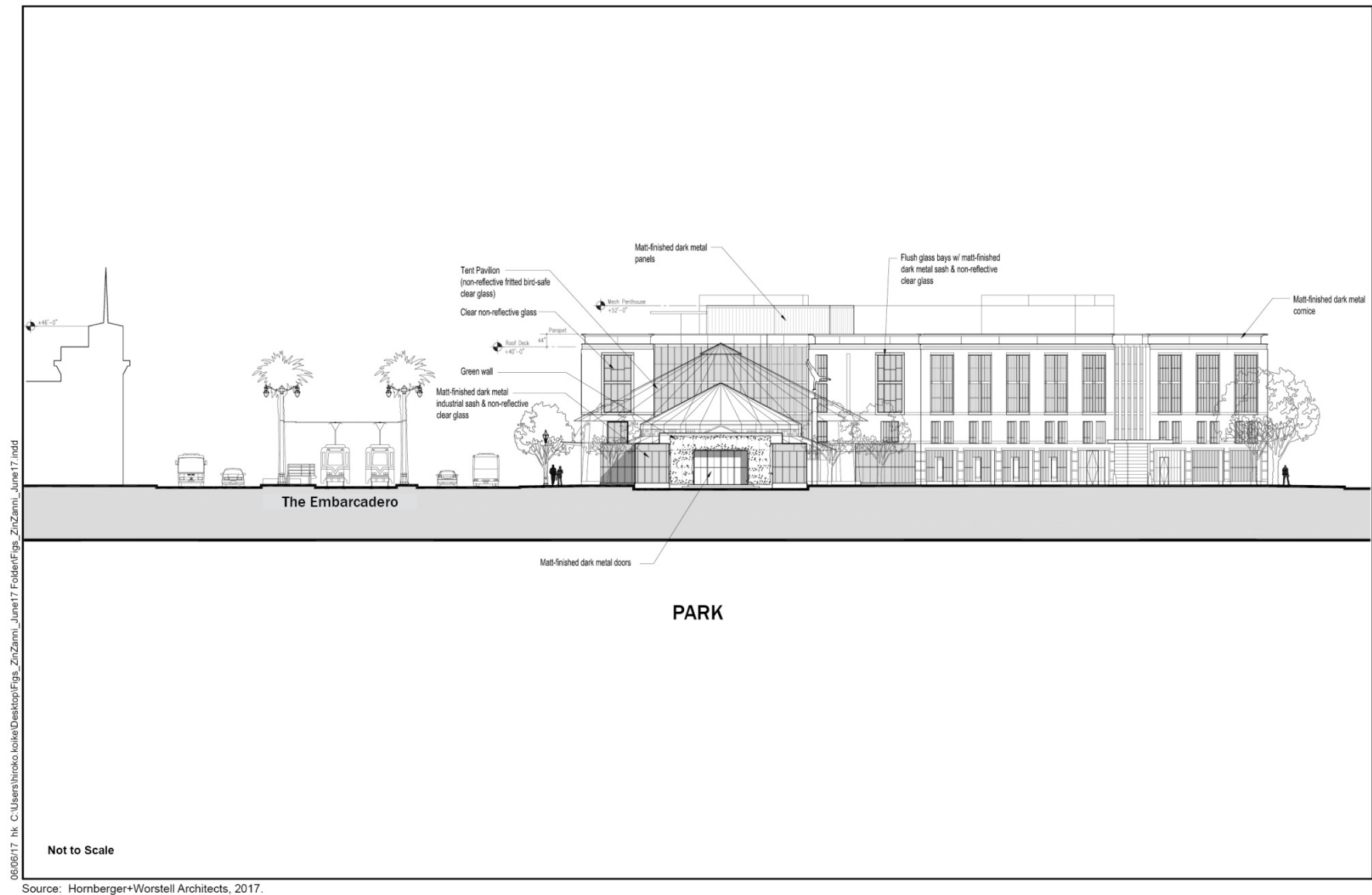


FIGURE 14 PROPOSED ELEVATION – SOUTH, PROPOSED PUBLIC PARK

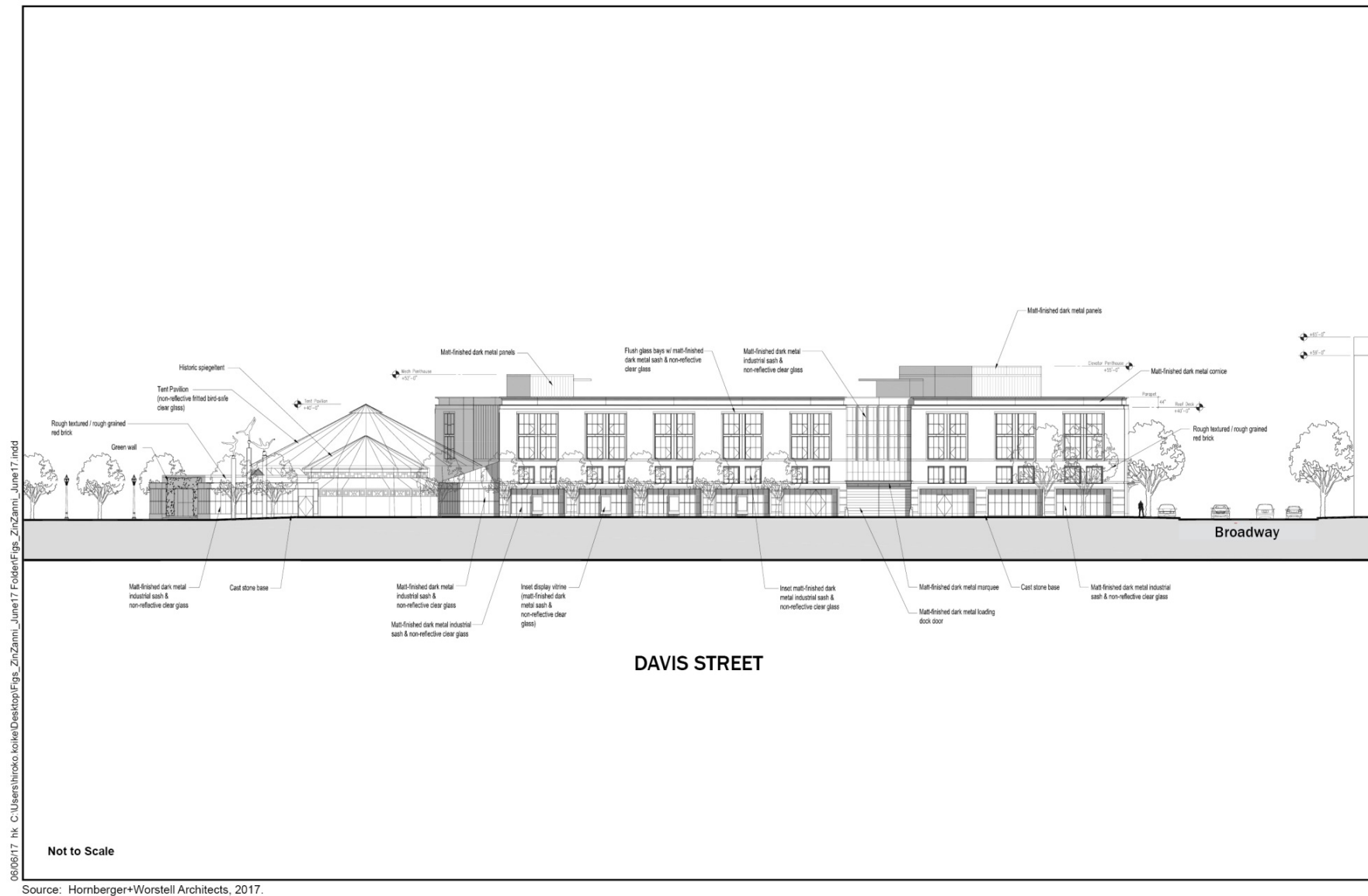
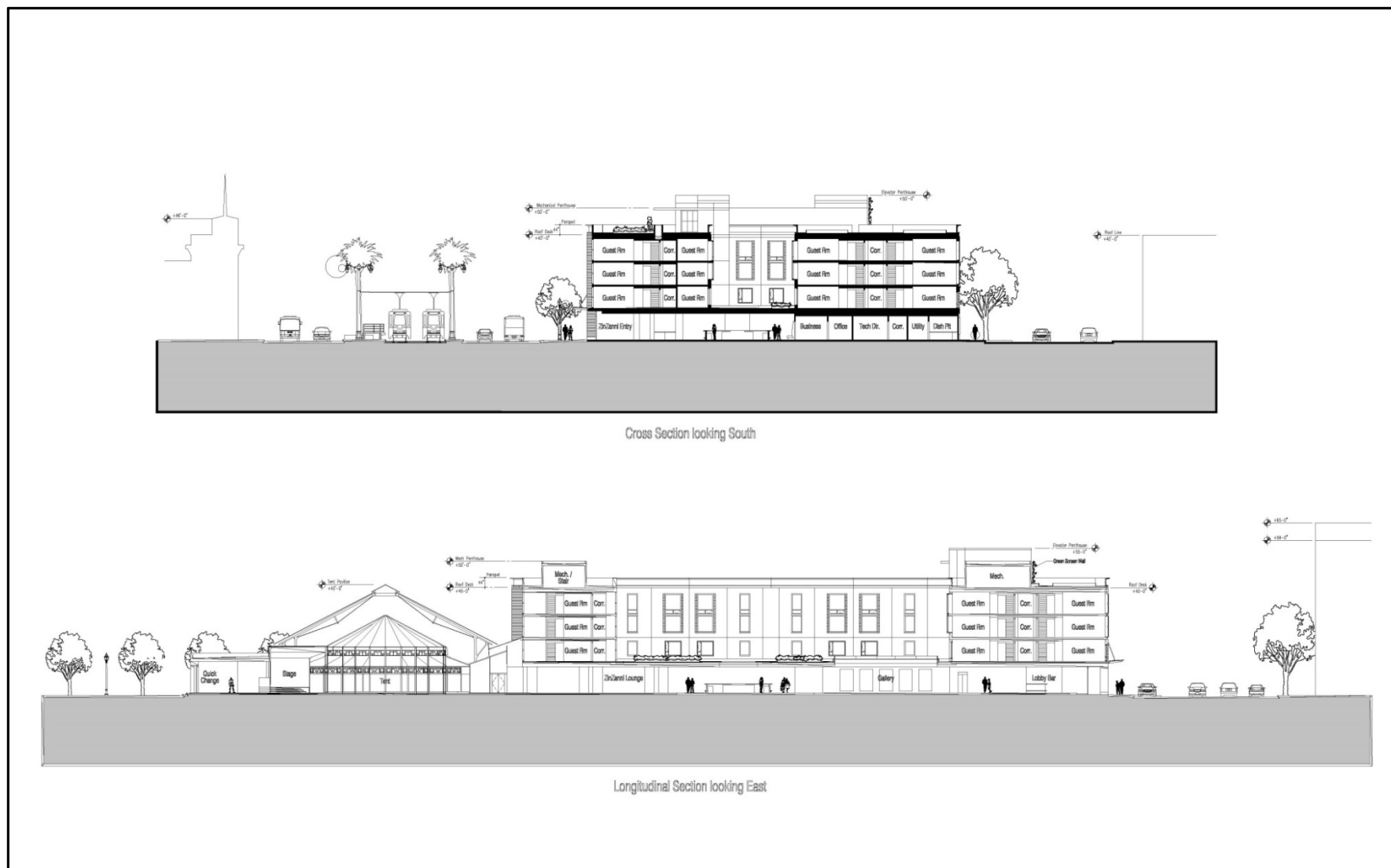


FIGURE 15 PROPOSED ELEVATION – EAST, DAVIS STREET



Source: Hornberger+Worstell Architects, 2018

FIGURE 16 **PROPOSED BUILDING SECTIONS**

Landscaping

There are 28 street trees along The Embarcadero, Broadway, and Davis Street; however, none are *protected trees* as defined by the City's Urban Forestry Ordinance, Public Works Code section 801 et seq. The proposed project would retain all 28 existing trees and would comply with Planning Code section 138.1(c)(1) by retaining or replacing any trees that would be disturbed during construction. A total of 28 new trees would be planted on the sidewalks along all street frontages of the proposed project in accordance with Public Works Code section 806(d)(2), which requires planting one street tree for every 20 linear feet of project site frontage. All new street trees would be placed in continuous soil-filled trenches. For pedestrian safety, no new trees would be within 25 feet of an intersection. With implementation of the proposed project, there would be a total of 56 street trees.

Landscaping would also be provided on the roof of the building for hotel guests and patrons, in the form of raised planters and a green wall to screen mechanical features. In addition, the proposed public park would include an open grass lawn, shrubs, and trees.

Streetscape and Infrastructure Improvements

Broadway

The proposed project would widen the existing sidewalk from 10 feet to 18 feet along the entire project length of Broadway. This would eliminate an existing 30-foot-wide curb cut on Broadway near The Embarcadero. The proposed project would also remove six existing parallel on-street parking spaces and three existing on-street motorcycle parking spaces along the project frontage on the north side of Broadway. The project would add two new *bulb-outs*¹⁷ along Broadway: one new 18-foot-long by 15-foot-wide bulb-out at the corner of Broadway and The Embarcadero, and one new 18-foot-long by 21-foot-wide bulb-out at the corner of Broadway and Davis Street. The bulb-out at Broadway and The Embarcadero would project 18 feet from the property line. This bulb-out would improve pedestrian access while allowing sidewalk activation with outdoor bar and café seating, and would create an approximately 80-foot-long drop-off area in front of the project site for hotel entry. Additionally, a new 8-foot-deep by 80-foot-long passenger loading zone would be constructed on Broadway.

Davis and Vallejo Streets

Currently, there is only a short 10-foot-wide sidewalk along a portion of the proposed project site along Davis Street. The proposed project would add several new elements on Davis Street: a new 15-foot-wide sidewalk; a new 142½-foot-long loading zone; a new 21-foot-long by 18-foot-wide bulb-out at the corner of Davis Street and Broadway; a new 21-foot-long by 18-foot-wide bulb-out at the corner of Davis and Vallejo streets; and a new 30-foot-wide loading dock curb cut within the new loading zone. Trash and recycling pickup would occur at the Davis Street loading dock. At the intersection of Davis and Vallejo streets, the proposed project would adjust the Davis Street ROW to align parallel to The Embarcadero property line at Vallejo Street. In addition, the proposed project would also remove three existing parallel on-street parking space along the project frontage on the east side of Davis Street, 20 existing perpendicular on-street Port parking spaces along the project frontage on the east side of Davis Street, and six existing perpendicular on-street Port parking spaces along the project frontage on the north side of Vallejo Street. As shown on Figure 8 Public Park Plan, a 15-foot-wide curb cut is provided on The Embarcadero and Davis Street with moveable bollards that would allow emergency and maintenance vehicle access through the site on the paved pedestrian path.

¹⁷ A bulb-out is a *traffic calming* measure that reduces the crossing distance for pedestrians by extending the sidewalk.

The Embarcadero

The proposed project would not include sidewalk improvements along the project length of The Embarcadero, except for a new 15-foot-wide curb cut for fire truck and maintenance access at the east site of the proposed public park, to maintain access through to Davis Street along the paved pedestrian path.

Right-of-Way

This adjustment would add a triangular area of approximately 610 square feet to the project site to allow for a fully integrated site. A portion of Vallejo Street within the proposed project footprint would be vacated and/or abandoned. The ROW is not a functioning street and is not currently used by vehicles. A 10-inch auxiliary water supply system line, an 8-inch water main owned by the San Francisco Public Utilities Commission (SFPUC), and an AT&T fiber optic conduit are present in the ROW. The 10-inch auxiliary water supply system is not needed to supply emergency fire suppression and has been abandoned in place by the San Francisco Fire Department as confirmed by the SFPUC, CDD division. The 8-inch water main owned by the SFPUC is not needed to supply current distribution. The AT&T fiber optic conduit currently located in the ROW would be relocated approximately 15 feet to the north of its current location re-routing the fiber optic cable a distance of approximately 218 lineal feet, and these changes have been discussed and approved by AT&T.

Infrastructure Improvements

The project sponsor has preliminarily coordinated with SFPUC's City Distribution Division and determined that the existing SFPUC auxiliary water supply system line would be abandoned in place during building construction. A high-pressure water line that is in place at the intersection of Davis and Vallejo streets would continue to provide necessary services as required by SFPUC. This existing high-pressure water line would not be modified, interfered with, or otherwise negatively affected. Therefore, abandoning the auxiliary water supply system line in the ROW would not affect the balance of SFPUC's water facility system. This approach has also been preliminarily reviewed by the Port's fire marshal. The project sponsor would pay the costs and apply for associated permits necessary for the abandonment of SFPUC water facilities.¹⁸

The project sponsor has proposed to relocate the AT&T fiber optic conduit from its current location in the ROW approximately 20 feet north into the proposed public park. The project sponsor has met with AT&T to discuss the conduit relocation plan, and AT&T has initially reviewed the project sponsor's approach to the relocation. AT&T is drafting the contractual documents for the project sponsor's proposed relocation of the fiber optic conduit. The project sponsor would pay the costs of relocating the AT&T fiber optic conduit.

A.4. CONSTRUCTION ACTIVITIES AND SCHEDULE

The proposed project would be supported on shallow foundation systems bearing upon ground-improved soil involving lightweight cellular concrete and ground-improved soil, as described by ENGEO Incorporated.¹⁹ The shallow foundation would consist of stiff reinforced structural mat, shallow continuous footings, with interconnecting grade beams, or a combination of both systems. The shallow foundation system selected would depend on the actual structural loads of the building, which would be determined through the detailed design process.

Directly below the shallow foundation, ground improvement measures would be required to improve the strength of the underlying existing artificial fill that extends to 45 feet beneath the project site. These measures would provide uniform support and would reduce liquefaction, seismic settlement, and lateral spreading risks for the site and the new building's

¹⁸ Peter Bekey, KCA Engineers, email correspondence with SFPUC, including drawing, April 20, 2016.

¹⁹ ENGEO Incorporated, *Summary of Geotechnical and Environmental Studies and Summary of Project Construction Methodologies*, April 6, 2018.

foundations. The ground improvement measures are anticipated to consist of dry soil mixing, a technique that improves weak soils by mechanically mixing them with dry cementitious binder to create rows of overlapping soilcrete columns. The column grid array would cover the building footprint and stabilize the underlying soil mass. Dry soil mixing is a low-vibration construction method and is used in high-groundwater conditions because it creates minimal spoils for disposal.

Considering the maximum allowable average building load, the uppermost 6 feet of the building pad area would be excavated, and the foundation subgrade level would be restored using lightweight cellular concrete to reduce loads and potential settlement of the underlying Young Bay Mud.

Table 2 provides the estimated quantities of excavation material, import material, and ground improvement.

TABLE 2 ESTIMATED QUANTITIES OF FILL MATERIALS

Description	Estimated Quantity	Considerations
Export for lightweight cellular concrete excavation	11,100 cubic yards	<ul style="list-style-type: none"> Building footprint of approximately 43,400 square feet 6-foot excavation to accommodate foundation and lightweight cellular concrete Average mat load of 500 pounds per square foot or less
Import of lightweight cellular concrete	9,300 cubic yards	<ul style="list-style-type: none"> Building footprint of approximately 43,400 square feet 6-foot excavation to accommodate foundation and lightweight cellular concrete Average mat load of 500 pounds per square foot or less
Ground improvement through dry soil mixing	20,000 square feet	<ul style="list-style-type: none"> 40 percent of the overall building footprint replacement ratio

Source: ENGEO Incorporated, 2018

Note: Includes 15% contingency

Demolition of the existing surface parking lot and construction of the proposed project is anticipated to take approximately 16–22 months, beginning in 2019, with completion in 2020. The proposed project would be constructed in multiple phases. Construction phases would include preparation/demolition (1 month), excavation/foundation work (2.5 months), structure (4–7 months), exterior buildout (3–4 months), and interior buildout (7–8 months).

A.5. REQUIRED APPROVALS

The proposed project would require the approvals from the City and County of San Francisco that are listed below.

Board of Supervisors

- Approval of lease disposition and development agreement
- General Plan referral for partial *street vacation* of a public right-of way
- Approval of the streetscape improvements application
- Approval of applications for the lot merger and re-subdivision

Planning Department

- General Plan referral for partial *street vacation* of a public right-of way
- *Conditional use* authorization for the hotel use pursuant to San Francisco Planning Code section 240.3(e)
- Approval of applications for the lot merger and re-subdivision

- Approval of the streetscape improvements application
- Approval of a building permit

Historic Preservation Commission

- Approval of a Certificate of Appropriateness from the Historic Preservation Commission for new construction within the Northeast Waterfront Landmark District (a historic district under San Francisco Planning Code article 10)

San Francisco Port Commission

- Approval of applications for demolition, excavation and grading, shoring, and building permits
- Approval of a request for curb cut, color curb, and on-street parking changes, and approval of location of bicycle parking spaces within the public ROW
- Approval of lease disposition and development agreement
- Approval of application for partial street vacation of a public ROW
- Approval of the streetscape improvements application
- Urban design recommendations following the waterfront design review process (San Francisco Port Commission Design Advisory Committee)

Actions by Other City Departments (Approving Bodies Noted in Parentheses)

- Approval of a *site mitigation plan*, soil mitigation plan, and dust control plan before the start of excavation work pursuant to San Francisco Health Code article 22A; receipt of notification of compliance letter pursuant to the City's *Maier Ordinance*, Administrative Code section 22A (San Francisco Department of Public Health)
- Approval of applications for the lot merger and re-subdivision (San Francisco Public Works)
- Approval of application for partial *street vacation* of a public right-of way (San Francisco Public Works)
- Approval of the streetscape improvements application (San Francisco Public Works)
- Approval of sidewalk widening and modifications related to infrastructure within the public ROW (San Francisco Public Works)
- Approval of and use of *dewatering wells* (should such wells be used) per article 12B of the San Francisco Health Code (San Francisco Public Works)
- Approval of sidewalk widening and modifications related to infrastructure within the public ROW (San Francisco Fire Department)
- Approval of a building permit (San Francisco Department of Building Inspection)
- Approval of project compliance with the stormwater management requirements and design guidelines, a stormwater control plan, a landscape plan per the Water Efficient Irrigation Ordinance, a water budget application, and nonpotable implementation plan per the Non-potable Water Ordinance (San Francisco Public Utility Commission)

- Approval of and use of *dewatering wells* (should such wells be used during construction) per article 12B of the San Francisco Health Code (San Francisco Public Utility Commission and San Francisco Department of Public Health)
- Approval of sidewalk widening and modifications to related infrastructure within the public ROW (San Francisco Municipal Transportation Agency)
- Approval of travel lane, sidewalk, and parking closures during construction (San Francisco Municipal Transportation Agency) - Transportation Advisory Staff Committee)

Actions by Other Government Agencies

- Approval of permit for installation, operation, and testing of diesel backup generators (Bay Area Air Quality Management District)
- Issuance of State Lands Commission consistency letter by the Port (State Lands Commission)

Approval Action

The conditional use authorization is the approval action for purposes of CEQA that would establish the start of the 30-day appeal period for appeal of the final mitigated negative declaration to the Board of Supervisors pursuant to section 31.04(h) of the San Francisco Administrative Code.

This page intentionally left blank.

B. PROJECT SETTING

B.1. PROJECT SITE AND SURROUNDING LAND USES

The project site is located in the North Beach neighborhood with frontages at The Embarcadero, Broadway, Davis Street, and Green Street within the Northeast Waterfront Historic District, in the northeast quadrant of San Francisco. The site is approximately 0.3 mile north of San Francisco's Financial District, 0.35 mile southwest of the Port's James R. Herman Cruise Terminal, and 0.8 mile southwest of Pier 39. The site is along the western side of The Embarcadero, opposite San Francisco Bay. The site is occupied by a surface parking lot consisting of 250 surface parking spaces and two temporary wooden pay booths. Some of the existing parking spaces are used by the Port for employee parking and by the adjacent KGO-TV and KRON 4 news station for parking for its news vans.

Access to the site is available only from Davis Street and Broadway (not The Embarcadero or Green Street). The 59,750-gsf site consists of two Port assessor's parcels, Assessor's Block 0138, Lot 001, and Assessor's Block 0139, Lot 002, also commonly referred to as Seawall Lots 323 and 324. These two abutting, unused right-of-way parcels are located between The Embarcadero and Davis Street at the Vallejo Street junction.

Land uses in the surrounding area are mixed-use including retail, restaurants, commercial offices, and residential. The average height of buildings in the immediate area ranges from one to five stories and from 25 to 55 feet (except the Gateway Apartments, which are up to 65 feet tall). Surrounding occupants include the KGO-TV news station, the Gateway Apartments, the Waterfront Restaurant, and the Exploratorium. The northern portion of the site abuts a three-story office building occupied by the KGO-TV news station under lease from the Port. The Gateway Apartments, an approximately 58- to 65-foot-tall, five-story apartment building, is across Broadway south of the site. Two- to three-story office buildings are across Davis Street to the west, and a new 178-unit senior and affordable housing project is proposed on Davis Street across from the site, consisting of senior and family affordable units.²⁰

The site is a noncontributing property within the Northeast Waterfront Landmark District, which is designated as a historic district under article 10 of the San Francisco Planning Code. The site has a 40-X height and bulk district designation. The hotel use is a conditionally permitted use in the C-2 zoning district and would require approval by the San Francisco Planning Commission of a conditional use authorization pursuant to planning code section 240.3(e). The entertainment venue and public park are principally permitted uses in the C-2 zoning district.²¹ The proposed uses at the project site are principally permitted uses under the Port's Waterfront Land Use Plan.

The nearest parks or public open spaces are the Levi's Plaza and Seawall Lot approximately 0.3 mile north of the project site, Sydney G. Walton Square 0.1 mile to the south on Jackson Street, Sue Bierman Park 0.3 mile to the south along The Embarcadero, and the Filbert Steps 0.5 mile west of the project site. The public space along The Embarcadero to the east is used for recreation and entertainment uses and connects to the Ferry Building, 0.3 mile away.

B.2. SITE ACCESS AND TRANSIT

The roadway network surrounding the project site is generally an east-west and north-south grid. The project site is generally bounded by four surrounding two-way streets: The Embarcadero to the east and Davis Street to the west, Broadway to the south, and Green Street at the northern tip. Both Davis and Vallejo streets terminate at the project site. Local access is

²⁰ San Francisco Planning Department, *88 Broadway and 735 Davis Street Project Final Mitigated Negative Declaration*, Case No. 2016-007850ENV, October 25, 2017, amended February 27, 2018. http://sfmea.sfplanning.org/2016-007850ENV_FMND.pdf.

²¹ Planning Code Table 210.1.

provided by arterial and local roadways near the project site. Access to the project site by transit, foot, or bicycle is available through existing transit service (bus and light rail), sidewalks, streets, and crosswalks near the project site.

The closest Muni Metro station to the site is The Embarcadero Station approximately 0.5 mile south, which is shared with the regional rail service operated by Bay Area Rapid Transit (BART). The closest BART station entrance to the project site is the Market Street entrance at The Embarcadero Station. The project site is located within 0.25 mile of four local Muni bus lines (1 California, 10 Townsend, 12 Folsom/Pacific, and 39 Coit); two express Muni bus lines (30X Marina Express and 82X Levi Plaza Express); three Muni cable car/trolley lines (E Embarcadero, F Market & Wharves, and C California Cable Car); and two regional bus lines (Golden Gate Transit and San Mateo County Transit District). The San Francisco Ferry Terminal is located approximately 0.3 mile south of the site and a Caltrain station is located approximately 2 miles to the south.

B.3. CUMULATIVE PROJECTS

Cumulative impacts refer to two or more individual impacts that, when considered together, are considerable, or that compound or increase other environmental impacts (CEQA Guidelines section 15355). Cumulative impacts can result from individually minor but collectively significant impacts taking place over time (Code of Federal Regulations Title 40, Section 1508.7). If the analysis determines that the potential exists for the proposed project, taken together with other past, present, and reasonably foreseeable future projects, to result in a significant or adverse cumulative impact, the analysis then determines whether the project's incremental contribution to any significant cumulative impact is itself significant (i.e., cumulatively considerable). The cumulative impact analysis for each individual resource topic is discussed in each resource section.

The proposed project is located in the vicinity of a number of past, present, and reasonably foreseeable cumulative development projects. The projects listed in Table 3 and mapped in Figure 17 (p. 32) are either under construction or the subject of an environmental evaluation application currently on file with the San Francisco Planning Department and are within approximately one-quarter mile of the project site. The variety of uses proposed includes residential, commercial, retail, office, museum, and hotel, including open space accessible to the public.

TABLE 3 CUMULATIVE PROJECTS

#	Address	Planning Department Case File No.	Dwelling Units	Open Space	Retail	Office	Museum	Hotel	Childcare
(gross square feet)									
1	300 Clay Street	2015- 006980ENV				16,230			
2	940 Battery Street	2015- 001033ENV			625	11,470	28,670		
3	439 Washington Street	2015- 015553ENV			4,500			101,000 (189 rooms)	
4	447 Battery Street	447 Battery Street	9		2,470			85,510 (188 rooms)	
5	220 Battery Street	2015-009783ENV	2						
6	100 California Street	2013.1857E				9,400			
7	Downtown SF Ferry Terminal Expansion ²²	N/A							
8	88 Broadway and 735 Davis Street	2016-007850ENV	178	8,850	6,400				4,300
Totals			189	8,850	13,995	37,100	28,670	186,510	4,300

²² Water Emergency Transportation Authority (WETA) is the agency responsible for the project which includes additional improvements to the ferry terminal facilities including the gates and piers to accommodate expanded service in the future. Pier construction in the Bay is currently underway.

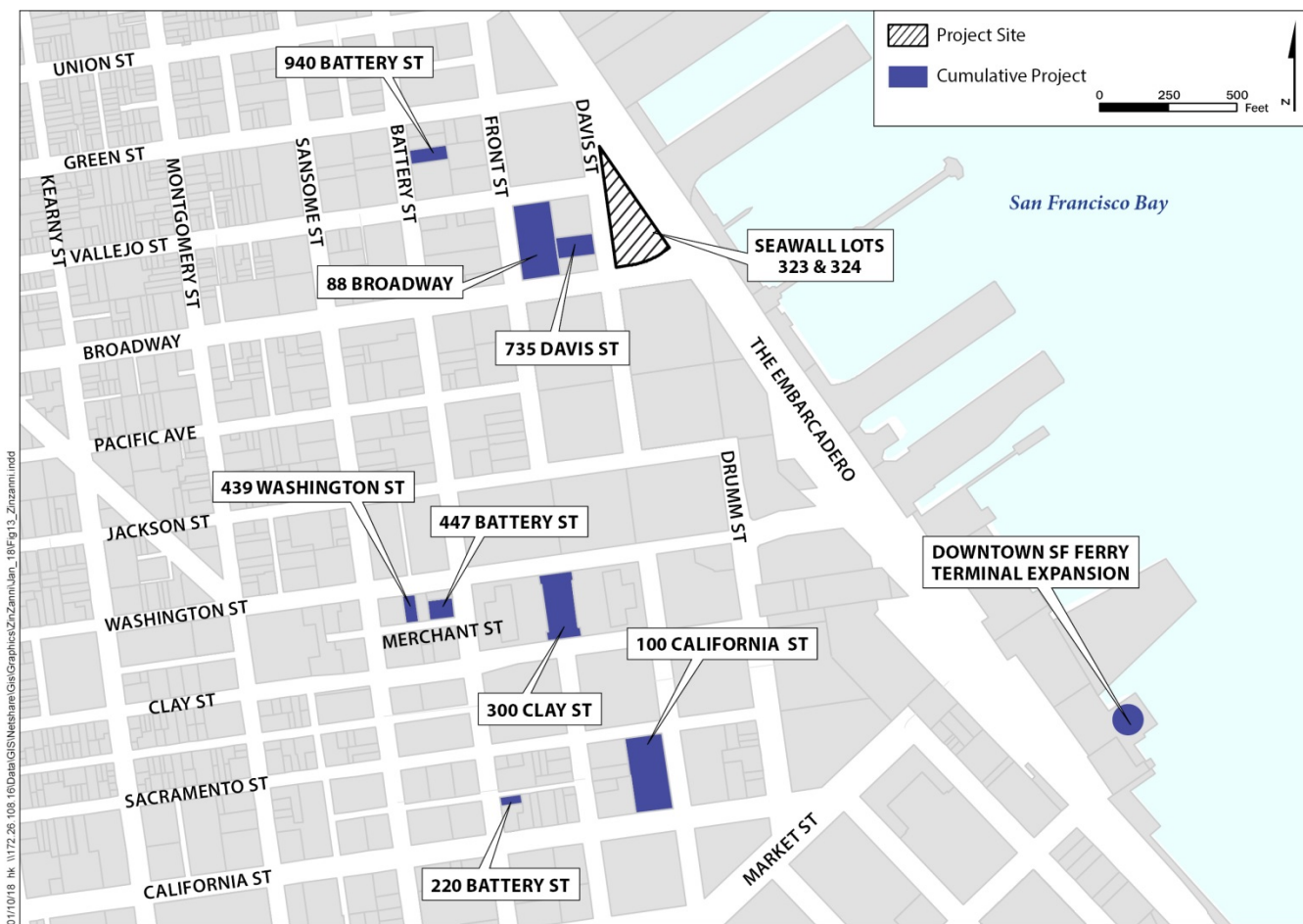


FIGURE 17 CUMULATIVE PROJECTS NEARBY

This page intentionally left blank.

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"/>

CEQA Guidelines section 15125(d) requires discussion of inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans, focusing on those inconsistencies that may result in physical environmental impacts. Decision-makers will consider the consistency of the project with plans that do not directly relate to physical environmental issues when they determine whether to approve or disapprove the project.

Therefore, the analysis in this section is intended to provide decision-makers with a discussion of planning considerations that are pertinent to the proposed project. This section also provides a preliminary conclusion as to whether the proposed project would result in any inconsistencies with relevant plans and policies that relate to physical environmental impacts.

Conflicts and inconsistencies with a policy do not constitute, on their own, significant environmental impacts, unless such conflicts or inconsistencies result in direct physical environmental impacts. The physical impacts of the proposed project are discussed in Section E, below.

Plans and policies addressed in this section include:

- San Francisco Planning Code
- San Francisco General Plan
- Waterfront Land Use Plan
- Accountable Planning Initiative
- The Public Trust
- San Francisco Bicycle Plan
- San Francisco Better Streets Plan
- San Francisco Sustainability Plan
- *Climate Action Strategy for San Francisco*
- *Plan Bay Area*
- San Francisco Bay Area Basin Plan
- Clean Air Plan
- San Francisco Transit First Policy

C.1. SAN FRANCISCO PLANNING CODE AND ZONING MAPS

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

proposed project. Overall, the proposed project would be generally consistent with the planning code as listed below, and the physical environmental impacts of the proposed project are analyzed in this initial study:

- **Zoning District.** The project site is zoned Community Business (C-2). Under section 210.1 of the San Francisco Planning Code, C-2 zones are intended to provide convenience goods and services to residential areas. In addition, some C-2 districts provide comparison shopping goods and services on a general or specialized basis to a citywide or regional market area. The character and intensity of the commercial development in C-2 zones are intended to be consistent with the character of other uses in the adjacent areas. Per Planning Code section 210.1, the proposed project would require a conditional use permit for the hotel use, but the entertainment venue and public park are principally permitted uses in the C-2 zoning district.
- **Height and Bulk Districts.** The project site is located in a 40-X height and bulk district, which has a 40-foot maximum height and no bulk limit. Mechanical equipment and appurtenances and elevator and stair penthouses are permitted to extend an additional 15 feet beyond the height limit, pursuant to Planning Code section 260(b). The proposed four-story building would be 40 feet tall, and with rooftop appurtenances, would extend to a maximum of 55 feet tall. Accordingly, the proposed project would meet the City's height restrictions for the project site.
- **Open Space.** According to Planning Code section 210.1, no construction of open space is required for the proposed project. The proposed project, however, would construct an approximately 14,000-gsf public park in the northern portion of the site. The public park would consist of both landscaping and hardscape and would include pathways for pedestrian access from The Embarcadero through to Vallejo and Davis streets.
- **Streetscape Improvements.** Public Works Code section 806(d)(2) requires that one 24-inch box tree be planted for every 20 feet of property frontage along each street, with any remaining fraction of 10 feet or more of frontage requiring an additional tree. Additionally, the proposed project must make pedestrian and streetscape improvements to the public ROW as set forth in the Better Streets Plan (Planning Code section 138.1) for projects involving more than 250 feet of linear street frontage and an entire block face. There are 28 existing street trees adjacent to the project site. The proposed project would add 28 trees along the frontages on The Embarcadero, Davis Street, and Broadway. Accordingly, the proposed project would meet the City's streetscape improvement requirements.

Additionally, the City's Urban Forestry Ordinance (Public Works Code section 801 et seq.) requires the project sponsor to obtain a permit from SFPW to remove any *protected trees*, which 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 proposed project would not remove existing street trees. Additionally, the project site does not include any landmark or significant onsite or street trees under existing conditions, and therefore, would not violate the City's Urban Forestry Ordinance (section 801 et seq. of the Public Works Code).

- **Vehicle Parking and Loading.** Pursuant to Planning Code sections 151 and 161, vehicle parking is not required for the commercial or hotel uses onsite. The proposed project does not include vehicle parking. Therefore, the proposed project would comply with the parking requirements. As shown in Figure 4, a 142½-foot commercial loading zone would be provided on Davis Street for freight and deliveries and an 80-foot passenger loading zone would be provided on Broadway for the hotel facility. Per Planning Code section 152, the proposed project is required to provide at least one off-street freight loading space. The proposed project would provide two off-street freight loading spaces in a loading dock along Davis Street, and would be in compliance with the requirements of Planning Code section 152.
- **Bicycle Parking.** Planning Code sections 155.1 and 155.2 require that the project provide class I and class II bicycle parking for commercial (hotel, theater, and retail) uses. The project proposes bicycle parking on the ground floor

and in three locations along the project frontage (see Figure 4). The proposed building would include 20 class I and 43 class II bicycle parking spaces (28 new class II spaces are proposed). The class I bicycle parking spaces would be provided for use by hotel employees and commercial tenant employees only, and would be located on the ground floor along Davis Street and accessed via a locked door at that location. The 43 class II bicycle parking spaces would be located on sidewalks in front of the project site (14 new spaces along Davis Street, 10 new spaces along The Embarcadero, and four new spaces in the park, in addition to 15 existing spaces located on The Embarcadero). The location of bicycle parking spaces within the public ROW would be subject to review and approval by the Port.

- **Article 10 Historic District/Special Use District.** The project site is a noncontributing property within the Northeast Waterfront Landmark District, a designated historic district per Planning Code article 10. As described in Appendix D of article 10, this historic district is maintained as an architecturally historic and aesthetically historic significant area. Appendix D establishes the location and boundaries of the historic district, outlines the character-defining features of the district and criteria for reviewing alterations and new construction within the district. Because of the location of the project site, the proposed project is subject to the review and approval of a Certificate of Appropriateness application by the Historic Preservation Commission for compatibility with the Northeast Waterfront Landmark District, pursuant to article 10 and Appendix D.

The project is also within Waterfront Special Use District No. 3, and is subject to the requirements outlined in Planning Code section 240.3. Section 240 sets forth regulations to preserve the unique characteristics of waterfront *special use districts*, requiring developments to undergo a waterfront design review process. Section 240.3 discusses the specific design, land use, scale, and other factors for development within Waterfront Special Use District No. 3.

The proposed project would generally be consistent with provisions of the San Francisco Planning Code. As stated above, potential inconsistencies of the proposed project with applicable plans, policies, and regulations do not, by themselves, indicate a significant environmental effect. To the extent that physical environmental impacts may result from such conflicts, these impacts are discussed in Section E, Evaluation of Environmental Effects. Any inconsistencies between the proposed project plans, policies, and planning code land use controls that do not relate to physical environmental issues or result in physical environmental effects will be considered by City decision-makers as part of their determination on whether to approve, modify, or disapprove the proposed project.

C.2. LOCAL PLANS AND POLICIES

San Francisco General Plan

In addition to the San Francisco Planning Code, the proposed project is subject to the San Francisco General Plan. The general plan provides general policies and objectives to guide land use decisions. The general plan provides the City's vision for the future of San Francisco. The general plan is divided into 10 elements that apply citywide policies and objectives into the following topical areas: Air Quality, Arts, Commerce and Industry, Community Facilities, Community Safety, Environmental Protection, Housing, Recreation and Open Space, Transportation, and Urban Design. In addition, the proposed project is governed by the Northeastern Waterfront Area Plan, a specific area plan of the City's General Plan, which is discussed more below. Development in San Francisco is subject to the general plan, which provides objectives and policies to guide land use decisions, and contains some policies that relate to physical environmental issues, some of which may conflict with each other. Achieving complete consistency with the general plan is not always possible for a proposed project. CEQA does not require an analysis of a proposed project in relation to all general plan policies; it asks whether a proposed project would conflict with any plans or policies adopted to protect the environment. The General Plan's Northeastern Waterfront Area Plan recognizes that the proposed project is also subject to the Port of San Francisco's Waterfront Land Use Plan and its Design and Access Element, as well as the requirements of the Burton Act governing Port properties.

Achieving complete consistency with the general plan is not always possible for a proposed project. CEQA does not require an analysis of a proposed project in relation to all general plan policies; it asks whether a proposed project would conflict with any plans or policies adopted to protect the environment. Elements of the San Francisco General Plan that are particularly applicable to planning considerations associated with the proposed project are the Urban Design, Arts, Recreation and Open Space, and Transportation elements, in addition to the Northeastern Waterfront Area Plan.

The Urban Design Element is concerned both with development and with preservation, recognizing that enhancement and conservation of the positive attributes of the city are necessary to meet human needs. Of these positive attributes, the city's characteristic city pattern is integral to maintaining "an image, a sense of purpose, and a means of orientation." Views, topography, streets, building form and major landscaping are of particular importance to the city's pattern. The Urban Design Element indicates that preservation of landmark buildings and districts contributes to the sense of permanence and continuity in the urban fabric of the city. The proposed project is within a designated landmark district under article 10 of the San Francisco Planning Code. As such, the proposed project is subject to the approval of a Certificate of Appropriateness from the Historic Preservation Commission for new construction in the Northeast Waterfront Landmark District, which would review the project for compatibility with the surrounding development.

In addition, the following Urban Design Element policies under Objective 2, Conservation of Resources, include policies that provide for a sense of nature, continuity with the past, and freedom from overcrowding. Specifically, policies 2.8, 2.9 and 2.10 are relevant to the project as they relate to use of street areas. Policy 2.9 states that there is a rebuttable presumption that street space should be retained as valuable public open space in the tight-knit fabric of the city.

The proposed project meets Policy 2.8: Maintain a strong presumption against the giving up of street areas for private ownership or use, or for construction of public buildings. No active or planned street areas are being given up for private ownership or use, or for the construction of public buildings. The proposed project includes the vacation of a ROW parcel that is between Seawall Lots 323 and 324 and which currently crosses through the existing parking plot from Davis Street to The Embarcadero. The ROW parcel is an unmapped, undeveloped, paper street, under the Port's jurisdiction which is not currently used as a street. The Port would remain the owner of the ROW with implementation of the proposed project. The proposed project would build on top of the existing ROW, but the development would be offset by the construction of a new public park that would allow public access through the site and would also provide a dedicated easement for San Francisco Fire Department access through the site. The public park would include passive recreational areas, pathways and benches which would enhance the pedestrian experience, while maintaining a new easement for access by emergency vehicles. A curb cut on Davis Street would allow circulation through to The Embarcadero on a paved pathway, secured by movable bollards. The proposed project meets Policy 2.9: Review proposals for the giving up of street areas in terms of all the public values those streets afford. The proposed project would repurpose the ROW parcel that is currently occupied by a surface parking lot and is not used as a street area. The proposed project would develop the site to include a new hotel, entertainment venue, restaurant and a public park, uses which are consistent with the General Plan, Waterfront Land Use Plan and the Burton Act. Currently the ROW parcel is an unmapped, undeveloped, paper street, not used or planned for use as a street. The proposed project would not cause any detriment to vehicular or pedestrian circulation but would allow for designated pedestrian circulation through the site along with emergency vehicular access with two curb cuts connecting from Davis Street to The Embarcadero and the new public park that would allow emergency vehicles to pass through the site. The proposed project would not interfere with utility lines or services. The proposed project does not contain any natural features nor does it cause any detriment to the scale and character of the surrounding area because it is being designed to conform to the existing character, height and bulk limits for the area and in accordance with the City's Planning Code Article 10, the Northeastern Waterfront Area Plan and the Waterfront Land Use Plan and Access and Design Element. The proposed project would not

obstruct, diminish or eliminate a significant view.²³ The public walkways and open space around and through the project site would provide new view corridors that would link Vallejo Street to the Embarcadero and would provide new public open space amenities in the neighborhood. Policy 2.9 outlines 12 conditions that would discourage approval of a proposed street vacation and none of these conditions are present under the proposed project. The proposed project would facilitate a public serving, Public Trust consistent project (hotel and entertainment venue) and would create a public space that would allow public access use of the site including a new privately owned public open space (POPO) in the form of a new public park.

The proposed project meets Policy 2.10: Permit release of street areas, where such release is warranted, only in the least extensive and least permanent manner appropriate to each case. The proposed project would be constructed pursuant to a Port ground lease, and the Port would always retain the interest in the site which permits the Port to recapture the proposed project site's occupied ROW parcel should that be warranted following lease termination, thereby ensuring that the release is not permanent. The proposed project would release the unused ROW parcel in a manner that the public values and purpose of streets as expressed in the Urban Design Element and elsewhere in the General Plan would be consistent with the preferred uses for the project site as set forth in the Port's Waterfront Land Use Plan. The effects of the proposed street vacation or use of the ROW parcel is minimized because the public access through the site by people and emergency vehicles is still maintained. The vacation of the ROW would enhance the pedestrian experience and public life and would create a new POPO and would involve Trust consistent uses (hotel and entertainment venue).

The Arts Element is intended to "validate and increase the role of the arts as a major economic force in the region." The importance of the arts to the cultural identity and economic prosperity of San Francisco is underscored in a number of policies seeking to support local artists and artwork. Objective I-2 seeks to increase the contribution of the arts to the economy of San Francisco, including the continued support and increased promotion of arts and arts activities throughout the city for the benefit of visitors, tourists, and residents (policy I-2.2). Policy VI-1.9 supports the creation of opportunities for private developers to include arts spaces in private developments citywide. The proposed project would comply with the Arts Element by providing permanent arts and entertainment space at the proposed entertainment venue, which would host the 100-year-old spiegel tent. The proposed building would provide support space for performers and producers. The design of the proposed building would allow passersby along The Embarcadero to see "behind the scenes" during performances. The proposed project would also include a public park and outdoor stage that could potentially host community performances and public gatherings such as neighborhood exercise classes, a children's dance or singing performance, or lunchtime music or lecture session.

The Recreation and Open Space Element is intended to improve the quality of life in San Francisco communities by providing places for "recreation, activity and engagement, for peace and enjoyment, and for freedom and relief from the built world." Among its objectives is increasing recreation and open space to meet the long-term needs of the city and bay region. Objective 2, policy 2.12 of the Recreation and Open Space Element encourages the expansion of the *privately owned public open spaces* requirement to new mixed-use development areas, ensuring that spaces are truly accessible, functional, and activated. Objective 3 promotes improved access and connectivity to open space within the city. The proposed project would comply with the Recreation and Open Space Element by providing the POPO as an additional public recreational area in the vicinity of other popular recreational facilities, such as The Embarcadero Promenade.

²³ The Design and Access Element provides that Vallejo is not designated as: (1) a street that has "planned public access and open space" (Public Access and Open Space Map, Exhibit B); (2) a street with Major Views of the Bay and Across Water or a street that involves "hilltop views of the waterfront" (Page 44); (3) a street that is designated for "new views of the Bay and across water" (Page 45) or an existing or proposed street that connects to the Bay, historic structures or architecture" (Page 46); (4) a street that has a view to the Bay or a view to a historic building (Page 80) or a street where it is deemed necessary to preserve or create views of historic buildings or architecture (Page 83); or (5) a street that needs to maintain Bay views (Page 87) or a street with a "street corridor with an unobstructed view of the Bay", a street with a "proposed view to the Bay", a street with a "view to historic structures", "a street with views of historic structures" or "a street with a proposed view to architecture with a waterfront identity" (Pages 126-127, Appendix A).

The Transportation Element includes discussions about pedestrian issues and provides direction and policies to encourage safe, convenient and pleasant pedestrian movement as part of the transportation system. Objective 24 is focused on the design of every street for safe and convenient walking with corresponding policies. Objective 25, Improve the ambience of the pedestrian environment, contains a relevant policy to the proposed project, Policy 25.5: Where consistent with transportation needs, transform streets and alleys into neighborhood-serving open spaces or “living streets” by adding pocket parks in sidewalks or medians, especially in neighborhoods deficient in open space. This policy encourages excess paved areas to be converted to pocket parks on widened sidewalks, curb extensions or new medians in appropriate circumstances. This policy defines pocket parks as small, active public spaces created in the existing public right-of-way. In addition to landscaping, pocket parks may include features such as seating areas, play areas, community garden space, or other elements to encourage active use of the public open space. The proposed public park for the proposed project replaces the parking lot currently located on the ROW parcel with similar park features as suggested in Policy 25.5. The compatibility of the proposed project with General Plan goals, policies, and objectives that do not relate to physical environmental issues would be considered by decision-makers as part of their decision whether to approve or disapprove the proposed project.

The General Plan also requires compliance with the Port of San Francisco’s Waterfront Land Use Plan and its Waterfront Design and Access Plan, and the State of California’s Public Trust doctrine. The proposed project also satisfies all of the key provisions of those governing documents. The Waterfront Land Use Plan provides that Seawall Lots 323 and 324 are principally permitted for hotel, entertainment and open space uses. The proposed project proposes to construct a new hotel, entertainment venue and POPO, consistent with the Waterfront Land Use Plan.

The Design and Access Plan provides that Seawall Lots 323 and 324 are prime sites for infill development and that new uses should take advantage of the major public access amenities of Pier 7 and provide a focal point for the area where Broadway meets The Embarcadero. The proposed project would use the Seawall Lots in a manner that meets those primary policies for the project site. The Design and Access Plan also provides that development on Seawall Lots should:

- Respect City form by stepping new buildings down toward The Embarcadero
- Use strong and bold building forms and detailing on new buildings to reinforce the large scale of The Embarcadero
- New buildings should respect the scale and architectural character of adjacent neighborhoods
- Maintain City street corridor views shown on the City Street View map in chapter 3.

The proposed project meets all of the aforementioned policies in that it: (1) would be constructed to comply with the areas 40-foot height limit, (2) the building has continuous massing along The Embarcadero that reinforces the street wall and large scale of The Embarcadero, (3) uses strong and bold building forms and detailing to reinforce the large scale of The Embarcadero by construction to the property line, (4) uses materials that are consistent with the area, and incorporates many other design details that are consistent with the district (5) respects the scale and architectural character of the adjacent Northeast Waterfront Historic District insofar as it has been designed to comply with Article 10, Appendix D Guidelines for building form, massing fenestration and materiality in the historic district and conforming with Secretary of the Interior Standards-Standard 9, Additions to Historic Districts (6) maintains the designated street corridor views as described in the Design and Access Plan (Chapter 3, Map B, Open Spaces and Access), insofar as the project does not have any impact on Broadway or Davis Street, and Vallejo Street is not mentioned as an existing open space and public access area, or a planned open space and public access area or a view corridor

The General Plan also requires compliance with the Burton Act and the California Public Trust doctrine. The proposed project fully complies with the Burton Act Public Trust doctrine insofar as it involves three trust consistent, public assembly and Port commercial uses—hotel, entertainment venue and public park—and supports the other requirements of the Burton Act such as promoting access to and along the waterfront and will pay fair market rent and contribute to the general fund for public trust uses.

*Northeastern Waterfront Area Plan*²⁴

The Northeast Waterfront Area Plan, part of the San Francisco General Plan, includes goals, policies, and objectives to maintain, expand, and allow new shipping, commercial, and recreational maritime operations that provide improved and expanded commercial and recreational maritime facilities, open spaces, and public access along the waterfront. This *area plan*, last amended by the San Francisco Planning Commission in 2003, includes the area along San Francisco Bay from Fisherman's Wharf to China Basin. The area plan includes land under Port jurisdiction and the areas of the city adjacent to the Port area. Although the area's role in San Francisco's maritime shipping industry has declined over time, the Port remains responsible for ensuring the continuation of maritime commerce, navigation, and fisheries within the Northeastern Waterfront. The Northeastern Waterfront Area Plan envisions the addition of hotel, restaurant, and retail uses in this area to promote increased access and enjoyment of the waterfront.

The project site is within the area plan's Base of Telegraph Hill Subarea, which contains a mix of maritime, residential, and commercial uses. A variety of land uses are designated appropriate on inland sites, including hotel, residential, office, and other commercial activities. The open space policy for this subarea also encourages the provision of landscaping and publicly accessible open space in the development. The area plan indicates that new development on these parcels shall be designed to "preserve and enhance the rich historic character of the subarea, and, as appropriate, highlight access points to the nearby North Beach, Chinatown and Fisherman's Wharf districts."

The following areawide objectives and policies of the Northeastern Waterfront Area Plan relate to the proposed project:

- **Objective 1:** To develop and maintain activities that will contribute significantly to the City's economic vitality and provide additional activities which strengthen the predominant uses in each subarea of the northeastern waterfront, while limiting their concentration to preserve the environmental quality of the area.
- **Objective 2:** To diversify uses in the northeastern waterfront, to expand the period of use of each subarea and to promote maximum public use of the waterfront while enhancing its environmental quality.
- **Objective 7:** To strengthen and expand the recreation character of the northeastern waterfront and to develop a system of public open spaces and recreation facilities that recognizes its recreational potential, provides unity and identity to the urban area, and establishes an overall waterfront character of openness of views, water and sky and public accessibility to the water's edge.
- **Policy 8.2:** Limit additional parking facilities in the Northeastern Waterfront and minimize the impact of this parking. Discourage long-term parking for work trips which could be accommodated by transit. Restrict additional parking to: (a) Short-term (less than four hour) parking facilities to meet needs of additional business, retail, restaurant, marina, and entertainment activities; (b) Long-term parking facilities for maritime activities, hotel and residential uses. To the extent possible, locate parking away from areas of intense pedestrian activity. Encourage shared parking at adjacent or nearby facilities.
- **Policy 8.5:** Base the determination of the amount of parking allowed for permitted uses on the desirability of reducing automobiles along the waterfront and, to the maximum extent feasible, consider the use of existing public transit and inland parking, as well as public transit and inland parking which could reasonably be provided in the future.

²⁴ San Francisco Planning Department, *Northeastern Waterfront Area Plan*, 1998 and Amendments by Resolution 16626 on July 31, 2003, http://www.sf-planning.org/ftp/General_Plan/NE_Waterfront.htm.

- **Policy 8.6:** Remove or relocate inland those existing parking facilities on or near the water's edge or within areas of intense pedestrian activity.
- **Policy 10.5:** Permit nonmaritime development bayward of the sea wall only if the following qualifications are met:
 - a. Maximum feasible public access is provided to the water's edge.
 - b. Important Bay and waterfront views along The Embarcadero and level inland streets are preserved and improved. Minor encroachment into the view corridors from level inland streets may be permitted: (1) Where the encroaching element has a distinct maritime character and adds variety to the views along the waterfront; (2) Where minor structures (such as kiosks) are desirable to provide public amenities contributing to a continuity of interest and activity along the waterfront; (3) Where essential maritime facilities cannot reasonably be located and designed to avoid view blockage; and (4) Where the public enjoyment of the Bay will be enhanced by providing a place of public assembly and recreation which allows unique vistas and overviews that include portions that are publicly accessible during daytime and evenings consistent with ensuring public safety,
- **Policy 10.6:** Retain older buildings of architectural merit or historical significance to preserve the architectural and historical character of the waterfront and ensure the compatibility of new development.

The following policies and objective of the Northeastern Waterfront Area Plan specific to the Base of Telegraph Hill Subarea relate to the proposed project:

- **Policy 18.3:** Encourage moderate development of uses such as shops, restaurants, entertainment and hotels which activate the waterfront during evenings and weekends, but to a lesser overall intensity and concentration than present in the adjacent downtown and Fisherman's Wharf areas.
- **Policy 18.4:** Design new development on Seawall Lots 323 and 324 as an orientation point for the waterfront which also highlights the intersection of Broadway and The Embarcadero.
- **Policy 19.3:** Design transportation access to new developments on seawall lots to minimize congestion on Bay Street, Broadway, and The Embarcadero.
- **Objective 20:** To develop the area in such a way as to preserve and enhance the physical form of the waterfront and Telegraph Hill, and to preserve views from the hill.

The proposed project would convert an existing surface parking lot along The Embarcadero to a hotel, entertainment venue, and public park. The addition of the proposed project to the site would better define the intersection of The Embarcadero and Broadway for all roadway users, marking the importance of the intersection as a gateway point. Rather than creating new parking facilities in an area well served by existing transit, the proposed project would enhance the pedestrian experience on and around the site, promoting recreation along The Embarcadero. Although the proposed project would add new entertainment uses to the site, the intensity of use would be consistent with immediately surrounding uses along the waterfront, which generally are less intense in use than destinations located downtown or in Fisherman's Wharf. The Historic Preservation Commission and Architectural Review Committee must review the project design to ensure consistency with the historic district in which the project is located. The proposed project would not conflict with any goals, objectives, or policies of the Northeastern Waterfront Area Plan. The proposed project is compatible with the heights of the surrounding buildings and would provide appropriate streetscape for pedestrians, accommodate pedestrians and bicyclists, create open space connections, and make sure that the new development would fit into the context of historic properties in the area.

The project site is within the boundary of the *Northeast Embarcadero Study: An Urban Design Analysis for the Northeast Embarcadero Area* (Northeast Embarcadero Study), prepared by the San Francisco Planning Department. This study was conducted to assess empty surface parking lots, including the project site, along the western side of The Embarcadero for

future infill development. The study was adopted on July 8, 2010, and its guidelines were incorporated into the Northeast Waterfront Area Plan. The objectives of the Northeast Embarcadero Study are to create site guidelines that are beneficial to the pedestrian realm, establish east-west connections between the city and the Bay, establish an appropriate streetscape for pedestrians, create open space connections, and make sure that new development fits into context of historic properties. The proposed project is compatible with the heights of the surrounding buildings and provides accessible open space in the form of a new public park that would allow for passage of pedestrians from Davis Street through to The Embarcadero.

Waterfront Land Use Plan

Land use and development on properties within Port jurisdiction, including the project site, are guided by the Waterfront Land Use Plan.²⁵ The lands within the Port's jurisdiction are held in public trust and managed by the Port. The Port, as trustee of these public lands, is required to promote maritime commerce, navigation, and fisheries, and to protect natural resources and develop recreational facilities for public use. The Waterfront Land Use Plan is intended to designate lands to meet these objectives and to serve the intensified demand for residential and commercial development on appropriate inland parcels. Providing improved access to the waterfront is among the plan's primary objectives.

The Waterfront Land Use Plan designates the project site as a Mixed Use Opportunity Area anticipated to include a new open space component. The plan notes that the project site (encompassing Seawall Lots 323 and 324) is currently underused and recommends that it be developed with uses that activate the waterfront and are integrated with adjacent uses. Suggested uses include support space and ancillary parking for pier activities or mixed-use hotel, office, or residential developments with ground-floor retail uses. The plan indicates that these lots should provide a smooth transition from inland neighborhood uses to shoreline improvements, making the area inviting to local residents. The plan also notes that the project site is within the Northeast Waterfront Historic District and that the design of new development must respect and enhance the historic and architectural character of adjacent development.

In 2015, the Port completed the *Waterfront Land Use Plan 1997–2014 Review*.²⁶ The review documents land use changes at the Port over an 18-year period and identifies recommendations for a targeted update of the Waterfront Land Use Plan, which is currently underway. The review identified goals for the project area similar to those identified in the 2009 Waterfront Land Use Plan, including the development of a boutique hotel at the intersection of Broadway and Embarcadero (on Seawall Lot 324). The current review of the Waterfront Land Use Plan continues to make the same finding. Such a development would need to be designed to be compatible with existing land uses and to define the intersection's role as an area gateway. Seawall Lot 323 is identified as an opportunity to reconnect adjacent neighborhoods with the waterfront and improve the public realm.

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 the following priority policies, set forth in section 101.1(b):

- (1) That existing neighborhood-serving retail uses be preserved and enhanced and future opportunities for resident employment in, and ownership of, such businesses be enhanced
- (2) That existing housing and neighborhood character be conserved and protected to preserve the cultural and economic diversity of our neighborhoods

²⁵ Port of San Francisco, *Waterfront Land Use Plan*, June 2004; Revised October 2009, <http://sfport.com/waterfront-land-use-plan-0->, accessed May 22, 2016.

²⁶ Port of San Francisco, *Waterfront Land Use Plan 1997–2014 Review*, 2015, http://sfport.com/sites/default/files/FileCenter/Documents/10303-WLUP_Review_Chapter1_July2015_reduced%20size.pdf, accessed May 22, 2016.

- (3) That the City's supply of affordable housing be preserved and enhanced
- (4) That commuter traffic not impede Muni transit service or overburden our streets or neighborhood parking
- (5) That a diverse economic base be maintained by protecting the City's industrial and service sectors from displacement due to commercial office development, and that future opportunities for resident employment and ownership in these sectors be enhanced
- (6) That the City achieve the greatest possible preparedness to protect against injury and loss of life in an earthquake
- (7) That landmarks and historic buildings be preserved
- (8) That our parks and open space and their access to sunlight and vistas be protected from development

Policies 1, 2, and 5 are addressed in the initial study checklist in Section E.1, Land Use and Planning. Policy 3 is addressed in Section E.2, Population and Housing. Policy 4 is addressed in Section E.4, Transportation and Circulation. Policy 6 is addressed in Section E.13, Geology and Soils. Policy 7 is addressed in Section E.3, Cultural Resources. Policy 8 is addressed in Section E.8, Wind and Shadow.

The proposed project would not conflict with any of the eight priority policies of section 101.1(b). Because the project site is located within a designated landmark district under article 10 of the San Francisco Planning Code, the Historic Preservation Commission will review and issue a decision on a certificate of appropriateness provided for the project. The San Francisco Planning Commission and Board of Supervisors will review the proposed project for consistency with the priority policies during the public hearing on the proposed project before acting on the conditional approval for the hotel use. The case report and approval motions for the proposed project that are presented to the planning commission will contain the planning department's comprehensive project analysis and findings regarding the proposed project's consistency with the priority policies, plans, policies, and planning code provisions that do not relate to physical environmental issues. The planning commission and board of supervisors will also consider the information in this initial study when they determine whether to approve, modify, or disapprove the proposed project.

Other Local Plans and Policies

In addition to the San Francisco General Plan, the Northeast Waterfront Area Plan, the Waterfront Land Use Plan, the Northeast Embarcadero Study, the planning code and zoning maps, and the Accountable Planning Initiative, other local plans and policies that are relevant to the proposed project are discussed below.

- **San Francisco Transit First Policy** is a set of principles that emphasize the City's commitment that the use of public ROWs by pedestrians, bicyclists, and public transit be given priority over the private automobile. These principles are embodied in the policies and objectives of the Transportation Element of the San Francisco General Plan. All City boards, commissions, and departments are required by law to implement the City's Transit First Policy principles in conducting the City's affairs.
- **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.
- **San Francisco Better Streets Plan** classifies the City's public streets and ROW, and creates a unified set of standards, guidelines, and implementation strategies that guide how the City designs, builds, and maintains its public streets and ROW to enhance the livability of the City's streets.

- **San Francisco Sustainability Plan** is a plan for San Francisco’s long-term environmental sustainability. The goal of the San Francisco Sustainability Plan is to enable the City and its people to meet their current needs without sacrificing the ability of future generations to meet their own needs. Among the specific environmental issues included in this plan are air quality, climate change, energy, ozone depletion, and transportation.
- **Climate Action Strategy for San Francisco** 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.

C.3. REGIONAL PLANS AND POLICIES

In addition to local plans and policies, the environmental, land use, and transportation plans and policies prepared by several regional planning agencies 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

This plan is the principal regional planning document that guides planning in the nine-county Bay Area. It includes the region’s first sustainable communities strategy, developed in accordance with Senate Bill (SB) 375 and jointly adopted by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission, first on July 18, 2013, then with the update, *Plan Bay Area 2040*, adopted on July 26, 2017. *Plan Bay Area 2040* is a long-range land use and transportation plan that covers the period from 2010 to 2040. The plan is scheduled to be updated every 4 years.

Plan Bay Area 2040 calls for concentrating housing and job growth around transit corridors, particularly in areas identified by local jurisdictions as priority development areas. In addition, the plan specifies strategies and investments for maintaining, managing, and improving the region’s multimodal transportation network and proposes transportation projects and programs to be implemented with reasonably anticipated revenue. The project site is located in the Port of San Francisco Priority Development Area.²⁷

Plan Bay Area 2040 is a limited and focused update to the 2013 *Plan Bay Area*, with updated planning assumptions that incorporate key economic, demographic, and financial trends from the last several years. *Plan Bay Area 2040* is an advisory policy document used to assist in the development of local and regional plans and policy documents, and the Metropolitan Transportation Commission’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.

San Francisco Bay Area Basin Plan

Water quality control plans (also known as basin plans) provide the basis for protecting water quality in California. Basin plans are mandated by both the federal Clean Water Act and the state Porter-Cologne Water Quality Control Act. The goal of the *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin* is to provide a definitive program of actions designed to preserve and enhance water quality and to protect beneficial uses of water in San Francisco Bay. The stormwater discharge, wastewater management, drainage plan, and water quality control systems for the proposed project would comply

²⁷ Association of Bay Area Governments, *Plan Bay Area*, Priority Development Area Showcase, <http://gis.abag.ca.gov/website/PDAShowcase/>, accessed March 1, 2017.

with, and generally be consistent with, the basin plan's water quality regulations. The physical impacts of implementing these systems, and the permitting requirements of the San Francisco Bay Regional Water Quality Control Board (RWQCB), are discussed in Section E.14, Hydrology and Water Quality, of this initial study.

Bay Area 2017 Clean Air Plan

The Bay Area Air Quality Management District's (BAAQMD's) *Bay Area 2017 Clean Air Plan* requires implementation of "all feasible measures" to reduce ozone and to provide a control strategy to reduce emissions of ozone, particulate matter, toxic air contaminants, and GHGs. The clean air plan describes the status of local air quality and identifies emission control measures to be implemented. The proposed project would generally be consistent with the clean air plan. Physical impacts of the proposed project related to air quality and compliance with these plans are addressed in Section E.6, Air Quality, and Section E.7, Greenhouse Gas Emissions.

The Public Trust

Some of the properties under Port jurisdiction are subject to use limitations under the public trust and the Burton Act. The public trust imposes certain use restrictions on historical tidal and submerged lands along the waterfront, to protect the interests of the state in commerce, navigation, and fisheries, as well as other public benefits recognized to further the public trust purposes, such as recreation and environmental preservation.²⁸ The Port has been delegated authority by the State Lands Commission to negotiate terms of use for lands under public trust. The Port would provide a public trust consistency assurance letter to the State Lands Commission to confirm that the proposed project is consistent with public trust objectives.

Consistency with these plans are discussed in detail in sections E.2, Population and Housing, E.6, Air Quality, E.7, Greenhouse Gas Emissions, and E.14, Hydrology and Water Quality.

²⁸ Public Trust Policy, adopted by the State Lands Commission on August 29, 2001.

D. SUMMARY OF ENVIRONMENTAL EFFECTS

The proposed project could potentially affect the environmental factor(s) checked below, for which mitigation measure would be required to reduce potentially significant impacts to less-than-significant levels. The following pages present a more detailed checklist and discussion of each environmental factor.

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

D.1. APPROACH TO ENVIRONMENTAL REVIEW

This initial study examines the proposed project to identify potential effects on the environment. For each checklist item, the evaluation has considered the impacts of the proposed project both individually and cumulatively, with the exception of GHG emissions, which are evaluated only in the cumulative context. All items on the initial study checklist that have been checked “Less than Significant with Mitigation Incorporated,” “Less than Significant Impact,” “No Impact” or “Not Applicable” indicate that, upon evaluation, staff has determined that the proposed project could not have a significant adverse environmental effect relating to that topic. A discussion is included for those issues checked “Less than Significant with Mitigation Incorporated” and “Less than Significant Impact” and for most items checked with “No Impact” or “Not Applicable.” For all of the items checked “No Impact” or “Not Applicable” without discussion, the conclusions regarding potential significant adverse environmental effects are based on field observation, staff experience, and expertise on similar projects, and/or standard reference material available at the San Francisco Planning Department, such as the City’s *Transportation Impact Analysis Guidelines for Environmental Review*, or the California Natural Diversity Database and maps published by the California Department of Fish and Wildlife.

Public Resources Code Section 21099

On September 27, 2013, Governor Brown signed SB 743, which became effective on January 1, 2014.²⁹ Among other provisions, SB 743 amended CEQA by adding California Public Resources Code section 21099 regarding the analysis of aesthetics and parking impacts for certain urban infill projects in *transit priority areas*.³⁰

Aesthetics and Parking Analysis

CEQA Guidelines 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 whether a project has the potential to result in significant environmental effects for projects that meet all of the following three criteria:

²⁹ SB 743 is available at http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB743, accessed May 23, 2016.

³⁰ A “transit priority area” is defined as an area within one-half mile of an existing or planned major transit stop. As defined in CCR title 14, section 15191 and in PRC section 21064.3, a major transit stop is 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.

1. The project is in a transit priority area.
2. The project is on an *infill site*.³¹
3. The project is residential, mixed-use residential, or an *employment center*.³²

The proposed project meets each of the above three criteria because it is (1) located within 0.5 mile of several rail and bus transit routes; (2) located on an infill site that is used as a surface parking lot; and (3) an employment center based on the C-2 zoning with a *floor area ratio*³³ of no less than 0.75 and located within a transit priority area.³⁴ Thus, this initial study does not consider aesthetics and the adequacy of parking in determining the significance of project impacts under CEQA.

CEQA Guidelines section 21099(d)(2)(A) states that a lead agency maintains the authority to consider aesthetic impacts pursuant to local design review ordinances or other discretionary powers. Furthermore, section 21099(d)(2)(B) states that aesthetics impacts do not include impacts on historical or cultural resources. As such, there will be no change in the San Francisco 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 information that otherwise would have been provided in the aesthetics section of an initial study (such as project renderings) are 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 the CEQA Guidelines.

Similarly, the planning department acknowledges that parking conditions may be of interest to the public and the decision-makers. Therefore, the initial study presents a parking demand analysis for informational purposes and considers any secondary physical impacts associated with constrained supply (e.g., queuing by drivers dropping off or picking up passengers at the project site in such a way that could affect the public ROW) as applicable in the transportation analysis.

Automobile Delay and Vehicle Miles Traveled Analysis

CEQA section 21099(b)(1) requires that the Governor's Office of Planning and Research (OPR) develop revisions to the CEQA Guidelines establishing criteria for determining the significance of transportation impacts of projects that "promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses." Section 21099(b)(2) states that upon certification of the revised guidelines for determining transportation impacts pursuant to section 21099(b)(1), automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment under CEQA.

In January 2016, OPR published the *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA* for public review and comment. The update recommended that transportation impacts for projects be measured using a metric of *vehicle miles traveled* (VMT). On March 3, 2016, in anticipation of the future certification of the revised CEQA Guidelines, the San Francisco Planning Commission adopted OPR's recommendation to use the VMT metric instead of automobile delay to evaluate the transportation impacts of projects (Resolution 19579). (Note: The VMT metric does not apply to the analysis of impacts on nonautomobile modes of travel such as riding transit, walking, and bicycling.)

³¹ As defined in PRC section 21099(a), an infill site is a lot located in an urban area that has been previously developed.

³² As defined in PRC section 21099(a), an employment center project is a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 that is located in a transit priority area.

³³ The floor area ratio is the gross floor area of a building or buildings on a zoning plot divided by the area of such zoning plot. The floor area ratio is calculated to determine whether the mass and scale of a structure is compatible with zoning district requirements.

³⁴ San Francisco Planning Department, *Transit-Oriented Infill Project Eligibility Checklist*, Case No. 2015-016326ENV, May 4, 2018.

Accordingly, this initial study does not contain a discussion of automobile delay impacts. Instead, an analysis of VMT and induced automobile travel impacts is provided in Section E.4, Transportation and Circulation. Nonetheless, the topic of automobile delay may be considered by decision-makers, independent of the environmental review process, as part of their decision to approve, modify, or disapprove the proposed project.

This page intentionally left blank.

E. EVALUATION OF ENVIRONMENTAL EFFECTS

E.1. LAND USE AND PLANNING

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
1. LAND USE AND 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"/>

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 segment) or the removal of a means of access (such as a bridge or roadway). The proposed project would involve removal of an existing surface parking lot and adjustments to existing public ROWs for the construction of a new mixed-use development that includes hotel, entertainment uses, and a public park. The proposed project would not disrupt or divide the physical arrangement or impede the passage of persons or vehicles.

A portion of the Vallejo Street ROW that is entirely within the project site would be vacated and/or abandoned to allow for construction of the proposed project. The ROW is not a functioning street and is not in use by vehicles because Vallejo Street dead-ends at the project site when it reaches Davis Street (it does not extend to The Embarcadero). The removal of this ROW would not interrupt or affect vehicular or pedestrian access.

Currently, a 10-inch auxiliary water supply system line and an 8-inch water main owned by SFPUC and an AT&T fiber optic conduit are in place within the ROW. The AT&T fiber optic conduit would be left in place or relocated. SFPUC water facilities would be abandoned in place when the building is constructed, a result that has been reviewed by SFPUC's City Distribution Division.³⁵ Construction activities would be staged primarily at the northern portion of the project site, and would also require temporary sidewalk closures, primarily along the project frontage on Vallejo Street, Davis Street, occasionally Broadway, and possibly The Embarcadero. It is anticipated that no vehicle travel lanes would be closed during construction. Closures of travel and parking lanes and sidewalks are subject to review and approval by the Transportation Advisory Staff Committee, an interdepartmental committee that includes the San Francisco Police Department, SFPW, the San Francisco Planning Department, SFFD, and SFMTA. The construction management plan reviewed by the committee would address the temporary impacts from construction activities such as issues of circulation (for traffic, pedestrians, and bicycles), safety, parking, and other project construction in the area.

The established community surrounding the project site includes piers, bulkheads, and other Port development to the north and east, mixed-use commercial and residential development to the south, and commercial development to the west. The project site is used as a surface parking lot and is located across The Embarcadero from the Bay. The existing surface parking lot does not have an existing pathway between the surrounding neighborhood and The Embarcadero and the shoreline. The proposed project would improve neighborhood connectivity by providing a pedestrian pathway through the project site, from

³⁵ Peter Bekey, KCA Engineers, email correspondence with SFPUC, including drawing, April 20, 2016.

The Embarcadero to Davis Street, which would facilitate public access. Therefore, the impact of the construction of proposed project would be *less than significant* with respect to physically dividing an established community.

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

Land use plans and policies adopted for the purpose of avoiding or mitigating an environmental effect are those that directly address physical environmental issues and/or contain targets or standards that must be met to preserve or improve characteristics of San Francisco's physical environment. The proposed project would not obviously or substantially conflict with any such adopted environmental plan or policy. The proposed project would not result in conflicts with existing land use designations or plans, as described in detail in Section C, Compatibility with Existing Zoning and Plans.

Additionally, the proposed project is within the Northeast Waterfront Landmark District, a historic designated neighborhood per planning code article 10. Based on the historic resource evaluation³⁶ prepared for the proposed project, the proposed project would be compatible with the Northeast Waterfront Landmark District with respect to the height, scale, and proportion; the lack of ornamentation, fenestration, materials, colors, and visual complexity; and construction to the front lot lines on all four streets that characterize the district. Additionally, the proposed project would be reviewed by the Historic Preservation Commission for approval of a Certificate of Appropriateness indicating compliance with the Northeast Waterfront Landmark District's development requirements. Further discussion of the historic resource evaluation and the proposed project's potential impacts on the Northeast Waterfront Landmark District's historical significance is provided in Section E.3, Cultural Resources.

For the reasons discussed in Section C, Compatibility with Existing Zoning and Plans, the proposed project would not conflict with any other plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. This impact would be *less than significant*.

Impact-C-LU-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the project site, would result in less-than-significant cumulative impacts related to land use and planning. (*Less than Significant*)

The cumulative projects listed in Table 3 and mapped in Figure 17 in Section B.3, Cumulative Projects, consist of infill development, transportation improvements, and recreation projects. Where infill development is proposed, the projects would renovate or demolish existing buildings in the Financial District, North Beach, and Northeast Waterfront neighborhoods and construct mixed-use, primarily commercial buildings, including new office, institutional, and hotel space. Residential uses are also proposed, including a new affordable housing development next to the project site. All of the cumulative development projects would result in the intensification of land uses in the project vicinity, similar to the proposed project. However, they are infill projects that would not physically divide an established community by constructing a physical barrier to neighborhood access, such as a new freeway, or remove a means of access, such as a bridge or roadway. The cumulative projects would be confined to individual parcels and would not collectively result in the construction of barriers or other physical modifications that would divide existing communities. Therefore, there would be no cumulative impact from the construction of physical barriers.

³⁶ San Francisco Planning Department, Historic Resource Evaluation Report – Preservation Team Review Form, Hotel and Theatre at Broadway for Kenwood Investments, LLC and Teatro Zinzanni, Seawall Lots 323 & 324, San Francisco, California, March 23, 2018. Eiliesh Tuffy, Senior Planner, San Francisco Planning Department.

The cumulative projects would also not result in conflicts with land use plans or policies adopted for the purpose of avoiding or mitigating environmental impacts, because they would generally support the City's objectives for siting new development in the vicinity of major transit stops, provision of housing, increased access to multiple transit modes, and increased access to the Bay shoreline. For example, these cumulative development projects would be required to comply with the same plans, policies, and regulations as the proposed project as discussed throughout this initial study, such as the 2017 Clean Air Plan; *Strategies to Address Greenhouse Gas Emissions*; the Noise Ordinance, section 2909 of the Police Code (article 29); CCR title 24, part 11 (the 2016 CALGreen Code), the San Francisco Green Building Ordinance; and San Francisco Ordinance 27-06 for recycling construction and demolition debris. Compliance with these plans and other mandatory regulations would help to make sure that development of cumulative development projects would not conflict with any applicable plans, policies, or regulations adopted to avoid or mitigate an environmental effect. Cumulative projects located in the Financial District and North Beach would be consistent with the existing high-density commercial uses in the area. Port projects would be consistent with the Port's objective to increase recreational opportunities and access along the waterfront. The proposed project, in combination with past, present, and reasonably foreseeable projects, would not combine with cumulative development projects to create or contribute to a cumulative land use impact. Therefore, the cumulative land use impact would be *less than significant*.

This page intentionally left blank.

E.2. POPULATION AND HOUSING

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
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 necessitating the construction of replacement housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project would not displace substantial numbers of existing housing units, necessitating the construction of replacement housing because there is no development on the site. The project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere because the site is currently a surface parking lot. Therefore, there would be **no impact** related to these topics, which is addressed in questions 2b and 2c.

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 or would result in new development that might not occur if the project were not implemented. ABAG prepares population growth projections for the Bay Area, including San Francisco, and, based on this growth, adopts housing needs for each city and county in the Bay Area, known as the regional housing needs allocation.

The proposed project would not create new residential units, and as such, would not directly contribute to increases in San Francisco's population. Once completed, the hotel is anticipated to accommodate approximately 365 guests. The hotel use (including food and beverage uses) and the other entertainment uses of the proposed project would create employment opportunities. The entertainment use is anticipated to employ approximately 62 people³⁷ while the hotel use, including the food and beverage uses, would employ approximately 67 people, totaling 129 new jobs.³⁸ These jobs are expected to be filled by existing Bay Area residents. Even if new employees needed to relocate to San Francisco, the number of new employees would not be substantial relative to San Francisco's overall population and would not result in the need to construct new housing. Employment in San Francisco is projected to increase by 34 percent (191,740 jobs) between 2010 and 2040.³⁹ The proposed project's increase of 129 employees would be accommodated within the projected employment growth in San Francisco.

Overall, the increase in the number of employees on the project site would be noticeable near the project site. However, project-related employment increases would not be substantial relative to the existing number of employees in the city, nor

³⁷ Economic and Planning Systems, *Economic Impacts of the Proposed Teatro ZinZanni/Kenwood Hotel and Dinner Theatre*, May 2016.

³⁸ Employment multiplier based on San Francisco Planning Department, *Transportation Impact Analysis Guidelines for Environmental Review*, October 2002.

³⁹ Association of Bay Area Governments and Metropolitan Transportation Commission, *Jobs-Housing Connection Strategy*, revised May 16, 2012, p. 49, http://www.planbayarea.org/pdf/JHCS/May_2012_Jobs_Housing_Connection_Strategy_Main_Report.pdf, accessed August 8, 2016.

would the increase in employees exceed regional projections for growth and employment. Therefore, the impact of the proposed project related to direct and indirect population growth would be *less than significant*.

Impact-C-PH-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the project site, would result in less-than-significant cumulative impacts related to population and housing. (*Less than Significant*)

The cumulative projects listed in Table 3 and mapped in Figure 17 in Section B.3, Cumulative Projects, consist of infill development, transportation improvements, and recreation projects. Although the Ferry Building projects and Pier 29 improvements could result in new employment opportunities, the jobs associated with these projects would likely be filled by existing San Francisco Bay Area residents. Employment generation would be relatively small in comparison to the existing number of jobs in the city.

Where infill development is proposed in the vicinity of the proposed project, those projects would either renovate existing buildings to add additional commercial, institutional, or residential uses or demolish existing buildings and construct new, mixed-use developments that would include residential, retail, and hotel uses. None of the projects would result in the loss of existing housing. Residential uses would add to the city's housing stock and assist in meeting the City's regional housing needs allocation goals for housing production, including the provision of housing affordable to low- and moderate-income families. Although the majority of the jobs associated with the cumulative projects are anticipated to employ existing Bay Area residents, it is possible that new jobs could result in indirect population growth. However, the cumulative projects would be generally consistent with adopted land use designations and would generate population growth already anticipated by the City's and ABAG's planning documents. The proposed project, in combination with past, present, and reasonably foreseeable projects, would result in a *less-than-significant* cumulative increase in population or demand for housing beyond what has been planned for at the regional and local level. The project would not contribute to a cumulative impact on population and housing, because it would not result in any population or housing displacement.

E.3. CULTURAL RESOURCES

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an 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"/>
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 CR-1: The proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in section 15064.5, including those resources listed in article 10 or article 11 of the San Francisco Planning Code. (*Less than Significant*)

Under CEQA, a historical resource (these include historic built-environment and prehistoric and historic archeological resources) is considered significant if it meets the criteria for listing in the California Register of Historical Resources (CRHR). Resources that are listed in or formally determined to be eligible for listing in the National Register of Historic Places (NRHP) are automatically listed in the CRHR, and are thus considered historical resources for the purposes of CEQA compliance.

A property may be considered an historic resource if it meets any of the California Register criteria related to (1) events, (2) persons, (3) architecture, or (4) information potential that make it eligible for listing in the California Register, or if it is considered a contributor to an existing or potential historic district. The significance of a historic resource is materially impaired when a project “demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance.”

The project site is currently occupied by a surface parking lot. No historic architectural resources occur within the project site.⁴⁰ The project site is, however, located within the boundaries of the Northeast Waterfront Historic District. Designated in 1983 under article 10 of the San Francisco Planning Code, the district was found to be significant for its collection of commercial masonry warehouse structures, which date from the late 19th to early 20th centuries. These structures were found to reflect San Francisco’s history of waterfront storage and maritime activities. The warehouse facilities composing the Northeast Waterfront Historic District were in continuous industrial use from the Gold Rush to the mid-1960s. In addition to the structures, the district contains cobblestone paving and the standard and narrow-gauge belt railroad track that served the warehouses and other commercial ventures of the district and surrounding neighborhood. As stated in the historic resource evaluation report for the project⁴¹ and confirmed by the San Francisco Planning Department on March 23, 2018,⁴² the

⁴⁰ Carey & Company, *Historic Resource Evaluation, Part 2: Compatibility Analysis. Hotel and Theatre at Broadway for Kenwood Investments, LLC and Teatro Zinzanni, Seawall Lots 323 & 324, San Francisco, California*, February 26, 2018.

⁴¹ Carey & Company, *Historic Resource Evaluation, Revised, Hotel and Theatre at Broadway for Kenwood Investments, LLC and Teatro Zinzanni, Seawall Lots 323 & 324, San Francisco, California*, 2016, p. 7.

proposed entertainment venue and hotel project would not result in the destruction of historic materials, features, or spatial relationships that characterize the historic district. Therefore, the demolition of the existing surface parking and the proposed new construction on the site would not result in a significant impact as defined under CEQA.

The proposed four-story hotel would be compatible with the character-defining features of the district because of the buildings design:

- rectilinear massing that is large in bulk
- repetitive bays rhythmically spaced to be in concert with nearby warehouse buildings in the district.
- modulation of the façade achieved through repetitive glass and metal window elements to break down the mass of the building
- regularity of the overall form multi-paned industrial window sash with dark metal framing
- ground-floor fenestration set in large rectilinear openings
- rough-textured, rough-grained, full-dimensioned brick veneer in a red color scheme
- simple, abstract, dark-colored metal cornice
- contemporary design of compatible height and massing for the atypical round theater structure, to differentiate it as new construction while protecting the integrity of the surrounding environment

The design does not incorporate any false-historic features and the proposed building would be compatible with the surrounding historic structures. As the proposed project conforms to the Secretary Standards and is compatible with the specific characteristics of the District, the new construction would not materially impair the Northeast Waterfront Landmark District. Thus, the Northeast Waterfront Landmark District would remain eligible for listing in Article 10 of the San Francisco Planning Code. As a result, impacts on historic architectural resources would be *less than significant*.

Impact CR-2: The proposed project could cause a substantial adverse change in the significance of an archeological resource pursuant to section 15064.5. (*Less than Significant with Mitigation*)

This section discusses archeological resources, both as historical resources according to section 15064.5 as well as unique archeological resources as defined in section 21083.2(g). Baseline conditions for potential archeological resources in the project area are documented in the *Addendum to the Archeological Research Design and Treatment Plan for the Broadway Hotel Project, City and County of San Francisco, California*.⁴³

No archeological resources have been previously identified within the project site. The lack of previously identified resources should be expected because, according to the *archeological research design and treatment plan* (ARDTP), “no known previous archeological investigations involving fieldwork have occurred in the project area.” Although no archeological

⁴² San Francisco Planning Department, *Historic Resource Evaluation Report – Preservation Team Review Form, Hotel and Theatre at Broadway for Kenwood Investments, LLC and Teatro Zinzanni, Seawall Lots 323 & 324, San Francisco, California*, March 23, 2018. Eiliesh Tuffy, Senior Planner, San Francisco Planning Department

⁴³ Environmental Science Associates, *Seawall Lots 323 & 324 Project, City and County of San Francisco, Addendum to the Archeological Research Design and Treatment Plan for the Broadway Hotel Project, City and County of San Francisco, California*, 2017.

fieldwork has been conducted to date within the project area, statements of the general archeological sensitivity of the project site can be developed based on land form, geology, site history, and current conditions, all of which are presented in the ARDTP. The archeological sensitivity for both prehistoric and historic-era archeological resources as determined in the ARDTP is presented below.

Prehistoric Archeological Sensitivity

As revealed in archival sources and geotechnical data cited in the ARDTP,⁴⁴ before major reclamation efforts of the 19th century, the entire project site was submerged beneath the waters of San Francisco Bay. The fill introduced during reclamation efforts overlies a deep deposit of Bay Mud. These soils do not represent land surfaces that were available for prehistoric human inhabitation. As such, there is “no potential for surficial or near-surface prehistoric archeological deposits” on the project site.⁴⁵

Although surface and near-surface prehistoric resources are not anticipated, the ARDTP determined that the project site is considered to be of “moderate sensitivity for prehistoric archeological resources,”⁴⁶ largely due to the discovery of two prehistoric artifacts that were uncovered approximately 500 feet west of the project area during archeological monitoring of the 88 Broadway and 753 Davis Street Project. The two artifacts, a vitreous basalt core and an obsidian core, were found at 10–12 feet below ground surface (bgs) and 8–10 feet bgs, respectively, which is within the maximum depth of disturbance proposed for the project (i.e., 6 feet bgs of mass excavation with soil improvements to 39 feet below the project site). The origin of the specimens is evidently a subject of debate, as various hypotheses have been proposed for their presence/association, including “indigenous Californian occupation; historic-period indigenous Hawaiian Islander (kanaka) occupation; indigenous Californian or Aleutian Islander associated with Fort Ross; and imported fill material.”⁴⁷ Whatever their ultimate origin, their presence close to the current project area elevates the sensitivity for prehistoric archeological resources from low to moderate.⁴⁸

Historic Archeological Sensitivity

Before the reclamation efforts of the 19th century mentioned above, the project area was under water, but near the shoreline of San Francisco Bay. It is documented in the ARDTP⁴⁹ that the project area went through the following primary land transformation processes:

- *1850s–1860s:* Wharf construction the along the present-day alignments of Vallejo Street and Davis Street
- *1880s:* Land reclamation of the entire project area
- *1880s to early 20th century:* Grading for and general construction of industrial facilities (railyards and wood and coal storage facilities) throughout the project area
- *Late 1960s:* Construction of elevated freeway on-ramp in the southern half of the project area
- *Early 1990s:* Demolition and removal of the elevated freeway on-ramp in the southern half of the project area

⁴⁴ Environmental Science Associates, Seawall Lots 323 & 324 Project, City and County of San Francisco, Addendum to the Archeological Research Design and Treatment Plan for the Broadway Hotel Project, City and County of San Francisco, California, 2017.

⁴⁵ Ibid., p. 74.

⁴⁶ Ibid., p. 76.

⁴⁷ Ibid., p. 25.

⁴⁸ Ibid.

⁴⁹ Ibid.

The historic development, followed by these significant modern construction activities that likely affected intact historic-era archeological remains, has resulted in an assessment for the project site that ranges from low to moderate to high sensitivity for containing buried historical archeological remains.

Construction activities including vehicles and equipment could expose and have impacts on unknown archeological resources. It is possible that previously unrecorded and buried (or otherwise obscured) archeological deposits could be discovered during ground-disturbing activities associated with project implementation. Such ground-disturbing activities would include demolition of the existing surface parking lots, overall grading of the project site, and trenching for installation of utilities. Thus, the proposed project could have a potentially significant impact on previously unidentified unique archeological resources as defined in section 15064.5 and described above. With implementation of **Mitigation Measure M-CR-2, Archeological Testing**, impacts would be reduced to *less than significant with mitigation*. This mitigation measure requires that archeological resources be avoided and, if discovered, that they be treated appropriately. Based on a reasonable presumption that archeological resources may be present in the project area, the following measures would be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources.

Mitigation Measure M-CR-2: Archeological Testing

The project sponsor shall retain the services of an archeological consultant from the rotational Department Qualified Archaeological Consultants List maintained by the San Francisco Planning Department's archeologist. The project sponsor shall contact the department's archeologist to obtain the names and contact information for the next three archeological consultants on the list. 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 4 weeks. At the direction of the ERO, the suspension of construction can be extended beyond 4 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 sections 15064.5(a) and 15064.5(c).

Consultation with Descendant Communities: On discovery of an *archeological site*⁵⁰ associated with descendant Native Americans, the Overseas Chinese, or other potentially interested descendant group, an appropriate representative⁵¹ 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 archeological 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. The archeological testing program shall be conducted in accordance with the

⁵⁰ The term "archeological site" is intended here to minimally include any archeological deposit, feature, burial, or evidence of burial.

⁵¹ 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.

approved testing plan. The archeological testing plan 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 evaluate whether any archeological resource encountered on the site constitutes a 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 whether 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 San Francisco Planning Department's 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 redesigned 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 archeological monitoring program a reasonably prior to any project-related soil-disturbing activities commencing. The ERO in consultation with the archeological consultant shall determine what project activities shall be archeologically monitored. In most cases, any soil-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (e.g., foundation, shoring), and site remediation, shall require archeological monitoring because of the risk these activities pose to potential archeological 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), how to identify the evidence of the expected resource(s) and 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 the project's 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 soil-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 or deep foundation activities (e.g., foundation, shoring), the archeological monitor has cause to believe that the pile driving or deep foundation activities may affect an archeological resource, the pile driving or deep foundation activities 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 accordance with an archeological data recovery plan (ADRP). The archeological consultant, project sponsor, and ERO shall meet and consult on the plan's 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 the 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 onsite/offsite 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 unintentionally 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, Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity shall comply with applicable state and federal laws, including immediate notification of the Office of the Chief Medical Examiner of the City and County of San Francisco and, in the event of the medical examiner's determination that the human remains are Native American, notification of the Native American Heritage Commission, which shall appoint a Most Likely

Descendant (MLD) (PRC section 5097.98). The ERO shall also be immediately notified upon discovery of human remains. The archeological consultant, project sponsor, ERO, and MLD shall have up to but not beyond 6 days after the 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, section 15064.5[d]). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, curation, possession, 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 the 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. If no agreement is reached, state regulations shall be followed, including the reburial of the human remains and associated burial objects with appropriate dignity on the property in a location not subject to further subsurface disturbance (PRC section 5097.98).

Final Archeological Resources Report. The archeological consultant shall submit a draft final archeological resources report 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 draft final archeological resources report shall be distributed as follows: The California Archaeological Site Survey Northwest Information Center shall receive one copy and the ERO shall receive a copy of the transmittal of the report to the Northwest Information Center. The Environmental Planning Division of the San Francisco Planning Department shall receive one bound, one unbound, and one unlocked, searchable PDF copy on CD of the report, along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the NRHP/CRHR. 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.

Impact CR-3: The proposed project could disturb human remains, including those interred outside of formal cemeteries. (*Less than Significant with Mitigation*)

Section 15064.5 of CEQA assigns special importance to human remains, and specifies procedures to be used when Native American remains are discovered. These procedures are detailed in PRC section 5097.98.

No known human burial locations were identified in the study area during the completion of the archeological investigation.⁵² However, the possibility cannot be discounted that human remains could be inadvertently exposed during ground-disturbing activities in the project site, given the elevated sensitivity for the area to harbor buried prehistoric resources. Therefore, project implementation could result in impacts on previously undiscovered human remains, including those interred outside of formal cemeteries, during ground-disturbing activities.

To reduce this potential impact to a less-than-significant level, the proposed project would comply with **Mitigation Measure M-CR-2, Archeological Testing**, which includes the procedures required for appropriate treatment of human remains. With

⁵² Environmental Science Associates, *Seawall Lots 323 & 324 Project, City and County of San Francisco, Addendum to the Archeological Research Design and Treatment Plan for the Broadway Hotel Project*, City and County of San Francisco, California, 2017.

implementation of **Mitigation Measure M-CR-2**, the proposed project impact related to the potential disturbance of human remains would be *less than significant with mitigation*.

Impact CR-4: The proposed project could cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code section 21074. (*Less than Significant with Mitigation*)

CEQA section 21074.2 requires the lead agency to consider the effects of a project on tribal cultural resources. As defined in section 21074, tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed or determined to be eligible for listing, the national, state, or local register of historical resources. 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 causes a substantial adverse change in the resource's significance.

Pursuant to CEQA section 21080.3.1(d), 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 December 8, 2016, the San Francisco Planning Department contacted Native American individuals and organizations for the San Francisco area, providing a description of the project and requesting comments on the identification, presence, and significance of tribal cultural resources in the project vicinity. During the 30-day comment period, no Native American tribal representatives contacted the planning department to request consultation.

Research to establish baseline conditions and Native American outreach efforts completed by the City and the planning department have not revealed the presence of tribal cultural resources as defined in PRC section 21074 in the project site. Baseline research did reveal, however, that the project site exhibits elevated sensitivity for harboring buried (i.e., currently unknown) prehistoric archeological resources associated with the indigenous (Native American) inhabitation of the area. Such prehistoric resources may also be considered tribal cultural resources; under Assembly Bill (AB) 52, this class of cultural resource includes sites, features, and objects with cultural value to a California Native American tribe that are either listed in the CRHR, eligible for listing, or listed in a local register of historical resources as defined in PRC section 5020.1(k).

As described under Impacts CR-1 and CR-2, the potential exists for archeological resources to be present in the project area, and as described in Impact CR-3, the potential exists for human remains to be present. Unknown archeological resources may be encountered during construction that could be identified as tribal cultural resources at the time of discovery or at a later date. Therefore, the potential adverse effects of the proposed project on previously unidentified archeological resources, discussed under Impact CR-1 and CR-2, also represent a potentially significant impact on tribal cultural resources.

Implementation of **Mitigation Measure M-CR-4, Tribal Cultural Resources Interpretive Program**, would reduce potential adverse effects on tribal cultural resources to *less than significant with mitigation*. **Mitigation Measure M-CR-4** would require either preservation in place of the tribal cultural resources, if determined effective and feasible, or an interpretive program regarding the tribal cultural resources developed in consultation with affiliated Native American tribal representatives.

Mitigation Measure M-CR-4: Tribal Cultural Resources Interpretive Program

If the ERO determines that a significant archeological resource is present, and if in consultation with the affiliated Native American tribal representatives, the ERO determines that the resource constitutes a tribal cultural resource and that the resource could be adversely affected by the proposed project, the proposed project shall be redesigned to avoid any adverse effect on the significant tribal cultural resource, if feasible.

If the ERO, in consultation with the affiliated Native American tribal representatives and the project sponsor, determines that preservation in place of the tribal cultural resources is not a sufficient or feasible option, the project sponsor shall implement an interpretive program of the tribal cultural resource in consultation with affiliated tribal representatives. An interpretive plan produced in consultation with the ERO and affiliated tribal representatives, at a minimum, and approved by the ERO would be required to guide the interpretive program. The plan shall identify, as appropriate, proposed locations for installations or displays, the proposed content and materials of those displays or installation, the producers or artists of the displays or installation, and a long-term maintenance program. The interpretive program may include artist installations, preferably by local Native American artists, oral histories with local Native Americans, artifact displays and interpretation, and educational panels or other informational displays.

Impact-C-CR-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the project site, could result in potentially significant cumulative impacts related to cultural resources. (*Less than Significant with Mitigation*)

Archeological resources, tribal cultural resources, and human remains are nonrenewable, finite resources. All adverse effects on archeological resources have the potential to erode a dwindling cultural/scientific resource base. Past, present, and reasonably foreseeable future development projects in San Francisco and the Bay Area region would include construction activities that could disturb archeological resources and tribal cultural resources and could contribute to cumulative impacts related to the loss of significant historical, scientific, and cultural information about the history and prehistory of California, the Bay Area, and San Francisco, including the history and prehistory of Native American peoples.

The cumulative impact for cultural resources includes potential future development within a 0.25-mile radius of the proposed project combined with effects of development on lands within the City of San Francisco. As shown in Table 3 and mapped in Figure 17 in Section B.3, cumulative projects have the potential to cumulatively affect cultural resources including historic resources, archeological and paleontological deposits, human remains, and tribal cultural resources. Because impacts resulting from cumulative projects are unknown, for a conservative assumption, cumulative impacts on archeological resources, human remains, and tribal cultural resources are considered to be significant. The proposed project could contribute to cumulative impacts on cultural resources if the proposed project and other projects listed in Table 3 would adversely affect cultural resources in the project vicinity.

Implementation of **Mitigation Measure M-CR-2 and Mitigation Measure M-CR-4** would ensure that adverse project-specific impacts on unknown archeological resources and tribal cultural resources on the project site would not occur.

As shown in Table 3, the cumulative projects would involve modifications to existing buildings or the renovation/reuse of existing buildings for other uses, with the exception of the 88 Broadway and 735 Davis Street project. The cumulative projects would involve changes to existing buildings that could result in impacts on historic buildings; however, the 88 Broadway and 735 Davis Street project and the 940 Battery project are the only two cumulative projects in the Northeast Waterfront Landmark District. Therefore, the proposed changes to the other cumulative projects would not combine with the proposed project to result in a cumulative impact to the Northeast Waterfront Landmark District. The proposed 88 Broadway and 735 Davis Street project is a surface parking lot. Therefore, development on this lot would not result in the direct loss or change to a historic structure and a determination was made that 88 Broadway and 733 Davis Street would be compatible with the Northeast Waterfront Landmark District.⁵³ As noted in Table 2, the 940 Battery Street project would result in interior and exterior alterations to create a new fourth floor and fifth floor at the roof level, and also proposes a change of use

⁵³ San Francisco Planning Department, *88 Broadway & 735 Davis Street Final Mitigated Negative Declaration Certificate of Appropriateness Case Report*, Case No. 2016-007850COA, April 4, 2018. Approval motion included HPC determination that that the proposed project would not destroy or damage any contributing elements or impact character-defining features within the Landmark District.

from warehouse to museum and retail. The impacts on the potentially historic building at 940 Battery Street⁵⁴ and its relationship to the Northeast Waterfront Landmark District were determined to be less than significant in the approved Final Mitigated Negative Declaration. All cumulative projects within the Northeast Waterfront Landmark District are subject to article 10 of the Planning Code, which requires that all new construction receive a Certificate of Appropriateness from the Historic Preservation Commission. As discussed under Impact CR-1, the proposed project's design was found to be compatible with the Northeast Waterfront Landmark District. Therefore, the proposed project would not combine with other cumulative projects to result in significant cumulative impacts on the Northeast Waterfront Landmark District.

Accordingly, with implementation of the mitigation measures listed above, the proposed project would not combine with cumulative development projects to create or considerably contribute to a cumulative impact on archaeological resources, human remains, or tribal cultural resources. Thus, the proposed project would not combine with cumulative projects to result in a cumulative effect on unknown archaeological resources, or tribal cultural resources, and impacts would be reduced to *less than significant with mitigation*.

⁵⁴ San Francisco Planning Department, *940 Battery Street Final Mitigated Negative Declaration*, Case No. 2015-001033ENV, June 20, 2018, amended July 13, 2018. Approval motion included HPC determination that that would not impact the project.

E.4. TRANSPORTATION AND CIRCULATION

Topics:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project site is not located within an airport land use plan area or in the vicinity of a private airstrip. Therefore, question 4c above, regarding the potential for changes in air traffic patterns resulting in substantial safety risks, is not applicable to the project. The following discussion is based on the information provided in the transportation impact study prepared for the proposed project in accordance with the San Francisco Planning Department's *Transportation Impact Analysis Guidelines for Environmental Review*.⁵⁵

Project Setting

The 59,750-square-foot project site is currently occupied by a surface parking lot with approximately 250 surface parking spaces and two temporary wooden pay booths. Some of the existing parking spaces are used by the Port for employee parking and by the adjacent KGO-TV and KRON 4 news station for parking for its news vans.

The proposed project would remove six existing parallel on-street parking spaces and three existing on-street motorcycle parking spaces along the project frontage on the north side of Broadway, three existing parallel on-street parking space along the project frontage on the east side of Davis Street, 20 existing perpendicular on-street Port parking spaces along the project frontage on the east side of Davis Street, and six existing perpendicular on-street Port parking spaces along the project frontage on the north side of Vallejo Street.

The project site fronts on two major arterials that pass through the Northeastern Waterfront area: The Embarcadero (running north to south) and Broadway (running east to west). Davis Street abuts the western edge of the project site, but vehicular through-access is restricted between Vallejo Street and The Embarcadero and between Davis and Green streets. The ROW in these areas is occupied primarily by a surface parking lot, which is not designed to allow vehicles to enter or exit at the

⁵⁵ CHS Consulting Group, *Seawall Lot 323 and 324 (Teatro Zinzanni) Project Final Transportation Impact Study*, May 2018.

Embarcadero or Green Street. Similarly, Vallejo Street cuts east to west through the site, but the ROW east of Davis Street is occupied by surface parking and does not provide a connection to The Embarcadero.

The site is well-served by public transit. Primary direct access is provided by Muni's historic streetcar service along The Embarcadero (E Embarcadero and F Market & Wharves), directly in front of the project site. Supplementary local transit service is provided in the area by Muni bus routes including the 10 Townsend, 12 Folsom–Pacific, 30X, and 82X Levi Plaza Express which travel along the Broadway/Pacific Avenue and Battery Street/Sansome Street couplets. Regional transit service is provided primarily by BART, at The Embarcadero Station along Market Street about 0.5 mile south of the project site. Additional local and regional transit services are within extended biking or walking distance of the project site, and can be accessed by transfers to and from the Muni routes listed above. The closest transit stops to the project site are the Broadway & The Embarcadero and Exploratorium/Green & The Embarcadero stations on the E Embarcadero and F Market & Wharves lines, located in the transit-only ROW in the median of The Embarcadero.

Major on-street bikeways in the project vicinity include class II facilities (bicycle lanes)⁵⁶ along The Embarcadero and class III facilities (shared lanes)⁵⁷ with *sharrows* (pavement markings) and signage along Broadway. Class II facilities are also provided for a short stretch of Front Street west of the project site. In addition, a popular shared-use promenade for bicyclists and pedestrians, designated as part of the San Francisco Bay Trail, is provided along the waterfront (east) side of The Embarcadero.

Sidewalks in the project vicinity are generally 10–15 feet wide, but are not continuous along the western edge of the project site along Davis Street, where the sidewalk terminates at mid-block north of Broadway. Some intersections in the vicinity lack marked crosswalks and *Americans with Disabilities Act compliant* curb ramps. Three curb cuts are provided for the site's existing surface parking lot, two along Broadway and Davis Street, and a third vehicular access point near the Davis Street/Vallejo Street intersection.

Vehicle Miles Traveled in San Francisco and the Bay Area

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

Given these travel behavior factors, San Francisco has a lower VMT ratio than the nine-county San Francisco Bay Area region. In addition, some areas of the city have lower VMT ratios than others. For transportation analysis and other planning purposes, San Francisco and the entire Bay Area are disaggregated into smaller geographic study areas, referred to as transportation analysis zones (TAZs). These zones vary in size from single city blocks in the downtown core, to multiple blocks in outer neighborhoods, to even larger zones in historically industrial areas like the Hunters Point Shipyard.

The San Francisco County Transportation Authority uses the San Francisco Chained Activity Model Process to estimate VMT by private automobiles and taxis for different land use types. This process calibrates travel behavior based on observed behavior from the California Household Travel Survey 2010–2012, U.S. Census data regarding automobile ownership rates and county-to-county worker flows, and observed vehicle counts and transit boardings.

⁵⁶ Class III facility (bicycle route): Shared use with pedestrian or motor vehicle traffic.

⁵⁷ Class II facility (bicycle lane): Striped lane for one-way bike travel on a street or highway.

The San Francisco Chained Activity Model Process uses a *synthetic population*, which is a set of individual actors representing the Bay Area's actual population who make simulated travel decisions for a complete day. The San Francisco County Transportation Authority uses a tour-based analysis for office and residential uses, which examines the entire chain of trips over the course of a day, not just trips to and from a project site. For retail uses, the transportation authority uses a trip-based analysis, which counts VMT from individual trips to and from the project site (as opposed to the entire chain of trips). A trip-based approach, as opposed to a tour-based approach, is necessary for retail projects because a tour is likely to consist of trips stopping in multiple locations, and summarizing tour VMT for each location would overestimate VMT.^{58,59}

Methodology for the Vehicle Miles Traveled Impact Analysis

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

Residential and Retail (and Similar) Projects

For residential projects, a project would generate substantial additional VMT if it exceeds the regional household VMT per capita minus 15 percent.⁶⁰ As documented in the *OPR Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA* (referred to here as the "proposed transportation impact guidelines"), a 15 percent threshold below existing development is "both reasonably ambitious and generally achievable."⁶¹ For retail projects, the San Francisco Planning Department uses a VMT efficiency metric approach for retail projects: a project would generate substantial additional VMT if it exceeds the regional VMT per retail employee minus 15 percent. This approach is consistent with CEQA section 21099 and the thresholds of significance for other land uses recommended in OPR's proposed transportation impact guidelines. For mixed-use projects, each proposed land use is evaluated independently relative to the significance criteria described previously.

OPR's proposed transportation impact guidelines provide screening criteria to identify types, characteristics, or locations of land use projects that would not exceed these VMT thresholds of significance. OPR recommends that if a project or land use proposed as part of a project meets any of the following screening criteria, VMT impacts are presumed to be less than significant for that land use and a detailed VMT analysis is not required.

The screening criteria applicable to the proposed project and their application in San Francisco are described below.

- ***Map-Based Screening for Residential and Retail Projects.*** OPR recommends mapping areas that exhibit VMT less than the applicable threshold for that land use. Accordingly, the San Francisco County Transportation Authority has developed maps depicting existing VMT levels in San Francisco for residential and retail land uses based on the San Francisco Chained Activity Model Process's 2012 base-year model run. The San Francisco Planning

⁵⁸ Stated another way: A tour-based assessment of VMT at a retail site would consider the VMT for all trips in the tour, for any tour with a stop at the retail site. If a single tour stops at two retail locations, such as a coffee shop on the way to work and a restaurant on the way back home, both retail locations would be allotted the total tour VMT. With a trip-based approach, all retail-related VMT can be apportioned to retail sites without double-counting.

⁵⁹ San Francisco Planning Department, *Executive Summary: Resolution Modifying Transportation Impact Analysis*, Appendix F, Attachment A, March 3, 2016.

⁶⁰ OPR's proposed transportation impact guidelines state that a project would cause substantial additional VMT if it exceeds both the existing City household VMT per capita minus 15 percent and existing regional household VMT per capita minus 15 percent. In San Francisco, the average VMT per capita is lower (8.4) than the regional average (17.2). Therefore, the City average is irrelevant for the purposes of the analysis.

⁶¹ Governor's Office of Planning and Research, *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*, January 20, 2016, p. III:20, http://www.opr.ca.gov/docs/Revised_VMT_CEQA_Guidelines_Proposal_January_20_2016.pdf.

Department uses these maps and associated data to determine whether a proposed project is located in an area of the city that is below the VMT threshold.

- *Proximity to Transit Stations.* OPR states that residential and retail projects, and projects that are a mix of these uses, that are proposed within one-half mile of an existing *major transit stop* (as defined by CEQA section 21064.3) or an existing stop along a *high-quality transit corridor* (as defined by CEQA section 21155) would not result in a substantial increase in VMT. However, this presumption would not apply if the project would have a floor area ratio of less than 0.75; would include more parking for use by residents, customers, or employees of the project than required or allowed, without a conditional use; or is inconsistent with the applicable sustainable communities strategy.⁶²

OPR's proposed transportation impact guidelines do not provide screening criteria or thresholds of significance for other types of land uses, other than for those projects that meet the definition of a *small project* (the proposed project does not meet the small project criterion). Therefore, the San Francisco Planning Department provides additional screening criteria and thresholds of significance to determine whether land uses similar in function to residential and retail would generate a substantial increase in VMT. These screening criteria and thresholds of significance are consistent with CEQA section 21099 and the screening criteria recommended in OPR's proposed transportation impact guidelines.

The planning department applies the Map-Based Screening and Proximity to Transit Station screening criteria to the following land use types:

- *Tourist Hotels, Student Housing, Single-Room Occupancy Hotels, and Group Housing.* Trips associated with these land uses typically function similarly to residential. Therefore, these land uses are treated as residential for screening and analysis.
- *Childcare; K-12 Schools; Medical; Postsecondary Institutional (nonstudent housing); and Production, Distribution, and Repair.* Trips associated with these land uses typically function similarly to office. Although some visitor/customer trips may be associated with some of these uses (e.g., childcare and school drop-off, patient visits), those trips are often side trips within larger tours. For example, the visitor/customer trips are influenced by the origin (e.g., home) and/or ultimate destination (e.g., work) of those tours. Therefore, these land uses are treated as office for screening and analysis.
- *Grocery Stores, Local-Serving Entertainment Venues, Religious Institutions, Parks, and Athletic Clubs.* Trips associated with these land uses typically function similar to retail. Therefore, these types of land uses are treated as retail for screening and analysis.
- *Theater (Entertainment).* For this use, the regional average daily VMT per capita threshold is assumed to be 17.1, representing an average of the VMT regional daily thresholds for retail, office, and household uses that are used by San Francisco. To determine the VMT associated with the proposed project's theater component in TAZ 830, the regional average daily visitor-related VMT was calculated using assumptions about origin-destination trip distribution percentages from the 1111 California Street Masonic Center Renovation Project Draft Environmental Impact Report. The Masonic Center represents a reasonably comparable project in terms of entertainment draw for both patrons and employees.

⁶²

A project is considered to be inconsistent with the sustainable communities strategy if development is located outside of areas contemplated for development in the sustainable communities strategy.

2040 Cumulative Conditions

San Francisco 2040 cumulative conditions were projected using a modeling run of the San Francisco Chained Activity Model Process, using the same methodology as outlined for existing conditions, but including residential and job growth estimates and reasonably foreseeable transportation investments through 2040.

Average Daily Vehicle Miles Traveled Summary

Table 4 summarizes average daily VMT per capita or employee for residential, retail, and entertainment uses for the region (Bay Area) and the TAZ containing the project site (TAZ 830). Under existing conditions, regional average daily VMT is 17.2 (per capita) for residential uses, 14.9 (per employee) for retail uses, and 17.1 (per employee) for theater uses. Under 2040 cumulative conditions, regional average daily VMT is 16.1 for residential uses, 14.6 for retail uses, and 15.4 for theater uses.

TABLE 4 DAILY VEHICLE MILES TRAVELED

Proxy Land Use	Project Land Use	Existing Conditions			2040 Cumulative Conditions		
		Bay Area Regional Average	Bay Area Regional Average minus 15%	TAZ 830	Bay Area Regional Average	Bay Area Regional Average minus 15%	TAZ 830
Residential (households)	Hotel	17.2	14.6	2.6	16.1	13.7	2.2
Retail (employment)	Retail/restaurant	14.9	12.6	11.2	14.6	12.4	10.1
Theater	Theater	17.1	14.5	5.6	15.4	13.1	5.6

Sources: San Francisco Transportation Information Map, accessed online July 2016; CHS Consulting Group, *Seawall Lot 323 and 324 (Teatro Zinzanni) Project Final Transportation Impact Study*, May 2018, Table 13 and Table 16.

Notes:

For the hotel use, the household (residential) land use was used as a proxy land use, per the San Francisco Planning Department's Resolution Modifying Transportation Impact Analysis (March 3, 2016 staff report).

For the theater use, the Transportation Analysis Zone (TAZ) 830 vehicle miles traveled (VMT) were calculated using origin/destination trip generation data from the 1111 California Street Masonic Center Renovation Project Draft Environmental Impact Report (Case No. 2011.0471E, April 17, 2013). The hotel use regional average was calculated as a composite of the residential, office, and retail VMT per capita for TAZ 830.

Employment (retail) is the land use associated with the proposed project's retail and restaurant components.

Travel Demand

Travel demand for the proposed project was estimated according to the methodology and guidance provided in the San Francisco Planning Department's *Transportation Impact Analysis Guidelines for Environmental Review* (the *SF Guidelines*).⁶³ Additional information from other sources, including *Trip Generation* (published by the Institute of Transportation Engineers) and the American Community Survey (published by the U.S. Census Bureau), was incorporated into the travel demand analysis, in accordance with guidance from the *SF Guidelines* and standard practice for estimating travel demand for land use developments in San Francisco.

Trip generation for the proposed project was calculated based on the proposed number of hotel rooms, the proposed number of theater seats, and the gross square footage of proposed restaurant and retail uses. Existing vehicle trips entering and exiting the project site were not collected for purposes of the study. As stated, the project site is currently actively occupied by a 250-space off-street parking lot.

Table 5 presents the person-trip generation for the proposed project. Person-trips for the retail, eating/drinking, and hotel components were estimated based on the trip generation rates obtained from the *SF Guidelines*. The daily person-trip

⁶³ San Francisco Planning Department, *Transportation Impact Analysis Guidelines for Environmental Review*, 2002.

generation rate for the “quality sit-down” eating/drinking use is 200 trips per 1,000 gsf, with 13.5 percent of daily trips assumed to occur during the p.m. peak hour. The daily person-trip generation rate for the retail use is 150 trips per 1,000 gsf, with 9 percent of daily trips assumed to occur during the p.m. peak hour. The daily person-trip generation rate for the hotel use is typically seven person-trips per room, with 10 percent of the daily trips assumed to occur during the p.m. peak hour.

The person-trips for the theater component were estimated on information provided by the project sponsor in terms of the theater’s proposed seating capacity (285 seats), the hours of operation (Monday through Sunday from 8 a.m. to midnight, with shows scheduled Wednesday through Saturday from 6:30 p.m. to midnight, Sunday midday from 11:30 a.m. to 3 p.m., and Sunday evening from 5:30 p.m. to 10 p.m.), and the anticipated number of daily employees specifically working at the theater (62 employees). Each show at the theater was assumed to operate at full seating capacity, with all 62 theater staff working onsite during the show. One daily inbound trip and one daily outbound person-trip were assumed for each theater patron and employee for a weekday show, resulting in 694 daily person-trips (124 trips for the 62 employees, and 570 trips for the 285 show attendees). The resulting daily person-trip generation rate for the theater component was 2.44 trips per seat, assuming 694 daily person-trips for the 285 seats. The project sponsor anticipates 40 percent of theater employees (24 employees) and 50 percent of show patrons (143 attendees) to arrive during the p.m. peak hour (assumed as 5–6 p.m.), with none departing that same hour given the 7 p.m. show start time. The remainder of inbound theater employees (60 percent) and show patrons (50 percent) are assumed to arrive between 6 and 7 p.m., also with no outbound trips given the 7 p.m. start time. The resulting 167 person-trips during the p.m. peak hour represent 24 percent of the 694 daily person-trips. All outbound trips for the daily show would occur after the show concludes at midnight. As a result, the proposed project is expected to generate approximately 3,213 total daily person-trips and 447 p.m. peak-hour person-trips (264 inbound and 183 outbound).

TABLE 5 PROJECT PERSON-TRIPS

Land Use ¹	Size	Daily Trip Rate ²	Daily Person-Trips	P.M. Peak-Hour Percentage	P.M. Peak-Hour Person-Trips		
					Total	In	Out
Restaurant	4,420 gsf	200/1,000 gsf	884	13.5%	119	57	62
Theater	285 seats	2.44/seat ³	694	24.0%	167	167	0
Retail	1,950 gsf	150/1,000 gsf	292	9.0%	26	13	13
Hotel	192 rooms	7/room	1,344	10.0%	135	27	108
Total Person-Trips			3,214	–	447	264	183

Source: *Transportation Impact Analysis Guidelines for Environmental Review*, October 2002, Appendix C – Tables C-1 and C-2; CHS Consulting Group, *Seawall Lot 323 and 324 (Teatro ZinZanni) Project Final Transportation Impact Study*, May 2018. Table 8. Notes:

gsf = gross square feet

¹ Restaurant use corresponds with the *Transportation Impact Analysis Guidelines for Environmental Review (SF Guidelines)* “eating/drinking—quality sit-down” use. The theater use is based on sponsor staffing and visitor estimates. The retail use corresponds with the *SF Guidelines* “general retail” use. The hotel use corresponds with the *SF Guidelines* “hotel/motel” use.

² Daily and p.m. peak-hour person-trips in the table may differ slightly from calculations in Appendix F because of rounding.

³ Daily person-trip rate for the theater use was determined by dividing the number of daily person-trips (694) for the theater use by the number of seats (285) in the entertainment venue.

The person-trips generated by the proposed project were assigned to different transportation modes to determine the number of auto, transit, walk, and other trips to and from the project site. The modal split rate for the retail, theater, hotel, and restaurant uses was based on the information contained in the *SF Guidelines* for Superdistrict 1. Table 6 summarizes the mode split results. The proposed project would generate approximately 1,160 auto person-trips, 885 transit trips, 955 walk trips, and 213 other trips (e.g., bike) on a typical day. During the p.m. peak hour, the proposed project would generate 163 auto person-trips, 140 transit trips, 116 walk trips, and 26 other trips.

TABLE 6 PROJECT PERSON-TRIPS GENERATION BY MODE

Land Use	Daily					P.M. Peak Hour				
	Auto	Transit	Walk	Other	Total	Auto	Transit	Walk	Other	Total
Retail	105	50	102	36	292	9	4	9	3	26
Theater	252	211	191	40	694	60	49	47	10	167
Hotel	486	388	389	81	1,344	51	56	23	5	135
Restaurant	317	237	274	56	884	43	31	37	8	119
Total	1,160	885	955	213	3,213	163	140	116	26	447

Sources: *Transportation Impact Analysis Guidelines for Environmental Review*, October 2002, Appendix E – Tables E3, E10, and E11; CHS Consulting Group, *Seawall Lot 323 and 324 (Teatro Zinzanni) Project Final Transportation Impact Study*, May 2018. Table 9.

Note: Daily and p.m. peak-hour person-trips in table may differ slightly from calculations in Appendix F because of rounding.

Table 7 presents the estimated daily and p.m. peak-hour vehicle trips for the proposed project. Vehicle trips were estimated by dividing the number of auto person-trips by the vehicle occupancy rates. The vehicle occupancy rates for the retail, theater, hotel, and eating/drinking components were based on the information contained in the *SF Guidelines* for Superdistrict 1. As shown in Table 7, the proposed project would generate approximately 634 daily vehicle trips and 157 p.m. peak-hour vehicle trips (93 inbound to the site and 64 outbound from the site).

TABLE 7 PROJECT VEHICLE TRIP GENERATION

Land Use	Size	Vehicle Occupancy Rate ¹	Daily Vehicle Trips	P.M. Peak Hour		
				Total	In	Out
Retail	1,950 gsf	2.07	51	4	2	2
Theater	285 seats	2.15	117	60	60	0
Hotel	192 rooms	2.21	220	50	10	40
Restaurant	4,420 gsf	1.29	246	43	21	22
Total			634	157	93	64

Sources: *Transportation Impact Analysis Guidelines for Environmental Review*, October 2002, Appendix E – Tables E3, E10, and E11; CHS Consulting Group, *Seawall Lot 323 and 324 (Teatro Zinzanni) Project Final Transportation Impact Study*, May 2018. Table 10.

Notes:

gsf = gross square feet

¹ This rate is calculated by dividing daily person-trips for each land use by the daily vehicle trips for each land use.

² Daily and p.m. peak-hour vehicle trips presented in table may slightly differ from calculations in Appendix F because of rounding.

Trip Distribution

Table 8 shows the daily and p.m. peak-hour trip distribution patterns for the proposed project. Trip distribution patterns for theater, retail, hotel, and restaurant uses were based on the 2002 *SF Guidelines* for the Superdistrict 1. These trip distribution patterns were used as the basis for assigning the proposed project trips to the local streets in the study area.

TABLE 8 PROJECT TRIP DISTRIBUTION PATTERNS

Area	Retail		Theater		Hotel		Restaurant	
	Work	Non-work	Work	Non-work	Work	Non-work	Work	Non-work
Superdistrict 1	12.8%	19.0%	12.8%	22.0%	12.8%	22.0%	12.8%	22.0%
Superdistrict 2	14.4%	7.0%	14.4%	14.0%	14.4%	14.0%	14.4%	14.0%
Superdistrict 3	17.0%	8.0%	17.0%	13.0%	17.0%	13.0%	17.0%	13.0%
Superdistrict 4	11.2%	3.0%	11.2%	7.0%	11.2%	7.0%	11.2%	7.0%
East Bay	22.4%	11.0%	22.4%	11.0%	22.4%	11.0%	22.4%	11.0%
North Bay	6.1%	5.0%	6.1%	5.0%	6.1%	5.0%	6.1%	5.0%
South Bay	14.3%	8.0%	14.3%	7.0%	14.3%	7.0%	14.3%	7.0%
Other	1.8%	39.0%	1.8%	21.0%	1.8%	21.0%	1.8%	21.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: *Transportation Impact Analysis Guidelines for Environmental Review*, October 2002, Appendix E – Tables E3, E10, and E11; CHS Consulting Group, *Seawall Lot 323 and 324 (Teatro Zinzanni) Project Final Transportation Impact Study*, May 2018, Table 11.

Impact TR-1: The proposed project would not cause substantial additional VMT or substantially induce automobile travel. (*Less than Significant*)

Vehicle Miles Traveled Analysis – Tourist Hotel

As discussed above in Table 4, Daily Vehicle Miles Traveled, existing average daily VMT per capita for residential uses in TAZ 830 is 2.6, which is 85 percent below the existing regional average daily VMT per capita of 17.2. Because the project site is located in an area where existing VMT is less than the regional average minus 15 percent, the proposed project's hotel use would not result in substantial additional VMT. This impact would be ***less than significant***. In addition, the project site meets the Proximity to Transit Stations screening criterion, which indicates that the proposed project's hotel uses would not cause substantial additional VMT.⁶⁴

Vehicle Miles Traveled Analysis – Retail

As discussed above in Table 4, Daily Vehicle Miles Traveled, existing average daily VMT per employee for retail uses in TAZ 830 is 11.2, which is 25 percent below the existing regional average daily VMT per capita of 14.9. Because the project site is located in an area where existing VMT is less than the regional average minus 15 percent, the proposed project's retail/restaurant uses would not result in substantial additional VMT. This impact would be ***less than significant***. In addition, the project site meets the Proximity to Transit Stations screening criterion, which indicates that the proposed project's retail/restaurant uses would not cause substantial additional VMT.⁶⁵

Vehicle Miles Traveled Analysis – Theater

As discussed above in Table 4, Daily Vehicle Miles Traveled, existing average daily VMT per employee for theater uses in TAZ 830 is 5.6, which is 67 percent below the existing regional average daily VMT per capita of 17.1. Because the project site is located in an area where existing VMT is less than the regional average minus 15 percent, the proposed project's theater use would not result in substantial additional VMT. This impact would be ***less than significant***. In addition, the

⁶⁴ San Francisco Planning Department, *Eligibility Checklist: CEQA Section 21099 – Modernization of Transportation Analysis*; *Seawall Lot 323 & 324*, May 4, 2018.

⁶⁵ *Ibid.*

project site meets the Proximity to Transit Stations screening criterion, which indicates that the proposed project's theater use would not cause substantial additional VMT.⁶⁶

Induced Automobile Travel Analysis

The proposed project is not a transportation project, but would include features that would alter the transportation network, including provision of bicycle parking, establishment of commercial and passenger loading zones, removal of on-street parking and demolition and construction of curb cuts. These features fit within the general types of projects that would not substantially induce automobile travel. As such, an analysis of induced automobile travel is not required. In addition, the proposed project would also remove a surface lot with approximately 250 parking spaces for automobiles and would not include any new or replacement spaces. Although up to 50 parking spaces would be leased at an offsite facility, primarily the Impark lot at 847 Front Street, to accommodate valet parking for the hotel guests and patrons, the project would still result in a net reduction in off-street parking. Parking for the entertainment venue would also occur at off-site, self-parking locations in close proximity to the project site including 847 Front Street, Pier 19, 1000 Front Street and One Maritime Plaza. Entertainment Venue patrons would also be allowed to access the hotel's valet services for a separately charged fee. Therefore, this impact would be *less than significant*.

Although the project would not result in substantial additional VMT or substantially induce automobile travel, transportation demand management measures could be implemented to further decrease less-than-significant impacts with regard to automobile traffic in the vicinity of the project site. The project sponsor should implement a TDM program that seeks to minimize the number of single-occupancy vehicle trips generated by the proposed project. The TDM program targets a reduction in single-occupancy vehicle trips by encouraging use of other modes of transportation, including walking, bicycling, transit, car-share, carpooling, and/or other modes, and would be in effect for the lifetime of the project.

The project sponsor has agreed to implement the following TDM measures:

- **PKG-4: Parking Supply Options (Option E).** Provide less than or equal to 60 percent and greater than 50 percent of the neighborhood nonresidential parking rate.
- **ACTIVE-1: Improve Walking Conditions (Option A).** Complete streetscape improvements consistent with the Better Streets Plan and any local streetscape plan so that the public right-of-way is safe, accessible, convenient, and attractive to persons walking by providing bulb-outs along the Davis Street and Broadway sidewalks to shorten crosswalk distances and reduce vehicle speed.
- **ACTIVE-2: Bicycle Parking (Option A).** Provide class I and class II bicycle parking spaces for hotel, retail, and theater uses as required by the planning code.
- **ACTIVE-5A: Bicycle Repair Station.** Provide onsite tools and space for bicycle repair.
- **DELIVERY-1: Delivery Supportive Amenities.** Facilitate delivery services by providing a staffed reception area for receipt of deliveries, and offering one of the following: clothes lockers for delivery services, or temporary storage for package deliveries, laundry deliveries, and other deliveries.

⁶⁶ San Francisco Planning Department, *Eligibility Checklist: CEQA Section 21099 – Modernization of Transportation Analysis; Seawall Lot 323 & 324*, May 4, 2018.

- **INFO-2: Real-Time Transportation Information Displays.** Provide real-time transportation information on displays in prominent locations on the project site to highlight sustainable transportation options and support informed trip-making.

Impact TR-2: The proposed project would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, nor would it conflict with an applicable congestion management program. (*Less than Significant*)

Vehicle Circulation

The proposed project would generate new vehicle-trips on the surrounding roadway network, but would also remove existing automobile-oriented uses (surface parking) that already generate substantial amounts of vehicle traffic and replace them with hotel, theater, retail and restaurant uses with no accessory off-street parking. Parking would be by valet only. The surface parking lot at the project site accommodates approximately 250 parking spaces, most of which are used by commuters traveling to and from workplaces in the area during the weekday a.m. and p.m. peak periods (7–9 a.m. and 4–6 p.m.). Some of the existing parking spaces are used by the Port for employee parking and used by the adjacent KGO-TV and KRON 4 news station for parking for its news vans. Three curb cuts along the project frontage provide ingress to and egress from to the property: one curb cut on Broadway (28 feet long) and two curb cuts on Davis Street (28 feet and 20 feet long, respectively).

The Embarcadero is a major north-south roadway that connects San Francisco’s Fisherman’s Wharf area with the South Beach neighborhood. The Embarcadero roadway operates two-way, with generally two travel lanes in each direction. The Embarcadero receives a large volume of traffic, but the proposed project does not propose any sidewalk or loading changes on the project site segment and would not change circulation. Broadway is a major east-west street that connects The Embarcadero area with the Pacific Heights neighborhood. Broadway operates two-way, with generally two travel lanes in each direction between The Embarcadero and Fillmore Street. Hotel patron vehicles would access the passenger-loading bay from the westbound direction on Broadway. The passenger loading bay would be 80 feet long and would be able to store up to four vehicles entering and exiting the loading bay at any given time. Because there are two traffic lanes in the westbound direction along Broadway, there is adequate capacity to allow for vehicles to bypass hotel-related vehicles turning into the loading bay. As a result, minor vehicle queues would not occur along Broadway and would not exacerbate traffic circulation conditions during peak commute periods.

The other street segments fronting the project site, including Vallejo Street, Davis Street, and Green Street, function primarily as low-volume collector roadways providing local access to adjacent or nearby properties. Given these considerations, the proposed project’s impact on local vehicle circulation would be *less than significant*.

Passenger Loading Impacts

Passenger loading for the hotel would take place in an 80-foot passenger loading zone proposed along Broadway, capable of accommodating up to four vehicles at any given time as mentioned above. The hotel use would generate 50 vehicle trips (nine inbound vehicle-trips and 36 outbound vehicle-trips) at the passenger loading zone during the p.m. peak hour, resulting in a peak passenger loading demand of up to two vehicles per minute. The proposed zone would have capacity to accommodate the anticipated peak passenger loading demand. The valet operation would primarily drop-off and retrieve vehicles to and from the Impark lot at 847 Front Street, approximately one block west of the project site, and would employ the necessary staffing level needed to maintain vehicular access to the zone at all times. No designated passenger loading activities would occur along The Embarcadero or Davis Street. In addition, there would be a secondary pedestrian entrance for the theater along The Embarcadero.

Although the project's impacts on traffic and bicycle circulation as a result of passenger loading activities would be *less than significant*, the following improvement measures could be implemented to further decrease these less-than-significant impacts.

Improvement Measure I-TR-2a: Monitoring and Abatement of Queues

As an improvement measure to reduce the potential for queuing of vehicles accessing the project site, it will be the responsibility of the project sponsor or subsequent property owner to ensure that recurring vehicle queues do not occur adjacent to the site (i.e., along Davis Street and Broadway loading areas or other surrounding streets).

It will be the responsibility of the owner/operator of the building to ensure that recurring vehicle queues do not occur on the public ROW. A vehicle queue is defined as one or more vehicles (destined to the loading zones on Davis Street or Broadway) blocking any portion of any public street, alley, or sidewalk for a consecutive period of 3 minutes or longer on a daily or weekly basis.

If a recurring queue occurs, the owner/operator of the building will employ abatement methods as needed to abate the queue. Appropriate abatement methods will vary depending on the characteristics and causes of the recurring queue, as well as the characteristics of the loading zone, the street(s) adjacent to the zone, and the associated land uses (if applicable).

Suggested abatement methods include but are not limited to the following: redesign of loading zones to improve vehicle circulation; use of additional offsite parking facilities or shared parking with nearby uses; and travel demand management strategies such as additional bicycle parking, customer shuttles, and delivery services.

If the planning director, or his or her designee, suspects that a recurring queue is present, the San Francisco Planning Department will notify the property owner in writing. Upon request, the owner/operator will hire a qualified transportation consultant to evaluate the conditions at the site for no less than 7 days. The consultant will prepare a monitoring report to be submitted to the planning department for review. If the planning department determines that a recurring queue does exist, the owner/operator will have 90 days from the date of the written determination to abate the queue.

Improvement Measure I-TR-2b: Active Valet Parking Management

Queues for arriving hotel patrons at the curbside valet passenger loading zone on Broadway will be managed by professionally trained valet staff to ensure that valet vehicle queues are confined within the valet loading zone and there is no vehicle spillover into the travel lanes on westbound Broadway back to The Embarcadero. The proposed project will provide adequate valet staffing to ensure the most efficient processing of arriving and departing hotel patron vehicles, which will be parked in an offsite garage facility under a covenant agreement with the project sponsor. Guests returning to the project curbside for their vehicles will be retrieved by valet staff and returned to the proposed 80-foot-long passenger loading zone along the project frontage on Broadway. Although no spillover queues are anticipated, if any recurring queues occur, the owner/operator of the project building will employ abatement methods as needed to abate such queues. Appropriate abatement methods will vary depending on the characteristics and causes of recurring queues, as well as the characteristics of the loading zone, the street(s) adjacent to the zone, and the associated land uses (if applicable), and are detailed in **Improvement Measure I-TR-2a, Monitoring and Abatement of Queues**.

Freight Loading Impacts

The proposed project would provide two off-street freight loading spaces in a loading dock along Davis Street in compliance with the requirements of San Francisco Planning Code section 152. The project would also establish a commercial loading zone (approximately 142½ feet long) along the Davis Street frontage of the project site. The proposed project would generate a demand for less than one freight/delivery loading space during both the average hour and peak hour of loading activities. Therefore, the proposed project's freight loading accommodations would satisfy the estimated loading demand.

Based on a turning template analysis that included fire truck turning movements⁶⁷, SU-30 trucks would be able to negotiate movements into and out of the dock along Davis Street. Freight loading activities, including deliveries and trash collection, would not result in adverse effects on traffic, transit, bicycle, or pedestrian circulation.

Although the project's impacts related to freight loading activities would be ***less than significant***, the following improvement measures could be implemented to further decrease these less-than-significant impacts.

Improvement Measure I-TR-2c: Active Loading Dock Driveway Controls

As an improvement measure to reduce and/or eliminate any potential conflicts between freight delivery vehicles entering and exiting the project driveway to and from the off-street freight loading spaces and conflicts between moving vehicles and other users of the roadway (e.g., cyclists, pedestrians in sidewalk areas), it will be the responsibility of the project sponsor and/or property owner to install active management controls at the off-street freight loading space driveway and within the off-street freight loading area.

It is recommended that sensors be installed at the gated loading dock ramp and at the driveway entrance/exit lane at Davis Street to detect any outbound vehicles and pedestrians within the driveway and ramp area. Upon exiting the loading dock, vehicles traveling along the garage ramp and approaching the gate would then trigger a sensor that would activate an electronic sign, signal, or audible devices at the driveway entrance to notify any vehicles, pedestrians, or bicyclists of the exiting vehicle.

Additional traffic calming and safety treatments will be installed within the loading dock area. Specific signage will be installed to notify drivers exiting the parking driveway to slow, stop, and yield to any pedestrians walking along the sidewalk on Davis Street (e.g., "Caution: Pedestrian Crossings," "Watch for Pedestrians," "Exit Slowly," "STOP"). Diagonal mirrors will also be installed so that motorists exiting the loading dock area and pedestrians on the sidewalk can see each other. The project sponsor will also install rumble strips or similar devices to maintain slow speeds for vehicles exiting the loading dock.

Improvement Measure I-TR-2d: Coordination of Large Deliveries and Garbage Pickup

Trucks exceeding 40 feet in length will be scheduled and coordinated through hotel management and restaurant tenants, and directed to use the proposed curbside 142½-foot-long commercial loading zone along the Davis Street frontage of the project site.

To reduce the potential for double-parking (or other illegal parking activity) by delivery or trash vehicles in the travel lanes along the Davis Street or Broadway frontages of the project site (in the event that the existing or proposed on-street loading spaces are occupied), appropriate delivery and trash pickup procedures will be enforced

⁶⁷ KCA Engineers, Fire Truck Turning Movements Drawings, September 2017.

to avoid any blockages of Davis Street or Broadway over an extended period of time and reduce any potential conflicts between deliveries and pedestrians walking along Davis Street or Broadway.

The building manager will notify the hotel, restaurant, entertainment venue, and retail tenants of garbage pickup times and locations so that they are efficiently coordinated and result in minimum conflict with other loading activity and traffic circulation in the immediate vicinity of the project.

Construction Impacts

Project construction would take up to approximately 22 months. Construction hours would typically be from 7 a.m. to 5 p.m. on weekdays, with occasional work on Saturdays. Normal off-peak activities including equipment deliveries and other unique tasks would occasionally take place outside of standard work hours.

Construction activities would be staged primarily at the northern portion of the project site and would also require some temporary sidewalk closures, primarily along the project frontage along Vallejo Street and Davis Street, but also occasionally along Broadway (and possibly The Embarcadero) for various durations during the entire construction period. The proposed project would develop and implement a construction management plan to anticipate and minimize transportation-related impacts of various construction activities associated with the proposed project. The plan would ensure that overall circulation around the project site is maintained to the extent possible, with particular focus on ensuring transit, pedestrian, and bicycle access and connectivity.

The plan would supplement and expand, rather than modifying or superseding, any manual, regulations, or provisions set forth by SFMTA, SFPW, or other City departments and agencies, and the California Department of Transportation. The construction contractor would be required to meet SFMTA's *Regulations for Working in San Francisco Streets* (the "Blue Book"), and would be required to meet with SFMTA and other responsible City agencies to determine feasible traffic management measures to reduce traffic congestion during construction of this project and other nearby projects, as appropriate.

Construction worker parking would be at an offsite location yet to be determined. Some construction equipment and related machinery may also need to occupy sidewalk space and parking lanes on a temporary and periodic basis, depending on the construction phase. Temporary, periodic sidewalk closures may be necessary, requiring pedestrian diversion into parking lanes. It is anticipated that no travel lanes would need to be closed during construction.

In general, lane and sidewalk closures are subject to review and approval by the Transportation Advisory Staff Committee, an interdepartmental committee that includes the San Francisco Police Department, SFPW, the San Francisco Planning Department, SFFD, and SFMTA. The construction management plan reviewed by the committee would address issues of circulation (for traffic, bicycles, and pedestrians), safety, parking, and other project construction in the area. The project would be required to consult with SFMTA before construction to review potential effects on nearby transit operations.

Throughout the construction period, construction-related trucks would flow into and out of the site. Construction truck traffic would temporarily lessen the capacities of local streets because of the slower movement and larger turning radii of trucks, which may affect traffic operations. It is anticipated that a majority of the construction-related truck traffic would use Interstate 80, U.S. Highway 101, and Interstate 280 to access the project site. In general, trucks and construction workers would use The Embarcadero, Howard Street, Battery Street, First Street, Fremont Street, Front Street, Clay Street, Davis Street, Broadway, and Drumm Street to travel between the project site and these freeways.

On average, 125 construction workers per day are anticipated to be present at the project site, depending on the construction phase. Construction workers who drive to the site would be able to park in nearby public parking facilities in the vicinity of the project site or in available on-street parking spaces. To reduce worker-vehicle demand, construction workers would be

encouraged to carpool or take public transportation. It is anticipated that adding worker-related vehicle- or transit-trips would not substantially affect transportation conditions, because any impacts on local intersections or the transit network would be similar to, or less than, those associated with the proposed project.

Overall, construction-related impacts would be temporary and limited in duration, and would be *less than significant*. However, the following improvement measures could be implemented to further decrease these less-than-significant impacts.

Improvement Measure I-TR-2e: Construction Truck Deliveries during Off-Peak Periods

Any construction traffic occurring between 7 a.m. and 9 a.m. or between 3:30 p.m. and 6 p.m. on weekdays would coincide with weekday commute-period traffic and could temporarily disrupt traffic and transit flow, although it would not be considered a significant impact. Limiting truck movements to the hours between 9 a.m. and 3:30 p.m. on weekdays (or other times, if approved by SFMTA) would further minimize disruptions to circulation along adjacent streets during the weekday a.m. and p.m. peak periods.

As required, the project sponsor and construction contractor(s) will meet with SFMTA, SFFD, and the San Francisco Planning Department to determine feasible measures to reduce traffic congestion, including potential transit disruption and pedestrian circulation impacts, during construction of the project. To minimize cumulative traffic impacts due to project construction, the project sponsor will coordinate with construction contractors for any concurrent nearby projects that are planned for construction or which later become known, including the proposed mixed-use development at 88 Broadway and 753 Davis Street.

Improvement Measure I-TR-2f: Construction Management Plan

In addition to items required in the construction management plan, the project sponsor will include the following:

- *Carpool and Transit, and Other Access for Construction Workers.* As an improvement measure to minimize parking demand and vehicle-trips associated with construction workers, the construction contractor(s) will include methods to encourage carpooling, transit and bicycle use, or on-foot travel to and from the project site by construction workers in the construction management plan contracts.
- *Project Construction Updates.* As an improvement measure to minimize construction impacts on nearby businesses, the project sponsor will provide regularly updated information (typically in the form of a website, news articles, and onsite postings) regarding project construction and schedule, as well as contact information for specific construction inquiries or concerns.

Impact TR-3: The proposed project would not result in substantially increased hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses. (*Less than Significant*)

The proposed project would not include any design features that would substantially increase traffic hazards (e.g., a new sharp curve or dangerous intersections), and would not include any incompatible uses, as discussed in Section E.1, Land Use and Planning. Therefore, the proposed project would not cause adverse impacts associated with traffic hazards. In addition, the proposed project does not provide onsite parking facilities and would eliminate all existing curb cuts.

As discussed above under Impact TR-2, peak passenger loading demand of up to two vehicles per minute could occur with the proposed project. The proposed loading zone would have capacity to accommodate the anticipated peak passenger loading demand, and the valet operation would implement valet service rate measures as needed to maintain vehicular access to the zone at all times. This would ensure that the loading zones during peak traffic hours would not interfere with bicycle, pedestrian, or vehicular movements around the site.

Although the proposed project is not expected to result in substantial loading and impacts would be less than significant, **Improvement Measure I-TR-2a, Monitoring and Abatement of Queues**, and **Improvement Measure I-TR-2b, Active Valet Parking Management**, has been included to further decrease the severity of these less-than-significant impacts with regard to queuing and parking management. Based on the above, the proposed project would have a *less-than-significant* impact related to transportation hazards due to a design feature or resulting from incompatible uses.

Impact TR-4: The proposed project would not result in inadequate emergency access. (*Less than Significant*)

Although the proposed project would generate additional traffic in the surrounding area, such an increase in vehicles would not impede or hinder the movement of emergency vehicles, including routes from nearby fire stations. The street network—including Davis Street, Vallejo Street, and Broadway, all located immediately adjacent to the site—currently provides emergency-vehicle access to the project site, and would continue to do so with the project.

The existing SFFD easement along the northwesterly edge of the project site would be abandoned and replaced with an enhanced easement from Vallejo Street through the public park to The Embarcadero, a modification that has been reviewed by SFFD and the Port’s fire marshal⁶⁸. Emergency vehicle access would be provided along a proposed vehicle and pedestrian pathway through the project’s public plaza area on the northern side of the project site. The emergency access lane would be accessed from new 15-foot-long curb cuts at the east end (along The Embarcadero) and west end (at the northeastern corner of the Davis Street/Vallejo Street intersection), and general vehicle access would be restricted through use of removable/retractable bollards. A turning template analysis that included fire truck turning movements⁶⁹ shows that a fire truck would be able to turn into the emergency access lane from Vallejo Street.

Therefore, the proposed project’s impacts on emergency-vehicle access would be *less than significant*.

Impact TR-5: The proposed project would not conflict with adopted policies, plans or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such features. (*Less than Significant*)

Transit Impacts

Transit Screenlines

The proposed project would generate about 885 new daily transit person trips to and from the project site, with approximately 140 new transit person trips during the p.m. peak hour. Based on the distribution of transit trips associated with the proposed project during the p.m. peak hour, about 50 outbound transit trips would cross local and regional screenlines, with the remaining project-generated transit trips not crossing any screenlines. These 50 transit trips include 25 trips across local (Muni) screenlines and 25 trips across regional screenlines.

The project’s impacts on transit capacity can be quantified across “screenlines” surrounding downtown San Francisco, representing groupings of local and regional transit services that serve a common origin or destination. For the weekday p.m. peak hour, the screenlines are typically oriented in the outbound direction leaving downtown, as this is the dominant direction of travel during the afternoon and evening. Screenlines may be further subdivided into corridors (for local transit) or operators/modes (for regional transit). Local transit (Muni) has a capacity utilization standard of 85 percent, while regional transit operators have a capacity utilization standard of 100 percent.

⁶⁸ SFFD Captain Ken Cofflin, email correspondence with the sponsor, the Port, and KCA Engineers, August 31, 2016.

⁶⁹ KCA Engineers, Fire Truck Turning Movements Drawings, September 2017.

For local transit, the proposed project would increase ridership on the downtown screenlines and corridors, but would not directly cause any of them to exceed the 85 percent capacity utilization threshold. However, several corridors currently exceed the 85 percent capacity utilization threshold under existing conditions and would continue to do so with the project. A contribution analysis indicates that the proposed project would not represent a considerable contribution to ridership on any of these corridors:

- On the Fulton/Hayes corridor (5 Fulton and 21 Hayes) in the Northwest screenline, the project would contribute 0.1 percent to the total ridership during the weekday p.m. peak hour.
- On the Third Street corridor (T Third Street) in the Southeast screenline, the project would contribute 0.01 percent to the total ridership during the weekday p.m. peak hour.

Therefore, the proposed project would result in *less-than-significant* impacts on capacity utilization on the downtown screenlines for local transit.

For regional transit, the proposed project would increase ridership on the downtown screenlines and corridors, but would not directly cause any of them to exceed the 100 percent capacity utilization threshold. However, BART service to the East Bay currently exceeds the 100 percent capacity utilization threshold under existing conditions and would continue to do so with the project. A contribution analysis indicates that the proposed project would not represent a considerable contribution to ridership on BART service to the East Bay:

- On BART service in the East Bay screenline, the project would contribute less than 0.01 percent to the total ridership during the weekday p.m. peak hour.

Therefore, the proposed project would result in *less-than-significant* impacts on capacity utilization on the downtown screenlines for regional transit.

Transit Operations

The proposed project would not modify or relocate any existing Muni bus or streetcar stops, and would not introduce any design features that would preclude or alter access to nearby transit facilities. The proposed project would generate automobile traffic along nearby local roadways that currently accommodate bus transit routes (i.e., Battery Street), but would not result in substantial conflicts between project-generated vehicles destined to the project site and transit vehicles, as these local streets include adequate travel lanes (and roadway capacity) to allow transit vehicles to bypass any vehicles slowing to pull into the curbside loading zones adjacent to the project site. Therefore, the project's impacts on transit operations would be *less than significant*.

Bicycle Impacts

The proposed project would provide class I and class II bicycle parking in compliance with the requirements of planning code sections 155.1 and 155.2, including 20 class I spaces in a secure bicycle room within the ground-floor level of the hotel along the Davis Street frontage and 43 class II spaces within sidewalks adjacent to the project site.

The proposed project would generate approximately 26 person-trips on "other" modes during the weekday p.m. peak hour, of which a substantial portion are anticipated to be bicycle trips. The project site is within convenient bicycling distance of nearby mixed-use neighborhoods (including North Beach, the Financial District, South of Market, and South Beach), and is located adjacent to major bikeways along The Embarcadero (Route 5 and the San Francisco Bay Trail) and Broadway (Route 10).

The proposed project would not increase automobile or bicycle traffic to a level that adversely affects existing bicycle conditions in the area. Furthermore, the project would not include design features or generate activities (such as freight

loading) that would create potentially hazardous conditions for bicyclists or otherwise substantially interfere with bicycle accessibility to the site and adjoining areas. Therefore, the proposed project's impact on bicycle facilities and circulation would be *less than significant*.

Although the project's impacts on bicycle conditions would be less than significant, several improvement measures could be implemented to further decrease these less-than-significant impacts. **Improvement Measure I-TR-2b, Active Valet Parking Management**, discussed in more detail in the preceding "Passenger Loading Impacts" section, would address potential project effects as a result of activities at the proposed passenger and commercial loading zones. **Improvement Measure I-TR-2c, Active Loading Dock Driveway Controls** and **Improvement Measure I-TR-2d, Coordination of Large Deliveries and Trash Pickup**, discussed in more detail in the preceding "Freight Loading Impacts" section, would address potential project effects as a result of freight loading activities.

Pedestrian Impacts

The proposed project would generate approximately 256 pedestrian trips during the weekday p.m. peak hour, including approximately 140 transit trips and 116 walk-only trips. The proposed project would include multiple pedestrian entrances along Broadway and The Embarcadero to accommodate employees, hotel guests, patrons, and other visitors, and the new pedestrian activity generated by the project would be spread across several adjacent sidewalks and crosswalks. The proposed project's primary entrance for the hotel would be provided on the northern side of Broadway adjacent to the curbside loading zone, where the main lobby area and elevators are located to allow hotel patrons to access the hotel rooms. An additional pedestrian entrance would be provided from the western side of The Embarcadero, and would serve as the primary entrance for the entertainment venue and an alternative to the Broadway entrance for all other project uses.

The project includes Better Streets Plan streetscape improvements in compliance with Planning Code section 138.1, including two new 8½-foot-wide bulb-outs along Broadway (at intersection corners with The Embarcadero and Davis Street), two new 6-foot-wide bulb-outs along Davis Street (at intersection corners with Vallejo Street and Broadway), two new marked crosswalks at the Davis Street/Vallejo Street intersection, and sidewalk landscaping. The project would also remove (i.e., fill in) the two existing curb cuts, and install continuous new sidewalk along the eastern side of Davis Street north of Broadway, and construct one new curb cut to serve a ground-floor loading dock. Overall, these improvements would enhance walkability and the pedestrian realm.

The proposed project would not increase automobile or pedestrian traffic to a level that adversely affects existing pedestrian conditions in the area. Furthermore, the project would not include design features or generate activities (such as freight loading) that would create potentially hazardous conditions for pedestrians or otherwise substantially interfere with pedestrian accessibility to the site and adjoining areas. Therefore, the proposed project's impact on pedestrian facilities and circulation would be *less than significant*.

Although the project's impacts on pedestrian conditions would be less than significant, several improvement measures could be implemented to further decrease these less-than-significant impacts. **Improvement Measure I-TR-2a, Monitoring and Abatement of Queues**, and **Improvement Measure I-TR-2b, Active Valet Parking Management**, discussed in more detail in the preceding "Passenger Loading Impacts" section, would address potential project effects as a result of activities at the proposed passenger and commercial loading zones. **Improvement Measure I-TR-2c, Active Loading Dock Driveway Controls**, and **Improvement Measure I-TR-2d, Coordination of Large Deliveries and Trash Pickup**, discussed in more detail in the preceding "Freight Loading Impacts" section, would address potential project effects as a result of freight loading activities.

Impact C-TR-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would not substantially contribute to cumulative transportation and circulation impacts related to VMT, transit, bicycles, pedestrians, loading, emergency access, or construction. (*Less than Significant*)

VMT, by its very nature, is largely a cumulative impact. The VMT associated with past, present, and future projects contribute to physical secondary environmental impacts. It is likely that no single project by itself would be sufficient in size to prevent the region or state from meeting its VMT reduction goals. Instead, a project's individual VMT contributes to cumulative VMT impacts. The project-level thresholds for VMT and induced automobile travel are based on levels at which new projects are not anticipated to conflict with state and regional long-term GHG emission reduction targets and statewide VMT per capita reduction targets set in 2020. Therefore, because the proposed project would not exceed the project-level thresholds for VMT and induced automobile travel (Impact TR-1), the proposed project would not be considered to result in a cumulatively considerable contribution to VMT impacts.

Furthermore, as shown in Table 4, Daily Vehicle Miles Traveled, projected 2040 average daily VMT for land uses in TAZ 830 is 2.2 (per capita) for residential uses, 10.1 (per employee) for retail uses, and 5.6 (per employee) for theater uses. This is below the corresponding regional averages of 16.1 for residential uses (86 percent lower), 14.6 for retail uses (31 percent lower), and 15.4 for theater uses (43 percent lower).

Because the project site is located in an area where VMT is less than the projected 2040 regional average minus 15 percent, the proposed project's hotel, retail/restaurant, and entertainment uses would not result in substantial additional VMT. Therefore, the proposed project would not contribute considerably to any substantial cumulative increase in VMT. This impact would be *less than significant*.

Transit Impacts

The analysis of transit capacity utilization under cumulative (year 2040) conditions considers future ridership growth (including new ridership from future land use development) and foreseeable changes in local and regional transit service in the future (such as Muni Forward improvements). Although some local transit screenlines and corridors and regional transit screenlines and operators would operate above their established capacity utilization threshold (85 percent for local transit, 100 percent for regional transit) by 2040, the proposed project would contribute less than 1 percent of the total ridership on these services.

The project would generate automobile traffic on the surrounding street network, but would not make a considerable contribution to the increase in traffic levels between now and year 2040 such that substantial conflicts to transit operations could occur. Therefore, the project's contribution to cumulative transit impacts would be *less than significant*.

Bicycle and Pedestrian Impacts

Bicycle and pedestrian activity may increase between now and year 2040 with the addition and enhancement of pedestrian and bicycle facilities, future land use development, and other transportation changes such as the Muni Forward improvements and The Embarcadero Enhancement Project. However, the proposed project would not create potentially hazardous conditions for bicyclists or pedestrians or otherwise interfere with pedestrian or bicycle accessibility to the project site and adjoining areas. The project would not substantially affect nearby bicycle routes or contribute to substantial overcrowding on public sidewalks under cumulative conditions, and would not conflict with any proposed streetscape plans in the vicinity of the project under cumulative conditions. Therefore, the proposed project, in combination with past, present, and reasonably foreseeable developments in San Francisco, would result in *less-than-significant* cumulative bicycle and pedestrian impacts.

Passenger and Freight Loading Impacts

The proposed project would not contribute to any modification and/or elimination of existing or proposed passenger and freight loading spaces, or to any substantial passenger and freight loading demand in excess of the available capacity of corresponding facilities, such that adverse effects on traffic, transit, bicycle, or pedestrian circulation could occur under cumulative conditions. The 88 Broadway and 753 Davis Street^{70, 71} project has potential to have a cumulative impact on traffic and loading because of the proximity to the proposed project site. The 88 Broadway and 753 Davis Street project would add two 35-foot long passenger loading spaces (one located along the project frontage on the west side of Davis Street, and one located along the south side of Vallejo Street) in addition to a new 35-foot long on-street commercial loading space along the project frontage on Front Street. While both projects would include passenger loading zones along Davis Street, given existing and projected vehicle traffic, and the expected increase in traffic activity generated by the two sites, as well as the physical separation between the various passenger and commercial loading zones, potential conflicts between the two sites or with existing plus planned traffic circulation would not constitute a substantial traffic safety hazard. There would be enough space for vehicle traffic and passenger loading zones for the two projects to coexist (along the west side of Davis Street and south side of Vallejo Street) or the proposed commercial loading areas along the east side of Davis Street. Additional caution may be needed for larger trucks using the loading areas which may require more time and space to move through Davis Street, however, this would be a short term, temporary impact. The proposed project would not contribute to any potential elimination and/or modification to existing or future loading spaces, nor contribute to such adverse conditions in combination with other planned projects, including 88 Broadway and 753 Davis Street. Therefore, the proposed project, in combination with past, present, and reasonably foreseeable developments in San Francisco, would result in *less-than-significant* cumulative impacts related to passenger and freight loading.

Emergency-Vehicle Access Impacts

There are no existing or planned facilities such as hospitals or fire stations in the immediate vicinity of the project site that would generate unusual amounts of emergency-vehicle activity under cumulative conditions. The project would generate automobile traffic on the surrounding street network, but would not make a considerable contribution to the increase in traffic levels between now and year 2040 such that substantial conflicts with emergency-vehicle access could occur. Although the proposed project and other cumulative projects may involve streetscape changes, emergency vehicles would continue to have access to the project site and surrounding properties, and along the surrounding street network, as under existing conditions. Therefore, the proposed project, in combination with past, present, and reasonably foreseeable developments in San Francisco, would result in *less-than-significant* cumulative impacts on emergency-vehicle access.

Construction Impacts

Localized transportation impacts could occur under cumulative conditions as a result of construction activities for future, foreseeable projects that take place concurrently with construction activities for the proposed project. The 88 Broadway and 753 Davis Street project is anticipated to begin in 2019 and is likely to have some overlapping construction with the proposed project. The following improvement measures **I-TR-2e: Construction Truck Deliveries during Off-Peak Periods** and **I-TR-2f: Construction Management Plan** will help reduce potential cumulative impacts. In addition, the project sponsor has included measures under **I-TR-2f** to minimize parking demand and vehicle-trips associated with construction workers and the construction contractor(s) will include methods to encourage carpooling, transit and bicycle use, or on-foot travel to and from the project site by construction workers in the construction management plan contracts. Also, the sponsor will provide project construction updates which will minimize construction impacts related to the construction of the 88 Broadway and

⁷⁰ CHS Consulting Group, Seawall Lot 323 and 324 (Teatro Zinzanni) Project Final Transportation Impact Study, May 2018.

⁷¹ San Francisco Planning Department, *88 Broadway and 735 Davis Street Project Final Mitigated Negative Declaration*, Case No. 2016-007850ENV, October 25, 2017, amended February 27, 2018. http://sfmea.sfplanning.org/2016-007850ENV_FMND.pdf. Project was approved but construction has not begun.

753 Davis Street project as well as nearby businesses. The construction manager for each individual project would work with the various City departments to develop a detailed and coordinated plan that would address construction vehicle routing, traffic control, and circulation for all modes adjacent to the construction area for the duration of any overlap in construction activity. Overall, cumulative construction-related impacts would be temporary and limited in duration, and would be *less than significant*.

E.5. NOISE

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
5. NOISE- -Would the project result in:					
a) 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) 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) 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) 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 checked="" 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"/>

The project site is not located within an airport land use plan area, within 2 miles of a public airport or public use airport, or in the vicinity of a private airstrip. The nearest public airport is approximately 10 miles from the project site. As such, questions 5e and 5f are not applicable and will not be discussed further.

AECOM prepared a technical report to evaluate the potential noise and vibration effects associated with the proposed project. The analysis methods and results of the noise report have been incorporated into this initial study and are included in the project case file.⁷² Noise impacts as they relate to traffic and construction activities also relied on data provided in the transportation impact study prepared by CHS Consulting Group⁷³ and the preliminary geotechnical reports prepared by ENGEO Incorporated,^{74, 75} respectively.⁷⁶

Noise and Vibration Overview

Noise

Noise is generally defined as unwanted or objectionable sound. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and in the extreme, hearing impairment. Noise effects can be caused by pitch or loudness. Pitch is the height of a tone; higher-pitched sounds are louder to humans than lower-pitched sounds. Loudness is the intensity or amplitude of sound. The sound-pressure level is the most common descriptor used to characterize the loudness of a sound level. Because sound pressure can vary enormously within the range of human hearing, the logarithmic decibel scale (dB) is used to quantify sound levels.

⁷² AECOM, *ZinZanni Hotel & Theater Noise and Vibration Technical Report*, July 20, 2018.

⁷³ CHS Consulting Group, 2018. *Seawall Lot 323 and 324 (Teatro Zinzanni) Project Final Transportation Impact Study*, May 2018.

⁷⁴ ENGEO Incorporated, 2016. *Geotechnical Exploration for the Hotel and Teatro ZinZanni Project*, September 13, 2016.

⁷⁵ ENGEO Incorporated, 2018. *Summary of Geotechnical and Environmental Studies and Summary of Project Construction Methodologies*, April 6, 2018.

⁷⁶ The updated traffic analysis in the May 2018 Project Final Transportation Impact Study would not change the results in this section which are based on a greater number of daily vehicle trips.

The human ear is not equally sensitive to all frequencies within the entire sound spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive. This specific “filtering” of sound is called “A-weighting.” Because humans are less sensitive to low-frequency sound than to high-frequency sound, A-weighted decibel (dBA) levels deemphasize low-frequency sound energy to better represent how humans hear.

Different descriptors for sound-level measurements are used to characterize the time-varying nature of sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that noise effects are dependent on the total acoustical energy content and the time and duration of occurrence.

In a typical environment, the day-night sound level (DNL or L_{dn}) and community noise equivalent level noise descriptors rarely differ by more than 1 decibel (dB). As a matter of practice, L_{dn} and community noise equivalent level values are considered to be equivalent and are treated as such in this section. For a stationary point-source of sound, sound typically attenuates at a rate of 6 dB per doubling of distance (i.e., 6 dB at 50 feet, 12 dB at 100 feet, 18 dB at 200 feet). For a line source of sound such as free-flowing traffic on a freeway, sound attenuates at a rate of approximately 3 dB per doubling of distance (i.e., 3 dB at 50 feet, 6 dB at 100 feet, 9 dB at 200 feet). In typical noisy environments, changes in noise of 1–2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, an increase of 5 dB is generally perceived as a distinctly noticeable increase, and an increase of 10 dB is generally perceived as a doubling of loudness.

Atmospheric conditions including wind, temperature gradients, and humidity can change how sound propagates (travel) over distance and can affect the level of sound received at a given location. The degree to which the ground surface absorbs acoustical energy also affects sound propagation. Sound that travels over an acoustically absorptive surface such as grass attenuates at a greater rate than sound that travel over a hard surface such as pavement. The increased attenuation due to ground sound absorption is typically in the range of 1–2 dB per doubling of distance. Barriers such as building and topography that block the line of sight between a source and receiver also increase the attenuation of sound over distance.

Vibration

Construction activity can result in varying degrees of ground vibration depending on the equipment and method used. Equipment such as air compressors, light trucks, and hydraulic loaders generate little or no ground vibration. Dynamic construction equipment such as pile drivers can create vibrations that radiate along the surface and downward into the earth. These surface waves can be felt as groundborne vibration. However, no pile driving is proposed under this project. Vibration can result in effects ranging from annoying people to damaging structures. Variations in geology and distance result in different vibration levels comprising different frequencies and displacements. In all cases, vibration amplitudes decrease with increasing distance from the vibration source.

Noise and Vibration Regulations

The City has adopted regulations and policies that are based in part on federal and state regulations and guidelines, and are intended to control, minimize, or mitigate environmental noise. Standards and guidelines applicable to the proposed project are discussed below.

San Francisco Noise Control Ordinance

The San Francisco Noise Control Ordinance regulates both construction noise and stationary-source noise within the city limits, such as transportation, construction, mechanical equipment, entertainment, and human or animal behavior. Found in article 29, “Regulation of Noise,” of the San Francisco Police Code, the ordinance addresses noise from construction

equipment, nighttime construction work, and noise from stationary mechanical equipment and waste processing activities.⁷⁷ Section 2907 of the Noise Control Ordinance limits noise levels from construction equipment to maximum 80 dBA at 100 feet (or other equivalent noise level at another distance) between 7 a.m. and 8 p.m. The provisions of section 2907 do not apply to impact tools and equipment that have intake and exhaust mufflers as recommended by the manufacturers and are approved by the director of SFPW or the director of DBI as accomplishing maximum noise attenuation. The noise exemption also does not apply to pavement breakers and jackhammers that are equipped with acoustically attenuating shields or shrouds as recommended by the manufacturers and are approved by the director of SFPW or the director of DBI as accomplishing maximum noise attenuation. In addition, construction work at night (between 8 p.m. and 7 a.m.) may not exceed the ambient level by 5 dBA at the nearest property lane, unless a permit is granted by the director of SFPW or the director of DBI, pursuant to section 2908 of the Noise Control Ordinance.

Section 2904 of the Noise Control Ordinance provides a maximum noise limit of 75 dBA as measured at 50 feet from a waste disposal truck. The noise limit applies only to the truck's mechanical or hydraulic system, and not to the noise associated with crushing, impacting, dropping, or moving garbage on the truck.

Section 2909 of the Noise Control Ordinance regulates noise from onsite stationary noise sources within specific land uses. Section 2909 states that the noise levels from equipment operating on the project property shall not exceed the ambient noise levels at the property line by 5 dBA if the noise source is on residential property, 8 dBA if the noise source is on a commercial/industrial property, and 10 dBA if the noise source is on a public property. In addition, section 2909(d) states that no fixed (permanent) noise source, as defined by the ordinance, may cause the noise level inside any sleeping or living room in a residential dwelling unit to exceed 45 dB between 10 p.m. and 7 a.m. or 55 dB between 7 a.m. and 10 p.m. when windows are open, except where building ventilation is achieved through mechanical systems that allow windows to remain closed.

San Francisco General Plan Noise Compatibility Standards



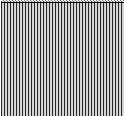
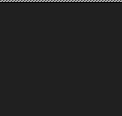
The Environmental Protection Element of the San Francisco General Plan contains land use compatibility guidelines for community noise. These guidelines, which are similar to state guidelines promulgated by the Governor's Office of Planning and Research, indicate maximum acceptable noise levels for various newly developed land uses. The uses for the proposed project correspond to the "transient lodging," "playgrounds, parks," and "auditoriums, concert halls, amphitheaters, music shells" land use categories in the land use compatibility guidelines, re-created below in Table 9.⁷⁸ For a transient lodging use, the maximum "satisfactory, with no special insulation requirements" exterior noise levels are approximately 60 dBA L_{dn} . Where exterior noise levels exceed 60 dBA L_{dn} for new transient lodging, it is generally recommended that a detailed analysis of noise reduction requirements be conducted before final review and approval of the project, and that the needed noise insulation features be included in the project design. For a playground/parks land use, the maximum "satisfactory, with no special insulation requirements" exterior noise levels are approximately 70 dBA L_{dn} .⁷⁹ Where exterior noise levels exceed 70 dBA L_{dn} for a playground/parks land use, it is generally recommended that a detailed analysis of noise reduction requirements be conducted before final review and approval of the project, and that the needed noise insulation features be included in the project design. For any new auditorium, concert hall, amphitheater, or music shell land use, it is recommended that a detailed analysis of noise reduction requirements be conducted before final review and approval of the project, and that the needed noise insulation features be included in the project design.

⁷⁷ San Francisco Police Code, article 29, Regulation of Noise, *Guidelines for Noise Control Ordinance Monitoring and Enforcement*, <https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/GuidelinesNoiseEnforcement.pdf>, accessed April 2018.

⁷⁸ *San Francisco General Plan*, Environmental Protection Element, Land Use Compatibility Chart for Community Noise, http://generalplan.sfplanning.org/16_Environmental_Protection.htm#ENV_TRA_9_I, accessed January 9, 2018.

⁷⁹ Ibid.

TABLE 9 GENERAL PLAN LAND USE COMPATIBILITY CHART FOR COMMUNITY NOISE

Land Use Category	Sound Levels and Land Use Consequences L _{dn} Value in Decibels						
	55	60	65	70	75	80	85
Residential: All Dwellings, Group Quarters							
Transient Lodging: Hotels and Motels							
Schools, Classrooms, Libraries, Churches, Hospitals, Nursing Homes, etc.							
Auditoriums, Concert Halls, Amphitheaters, Music Shells							
Sports Arena, Outdoor Spectator Sports							
Playgrounds, Parks							
Golf Courses, Riding Stables, Water-based Recreation Areas, Cemeteries							
Office Buildings: Personal Businesses and Professional Services							
Commercial: Retail, Movie Theaters, Restaurants							
Commercial: Wholesale and Some Retail, Industrial/Manufacturing, Transportation, Communications and Utilities							
Manufacturing Communications: Noise-Sensitive							
Notes: L _{dn} = day-night sound level							
	Satisfactory, with no special noise insulation requirements				New construction is discouraged. If new construction does not proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.		
	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design.				New construction or development should generally not be undertaken.		

Source: San Francisco General Plan Noise and Land Use Compatibility Guidelines.

Other Relevant Noise and Vibration Standards

- The 2016 California Building Code, CCR title 24, part 2, section 1207.4, mandates that an interior noise level attributed to exterior sources shall not exceed 45 dBA L_{dn} for any habitable room in a multifamily building.
- The CALGreen Code, which establishes noise criteria for commercial spaces, requires that interior noise levels be no greater than 50 dBA equivalent noise level (L_{eq}) during the noisiest hour of operation.

Existing Conditions

Noise-Sensitive Land Uses

Noise-sensitive land uses generally consist of those uses where exposure to noise would result in adverse effects, as well as uses for which quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise. Other noise-sensitive land uses include hospitals, convalescent facilities, parks, hotels, churches, libraries, and other uses where low noise levels are essential.

The project site is in a highly urbanized area of the city and is bounded by commercial, residential, and office uses. The nearest noise-sensitive land use to the project site is the Gateway Apartments, a five-story apartment building located across Broadway, about 80 feet south of the project site, as illustrated in Figure 18. The northern edge of the project site abuts a three-story office building occupied by the KGO-TV news station. Although the news station is a commercial use and typically would not be characterized as a noise-sensitive land use, the TV studio is considered a vibration-sensitive land use per Federal Transit Administration (FTA) guidance.⁸⁰ Two office buildings and a surface parking lot are located across Davis Street, about 50 feet west of the project site.⁸¹ Various Port commercial tenants, including the Waterfront Restaurant, are located across The Embarcadero from the project site to the east. These office and commercial uses are not considered noise-sensitive land uses.

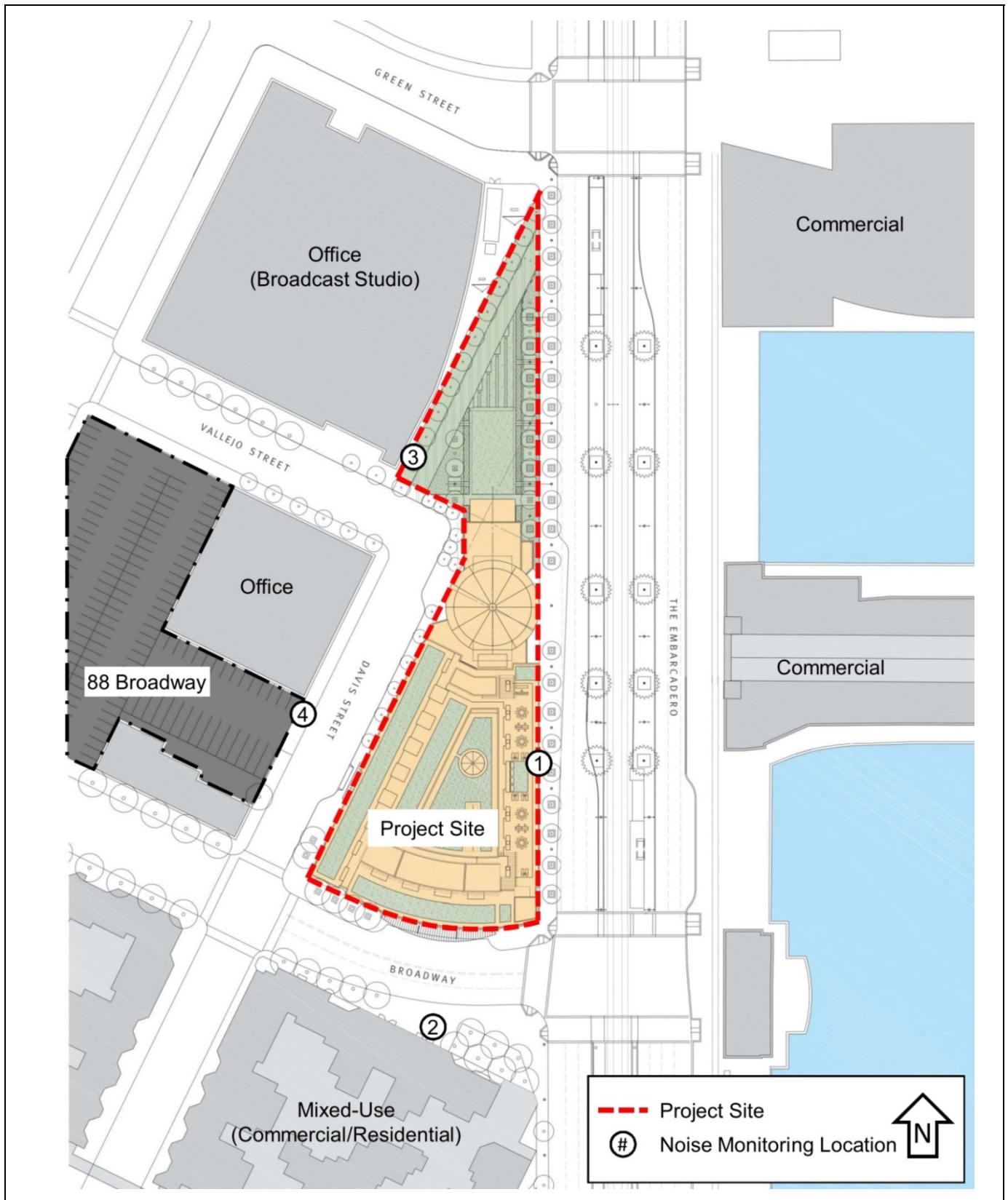
Existing Ambient Noise Levels

Ambient noise in the project vicinity is typical of noise levels found in San Francisco and includes noise caused by traffic, transit, and trucks, commercial activities, surface parking lot activities, and other miscellaneous noise sources associated with typical urban activities. This understanding is consistent with section 5.2 of the City's Guidelines for Noise Control Ordinance Monitoring and Enforcement, which state: "The ambient sound level measured may include regularly reoccurring noises such as traffic noise, construction, wind chimes, or other sounds from nearby sources not in the control of the owner or operator."⁸² Existing ambient noise measurements were conducted at four selected locations surrounding the project site (Figure 18). The ambient noise measurements were taken using a Larson Davis Model 870 integrated sound level meter, which is a Type 1 standard instrument as defined in American National Standards Institute S1.4. All instruments were calibrated and operated according to the manufacturer's specifications. The noise sensor device (microphone) was placed approximately 5 feet above the local grade. The ambient noise measurements were conducted on Sunday, July 10, 2016, and Monday, July 11, 2016. Two 15-minute measurements were conducted at each receptor location, representing daytime and nighttime hours.

⁸⁰ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, 2006, Table 8-2.

⁸¹ San Francisco Planning Department, *88 Broadway and 735 Davis Street Project Final Mitigated Negative Declaration*, Case No. 2016-007850ENV, October 25, 2017, amended February 27, 2018. http://sfmea.sfplanning.org/2016-007850ENV_FMND.pdf.

⁸² San Francisco Police Code, article 29, Regulation of Noise, *Guidelines for Noise Control Ordinance Monitoring and Enforcement*, <https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/GuidelinesNoiseEnforcement.pdf>, accessed April 2018.



Source: AECOM, 2017

FIGURE 18 NOISE MONITORING LOCATIONS

Table 11 shows the measured ambient noise levels. As shown, the existing daytime ambient noise levels ranged from 57.7 to 66.7 dBA L_{eq} for the weekend measurements (Sunday, July 10, 2016) and 56.9 to 68.1 dBA L_{eq} for the weekday measurements (Monday, July 11, 2016). The nighttime ambient noise levels ranged from 57.4 to 65.5 dBA L_{eq} for the weekend measurements and 53.4 to 64.6 dBA L_{eq} for the weekday measurements. Based on field observation and measured sound data, the current ambient noise environment in the vicinity of the project site (i.e., plan area) is influenced primarily by vehicular traffic on local roadways and public transit.

TABLE 11 EXISTING AMBIENT NOISE LEVELS

Location ¹	Description	Measurement Date/Time	Measured Noise Levels, A-Weighted Sound Level (dBA)		
			L_{eq}	L_{min}	L_{max}
1	Project site eastern boundary, along The Embarcadero	Sunday 7/10/2016			
		- 12:52 p.m.–1:07 p.m.	66.7	52.8	85.0
		- 10:41 p.m.–10:56 p.m.	65.5	51.9	87.3
		Monday 7/11/2016			
		- 10:24 a.m.–10:39 a.m.	68.1	51.8	86.6
2	Gateway Apartments (mixed-use), on the southern side of Broadway, south of the project site	- 1 a.m.–1:15 a.m.	61.9	46.6	75.8
		Sunday 7/10/2016			
		- 1:11 p.m.–1:26 p.m.	64.6	51.9	78.4
		- 11:02 p.m.–11:17 p.m.	65.5	51.6	80.4
		Monday 7/11/2016			
3	The office building (KGO-TV) at the northwestern corner of Vallejo Street and Davis Street, west of the project site	- 10:42 a.m.–10:57 a.m.	67.0	51.4	83.0
		- 12:41 a.m.–12:56 a.m.	64.6	46.0	81.8
		Sunday 7/10/2016			
		- 1:48 p.m.–2:03 p.m.	59.5	49.6	75.2
		- 10:04 p.m.–10:19 p.m.	57.4	49.6	66.6
4	The office building/parking lot on western side of Davis Street, west of the project site (proposed housing project, 88 Broadway)	Monday 7/11/2016			
		- 11:01 a.m.–11:16 a.m.	56.9	49.5	71.7
		- 12:08 a.m.–12:23 a.m.	53.4	45.8	67.4
		Sunday 7/10/2016			
		- 1:30 p.m.–1:45 p.m.	57.7	50.0	73.7
		- 10:23 p.m.–10:38 p.m.	58.6	49.3	69.9
		Monday 7/11/2016			
		- 11:18 a.m.–11:33 a.m.	59.3	50.2	76.1
		- 12:25 a.m.–12:40 a.m.	58.5	45.0	74.0

Notes:

L_{eq} = equivalent noise level; L_{max} = maximum noise level; L_{min} = minimum noise level

¹ Monitoring locations correspond to those depicted in Figure 18.

Source: Data collected by AECOM on July 10 and 11, 2016

In addition to the ambient noise measurements, existing traffic noise on local roadways in the areas surrounding the project site was estimated to quantify the 24-hour L_{dn} noise levels, based on the existing traffic volumes as provided in the project's transportation impact analysis.⁸³ Traffic noise levels along local roadways were estimated based on daily volumes and their distribution, using the roadway noise calculation procedures provided in the California Department of Transportation *Technical Noise Supplement to the Traffic Noise Analysis Protocol*,⁸⁴ which is based on the roadway noise prediction methodologies in the Federal Highway Administration Highway Traffic Noise Prediction Model (RD-77-108).

⁸³ CHS Consulting Group, *Seawall Lot 323 and 324 (Teatro Zinzanni) Project Final Transportation Impact Study*, May 2018.

⁸⁴ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, Division of Environmental Analysis, Environmental Engineering, Hazardous Waste, Air, Noise, Paleontology Office, September 2013.

Table 12 provides the estimated traffic noise levels for the analyzed local roadway segments based on existing traffic volumes. As shown, the existing L_{dn} attributable to surface-street traffic volumes only ranged from 57.0 dBA L_{dn} along Green Street west of Front Street to 68.2 dBA L_{dn} along The Embarcadero south of Broadway. Estimates of traffic-related noise level estimates generally agree with the measured levels of outdoor ambient sound appearing in Table 11; for instance, the estimated existing traffic noise L_{dn} value for The Embarcadero segment between Green Street and Broadway appearing in Table 12, 66.9 dBA, is 3 dBA less than an L_{dn} value of 70 dBA calculated from the Monday morning and nighttime measured L_{eq} values presented in Table 11. Such close correlation between the measured and modeled levels suggests that roadway traffic noise is a dominant contributor to the current outdoor ambient sound environment, and that the traffic noise methodology should reasonably predict changes to the existing outdoor sound environment caused by project-related changes to existing roadway traffic volumes.

TABLE 12 PREDICTED EXISTING ROADWAY TRAFFIC NOISE LEVELS

Roadway Segment	Estimated Traffic Noise Levels, ¹ dBA L_{dn}	Adjacent Land Uses	Existing Noise Exposure Compatibility Category ²
The Embarcadero			
North of Green Street	66.6	Commercial/Office, Park	2
From Green Street to Broadway	66.9	Commercial, Parking	1
South of Broadway	68.2	Mixed-Use Commercial/ Residential, Park	2
Davis Street			
From Vallejo Street to Broadway	57.7	Office, Parking	1
South of Broadway	62.5	Mixed-Use Commercial/ Residential, Park	2
Front Street			
North of Green Street	55.9	Commercial/Office	1
From Green Street to Vallejo Street	58.4	Office (TV studio)	1
From Vallejo Street to Broadway	59.6	Commercial	1
South of Broadway	61.3	Mixed-Use Commercial/ Residential, Park	2
Green Street			
West of Front Street	57.0	Commercial/Office	1
From Front Street to The Embarcadero	57.9	Office (TV studio)	1
Vallejo Street			
West of Front Street	59.4	Commercial/Office	1
From Front Street to Davis Street	57.3	Office (TV studio)	1
Broadway			
West of Front Street	65.2	Commercial/Office	2
From Front Street to Davis Street	64.7	Mixed-Use Commercial/ Residential, Parking	2
From Davis Street to The Embarcadero	63.5	Mixed-Use Commercial/ Residential, Parking	2

Notes:

dBA = A-weighted decibels; L_{dn} = day-night sound level

¹ Predicted traffic noise levels do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.

² The indicated noise exposure compatibility is based on the most stringent land use category, pursuant to the San Francisco General Plan, as follows:

1: Satisfactory, with no special insulation requirements.

2: 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.

3: 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.

4: New construction or development should generally not be undertaken.

Source: Data modeled by AECOM, 2017.

Impact NO-1: The proposed project would not result in a substantial permanent increase in ambient noise levels, expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and would not be substantially affected by existing noise levels. (Less than Significant)

Analysis under this criterion addresses potential noise-generated impacts on nearby sensitive noise receptors from operation of the proposed project. In *California Building Industry Association v. Bay Area Air Quality Management District (CBLA v. BAAQMD)*,⁸⁵ decided in 2015, the California Supreme Court held that CEQA does not generally require lead agencies to consider how existing environmental conditions might affect a project's occupant, except with certain types of specified projects or where the project would significantly exacerbate an existing environmental condition.

Accordingly, the significance criteria listed above related to a substantial permanent increase in ambient noise levels and to exposure of people to noise levels in excess of standards specified in the San Francisco General Plan or the San Francisco Noise Ordinance (article 29 of the Police Code) or applicable standards of other agencies are relevant only to the extent that the project would significantly exacerbate the existing noise and vibration environment. Thus, the analysis below evaluates whether the proposed project could exacerbate the existing or future noise environment. An impact is considered significant if implementing the proposed project would exacerbate existing or future noise and vibration levels above the thresholds described in the "Noise and Vibration Regulations" subsection above.

Section 2909 of the Police Code requires that mechanical equipment noise and outdoor use areas not exceed 8 dBA over ambient noise levels at the property plane of the commercial noise-emitting property. Although the City does not have quantitative criteria for project-generated traffic noise, the San Francisco Planning Department often applies the following criteria: in general, traffic noise increases of less than L_{dn} 3 dBA are barely perceptible to people, while an increase of 5 dBA L_{dn} is readily noticeable. Therefore, permanent increases in ambient noise levels of more than L_{dn} 5 dBA are considered to be a significant noise impact in any existing or resulting noise environment. However, in places where the existing or resulting noise environment is "conditionally acceptable," "conditionally unacceptable," or "unacceptable" based on the San Francisco Land Use Compatibility Chart for Community Noise shown in Table 9 above, for sensitive noise receptors any noise increase greater than L_{dn} 3 dBA is considered a significant noise impact.

Operational Noise

Operational noise generated by the proposed project would result primarily from onsite stationary sources (heating, ventilation, and air conditioning [HVAC] equipment, loading dock/trash compactor, and amplified sound system) and offsite mobile sources (roadway traffic). Project-related noise impacts associated with onsite stationary sources were determined based on the standards set forth by the City's Noise Control Ordinance.

Mechanical Equipment Noise

Police Code section 2909(a),⁸⁶ part of the San Francisco Noise Ordinance, establishes a noise limit for the proposed project's rooftop mechanical equipment (e.g., HVAC systems, emergency backup generators) at the project's property plane. These noise limits are based on the outdoor ambient noise level plus 8 dBA. For purposes of this analysis, the lower of the two L_{eq} values (Sunday and Monday for the daytime or nighttime period of the study) shown in Table 11 conservatively represent the ambient noise level. The proposed project's HVAC mechanical equipment would be located mostly on the building rooftop within mechanical penthouses and within the interior of the building on the second floor. The main mechanical system for the

⁸⁵ *California Building Industry Association v. Bay Area Air Quality Management District*, December 17, 2015, <http://www.courts.ca.gov/opinions/documents/S213478.PDF>.

⁸⁶ San Francisco Police Code, article 29, Regulation of Noise, *Guidelines for Noise Control Ordinance Monitoring and Enforcement*, <https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/GuidelinesNoiseEnforcement.pdf>, accessed April 2018.

theater would be a chilled water system along with primary and secondary chiller pumps that would be located in the mechanical room. For heating, hot water boilers would also be in the roof's mechanical room. In addition, an 800-kilowatt, diesel-powered emergency generator would be located in the mechanical penthouse.

Some mechanical equipment would be located outside of the mechanical room on the roof, where outside air is required to operate, such as heat pumps and an air scrubber/pollution unit for the main kitchen exhaust and a make-up air unit. Operation of the outdoor HVAC equipment may generate audible noise. Rooftop HVAC equipment and emergency generators for the proposed project are expected to be similar to the equipment used at the existing buildings surrounding the project site, and would likely generate noise at levels typical of standard HVAC systems and emergency generators suitable for the project's proposed services and operations. Standard noise reduction elements would be implemented (e.g., screening walls, parapet barriers) that meet the requirements established for fixed-source noise by Police Code section 2909(a), part of the San Francisco Noise Ordinance, and would acoustically occlude noise emissions from the project's HVAC equipment. The outdoor mechanical equipment outside the mechanical penthouse would be screened by a metal screen with green vegetation grown vertically to dampen the noise and provide a visual enhancement. All building mechanical equipment, including air intakes and exhaust openings, would be designed with appropriate noise control devices and sound abatement, such as the aforementioned screens and acoustically absorptive duct attenuators and equipment cabinet linings.

The intent of such a design would be to result in aggregate noise levels that do not exceed existing outdoor ambient levels by more than 8 dBA at the adjacent property plane. Based on the field-surveyed sound pressure levels presented in Table 11, the acoustical objective for the project's HVAC systems can be quantified as follows: 70 dBA L_{eq} for daytime and nighttime at the receiving property plane of the mixed-use development south of Broadway.

That is, the aggregate sound pressure level from the typical rooftop packaged air-conditioning unit(s) and accompanying HVAC equipment, with either noise control elements incorporated into their design or barriers placed on the rooftop to occlude their individual sound propagation paths, would need to be no greater than 70 dBA L_{eq} at the project's property plane where it adjoins the existing Broadway development. Such noise control features and sound abatement would keep the proposed project's HVAC noise levels compliant with the City's Noise Ordinance.

Operation of the project's proposed 800-kilowatt emergency generator, located inside the mechanical penthouse at roof level, would also need to comply with Police Code section 2909(a) during nonemergency testing conditions. In emergency situations, the generator would operate to offset local power outages and would thus be exempt from the City's Noise Control Ordinance (per section 2901[d]). For routine testing and maintenance, however, the emergency generator would be operated for short durations, approximately 30 minutes per month during a daytime hour. Noise control and sound abatement features for nonemergency operation of the emergency generator would be incorporated into the proposed project's design.

A typical 800 kW emergency generator would generate noise level of approximately 89 dBA at a distance of 23 feet, based on manufacturer noise data.⁸⁷ Based on distance sound attenuation, the mechanical penthouse, and insertion loss provided by the rooftop parapet, the noise level from the emergency generator would range from approximately 49.7 dBA at receptor/measurement location 3 from Table 11 to 63.8 dBA at receptor/measurement location 2 from Table 11. The estimated noise from the emergency generator at receptor 2 (63.8 dBA) when added to the existing ambient noise level (64.6 dBA) would equal to 67.2 dBA, which would result in maximum of 2.6 dBA increase over the daytime ambient noise level. In summary, mechanical systems (including the emergency generator) would feature a variety of noise reduction measures inherent to the proposed project design, and thus, would achieve the noise performance standards set by Police Code section 2909. Therefore, noise impacts from the project's mechanical equipment would be *less than significant*.

⁸⁷ Cummins Power Generator, Model DQFAB with standard weather protected enclosure.

Other Stationary Sources

The proposed project includes a loading dock located at the interior of the building, on the building's western side (facing Davis Street). A trash compactor would be located adjacent to the loading dock, inside an enclosed room. Operation of the loading dock and trash compactor would generate noise levels of approximately 71 dBA L_{eq} and 65 dBA L_{eq} , respectively, at a distance of 50 feet. As a result, the design and placement of the loading dock and trash compactor meet the City's Noise Control Ordinance noise limit of 75 dBA at a distance of 50 feet (section 2904). Accordingly, impacts would be *less than significant*.

Outdoor and Event Spaces

The proposed project includes various outdoor spaces, including one ground-level restaurant outdoor seating/dining area along The Embarcadero (at the southeastern corner), and others at The Embarcadero and Broadway and on the 3,970-square-foot rooftop deck. The rooftop deck would be accessible to hotel guests and patrons only. Noise associated with the restaurant's outdoor seating/dining area and the rooftop deck would typically include people talking and amplified sound (music). The amplified sound system at the outdoor seating/dining area would be used primarily for background music, and would be designed to be heard in the immediate vicinity of the outdoor speaker systems. The amplified sound systems were assumed to generate a maximum sound level of 70 dBA L_{eq} at 50 feet from the loudspeaker system at the restaurant's outdoor seating/dining area and 80 dBA L_{eq} at 50 feet from the loudspeaker system at the rooftop deck. The maximum sound levels for the amplified sound system are specified to meet the City's Noise Control Ordinance, to avoid an increase of 8 dBA at the proposed project's property plane (per Section 2909[b]) and avoid causing interior noise levels at neighboring residences in excess of 55 dBA with windows open (per Section 2909[d]). Table 13 presents the estimated noise levels from the outdoor uses. Additionally, there are no specific noise ordinance limits for unamplified voices, and unamplified voices are not considered an impact under CEQA unless the noise could rise to a level of substantial interference with activities such as sleep, speech, and learning, or physiological effects such as hearing loss. Published noise levels for typical males and females speaking at raised voice levels, 65 dBA and 62 dBA, respectively, were used for the noise analysis. As indicated, the estimated noise levels from the proposed project's outdoor uses would comply with the Noise Ordinance.

TABLE 13 ESTIMATED NOISE LEVELS FROM PROPOSED PROJECT OUTDOOR SPACES

Location	Ambient Noise Levels, ¹ dBA L_{eq}	Estimated Noise Levels from Outdoor Spaces, dBA L_{eq}	Estimated Noise Levels from Outdoor Spaces at Residential Interior, dBA L_{eq}	Outdoor / Interior Noise Thresholds ² , dBA L_{eq}	Estimated Noise Levels Comply?
1 ³	61.9	66.5	54.5 ⁴	69.9 / 55	Yes
2	64.6	64.0	52.0 ⁴	72.6 / 55	Yes
3	53.4	52.5	40.5 ⁴	61.4 / 55	Yes
4	58.5	54.4	42.4 ⁴	66.5 / 55	Yes

Source: Data modeled by AECOM in 2016; http://www.opr.ca.gov/docs/OPR_COMPLETE_7.31.17.pdf

Notes: dBA = A-weighted decibels; L_{eq} = equivalent noise level

¹ Measured nighttime ambient noise levels (see Table 11).

² The significance thresholds equal to the existing ambient noise levels plus 8 dBA at the property plane, and less than 55 dBA for estimated noise level at the nearest residential interior.

³ The estimated noise level at Location 1 is at the commercial use on the eastern side of The Embarcadero.

⁴ Includes application of a conservative minimum of a 12–18 dBA reduction to estimated outdoor noise levels with windows partially open, per State of California General Plan Guidelines (2017).

The proposed entertainment venue would be located at ground level and would include a 285-seat auditorium. The entertainment venue would be hosted inside the 100-year-old spiegel tent, which would be encased inside a pavilion. The entertainment venue would have two shows per day on the weekends. Measured sound levels from an existing theater of similar size, the Teatro ZinZanni in Seattle (a 292-seat theater), were used for the proposed project's noise analysis. The

measured sound levels varied from 83 to 102 dBA inside the entertainment venue and 76 to 84 dBA outside of the entertainment use tent.⁸⁸ The pavilion enclosing the area would be constructed of glass and metal walls and roof as illustrated in the elevations and sections shown in Figures 12 through 16. The pavilion structure is estimated to provide a minimum of 20 dBA interior-to-exterior sound reduction. Table 14 presents the estimated noise levels from the proposed entertainment venue. As indicated, the estimated noise levels from the proposed entertainment venue would be below the significance thresholds.

TABLE 14 ESTIMATED NOISE LEVELS FROM PROPOSED ENTERTAINMENT VENUE

Location	Ambient Noise Levels, ¹ dBA L _{eq}	Estimated Noise Levels from Theater, dBA L _{eq}	Estimated Noise Levels from Outdoor Spaces at Residential Interior, dBA L _{eq}	Outdoor / Interior Noise Thresholds, ² dBA L _{eq}	Estimated Noise Levels Comply?
1 ³	61.9	57.2	45.2 ⁴	69.9 / 55	Yes
2	64.6	35.7	23.7 ⁴	72.6 / 55	Yes
3	53.4	58.9	46.9 ⁴	61.4 / 55	Yes
4	58.5	64.1	52.4 ⁴	66.5 / 55	Yes

Source: Data modeled by AECOM in 2016; http://www.opr.ca.gov/docs/OPR_COMPLETE_7.31.17.pdf

Notes: dBA = A-weighted decibels; L_{eq} = equivalent noise level

¹ Measured nighttime ambient noise levels (see Table 11).

² The significance thresholds equal to the existing ambient noise levels plus 8 dBA at the property plane, and less than 55 dBA for estimated interior noise level noise level at the nearest residential interior.³ The estimated noise level at Location 1 is at the commercial use on the eastern side of The Embarcadero.

⁴ Includes application of a conservative minimum of a 12–18 dBA reduction to estimated outdoor noise levels with windows partially open, per State of California General Plan Guidelines (2017).

The proposed project includes a small outdoor stage area located at the south end of the proposed public park. The outdoor stage would be used for small-scale performances, including those for family gatherings, storytelling and neighborhood festivals, nonprofit gatherings, and other waterfront public events. These events would occur on weekdays and weekends during normal business hours, subject to Port requirements. In addition, the theater would include operable doors on the northern side of the theater building that would open up onto the outdoor stage area. However, the entertainment area doors would remain closed during regularly scheduled theater performances. The park would be only 14,000 square feet and would be limited in size, which would reduce the possibilities for large events. No large music festivals or other ticketed events would be held at the proposed outdoor stage or in the proposed public park. Section 2909(c) of the Noise Control Ordinance allows sound from “public property” to be up to 10 dBA above ambient at a distance of 25 feet. Amplified sound emanating from the outdoor stage or other portion of the public park that would exceed the ordinance would be required to obtain a permit from the Port in accordance with Section 2909(e) of the Noise Control Ordinance. The project sponsor would be required to apply for event permits from the Port to host these activities or events, which may occur approximately one time per week.

As shown in Table 14, noise from the outdoor use areas would not exceed the limit established by Police Code section 2909(b), part of the San Francisco Noise Ordinance, of 8 dBA above the existing ambient noise level at the proposed project’s property lines. Accordingly, impacts would be *less than significant* and no mitigation measures are required.

Project-Related Roadway Noise

As stated previously, for sensitive noise receptors, a traffic noise increase greater than L_{dn} 3 dBA is considered a significant noise impact. Generally, a doubling of traffic flows would be needed for traffic-generated noise levels to increase to 3 dBA above the existing L_{dn} ambient noise levels. As shown in Table 15, because the roadways adjacent to the project site currently

⁸⁸ Annie Jamison, Teatro ZinZanni Employee, email correspondence with the sponsor and AECOM about sound data, July 06, 2016.

experience high traffic volumes, the additional daily vehicle trips on these roadways would be expected to be marginal and would not double traffic volumes.

The proposed project would result in approximately 634 daily vehicle trips in the vicinity of the project site.⁸⁹ The increase in the traffic volumes was analyzed to determine whether any traffic-related noise impacts would result from the project. The project-related traffic noise impact is determined by comparing the increase in noise levels from existing conditions to existing plus project conditions with the project's significance threshold. Table 15 provides a summary of the roadway noise level analysis.

TABLE 15 ROADWAY TRAFFIC NOISE IMPACTS – PROJECT LEVEL

Roadway Segment	Calculated Traffic Noise Levels, ¹ dBA L _{dn}		Increase in Noise Levels due to Proposed Project, dBA L _{dn}
	Existing Conditions	Existing + Proposed Project	
The Embarcadero			
North of Green Street	66.6	66.6	0.0
From Green Street to Broadway	66.9	66.9	0.0
South of Broadway	68.2	68.3	0.1
Davis Street			
From Vallejo Street to Broadway	57.7	57.8	0.1
South of Broadway	62.5	62.5	0.0
Front Street			
North of Green Street	55.9	55.9	0.0
From Green Street to Vallejo Street	58.4	58.4	0.0
From Vallejo Street to Broadway	59.6	59.6	0.0
South of Broadway	61.3	61.3	0.0
Green Street			
West of Front Street	57.0	57.0	0.0
From Front Street to The Embarcadero	57.9	57.9	0.0
Vallejo Street			
West of Front Street	59.4	59.5	0.1
From Front Street to Davis Street	57.3	57.4	0.1
Broadway			
West of Front Street	65.2	65.3	0.1
From Front Street to Davis Street	64.7	64.9	0.2
From Davis Street to The Embarcadero	63.5	63.9	0.4

Source: Data modeled by AECOM in 2017.

Notes:

dBA = A-weighted decibels; L_{dn} = day-night sound level

¹ Predicted traffic noise levels do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.

⁸⁹ CHS Consulting Group, *Seawall Lot 323 and 324 (Teatro ZinZanni) Project Final Transportation Impact Study*, May 2018.

As shown in Table 15, the proposed project would result in a maximum traffic noise increase of 0.4 dBA L_{dn} along Broadway (from Davis Street to The Embarcadero). The estimated traffic noise increase would be lower at all other analyzed roadway segments. The incremental changes in traffic noise levels attributable to the proposed project would be below the 3 dBA L_{dn} significance criterion.

Project-related onsite stationary sources and offsite traffic would not result in a substantial increase in ambient noise levels in the project vicinity. Therefore, this impact would be *less than significant*.

Impact NO-2: During construction, the proposed project would not result in a substantial temporary or periodic increase in ambient noise levels and vibration in the project vicinity above levels existing without the project. (*Less than Significant*)

The analysis under this criterion addresses potential noise and vibration impacts on nearby sensitive noise receptors during construction of the proposed project.

The primary noise impacts from construction would occur from noise generated by the operation of heavy equipment on the project site. Noise impacts would also result from construction trucks arriving to and departing from the site, which would be an intermittent source of construction noise. Project construction activities would include demolishing existing pavement, grading, installing utilities, landscaping, and erecting the buildings. The equipment typically used in these activities includes bulldozers, excavators, graders, backhoes, concrete trucks, loaders, and heavy-duty trucks. The closest noise-sensitive land uses that would experience noise generated by project construction are the Gateway Apartments (approximately 80 feet south of the project site) and the proposed 88 Broadway Apartments (approximately 60 feet west of the project site).⁹⁰ Demolition, excavation, and building construction would cause a temporary increase in noise levels in the project vicinity. Construction equipment would generate noise and vibration at nearby properties that could be considered an annoyance by occupants and potentially cause damage to historic architectural structures.

The proposed project would include excavation of material to a maximum depth of approximately 6 feet below grade to accommodate building foundations. Project construction is anticipated to occur for up to approximately 22 months, and to be completed in 2020. Project construction would generally include site preparation and demolition (1 month), excavation/foundation work (2 months), structure building (7 months), exterior buildout (4 months), and interior buildout (8 months). Export material (e.g., concrete and asphalt surfaces) and soil would be hauled from the project site during the site demolition and excavation phases. Construction hours would be from 7 a.m. to 5 p.m. Monday through Friday, with Saturdays as alternate dates. Impact pile driving is not required and nighttime construction is not proposed.

Noise impacts from construction activities would be a function of the noise generated by construction equipment, the location of the equipment, the timing and duration of the noise-generating construction activities, and the distance to noise-sensitive receptors. Construction activities for the proposed project would include development of the infrastructure and buildings.

Individual pieces of non-impact-type construction equipment that would be used for construction of the proposed project produce maximum noise levels of 74–84 dBA at a reference distance of 50 feet from the noise source, as provided in Table 16. The construction equipment noise levels at 50 feet distance (referenced maximum noise levels) are based on the *FHWA Roadway Construction Noise Model User's Guide*,⁹¹ a technical report that contains actual measured noise data for

⁹⁰ San Francisco Planning Department, *88 Broadway and 735 Davis Street Project Final Mitigated Negative Declaration*, Case No. 2016-007850ENV, October 25, 2017, amended February 27, 2018. http://sfmea.sfplanning.org/2016-007850ENV_FMND.pdf. Project was approved but construction has not begun.

⁹¹ Federal Highway Administration, *FHWA Roadway Construction Noise Model User's Guide*, 2006.

various types of construction equipment. The construction noise levels at a distance of 100 feet are calculated based on the reference noise level at 50 feet and based on a 6 dB attenuation (applicable to a point source).

Construction noise is regulated by the San Francisco Noise Ordinance, article 29 of the Police Code. Police Code section 2907 requires that noise levels from individual pieces of construction equipment, other than impact tools, not exceed 80 dBA at a distance of 100 feet. Section 2908 prohibits construction work between 8 p.m. and 7 a.m. if noise would exceed the ambient noise level by 5 dBA at the project property line, unless a special permit is authorized by the director of DBI. The proposed project would be required to comply with regulations set forth by the San Francisco Ordinance in Police Code section 2907. The estimated construction equipment noise levels at a distance of 100 feet (68–78 dBA) would be below the City’s specified 80 dBA noise limit (applicable to daytime construction activities). In addition, project construction activities would be limited to daytime hours, between 7 a.m. and 5 p.m. Therefore, project construction activities would comply with the City’s Noise Control Ordinance. As such, the construction noise impact would be *less than significant*.

TABLE 16 NOISE LEVELS GENERATED BY TYPICAL CONSTRUCTION EQUIPMENT

Construction Equipment	Reference Noise Levels at 50 Feet, ¹ dBA L _{max}	Estimated Noise Levels at 100 Feet, ² dBA L _{max}
Air Compressor	78	72
Auger Drill Rig (for shoring)	84	78
Backhoe	78	72
Compactor	83	77
Concrete Pump	79	73
Concrete Truck	81	75
Crane	81	75
Rubber-Tired Dozer	82	76
Excavator	84	78
Forklift	75	69
Generator	81	75
Loader	79	73
Dump/Haul/Delivery Truck	76	70
Welders	74	68

Notes:

dBA = A-weighted decibels; L_{max} = maximum noise level

¹ The Federal Highway Administration–published noise emission levels at 50 feet distance.

² Calculated noise levels at 100 feet distance.

Source: Federal Highway Administration, *FHWA Roadway Construction Noise Model User’s Guide*, 2006.

Construction Vibration Impacts

Construction activities can generate varying degrees of ground vibration, depending on the construction procedures and the type of construction equipment used. FTA has published vibration levels for various types of construction equipment, as provided in Table 17.⁹² As shown in the table, construction equipment would generate groundborne vibration from approximately 58 VdB (e.g., small bulldozer) to 87 VdB (e.g., large bulldozer or caisson drilling) at a distance of 25 feet from the equipment. The nearest residential use to the project site (receptor 2) would be exposed to groundborne vibration level up to 72 VdB, because of the larger bulldozer used during site excavation phase and caisson drilling during the

⁹² Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, 2006, Table 12-2.

construction phase. The estimated vibration level at the nearest residential use would be below the FTA criterion of 80 VdB, applicable to residential use. Because project construction would occur only during the daytime hours, construction activities would avoid the more sensitive time period when residents are at home or sleeping (i.e., nighttime hours).

The estimated vibration level at either the KGO-TV building (receptor 3) or 60 Broadway caused by the project construction equipment would be up to 73 VdB. FTA provides a groundborne vibration impact criterion of 65 VdB for TV studios. Based on the FTA manual, a three- to four-story masonry building would provide approximately 10 VdB of vibration attenuation (coupling to building foundation).⁹³ Therefore, the groundborne vibration at the interior of the KGO-TV building would be attenuated from 73 VdB to 63 VdB, which would be below the FTA 65 VdB criterion. Additionally, Table 17 shows that with respect to building damage risk, for either typical masonry structures or those akin to historic structures that may be extremely susceptible to vibration; the anticipated construction-attributed vibration levels are lower than the applicable thresholds. Therefore, the project construction-related vibration impact would be *less than significant*.

TABLE 17 VIBRATION LEVELS GENERATED BY TYPICAL CONSTRUCTION EQUIPMENT

Construction Equipment	Reference Vibration Levels at 25 Feet, ¹ VdB	Estimated Vibration Levels, ² VdB		
		Receptor 2 (Gateway Apartment)	Receptor 3 (KGO-TV or 60 Broadway)	Receptor 4 (88 Broadway)
Large Bulldozer	87	72	63 ³	74
Caisson Drilling	87	72	63 ³	74
Loaded Trucks	86	71	62 ³	73
Jackhammer	79	64	55 ³	55
Small Bulldozer	58	43	34 ³	45
Significance Threshold (annoyance or operations interruption), VdB		80	65 ⁴	80
Significance Threshold (building damage risk), VdB		94 ⁶	90 ⁵	94 ⁶

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, 2006; data modeled by AECOM in 2017

Notes:

VdB = vibration decibels

¹ Federal Transit Administration (FTA)–published vibration levels at 25 feet distance.

² Calculated vibration levels per FTA procedures.

³ After consideration of ground-to-building vibration coupling loss.

⁴ FTA-published vibration criterion for TV studios.

⁵ FTA-published vibration criterion for “IV. Buildings extremely susceptible to vibration damage” risk category.

⁶ FTA-published vibration criterion for “III. ...masonry buildings” risk category.

Impact-C-NO-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the project site, would result in less-than-significant cumulative impacts related to noise. (*Less than Significant*)

The geographic context for an analysis of cumulative impacts related to noise is the immediate project area. As shown in Table 3 and mapped in Figure 17 in Section B.3, Cumulative Projects, reasonably foreseeable projects within a 0.25-mile radius of the project site include new residential, museum, a childcare facility, and senior housing, and space for community, retail, and office uses.

⁹³ Ibid., Table 10-1.

Construction Noise

Noise from construction activities would typically affect areas close to the construction site because noise impacts are typically localized. Construction noise dissipates/attenuates quickly as the distance between the construction site and the receptor increases, and as intervening structures provide noise reduction. Therefore, only those projects within 500 feet of the project site were considered for the analysis of cumulative construction noise impacts. The cumulative project within 500 feet of the project site is the proposed 88 Broadway and 753 Davis Street project, a senior housing development located directly west of the project site (on the western side of Davis Street). Construction of the 88 Broadway and 753 David Street project is anticipated to start in 2018, during the proposed project's exterior/interior buildout construction phase (which would generate less noise than other phases).

Construction activities for the cumulative project would generate noise at each project site, and cumulative construction noise could exceed ambient noise levels at the nearest sensitive uses. However, construction activities for the cumulative project would be required to comply with the City's noise limit for construction equipment (80 dBA) and time restriction (7 a.m. to 8 p.m.). In addition, construction noise would be intermittent and temporary and would cease at the end of the construction phase. Because construction activities would be required to comply with the City's Noise Control Ordinance, the cumulative construction-related noise impact would be ***less than significant***.

Operational Noise

The geographic context for the analysis of cumulative operational mobile-source (roadway) noise impacts is defined as the area immediately surrounding the roadways that would be affected by implementation of the proposed project and cumulative development. Potential cumulative operational impacts related to roadway noise were analyzed based on cumulative traffic conditions for the year 2040, which include both regional growth and approved developments.

Cumulative operational noise would be generated by both onsite stationary sources (e.g., mechanical equipment) and offsite sources (e.g., auto traffic). Onsite noise sources, such as mechanical equipment from the proposed project and the 88 Broadway and 753 Davis Street project, would be required to comply with the City's Noise Control Ordinance. Therefore, cumulative noise impacts associated with onsite stationary sources would be ***less than significant***.

Offsite auto traffic from the proposed project together with the 88 Broadway and 753 Davis Street project could contribute to the overall cumulative noise level along nearby roadway segments. Table 18 summarizes the analysis of cumulative offsite roadway noise impacts. As shown, the cumulative traffic would result in a maximum traffic noise increase of 1.3 dBA L_{dn} along Green Street west of Front Street. The incremental changes in traffic noise levels attributable to the proposed project would be below the 3 dBA L_{dn} significance criterion. Therefore, cumulative offsite traffic noise impacts would be ***less than significant***.

Construction-Related and Operational Vibration

Potential construction-related vibration impacts are generally limited to effects on buildings and structures located close to the construction site. Because of the rapid attenuation of groundborne vibration and the distance to the nearest sensitive receptors, cumulative construction impacts related to groundborne vibration are not anticipated. Although each individual project in the vicinity may produce construction vibration, the vibration levels would not combine to create or contribute to vibration impacts. The proposed project would not cause significant construction vibration to the same buildings as the 88 Broadway Street and 753 Street project. Such impacts, therefore, would be ***less than significant***.

Therefore, this impact would be ***less than significant***.

TABLE 18 ROADWAY TRAFFIC NOISE IMPACTS – CUMULATIVE LEVEL

Roadway Segment	Calculated Traffic Noise Levels, ¹ dBA L _{dn}		Increase in Noise Levels due to Cumulative Traffic, dBA L _{dn}
	Existing Conditions	Future Cumulative Conditions	
The Embarcadero			
North of Green Street	66.6	67.2	0.6
From Green Street to Broadway	66.9	67.5	0.6
South of Broadway	68.2	68.8	0.6
Davis Street			
From Vallejo Street to Broadway	57.7	56.3	-1.4
South of Broadway	62.5	62.7	0.2
Front Street			
North of Green Street	55.9	56.0	0.1
From Green Street to Vallejo Street	58.4	58.5	0.1
From Vallejo Street to Broadway	59.6	59.7	0.1
South of Broadway	61.3	61.4	0.1
Green Street			
West of Front Street	57.0	58.3	1.3
From Front Street to The Embarcadero	57.9	59.1	1.2
Vallejo Street			
West of Front Street	59.4	59.5	0.1
From Front Street to Davis Street	57.3	55.6	-1.7
Broadway			
West of Front Street	65.2	65.6	0.4
From Front Street to Davis Street	64.7	65.2	0.5
From Davis Street to The Embarcadero	63.5	64.0	0.5

Notes:

dBA = A-weighted decibels; L_{dn} = day-night sound level¹ Predicted traffic noise levels do not account for shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.

Source: Data modeled by AECOM in 2017.

E.6. AIR QUALITY

Topics:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
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"/>

Overview

The Bay Area Air Quality Management District 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. 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 and the California Clean Air Act, respectively. Specifically, BAAQMD monitors ambient air pollutant levels throughout the SFBAAB and develops and implements strategies to attain the applicable federal and state standards.

The federal and California clean air acts require that plans be developed for areas that do not meet air quality standards, generally. The Bay Area’s current clean air plan, titled *Spare the Air, Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area, Final 2017 Clean Air Plan* (referred to in this initial study as the 2017 Clean Air Plan), serves as an update to the Bay Area 2010 Clean Air Plan and continues to provide the framework for the SFBAAB to achieve attainment of the national and California ambient air quality standards. The 2017 Clean Air Plan updates the Bay Area’s ozone plan, which is based on the “all feasible measures” approach to meet the requirements of the California Clean Air Act. Additionally, it sets a goal of reducing health risk impacts on local communities by 20 percent by 2020. Furthermore, the 2017 Clean Air Plan lays the groundwork for reducing GHG emissions in the Bay Area to meet the state’s 2030 GHG reduction target and 2050 GHG reduction goal. It also includes a vision for the Bay Area in a postcarbon year 2050 that encompasses the following actions:⁹⁴

- Construct buildings that are energy efficient and powered by renewable energy.
- Walk, bicycle, and use public transit for the majority of trips and use electric-powered autonomous public transit fleets.
- Incubate and produce clean energy technologies.

⁹⁴ Bay Area Air Quality Management District, *Spare the Air, Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area, Final 2017 Clean Air Plan*, adopted April 19, 2017, <http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>.

- Live a low-carbon lifestyle by purchasing low-carbon foods and goods in addition to recycling and putting organic waste to productive use.

The 2017 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 federal and California clean air acts, air pollutant standards have been established for the following six criteria air pollutants: ozone, carbon monoxide (CO), particulate matter (PM),⁹⁵ nitrogen dioxide, 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 air basin is designated as either in *attainment* or *unclassified* for most criteria air pollutants, with the exceptions of ozone, PM_{2.5}, and PM₁₀, for which the air basin is designated as *nonattainment* for either the state or federal standard. By its very nature, regional air pollution is largely a cumulative impact in that no single project is sufficient in size to result in nonattainment of air quality standards by itself. 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.⁹⁶

Land use projects may contribute to regional criteria air pollutants during the projects’ construction and operational phases. Table 20 identifies air quality significance thresholds followed by a discussion of each threshold. Projects that would result in criteria air pollutant emissions below these significance thresholds would not violate an air quality standard, contribute substantially to an air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants within the SFBAAB.

TABLE 20 CRITERIA AIR POLLUTANT SIGNIFICANCE THRESHOLDS

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lb/day)	Average Daily Emissions (lb/day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀	82 (exhaust)	82	15
PM _{2.5}	54 (exhaust)	54	10
Fugitive Dust	Construction Dust Ordinance or other best management practices	Not applicable	

Source: Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009.

Notes: lb/day = pounds per day; NO_x = oxides of nitrogen; PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter; PM₁₀ = particulate matter equal to or less than 10 microns in diameter; ROG = reactive organic gases

⁹⁵ Particulate matter (PM) is subdivided into two classes based on particle size: PM equal to or less than 10 microns in diameter (PM₁₀) and PM equal to or less than 2.5 microns in diameter (PM_{2.5}).

⁹⁶ Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017, p. 2-1.

Ozone Precursors

As discussed previously, the SFBAAB is currently designated as nonattainment for ozone and particulate matter. Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO_x). The potential for a project to result in a cumulatively considerable net increase in criteria air pollutants, which may contribute to an existing or projected air quality violation, is based on the emissions limits for stationary sources established by the federal and California clean air acts. To make sure that new stationary sources do not cause or contribute to a violation of an air quality standard, BAAQMD regulation 2, rule 2 requires any new source that emits criteria air pollutants above a specified emissions limit to offset those emissions. For the ozone precursors ROG and NO_x, the offset emissions level is an annual average of 10 tons per year (or 54 pounds per day [lb/day]).⁹⁷ These levels represent emissions below which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants.

Although this regulation applies to new or modified stationary sources, land use development projects generate ROG and NO_x emissions through increases in vehicle trips, architectural coatings, and construction activities. Therefore, the thresholds mentioned above can be applied to the construction and operational phases of land use projects. Those projects that would result in emissions below these thresholds would not be considered to contribute to an existing or projected air quality violation or to result in a considerable net increase in ROG and NO_x emissions. Because of the temporary nature of construction activities, only the average daily thresholds are applicable to construction-phase emissions.

Particulate Matter (PM₁₀ and PM_{2.5})⁹⁸

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 limits under the New Source Review are 15 tons per year (82 lb/day) and 10 tons per year (54 lb/day), respectively. These emissions limits represent levels below which a source is not expected to have an impact on air quality.⁹⁹ As with ozone precursors as identified above, land use development projects typically generate PM emissions as a result of increases in vehicle trips, space heating and natural gas combustion, landscape maintenance, and construction activities. Therefore, the thresholds mentioned above can be applied to the construction and operational phases of land use projects. Again, because construction activities are temporary, 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 applying best management practices (BMPs) at construction sites significantly controls fugitive dust,¹⁰⁰ and individual measures have been shown to reduce fugitive dust by 30–90 percent.¹⁰¹ BAAQMD has identified a number of BMPs to control fugitive dust emissions from construction activities.¹⁰² The City's Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) requires a number of measures to control fugitive dust. Employing BMPs in compliance with this City ordinance is an effective strategy for controlling construction-related fugitive dust.

⁹⁷ Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 17.

⁹⁸ PM₁₀ is often termed "coarse" particulate matter and is made of particulates that are 10 microns in diameter or smaller. PM_{2.5}, termed "fine" particulate matter, is composed of particles that are 2.5 microns or less in diameter.

⁹⁹ Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 16.

¹⁰⁰ Western Regional Air Partnership. 2006. *WRAP Fugitive Dust Handbook*, September 7, 2006, http://www.wrapair.org/forums/dejffdh/content/FDHandbook_Rev_06.pdf, accessed February 16, 2012.

¹⁰¹ Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 27.

¹⁰² Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2011.

Other Criteria Pollutants

Regional concentrations of CO in the Bay Area have not exceeded 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 basinwide emissions and construction-related CO emissions represent less than 5 percent of the Bay Area's total basinwide CO emissions. As discussed previously, the Bay Area is in attainment for both CO and SO₂. Furthermore, BAAQMD has demonstrated, based on modeling, that 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 have 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 a quantitative analysis is not required.

Local Health Risks and Hazards

In addition to criteria air pollutants, individual projects may emit toxic air contaminants (TACs). TACs collectively refer to a diverse group of air pollutants that are capable of causing chronic (long-duration) and acute (severe but short-term) adverse effects on 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 risks 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. BAAQMD regulates TACs, using a risk-based approach to determine which sources and pollutants to control and the degree of control. A health risk assessment is an analysis that estimates human health exposure to toxic substances, and considers such exposure together with information regarding the substances' toxic potency to provide quantitative estimates of health risks.¹⁰³

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 the most sensitive to poor air quality: the population groups associated with these uses are more susceptible 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*. Guidance on exposure assessment typically assumes that residences would be exposed to air pollution 24 hours per day, 350 days per year, for 70 years. Therefore, assessments of residential exposure to air pollutants typically result in the greatest adverse health outcomes of all population groups.

Exposures to fine particulate matter (PM_{2.5}) are strongly associated with mortality, respiratory diseases, and lung development in children, and other endpoints such as hospitalization for cardiopulmonary disease.¹⁰⁴ Diesel PM is also a concern. The California Air Resources Board (ARB) identified diesel PM as a TAC in 1998, based primarily on evidence

¹⁰³ In general, a health risk assessment is required if 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 project sponsor 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.

¹⁰⁴ 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.

demonstrating cancer effects in humans.¹⁰⁵ The estimated cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other TAC routinely measured in the region.

In an effort to identify the areas of San Francisco most adversely affected by sources of TACs, the City 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 in San Francisco. Areas with poor air quality, termed “*air pollutant exposure zones*,” were identified based on health-protective criteria that consider estimated cancer risk, exposures to fine particulate matter, proximity to freeways, and locations with particularly vulnerable populations. The project site is located within an air pollutant exposure zone. Each criterion for an air pollutant exposure zone is discussed below.

Excess Cancer Risk

The criteria of greater than 100 per 1 million persons excess cancer risk is based on U.S. Environmental Protection Agency (U.S. EPA) guidance for conducting air toxics analyses and making risk management decisions at the facility and community levels.¹⁰⁶ As described by BAAQMD, U.S. EPA considers a cancer risk of 100 per million to be within the “acceptable” range of cancer risk. Furthermore, in the 1989 preamble to the benzene National Emissions Standards for Hazardous Air Pollutants rulemaking,¹⁰⁷ U.S. EPA states that it “...strives to provide maximum feasible protection against risks to health from hazardous air pollutants by (1) protecting the greatest number of persons possible to an individual lifetime risk level no higher than approximately one in one million and (2) limiting to no higher than approximately one in ten thousand [100 in one million] the estimated risk that a person living near a plant would have if he or she were exposed to the maximum pollutant concentrations for 70 years.” The criterion of 100 per 1 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.¹⁰⁸

Fine Particulate Matter

In April 2011, U.S. EPA published *Policy Assessment for the Particulate Matter Review of the National Ambient Air Quality Standards*. In its PM policy assessment, U.S. EPA staff concludes that the then-current federal annual PM_{2.5} standard of 15 micrograms per cubic meter (µg/m³) should be revised to a level within the range of 11–13 µg/m³, with evidence strongly supporting a standard within the range of 11–12 µg/m³. The air pollutant exposure zones for San Francisco are based on the health-protective PM_{2.5} standard of 11 µg/m³, as supported by U.S. EPA’s PM policy assessment, although lowered to 10 µg/m³ to account for uncertainty in accurately predicting air pollutant concentrations using emissions modeling programs.

Proximity to Freeways

According to ARB, studies have shown an association between the proximity of sensitive land uses to freeways and a variety of respiratory symptoms, exacerbation of asthma cases, and decreases in lung function in children. Siting sensitive uses close to freeways increases both exposure to air pollution and the potential for adverse health effects. Because evidence shows that sensitive uses in areas within 500 feet of any freeway are at an increased health risk from air pollution,¹⁰⁹ lots that are within 500 feet of freeways are included in the air pollutant exposure zone.

¹⁰⁵ California Air Resources Board, Fact Sheet, “The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines,” October 1998.

¹⁰⁶ Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 67.

¹⁰⁷ 54 *Federal Register* 38044, September 14, 1989.

¹⁰⁸ Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 67.

¹⁰⁹ California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, 2005, <http://www.arb.ca.gov/ch/landuse.htm>.

Health-Vulnerable Locations

Based on 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 1 million persons exposed, and/or (2) PM_{2.5} concentrations in excess of 9 µg/m³.¹¹⁰

The above citywide health risk modeling was also used as the basis for approving a series of amendments to the San Francisco Building and Health codes, generally referred to as the Enhanced Ventilation Required for Urban Infill Sensitive Use Developments or Health Code article 38 (Ordinance 224-14, effective December 8, 2014). The purpose of Health Code 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 development of sensitive uses within an air pollutant exposure zone. In addition, projects within an exposure zone require special consideration to determine whether project activities would add substantial emissions to areas already adversely affected by poor air quality. The proposed project is located within an air pollutant exposure zone.¹¹¹

IMPACT DISCUSSION

Project-related air quality impacts fall into two categories: short-term impacts from construction and long-term impacts from project operation.

Construction Air Quality Impacts

The following discussion addresses the proposed project's construction-related air quality impacts, which are estimated to last up to approximately 22 months. For the purposes of the environmental analysis, it is assumed that project construction would start 2019 and be completed by 2020 (approximately 484 workdays).

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

Construction activities (short-term) typically result in emissions of ozone precursors and particulate matter (PM₁₀ and PM_{2.5}) in the form of dust (fugitive dust) and exhaust (e.g., vehicle tailpipe emissions). Such emissions are primarily a result of the combustion of fuel from on-road and off-road vehicles. However, ROG are also emitted from activities that involve painting, other types of architectural coatings, or asphalt paving. The proposed project would include the demolition of the existing parking lot and construction of a mixed-use development consisting of a hotel, an entertainment venue, and a public park. During the project's approximately 22-month construction period, construction activities would have the potential to result in emissions of particulate matter, as discussed below, and ozone precursors, discussed below under "Criteria Pollutants."

Fugitive Dust

Project-related demolition, excavation, grading, and other construction activities may generate windblown dust that could contribute particulate matter into the local atmosphere. Although there are federal standards for air pollutants and implementation of state and regional air quality control plans, air pollutants continue to affect human health throughout the country. California has found that PM exposure can cause health effects at lower levels than identified in national standards.

¹¹⁰ 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.

¹¹¹ San Francisco Planning Department, San Francisco Property Information Map, Version 3.4.4 Map, 2016, <http://propertymap.sfplanning.org/?dept=planning>, accessed on September 29, 2016.

The current health burden of PM demands that, where possible, public agencies take feasible available actions to reduce sources of exposure. According to ARB, reducing PM_{2.5} concentrations to federal and state standards of 12 µg/m³ in the San Francisco Bay Area would prevent between 200 and 1,300 premature deaths.¹¹²

Dust can be an irritant, causing eyes to water or irritating the lungs, nose, and throat. Demolition, excavation, grading, and other construction activities can generate windblown dust that adds particulate matter to the local atmosphere. Depending on exposure, adverse health effects can result from this PM in general and from 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). The intent of this ordinance is to reduce the quantity of dust generated during site preparation, demolition, and construction work to protect the health of the general public and onsite workers, minimize public nuisance complaints, and avoid stop-work orders by DBI.

The ordinance requires all site preparation work, demolition, or other construction activities in San Francisco that could create dust, or that could expose or disturb more than 10 cubic yards or 500 square feet of soil, to 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 generate any visible windblown dust.

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

For projects larger than one-half acre, such as the proposed project, the Construction Dust Control Ordinance requires the project sponsor to submit a dust control plan for approval by the San Francisco Department of Public Health. The Port's building department would not issue a building permit without written notification from the department's director that the project sponsor has a site-specific dust control plan, unless the director waives the requirement. Interior-only tenant improvement projects larger than one-half acre that would not produce exterior visible dust are exempt from the requirement for a site-specific dust control plan.

The site-specific dust control plan required by the Dust Control Ordinance would require the project sponsor to: (a) submit a map to the Director of Public Health showing all sensitive receptors within 1,000 feet of the site; (b) wet down areas of soil at

¹¹² California Air Resources Board, *Methodology for Estimating Premature Deaths Associated with Long-term Exposure to Fine Airborne Particulate Matter in California, Staff Report*, Table 4c, October 24, 2008.

least three times per day; (c) provide an analysis of wind direction and install upwind and downwind particulate dust monitors; (d) record particulate monitoring results; (e) hire an independent third party to conduct inspections and keep a record of those inspections; (f) establish shutdown conditions based on wind, soil migration, etc.; (g) establish a hotline for surrounding community members who have the potential to be affected by project-related dust; (h) limit the area subject to construction activities at any one time; (i) install dust curtains and windbreaks on the property lines, as necessary; (j) limit the amount of soil in hauling trucks to the size of the truck bed and securing with a tarpaulin; (k) enforce a speed limit of 15 miles per hour for vehicles entering and exiting construction areas; (l) sweep affected streets with water sweepers at the end of the day; (m) install and use wheel washers to clean truck tires; (n) terminate construction activities when winds exceed 25 miles per hour; (o) apply soil stabilizers to inactive areas; and (p) sweep off adjacent streets to reduce particulate emissions.

The project sponsor would be required to designate an individual to monitor compliance with these dust control requirements. Compliance with the regulations and procedures set forth by the San Francisco Dust Control Ordinance would reduce potential dust-related air quality impacts to *less than significant*.

Criteria Air Pollutants

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 emissions of air pollutants require further analysis about whether the project may exceed the significance thresholds for criteria air pollutants shown in Table 20 above, BAAQMD developed screening criteria in its *CEQA Air Quality Guidelines* (May 2017). If a proposed project meets the screening criteria, then construction of the project would result in less-than-significant impacts with regard to criteria air pollutants. A project that exceeds the screening criteria may require a detailed air quality assessment to determine whether criteria air pollutant emissions would exceed significance thresholds. The *CEQA Air Quality Guidelines* note that the screening levels are generally representative of new development on *greenfield*¹¹³ 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 construction activities are anticipated to include soil transport that would exceed the BAAQMD screening threshold of 10,000 cubic yards; therefore, a quantitative analysis was conducted. Construction-related criteria air pollutants generated by the proposed project were quantified using the California Emissions Estimator Model (version 2016.3.1) and provided in an air quality technical report.¹¹⁴ The model was developed, including default data (e.g., emission factors, meteorology), 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 a period of approximately 22 months and approximately 22 working days per month. Emissions were converted from tons per year to lb/day using the estimated construction duration of 484 working days. Table 21 presents the proposed project's total and average daily construction emissions from criteria pollutants.¹¹⁵

Construction of the proposed project would generate emissions associated with heavy-duty construction equipment, material-hauling trucks, and construction worker vehicles. Construction would involve demolishing an existing onsite parking lot, and

¹¹³ A greenfield site refers to agricultural or forest land or an undeveloped site earmarked for commercial, residential, or industrial projects.

¹¹⁴ AECOM, *Zinzanni Hotel & Theater Project Final Air Quality Technical Report*, July 2017.

¹¹⁵ To present the most conservative scenario for estimating emissions, the construction emission estimates contained herein assume that construction would begin in fall 2018. As described under "Estimation Methodology," these emissions estimates present worst-case emissions resulting from construction of the proposed project.

new construction activities would include grading, building construction, and exterior and interior buildout. Emissions were calculated using project-specific equipment lists and construction schedules estimated by the project sponsor. California Emissions Estimator Model outputs including full construction assumptions were calculated. The following primary construction assumptions were used to model construction-related air pollutant emissions:

- *Construction Schedule:* Up to 22 months
- *Acres to be Disturbed:* 1.33 acres
- *Demolition (existing parking lot):* 3,000 cubic yards of asphalt
- *Cut/Fill Volumes:* 11,100 cubic yards exported
- *Maximum Daily Construction Workers:* 125 workers per day assumed during all phases

TABLE 21 CONSTRUCTION-RELATED CRITERIA AIR POLLUTANT EMISSIONS ESTIMATES

Construction Year/Phase	Emissions (tons)			
	ROG	NOx	PM ₁₀ exhaust	PM _{2.5} exhaust
2017				
Demolition	0.02	0.16	0.00	0.00
Grading	0.08	0.79	0.02	0.02
2018				
Grading	0.00	0.05	0.00	0.00
Building Construction	0.20	1.41	0.07	0.07
Exterior	0.08	0.54	0.02	0.02
Interior	0.02	0.11	0.01	0.01
2019				
Interior	0.13	0.85	0.04	0.03
Total Construction Emissions (tons)	0.53	4.31	0.16	0.15
Average Daily Construction Emissions (lb/day) ¹	2.18	17.83	0.68	0.63
Significance Threshold	54	54	82	82
Exceed Threshold? (Yes/No)	No	No	No	No

Source: Estimated by AECOM in 2017. The shift in the construction start dates would not change these estimates in a perceptible manner.

Notes:

lb/day = pounds per day; NOx = oxides of nitrogen; PM₁₀ = particulate matter equal to or less than 10 microns in diameter; PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter; ROG = reactive organic gases

Exhaust emissions from the construction equipment fleet are expected to decrease over time as stricter standards take effect; as advancements in engine technology occur, as older equipment is retrofitted; and as turnover occurs. Therefore, exhaust emissions are anticipated to result in lower levels of emissions if construction occurs in later years.

¹ Average daily construction emissions calculated assuming a total construction duration of 22 months, 22 days per month.

As shown in Table 21, emissions of criteria air pollutants from construction equipment exhaust would not exceed the average daily thresholds. Impacts from project-related construction activities on regional air quality would be *less than significant*.

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

As stated previously, the project site is located within an air pollutant exposure zone, as mapped and defined by Health Code article 38. The following is a list of the nearest sensitive receptors:

- Gateway Apartments, 80 feet away to the south
- Kai Ming Head Start Broadway Center, 0.12 mile to the west
- John Yehall Chin Elementary School, 0.25 mile to the west
- Wu Yee Children's Services, 0.28 mile to the west

Additionally, an affordable family and senior housing residential complex has been proposed to be located at 88 Broadway and 735 Davis Street, which is approximately 60 feet west of the project site.¹¹⁶

With regard to construction emissions, off-road equipment (which includes construction-related equipment) is a large contributor to diesel PM emissions in California, although since 2007, ARB has found the emissions to be substantially lower than previously expected.¹¹⁷ Newer and more refined emission inventories have substantially lowered the estimates of diesel PM emissions from off-road equipment, such that off-road equipment is now considered the sixth largest source of such emissions in California.¹¹⁸ For example, revised PM emission estimates for the SFBAAB for the year 2010 (diesel PM is a major component of total PM) have decreased by 83 percent from previous 2010 emissions estimates.¹¹⁹ 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.¹²⁰

Additionally, a number of federal and state regulations require cleaner off-road equipment. Specifically, both U.S. EPA and California have set emissions standards for new off-road equipment engines, ranging from tier 1 to tier 4. Tier 1 emission standards were phased in between 1996 and 2000 and tier 4 interim and final emission standards for all new engines were phased in between 2008 and 2015. To meet the tier 4 emission standards, engine manufacturers must produce new engines with advanced emission-control technologies. Although the full benefits of these regulations would not be realized for several years, U.S. EPA estimates that implementing the federal tier 4 standards would reduce NO_x and PM emissions by more than 90 percent.¹²¹

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 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.¹²²

¹¹⁶ San Francisco Planning Department, *88 Broadway and 735 Davis Street Project Final Mitigated Negative Declaration*, Case No. 2016-007850ENV, October 25, 2017, amended February 27, 2018. http://sfmea.sfplanning.org/2016-007850ENV_FMND.pdf.

¹¹⁷ California Air Resources Board, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements*, October 2010, p. 1 and p. 13 (Figure 4).

¹¹⁸ Ibid.

¹¹⁹ California Air Resources Board, *In-Use Off-Road Equipment, 2011 Inventory Model*, http://www.arb.ca.gov/msei/categories.htm#inuse_or_category, accessed April 2, 2012.

¹²⁰ California Air Resources Board, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements*, October 2010.

¹²¹ U.S. Environmental Protection Agency, "Clean Air Nonroad Diesel Rule: Fact Sheet," May 2004.

¹²² Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2011, p. 8-6.

Therefore, project-level analyses of construction activities have a tendency to produce overestimated assessments of long-term health risks. However, within an air pollutant exposure zone, as discussed above, additional construction activity may adversely affect populations that are already at higher risk for adverse long-term health risks from existing sources of air pollution.

Project construction activities would result in short-term emissions of diesel PM 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. Emission reductions from limiting idling, educating workers and the public, and properly maintaining equipment are difficult to quantify. However, other measures, specifically the requirement for equipment with tier 2 engines and the level 3 verified diesel emission control strategy (VDECS),¹²³ can reduce construction emissions by 89–94 percent compared to equipment with engines meeting no emission standards and without VDECS.⁵³ Emissions reductions from the combination of tier 2 equipment with level 3 VDECS is almost equivalent to requiring only equipment with tier 4 final engines. Therefore, compliance with **Mitigation Measure M-AQ-2** would reduce construction emissions impacts on nearby sensitive receptors to *less than significant with mitigation*.

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.

Where access to alternative sources of power is available, portable diesel engines shall be prohibited. Diesel engines, whether for off-road or on-road equipment, shall not be left idling for more than 2 minutes, at any location, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment (e.g., traffic conditions, safe operating conditions). The contractor shall post legible and visible signs in English, Spanish, and Chinese, in designated queuing areas, and at the construction site to remind operators of the 2-minute idling limit.

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.

¹²³ 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 U.S. Environmental Protection Agency's Exhaust and Crankcase Emissions Factors for Nonroad Engine Modeling – Compression Ignition has estimated tier 0 engines between 50 hp and 100 hp to have a PM emission factor of 0.72 g/hp-hour and greater than 100 hp to have a PM emission factor of 0.40 g/hp-hour. Therefore, requiring off-road equipment to have at least a tier 2 engine would result in between a 25 percent and 63 percent reduction in PM emissions, as compared to off-road equipment with tier 0 or tier 1 engines. The 25 percent reduction comes from comparing the PM emission standards for off-road engines between 25 hp and 50 hp for tier 2 (0.45 g/boiler horsepower [bhp]-hour) and tier 1 (0.60 g/bhp-hour). 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-hour) and tier 0 (0.40 g/bhp-hour). 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-hour) reduction in PM emissions, as compared to equipment with tier 1 (0.60 g/bhp-hour) or tier 0 engines (0.40 g/bhp-hour).

B. Waivers.

1. The Planning Department's environmental review officer 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 M-AQ-2.

TABLE M-AQ-2 OFF-ROAD EQUIPMENT COMPLIANCE STEP-DOWN SCHEDULE
COMPLIANCE

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 onsite construction activities, the contractor shall submit a construction emissions minimization 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 project sponsor shall ensure that all applicable requirements of the plan have been incorporated into the contract specifications. The plan shall include a certification statement that the contractor agrees to comply fully with the plan.
3. The contractor shall make the plan available to the public for review onsite 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 criteria air pollutant and TAC emissions 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 coatings. The following discussion addresses the proposed project's operational air quality impacts.

Impact AQ-3: 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*)

BAAQMD, in its *CEQA Air Quality Guidelines* (May 2017), has developed screening criteria to determine whether a project requires an analysis of project-generated criteria air pollutants. If a proposed project meets all the screening criteria, then the lead agency or project sponsor does not need to perform a detailed air quality assessment. BAAQMD's *CEQA Air Quality Guidelines* identify screening criteria for operational criteria air pollutant emissions for a "hotel" development at 489 rooms, a "quality restaurant" at 47,000 square feet, a "city park" at 2,613 acres, and a "regional shopping center" (assumed in place of the theater use) at 99,000 square feet; the proposed project falls substantially below the screening criteria for operational criteria pollutants for a hotel, quality restaurant, city park, or regional shopping center. Additionally, new buildings are required to comply with the current building energy efficiency standards and the CALGreen Code. 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. Therefore, the proposed project would result in a *less-than-significant* impact with respect to criteria air pollutants.

Impact AQ-4: The proposed project could generate substantial amounts of toxic air contaminants or expose sensitive receptors to substantial air pollutant concentrations. (*Less than Significant with Mitigation*)

Sensitive uses were described previously under Impact AQ-2. Although a recent California Supreme Court decision in *CBIA v. BAAQMD* held that impacts of the environment on a project generally are not within the purview of the CEQA statute, the following assessment is provided for the purpose of informing decision-makers.¹²⁴

Vehicle Trips

Individual projects result in emissions of TACs primarily as a result of an increase in vehicle trips. BAAQMD considers roads with fewer 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 approximately 634 daily vehicle trips would be well below this level and would be distributed among the local roadway network; therefore, an assessment of project-generated TACs resulting from vehicle trips is not required,

¹²⁴ In a decision issued on December 17, 2015, the California Supreme Court held that CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project's future users or residents except with certain types of specified projects or where a project or its residents may exacerbate existing environmental hazards (*California Building Industry Association v. Bay Area Air Quality Management District*, December 17, 2015, Case No. S213478, <http://www.courts.ca.gov/opinions/documents/S213478.PDF>). Thus, the analysis herein focuses on whether the proposed project would exacerbate existing or future air quality emissions in the project area. It is noted that existing local regulations, including article 38, would reduce exposure of new sensitive uses to air pollutant concentrations.

and the proposed project would not generate a substantial amount of TAC emissions that could affect nearby sensitive receptors.

Onsite Backup Diesel Generators

The proposed project includes a backup emergency generator. This diesel-fueled, 800-kilowatt generator would be located within the rooftop mechanical enclosure. Emergency generators are regulated by BAAQMD through its New Source Review (regulation 2, rule 5) permitting process. The project sponsor would be required to obtain applicable permits to operate an emergency generator from BAAQMD. Although emergency generators are intended only to be used in periods of power outages, monthly testing of the generator would be required. BAAQMD limits testing to no more than 50 hours per year. Additionally, as part of the permitting process, BAAQMD would limit the excess cancer risk from any facility to no more than 10 per 1 million population and would require any source that would result in an excess cancer risk greater than 1 per 1 million population to install best available control technology for toxics. However, because the project site is located in an area that already experiences poor air quality, the proposed emergency backup 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 89–94 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 in an area that already experiences poor air quality, implementation of **Mitigation Measure M-AQ-4** would reduce this impact to *less than significant with mitigation*.

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 particulate matter: (1) tier 4 certified engine, or (2) tier 2 or tier 3 certified engine that is equipped with an ARB level 3 verified diesel emissions control strategy (VDECS). A nonverified diesel emission control strategy may be used if the filter has the same particulate matter reduction as the identical ARB-verified model and if 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.

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

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

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

growth into vibrant urban communities where goods and services are close at hand, and people have a range of viable transportation options. To this end, the 2017 Clean Air Plan includes 85 control measures aimed at reducing air pollution in the air basin.

The measures most applicable to the proposed project are transportation control measures and energy and climate control measures. The proposed project's impact with respect to GHGs are discussed in Section E7, Greenhouse Gas Emissions, which demonstrates that the proposed project would comply with the applicable provisions of the City's GHG reduction strategy.

The compact development of the proposed project and high availability of viable transportation options ensure that residents could bicycle, walk, and ride transit to and from the project site instead of taking trips via private automobile. These features ensure that the project would avoid substantial growth in automobile trips and vehicle miles traveled. The proposed project's anticipated 1,160 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 A, Project Description. Transportation control measures that are identified in the 2017 Clean Air Plan are implemented by the General Plan and the Planning Code, such as through the City's Transit First Policy, bicycle parking requirements, and transit impact development fees. Compliance with these requirements would ensure that the project would include relevant transportation control measures specified in the 2017 Clean Air Plan. Therefore, the proposed project would include applicable control measures identified in the 2017 Clean Air Plan to meet the plan's primary goals.

Examples of a project that could cause the disruption or delay of 2017 Clean Air Plan control measures are projects that would preclude the extension of a transit line or bike path, or projects that propose excessive parking beyond parking requirements. The proposed project would construct a mixed-use development consisting of three components – an approximately 29,570-gsf dinner theater–entertainment venue; an approximately 118,000-square-foot hotel with 192 rooms; and an approximately 14,000-gsf, privately financed and maintained public park – in a dense, walkable urban area near a concentration of regional and local transit service. It would not preclude the extension of a transit line or a bike path or any other transit improvement, and thus, would not disrupt or hinder implementation of control measures identified in the 2017 Clean Air Plan.

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

Air quality plans describe air pollution control strategies to be implemented by a city, county, or region. The primary purpose of such a plan is to bring an area that does not attain federal and state air quality standards into compliance with the requirements of the federal and California clean air acts. BAAQMD prepares plans to attain national and California ambient air quality standards in the SFBAAB. BAAQMD adopted the 2017 Clean Air Plan on April 19, 2017. This plan provides a regional strategy to attain federal and state air quality standards by reducing emissions of ozone, PM, and TACs.

Air quality plans identify potential control measures and strategies, including rules and regulations that could be implemented to reduce air pollutant emissions from industrial facilities, commercial processes, on- and off-road motor vehicles, and other sources. The primary goals of the 2017 Clean Air Plan are to protect public health and the climate by reducing emissions, concentrations of harmful air pollutants, and exposure to the pollutants that pose the greatest health risk. The 2017 Clean Air Plan includes individual control measures that describe specific actions to reduce emissions of air pollutants and GHGs, with measures assigned into categories such as mobile-source, stationary-source, and land use and local impacts measures.

The proposed project would be consistent with the 2017 Clean Air Plan if it would support the plan's goals, would include applicable control measures from the plan, and would not disrupt or hinder implementation of any of the plan's control measures. Consistency with this plan is the basis for determining whether the proposed project would conflict with or obstruct implementation of an applicable air quality plan.

For mobile sources, the 2017 Clean Air Plan includes measures applicable to the project related to the use of off-road construction equipment. Mobile Source Measure C-1, Construction and Farming Equipment, calls for incentives to retrofit construction equipment with diesel PM filters or upgrade to tier 3 or 4 engines and use renewable alternative fuels in applicable equipment. The proposed project would be consistent with Mobile Source Measure C-1 because it would use construction equipment equipped with diesel PM filters or tier 4 engines, as required by the Clean Construction Ordinance.

For stationary sources, the 2017 Clean Air Plan includes stationary-source control measures to enhance BAAQMD's regulatory program. Stationary-Source Measure 21, Revise Regulation 2, Rule 5: New Source Review for Air Toxics, supports implementing more stringent requirements. The proposed project would be consistent with these control measures from the 2017 Clean Air Plan.

The 2017 Clean Air Plan also includes Transportation Control Measure D3, Local Land Use Strategies. This measure calls for promoting and supporting land use patterns, policies, and infrastructure investments that support high-density mixed-use, residential, and employment development to facilitate walking, bicycling, and transit use. The compact, dense development of the proposed project would be consistent with the goals of the 2017 Clean Air Plan control measures. In addition, section 169 of the San Francisco Planning Code requires that the project sponsor develop a TDM plan to reduce the use of single-occupancy vehicles and encourage the use of transit and nonmotorized travel modes. The proposed project would include TDM measures to further reduce impacts, resulting in a *less-than-significant* impact.

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.¹²⁵ Additionally, the proposed project would include hotel, entertainment, and retail/restaurant uses, which would not be a significant source of new odors. Any proposed restaurant would be required to meet regulations regarding proper venting of stove and other kitchen equipment, and an application to be reviewed and approved by DBI would be required before construction of a restaurant. Therefore, odor impacts from the proposed project would be *less than significant*.

Impact-C-AQ-1: The proposed project, in combination with past, present, and reasonably foreseeable future development in the project area, would not contribute to cumulative air quality impacts. (*Less than Significant with Mitigation*)

The geographic context for an evaluation of cumulative air quality impacts is the SFBAAB, as governed by BAAQMD. Emissions from past, present, and future projects contribute to the region's adverse air quality on a cumulative basis. No single project would be sufficient in size to result in regional nonattainment of ambient air quality standards by itself. Instead,

¹²⁵ A reconnaissance of the project site and environs was conducted by AECOM staff on December 21, 2016.

a project's individual emissions contribute to existing cumulative adverse air quality impacts.¹²⁶ 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. Because the proposed project's construction-related (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 air pollution exposure zone, an area that already experiences poor air quality; thus, past, present, and reasonably foreseeable development would worsen air quality and result in a significant cumulative impact. The proposed project would be required to implement **Mitigation Measure M-AQ-2, Construction Air Quality**, which could reduce construction period emissions, and **Mitigation Measure M-AQ-4, Best Available Control Technology for Diesel Generators**, which requires best available control technology to limit emissions from the project's emergency backup generator. Implementing these mitigation measures would reduce the project's contribution to cumulative air quality impacts to a *less-than-significant* level.

¹²⁶ Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2011, p. 2-1.

This page intentionally left blank.

E.7. GREENHOUSE GAS EMISSIONS

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

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

BAAQMD has prepared guidelines and methodologies for analyzing GHGs. These guidelines are consistent with CEQA Guidelines sections 15064.4 and 15183.5, which address the analysis and determination of significant impacts from a proposed project's GHG emissions. CEQA Guidelines section 15064.4 allows lead agencies to rely on a qualitative analysis to describe GHG emissions resulting from a project. CEQA Guidelines section 15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of GHGs and describes the required contents of such a plan. Accordingly, San Francisco has prepared *Strategies to Address Greenhouse Gas Emissions*,¹²⁷ which presents a comprehensive assessment of policies, programs, and ordinances that collectively represent San Francisco's qualified GHG reduction strategy in compliance with the CEQA Guidelines. These GHG reduction actions have resulted in a 28 percent reduction in GHG emissions in 2015 compared to 1990 levels,¹²⁸ exceeding the year 2020 reduction goals outlined in BAAQMD's 2017 Clean Air Plan, Executive Order S-3-05, and AB 32 (also known as the Global Warming Solutions Act).¹²⁹

Given that the City has met the state's and region's 2020 GHG reduction targets and San Francisco's GHG reduction goals are consistent with, or more aggressive than, the long-term goals established under Executive Orders S-3-05¹³⁰ and

¹²⁷ San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco*, 2017, <http://sf-planning.org/strategies-address-greenhouse-gas-emissions>.

¹²⁸ San Francisco Department of the Environment, *San Francisco's Carbon Footprint*, <https://sfenvironment.org/carbon-footprint>, accessed July 19, 2017.

¹²⁹ Executive Order S-3-05, AB 32, and the air district's 2017 Clean Air Plan (continuing the trajectory set in the 2010 Clean Air Plan) set a target of reducing GHG emissions to below 1990 levels by year 2020.

¹³⁰ Office of the Governor, Executive Order S-3-05, June 1, 2005, <http://www.pcl.org/projects/2008symposium/proceedings/Coatsworth12.pdf>, accessed March 16, 2016. Executive Order S-3-05 sets forth a series of target dates by which statewide emissions of GHGs need to be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels (approximately 457 million metric tons of carbon dioxide equivalents [MTCO₂e]); by 2020, reduce emissions to 1990 levels (approximately 427 million MTCO₂e); and by 2050 reduce emissions to 80 percent below 1990 levels (approximately 85 million MTCO₂e). Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents," which present a weighted average based on each gas's heat absorption (or "global warming") potential.

B-30-15^{131,132} and SB 32,^{133,134} the City's GHG reduction goals are consistent with Executive Orders S-3-05 and B-30-15, AB 32, SB 32, and the 2017 Clean Air Plan. Therefore, proposed projects that are consistent with the City's GHG reduction strategy would be consistent with the aforementioned GHG reduction goals, would not conflict with these plans or result in significant GHG emissions, and would therefore not exceed San Francisco's applicable GHG threshold of significance.

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

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 GHG emissions. (*Less than Significant*)

Individual projects contribute to the cumulative effects of climate change by directly or indirectly emitting GHGs during the construction and operational phases. Direct 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 activity onsite through removal of the surface parking lot and construction of the proposed mixed-use development that would include a hotel and theater. Once in operation, the proposed project would contribute to annual long-term increases in GHGs as a result of increased vehicle trips (mobile sources) and hotel and entertainment operational activities that would result in an increase in energy use, water use, wastewater treatment, and solid waste disposal. Construction activities would also result in temporary increases in GHG emissions.

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

The proposed project would not provide any on-site vehicle parking. This combined with compliance with the City's Commuter Benefits Program, Emergency Ride Home Program, Transportation Sustainability Fee, Jobs-Housing Linkage Program, and bicycle parking requirements would reduce the proposed project's transportation-related emissions. The proposed project would not provide any vehicle parking but would offer valet parking at offsite facilities. This combined with compliance with the bicycle parking requirements that promote alternative forms of transportation would reduce the proposed project's transportation-related emissions. The sponsor has agreed to TDM measures consisting of a bicycle repair station in the onsite employee bicycle room, real-time transportation information displays in prominent locations within the project site, multimodal wayfinding signage in key locations to support access to transportation services and infrastructure, and a staffed

¹³¹ Office of the Governor, Executive Order B-30-15, April 29, 2015, <https://www.gov.ca.gov/news.php?id=18938>, accessed March 3, 2016. Executive Order B-30-15, issued on April 29, 2015, sets forth a target of reducing GHG emissions to 40 percent below 1990 levels by 2030 (estimated at 2.9 million MTCO₂e).

¹³² San Francisco's GHG reduction goals are codified in section 902 of the Environment Code and include: (i) by 2008, determine City GHG emissions for year 1990; (ii) by 2017, reduce GHG emissions by 25 percent below 1990 levels; (iii) by 2025, reduce GHG emissions by 40 percent below 1990 levels; and by 2050, reduce GHG emissions by 80 percent below 1990 levels.

¹³³ SB 32 amends California Health and Safety Code division 25.5 (also known as the California Global Warming Solutions Act of 2006) by adding section 38566, which directs that statewide GHG emissions are to be reduced by 40 percent below 1990 levels by 2030.

¹³⁴ SB 32 was paired with AB 197, which would modify the structure of the California Air Resources Board; institute requirements for the disclosure of emissions of criteria pollutants and TACs; and establish requirements for the review and adoption of rules, regulations, and measures for the reduction of GHG emissions.

delivery reception area. These regulations reduce GHG emissions from single-occupancy vehicles by promoting the use of sustainable transportation modes with zero or lower GHG emissions on a per-capita basis.

The proposed project would be required to comply with the energy efficiency requirements of the City's Green Building Code, Stormwater Management Ordinance, and Water Conservation and Irrigation ordinances. Such compliance would promote energy and water efficiency, thereby reducing the proposed project's energy-related GHG emissions. The proposed project may include solar panels and a partial green roof, which would meet the renewable energy criteria of the Green Building Code, further reducing the proposed project's energy-related GHG emissions.

The proposed project's waste-related emissions would be reduced through compliance with the City's Recycling and Compositing Ordinance, Construction and Demolition Debris Recovery Ordinance, and Green Building Code requirements. These regulations reduce the amount of materials sent to a landfill, reducing GHGs emitted by landfill operations. These regulations also promote the reuse of materials, conserving their *embodied energy*¹³⁵ and reducing the energy required to produce new materials.

Compliance with the City's street tree planting requirements would serve to increase *carbon sequestration*. Other regulations, including those limiting refrigerant emissions and the Wood Burning Fireplace Ordinance, would reduce emissions of GHGs and *black carbon*, respectively. Regulations requiring low-emitting finishes would reduce volatile organic compounds (VOCs).¹³⁶ Thus, the proposed project is determined to be consistent with San Francisco's GHG reduction strategy.¹³⁷

The project sponsor is required to comply with these regulations, which have proven effective, as San Francisco's GHG emissions have measurably decreased by 28 percent as of 2015¹³⁸ when compared to 1990 emissions levels, demonstrating that the City has met and exceeded Executive Order S-3-05, AB 32, and the Bay Area 2017 Clean Air Plan's GHG reduction goals for the year 2020. Other existing regulations, such as those implemented through AB 32, would continue to reduce the proposed project's contribution to climate change. In addition, San Francisco's local GHG reduction targets are consistent with the long-term GHG reduction goals of Executive Orders S-3-05 and B-30-15, AB 32, SB 32, and the 2017 Clean Air Plan. Because the proposed project is consistent with the City's GHG Reduction Strategy, it is also consistent with the GHG reduction goals of Executive Orders S-3-05 and B-30-15, AB 32, SB 32, and the 2017 Clean Air Plan; would not conflict with these plans; and would therefore not exceed San Francisco's applicable GHG threshold of significance. As such, the proposed project would result in a *less-than-significant* impact with respect to GHG emissions.

¹³⁵ Embodied energy is the total energy required for the extraction, processing, manufacture, and delivery of building materials to the building site.

¹³⁶ Although they are not GHGs, VOCs are precursor pollutants that form ground-level ozone. Increased ground-level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing emissions of VOCs would reduce the anticipated local effects of global warming.

¹³⁷ San Francisco Planning Department, *Greenhouse Gas Analysis: Compliance Checklist for ZinZanni Hotel and Theater Project*, November 16, 2016.

¹³⁸ San Francisco Office of the Environment, San Francisco's Carbon Footprint, <https://sfenvironment.org/carbon-footprint>, accessed September 16, 2017.

This page intentionally left blank.

E.8. WIND AND SHADOW

Topics:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
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"/>

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

A proposed project's wind impacts are directly related to its height, orientation, design, location, and surrounding development context. Based on wind analyses for other development projects in San Francisco, a building that does not exceed a height of 85 feet generally has little potential to cause substantial changes to ground-level wind conditions. At a height of 40 feet (with an additional 15 feet for rooftop appurtenances), the proposed project would be approximately the same height as existing nearby buildings, which are approximately 45–55 feet tall, except for the Gateway Apartments building, which is 65 feet tall, and the proposed 88 Broadway and 753 Davis Street project, which would be approximately 75 feet tall. Given its height, orientation, design, and location and the surrounding development context, the proposed 40-foot-tall building (plus 15 feet for mechanical equipment and elevator penthouse) has little potential to cause substantial changes to ground-level wind conditions in public areas adjacent to and near the project site. For these reasons, the proposed project would not alter wind in a manner that substantially affects public areas. This impact would be *less than significant*.

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

Planning Code section 295 generally prohibits new structures taller than 40 feet that would cast additional shadows on open space that is under the jurisdiction of the San Francisco Recreation and Park Department (SFRPD) between 1 hour after sunrise and 1 hour before sunset, at any time of the year, unless that shadow would not result in a significant adverse effect on the use of the open space.

The threshold for determining the significance of impacts under CEQA is whether the proposed project would create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas, regardless of whether those facilities or areas are protected by planning code section 295 (i.e., under jurisdiction of public entities other than the Recreation and Park Commission [Rec Park] or privately owned and publicly accessible open space). In addition, as under planning code section 295, the CEQA analysis of shadow impacts takes into account usage of the open space; the time of day and year of project shadow; the physical layout and facilities affected; the intensity, size, shape, and location of the shadow; and the proportion of open space affected.

Because the proposed building would be 40 feet tall as measured by the planning code, it would be exempt from the shadow protection requirements of planning code section 295. Additionally, there are no nearby parks under Rec Park jurisdiction that could be affected by the proposed project. Non-section 295 properties in the project vicinity include: Sydney G. Walton Square (approximately 0.1 mile south of the project site), The Embarcadero Promenade (promenade) (sidewalks adjacent to the project site) and Pier 7½ Open Space. However, Sydney G. Walton Square is too far from the project site to be effected by the proposed project. The proposed project is located adjacent to designated public open spaces within the Port jurisdiction including, promenade, Pier 7 and Pier 7½ public spaces; therefore, the potential for the project to shadow these areas was evaluated below. Figure 19 shows the location of the proposed project and The Embarcadero with the pier structures and public space along the promenade evaluated for shadow impacts.

The San Francisco Planning Department prepared a preliminary shadow fan analysis that determined that the proposed project would have the potential to cast new shadow on the promenade and Pier 7½ Open Space. Therefore, a technical memorandum was prepared detailing potential new shadow impacts on promenade and Pier 7½ Open Space.¹³⁹

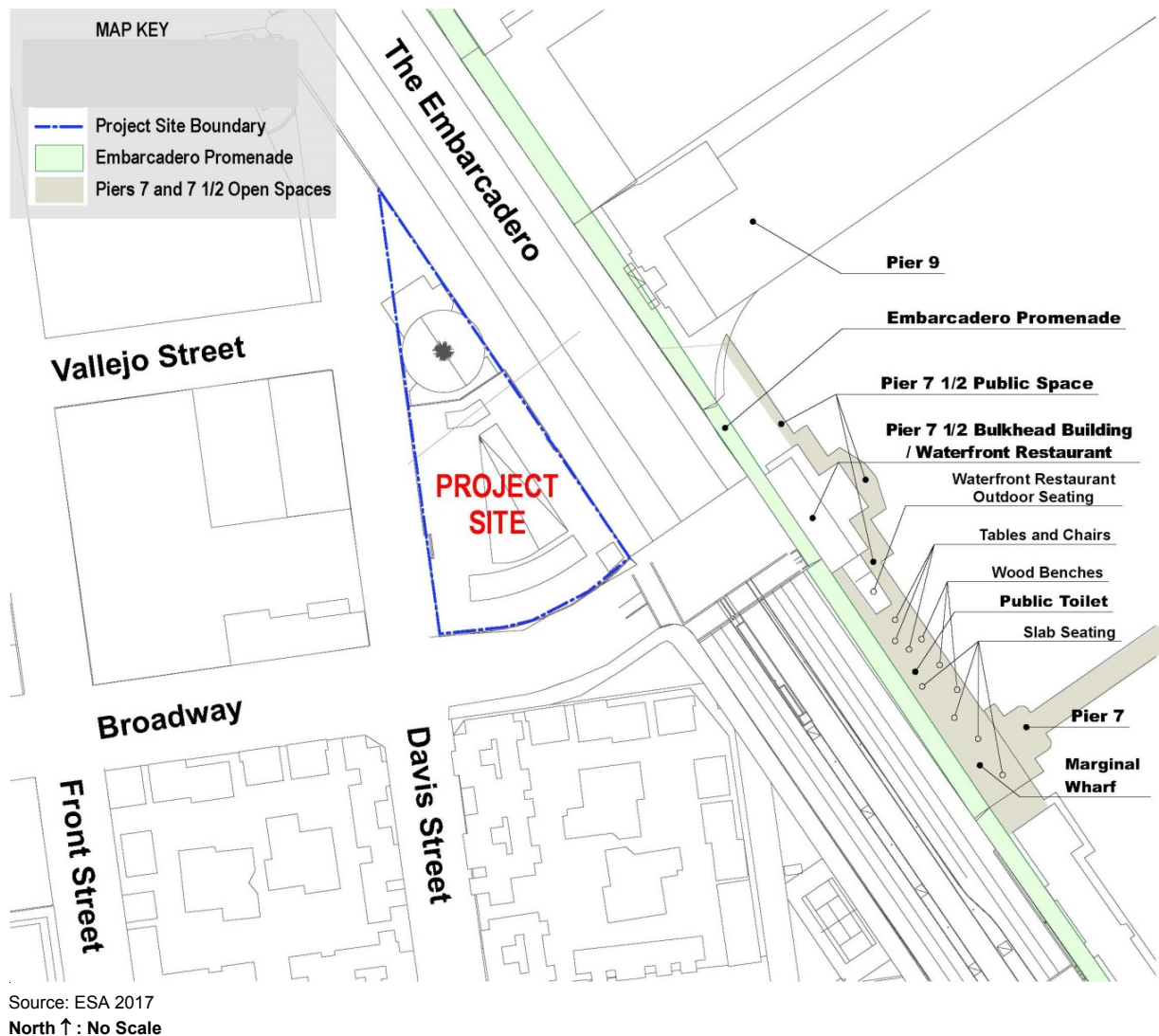


FIGURE 19 PROPOSED PROJECT WITH PROMENADE PIER STRUCTURES AND PUBLIC SPACE EVALUATED

Embarcadero Promenade

The Embarcadero Promenade (promenade) is a waterfront pedestrian promenade that runs along the eastern side of The Embarcadero. The promenade is more than 3 miles long and extends from Fisherman’s Wharf to China Basin. The promenade is identified as an “Open Space and Public Access” site in the Waterfront Land Use Plan and that plan’s Waterfront Design and Access Element.¹⁴⁰ It is a public open space resource that functions as both a pedestrian corridor and a waterfront open space destination, attracting downtown office workers, tourists, and residents. There are public art installations and seating areas at various locations along the promenade. Throughout the year, portions of the promenade near

¹³⁹ Environmental Science Associates, *Teatro ZinZanni and Hotel Shadow Study Technical Memorandum*, January 6, 2017.

¹⁴⁰ Port of San Francisco, *Waterfront Land Use Plan*, June 2004; Revised October 2009, <http://sfport.com/waterfront-land-use-plan-0>.

the project site are shadowed by the existing piers' bulkhead and shed buildings in the early morning and by existing buildings on the western side of The Embarcadero in the late afternoon.

The proposed project would cast net new shadow on a short section of the promenade in the late afternoon or evening each day of the year.¹⁴¹ The net new project shadow would begin at approximately 7:30 p.m. (Figure 21) during the summer and approximately 3 p.m. (Figure 22) during the winter. In the late afternoon or evening on any given day, the proposed project would shadow a segment of promenade measuring up to 250–300 feet long. Over the full year, the proposed project would affect an approximately 600-foot-long segment of the promenade. This 600-foot-long segment consists mostly of sidewalk with some seating areas and extends from just north of the Pier 7 Public Pier to the north end of the Pier 9 bulkhead building, which is less than 4 percent of the 3-mile-long promenade. Pier 7 Public Pier and the Pier 7½ - Waterfront Restaurant and Public Area are the two other designated public open spaces within Port jurisdiction nearby. Shadow from the proposed project would not reach other portions of the promenade. The shadow effect on the promenade would be seasonal, occurring on the southern part of the affected segment in late spring and early summer, primarily on the central part near the spring (March 20) and fall (September 20) equinoxes, and on the northern part only in fall and winter. The new project shadow on the promenade is not likely to adversely affect the late afternoon use of this primarily pedestrian area, because the activities of many pedestrians, runners, and bicyclists typically are not sensitive to shadow. Although those who wish to sit may prefer to sit in the sun, pedestrian walkways and open seating close to the water, such as those that exist east of the promenade at the Pier 7½ Public Space would be shadowed by the proposed project for a short time frame in winter after 3:30 p.m.. However, the project's net new shadow on the promenade would not be expected to affect its use or enjoyment.

Pier 7½ Public Space

The Pier 7½ Public Space is an open space area along The Embarcadero between Pier 7 and Pier 9 adjacent to San Francisco Bay and is divided into two segments southeast of the project site. The northern segment, between Pier 9 and the Waterfront Restaurant, includes a waterside walkway. There are no seating areas or amenities at the northern segment of the Pier 7½ public space. The southern segment, between the Waterfront Restaurant and Pier 7, includes a larger public space immediately adjacent to the restaurant's outdoor eating area and contains several public seating areas and amenities: three groups of wooden benches spaced along the eastern margin of the wharf that provide seating close to the bay; three small, fixed tables centrally located between the restaurant's outdoor seating and the public toilet; and eight large, low concrete blocks spaced throughout the area to provide added informal seating.

In addition to shadow on The Embarcadero promenade, the proposed project would cast late afternoon and evening shadow on the Pier 7½ public space that is located adjacent to and east of the promenade and between Pier 7 and Pier 9. New shadow would not reach Pier 7½ itself, because that area is already in the shadow of the Waterfront Restaurant at all times when project shadow could reach it.

New project shadow resulting from the project on the Pier 7½ public space would vary by season, but would occur only in late afternoon or evening, beginning within approximately one-half hour after the shadow reaches the promenade. The seasonal variations of new project shadow for the northern and the southern segments of this open space are described below.

On the summer solstice (June 20), new project shadow would not reach the northern segment of this public space, see Figures 20 and 21. New project shadow would reach the northern segment on the fall equinox (September 20) and the winter solstice (December 20), as well as through the fall and winter. On the fall equinox, project shadow would reach the bayfront pedestrian strip in the northern segment by approximately 6:09 p.m., and would cover it by 6:15 p.m. On the winter solstice, the new shadow from the project would reach the northern bayfront pedestrian strip shortly before 3:30 p.m. and would cover it by 4:00 p.m. as depicted in Figures 22 and 23.

¹⁴¹ Environmental Science Associates, *Teatro ZinZanni and Hotel Shadow Study Technical Memorandum*, January 6, 2017.

On the summer solstice (June 20), new project shadow would reach the promenade, but would not reach the southern segment of the public space as indicated in Figures 20 and 21, reflecting 7:00 p.m. and 7:30 p.m. time slots. In late spring and early summer, net new project shadow would reach only the western edge of the southern segment, and would not reach the public seating and amenities located farther east. On the equinox, net new project shadow would not reach the southern segment of the open space, between 1 hour after sunrise and 1 hour before sunset. Later that day, shortly after 6:15 p.m., net new project shadow would extend beyond the Waterfront Restaurant and would cover the immediately adjacent public space and the restaurant's outdoor seating area, and would reach into the bayfront open space, covering it by 6:30 p.m. This shadow would not reach the seating areas or other amenities in the southern segment of the Pier 7½ public space. On the winter solstice, net new shadow from the project would not reach as far south as the Waterfront Restaurant building or the southern segment of the Pier 7½ public space.

The new project shadow on the Promenade and 7½ public space is not likely to adversely affect the late afternoon use of this primarily pedestrian area, because the activities of many pedestrians, runners and bike riders typically are not sensitive to shadow. While those who wish to sit may prefer to sit in the sun, pedestrian walkways and open seating close to the water, such as those that exist east of the Promenade at the Pier 7 ½ public space, would remain in sunlight for up to approximately another half-hour after shadow first reaches the Promenade. Those users who do not need to walk or sit in the sun would not be adversely affected by the new shadow, therefore impacts would be *less than significant*.

Figures 22 through 24 below, depict the proposed project and existing shadow during the winter solstice on December 20, at 3:00 p.m., 3:30 p.m., and 4:00 p.m. New project shadow would not reach the Pier 7 Public Pier open space and therefore impacts would be less than significant.

Additionally, at times, the proposed project would shadow portions of other nearby streets and sidewalks and private property such as along Broadway and The Embarcadero, in the project vicinity. Shadows on streets and sidewalks would not exceed levels commonly expected in urban areas and would be considered a less-than-significant effect under CEQA.

Although occupants and visitors of nearby properties may regard the increase in shadow as undesirable, the limited increase in shading of public and private properties resulting from the proposed project would not be considered a significant impact under CEQA. For the reasons discussed above, shadow impacts would be *less than significant*.

Impact-C-WS-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the project site, would result in less-than-significant cumulative impacts related to wind and shadow. (*Less than Significant*)

As discussed above under Impact WS-1, buildings shorter than 85 feet have little potential to cause substantial changes to ground-level wind conditions. Because the nearby cumulative development projects would be less than 85 feet tall, the cumulative project would not alter wind in a manner that substantially affects public areas. For these reasons, the proposed project with other cumulative projects would have a *less-than-significant* cumulative wind impact.

As described above under Impact WS-2, the proposed project would not cast net new shadow on any park protected by planning code section 295 or on Sydney G. Walton Square. Therefore, the proposed project has no potential to result in cumulative impacts on section 295, Rec Park open spaces. However, the proposed project would add new shadow to 4 percent of the Embarcadero sidewalks. General shadow in the immediate vicinity of the project site is prescribed by the existing buildings to the south and west of the vacant project site and pier bulkhead buildings along The Embarcadero to the east of the project site. Throughout the year, portions of the promenade near the project site are shadowed by the existing piers' bulkhead and shed buildings in the early morning and by existing buildings on the west side of The Embarcadero in the late afternoon. Similarly, the Pier 7½ public open space north of the Waterfront Restaurant and the larger Pier 7½ public open space on the wharf between the Waterfront Restaurant and Pier 7 are shadowed in early morning and in late afternoon

throughout the year by existing buildings. In contrast, Pier 7 and its marginal wharf remain in full sunlight from sunrise until late in the afternoon, and the Pier 7½ public open space east of the Waterfront Restaurant remains in sunlight from sunrise until after midday, when the shadow from the existing restaurant building covers that public space for the rest of the day. The proposed 88 Broadway and 735 Davis Street developments in the area adjacent to the project site could also increase shadows on The Embarcadero sidewalks.

A shadow analysis was performed for the proposed 88 Broadway and 735 Davis Street project. The analysis concluded that the project would cast a shadow on Sydney G. Walton Square and The Embarcadero promenade. However, this analysis also concluded that existing shadow already exists at Sydney G. Walton Square from existing surrounding buildings, and this cumulative project would not contribute to net new shadow any time of the year, given the distance and position from the park. As a result of this project, a minimal shadow impact is expected to occur on The Embarcadero. Based on the evidence provided above, the shadows created by the cumulative projects, listed in Section B.3, Cumulative Projects, would not exceed levels commonly expected in urban areas. As a result, the cumulative impact with respect to shadow from cumulative projects in combination with the proposed seawall lots 323 and 324 projects would be *less than significant*.



FIGURE 20

PROPOSED PROJECT AND EXISTING SHADOW, JUNE 20TH, 7:00 P.M.

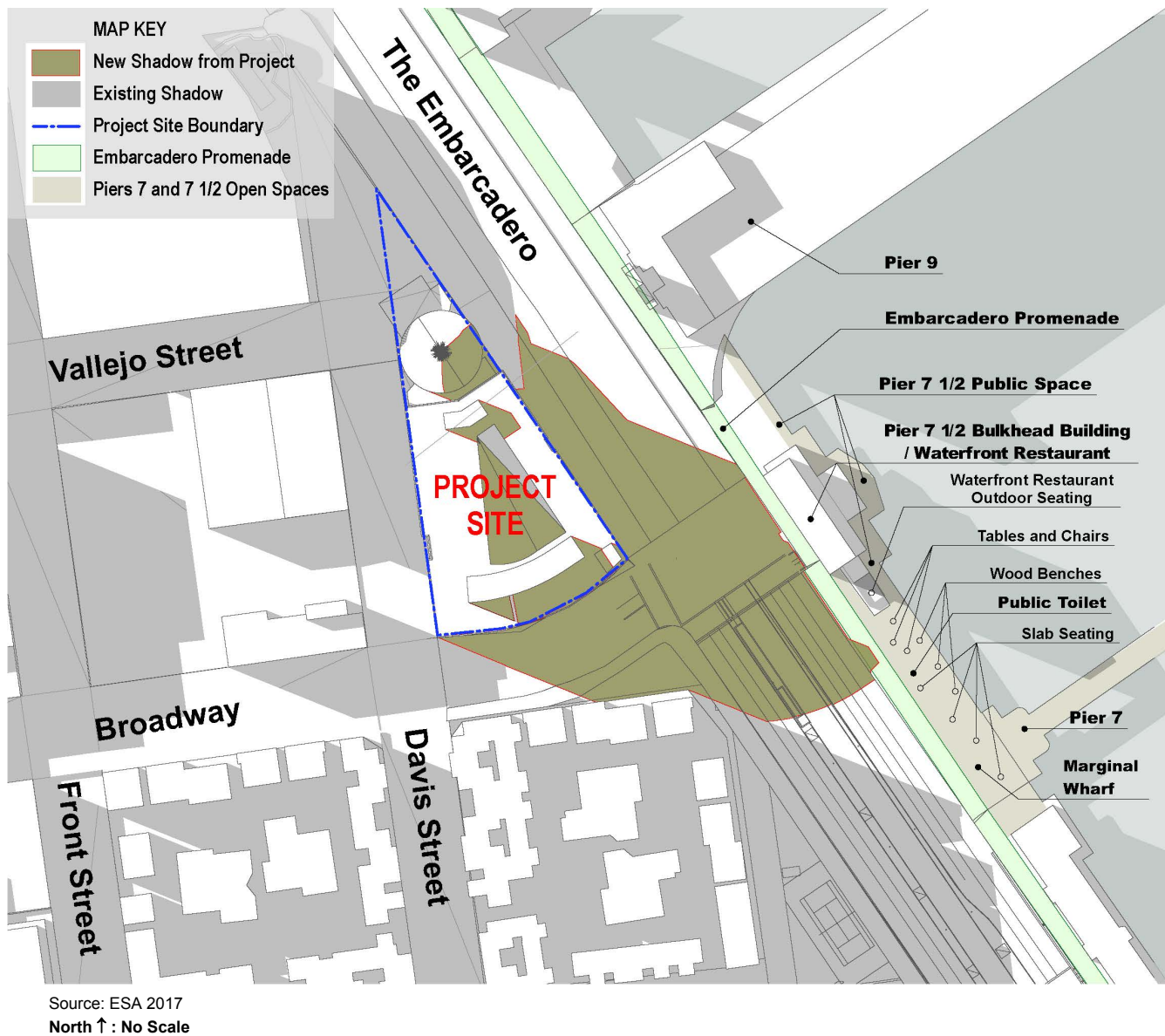


FIGURE 21 **PROPOSED PROJECT AND EXISTING SHADOW, JUNE 20TH, 7:30 P.M.**

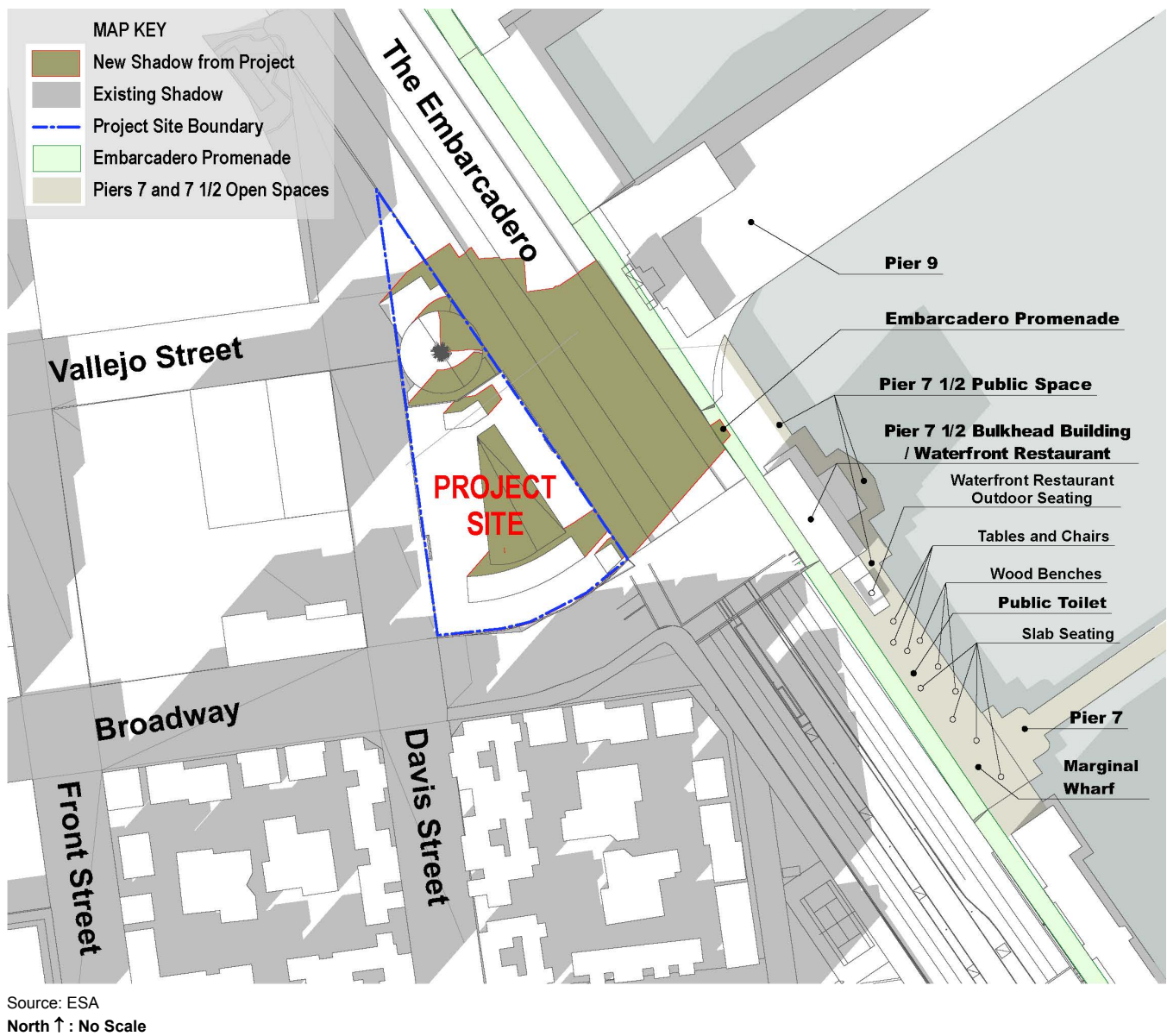


FIGURE 22 **PROPOSED PROJECT AND EXISTING SHADOW, DECEMBER 20TH, 3:00 P.M.**



Source: ESA
North ↑ : No Scale

FIGURE 23 PROPOSED PROJECT AND EXISTING SHADOW, DECEMBER 20TH, 3:30 P.M.



Source: ESA
North ↑ : No Scale

FIGURE 24 **PROPOSED PROJECT AND EXISTING SHADOW, DECEMBER 20TH, 4:00 P.M.**

This page intentionally left blank.

E.9. RECREATION

Topics:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
RECREATION.					
a) Would the project 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) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

The new entertainment venue and hotel uses would be served by Rec Park, which administers more than 220 parks, playgrounds, and open spaces throughout the city, as well as recreational facilities, including recreation centers, swimming pools, golf courses, and athletic fields, tennis courts, and basketball courts.¹⁴² The project site is in an intensely developed urban neighborhood that does not contain large regional park facilities, but includes a number of neighborhood parks and open spaces, as well as other recreational facilities. The San Francisco General Plan's Recreation and Open Space Element identifies areas throughout the city that have a high need for open space. "High-need" areas are defined as those with high population densities, high concentrations of seniors and youth, and lower income populations that are located outside of existing parking service areas.¹⁴³ Although neighboring areas west of the project site are classified as high-need areas, the project site is located on parcels classified as having a lesser need for open space.

There are several Rec Park–managed recreation and open space facilities near the project site:

- **Maritime Plaza** (at 285 Washington Street): An approximately 2.01-acre landscaped plaza connected by pedestrian bridges to Golden Gateway and Embarcadero Center, located approximately 0.22 mile south of the project site.
- **Sue Bierman Park** (at the intersection of Washington and Drumm streets): An approximately 4.41-acre park containing a playground and reservable picnic areas, located approximately 0.30 mile southeast of the project site.
- **Justin Herman–Embarcadero Plaza** (at the intersection of Steuart and Market streets): An approximately 4.43-acre park containing a fountain, a winter ice skating rink, reservable picnic areas, and a bocce ball court, located approximately 0.37 mile southeast of the project site.
- **Portsmouth Square** (at the intersection of Washington Street and Walker Lum Place): An approximately 1.29-acre park containing benches and a children's play area, located approximately 0.43 mile southwest of the project site.
- **Washington Square** (at the intersection of Filbert and Stockton streets): An approximately 2.26-acre park containing benches, located approximately 0.58 mile northwest of the project site.

¹⁴² San Francisco Planning Department, *San Francisco General Plan, Recreation and Open Space Element*, April 2014, http://www.sf-planning.org/ftp/General_Plan/Recreation_OpenSpace_Element_ADOPTED.pdf, accessed January 18, 2017.

¹⁴³ Ibid.

- **Telegraph Hill–Pioneer Park** (at Telegraph Hill Boulevard): An approximately 4.89-acre park containing Coit Tower, located approximately 0.43 mile northwest of the project site.

In addition to these facilities, Sydney G. Walton Square is the nearest public open space to the project site that is not owned or managed by Rec Park. The park is located 0.1 mile southwest, occupying half of the block south from the project site, and is bounded by Front Street to the east, Jackson Street to the south, and Davis Street to the west. The approximately 2-acre park is known for its public art and is a popular lunchtime spot for nearby employees and residents. Project residents also have close access (one block to the east) to The Embarcadero sidewalks, which are waterfront sidewalks located alongside the eastern portion of the Port. The sidewalks are along a 3-mile stretch of seawall that features piers, sidewalks, restaurants, parks, and other attractions. Additionally, neighborhood residents have access to the Pier 7½ Public Space, which is located along The Embarcadero between Pier 7 and Pier 9 and contains many features such as outdoor seating at the Waterfront Restaurant, public benches and tables, a public toilet, and informal seating next to San Francisco Bay. The proposed entertainment venue and hotel uses would increase the number of employees, hotel guests, and theatergoers at the project site. Although some of the population associated with the site would be onsite for entertainment events only and would be unlikely to make regular use of recreational facilities, hotel guests, and employees may use local recreational facilities in the vicinity of the proposed project.

As discussed in Section A, Project Description, the proposed project includes a 14,000-gsf public park at the north end of the project site. The public park would include landscaped and hardscape areas with benches and pathways for pedestrian and bicycle use. The population associated with the proposed project would use the proposed public park, which is anticipated to alleviate use of other nearby recreational facilities. The population of the proposed project is also expected to use the promenade and facilities along the bay, both recreationally and as a means of connection to other parts of the city. The incremental increase in use associated with the proposed project is not anticipated to contribute to deterioration of the recreational facilities in the vicinity of the project site. Moreover, construction of a new public park onsite would create additional recreational resources in the project area. Therefore, the impact of the proposed project would be *less than significant*.

The proposed project would not result in direct physical alteration of recreational facilities. The closest recreational facilities to the project site are the promenade (approximately 100 feet east of the project site); Pier 7 (approximately 300 feet southeast of the project site); and Sydney Walton Park (0.1 mile southwest of the project site). Construction of the proposed project is not anticipated to affect access to these facilities. Therefore, the proposed project would have a *less-than-significant* impact on recreational facilities and resources.

Impact-C-RE-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the project site, would result in less-than-significant cumulative impacts related to recreation. (*Less than Significant*)

Past, present, and reasonably foreseeable future projects located within approximately 0.25 mile of the project site are identified in Table 3 and mapped in Figure 17 in Section B.3, Cumulative Projects. These projects would add approximately 427 new residents in 189 dwelling units in the project vicinity. In addition, the cumulative projects would add an estimated 160 new employees (including the 129 net new employees associated with the proposed project) within 0.25 mile of the project site. Recreational facility use in the project area would most likely increase with development of the proposed project, as well as the past, present, and reasonably foreseeable future projects identified in Table 3.

The proposed project includes a new 14,000-gsf public park that would be available to the increased residential population in the area. Furthermore, it is not anticipated that the proposed project population would increase the use of existing neighborhood and regional parks or other recreational facilities to such an extent that substantial physical deterioration of those facilities would occur, given that not all residents would necessarily use local parks and that other recreational

opportunities are available citywide. The added residential population resulting from development of the cumulative projects also would not require the construction or expansion of recreational facilities, nor would it physically degrade existing recreational resources. Each project identified in Table 3 and mapped in Figure 17 in Section B.3, Cumulative Projects, would be subject to compliance with the City’s open space requirements, as defined in section 135 of the planning code, regarding provision of public and/or private open space to partially meet the demand for recreational resources from future residents of those projects. Moreover, in June 2016, San Francisco voters approved Local Measure (Proposition) B, which extends until 2046 a funding set-aside in the City budget for SFRPD and provides for annual increases through 2026–2027 in General Fund monies provided to SFRPD, meaning that SFRPD would have additional funding for programming and park maintenance.¹⁴⁴ For these reasons, when considered in combination with other past, present, or reasonably foreseeable future projects, the proposed project would not result in a cumulative impact on recreational facilities or resources. The impact would be *less than significant*.

¹⁴⁴ San Francisco Department of Elections, June 7, 2016 Official Election Results, <http://www.sfelections.org/results/20160607/>, last updated June 24, 2016, accessed August 17, 2016.

This page intentionally left blank.

E.10. UTILITIES AND SERVICE SYSTEMS

Topics:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
10. UTILITIES AND SERVICE SYSTEMS.— Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supply available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<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 which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project site is in an urban area that is served by utility service systems, including water, wastewater and stormwater collection and treatment, and solid waste collection and disposal. The proposed project would add new daytime and nighttime populations to the project site that would increase the demand for utilities and service systems on the site. However, as discussed in Section E.2, Population and Housing, the growth associated with the proposed project would not be in excess of growth planned for the city.

Impact UT-1: 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 serving the project site; and would not require construction of new stormwater drainage facilities, wastewater treatment facilities, or expansion of existing facilities. (*Less than Significant*)

The project site is served by San Francisco's combined sewer system, which handles both sewage and stormwater runoff. The Southeast Water Pollution Control Plant provides wastewater and stormwater treatment and management for the eastern side of the city, including the project site. Stormwater Management Ordinance compliance approvals for this project would be conducted by the SFPUC and Port. As described in Impact PH-1 in Section E.2, Population and Housing, the proposed project would add approximately 129 employees of the theater, hotel, restaurant, and bar; patrons of the 285-seat entertainment venue, restaurant, and bar; and approximately 365 hotel guests to the project site, which would increase the amount of wastewater generated at the project site by approximately 54,250 gallons per day.¹⁴⁵ This increase would not be

¹⁴⁵ The 90 percent of water use (see Impact UT-2) assumed to be discharged to the combined sewer system is consistent with SFPUC's standard assumption for nonresidential buildings, "Wastewater Service Charge Appeal," <http://www.sfwater.org/index.aspx?page=132>, accessed January 2018. SFPUC assumes that nonresidential uses discharge 90 percent of water used to the combined sewer. The 90 percent figure is used in these calculations for a conservative assessment of combined

substantial and would represent only a 0.09 percent increase in the Southeast Water Pollution Control Plant's average daily treatment capacity of 60,000,000 gallons per day.¹⁴⁶ In addition, the proposed project would incorporate water-efficient fixtures, as required by CCR title 24 and the San Francisco Green Building Ordinance. Specifically, the project must comply with the following measures:

- Title 24, part 11 (2016 CALGreen Code), Residential Mandatory Measures, division 4.3, Water Efficiency and Conservation
- Title 24, part 11 (2016 CALGreen Code), Nonresidential Mandatory Measures, division 5.3, Water Efficiency and Conservation

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 SFPUC in its projections of water demand (i.e., 2015 Urban Water Management Plan [2015 UWMP]), because widespread adoption can lead to more efficient use of existing capacity. The proposed project would also meet SFPUC's wastewater pretreatment requirements, as required by the San Francisco Industrial Waste Ordinance to meet the requirements of the San Francisco Bay RWQCB (see discussion under Impact HYD-1 in Section E.14, Hydrology and Water Quality, for additional stormwater management requirements).¹⁴⁷ Although the proposed project would add new hotel and entertainment visitors and employees to the project site, which would increase wastewater generation, this additional population is not beyond the growth projections included in long-range plans. Therefore, the incremental increase in demand for wastewater would not require construction of new wastewater treatment facilities or expansion of existing facilities.

The project site is currently entirely covered by impervious surfaces and the proposed project would not create any additional impervious surfaces; therefore, the proposed project would not result in an increase in stormwater runoff. Compliance with the City's Stormwater Management Ordinance, adopted in 2010 and amended in 2016, and the 2016 Stormwater Management Requirements and Design Guidelines would require the proposed project to reduce the existing volume and rate of stormwater runoff discharged from the project site. The project site has more than 50 percent impervious surface at present, the proposed project would create or replace more than 5,000 square feet of impervious surface, and the site is served by the combined sewer system. Thus, the stormwater management approach for the proposed project must reduce the existing runoff flow rate and volume by 25 percent for a 2-year, 24-hour design storm. The Stormwater Management Requirements set forth a hierarchy of BMPs to meet the stormwater runoff requirements. First-priority BMPs involve reducing stormwater runoff through approaches such as rainwater harvesting and reuse (e.g., for toilets and urinals and/or irrigation); infiltration through a rain garden, swale, trench, or basin; or the use of permeable pavement or a green roof. Second-priority BMPs include using biotreatment approaches such as flow-through planters or, for large sites, constructed wetlands. Third-priority BMPs, permitted only under special circumstances, involve using a filter to treat stormwater.

To achieve compliance with the Stormwater Management Requirements, the proposed project would implement and install appropriate stormwater management systems, such as low impact design approaches, rainwater reuse systems, cisterns, and green roofs that would manage stormwater onsite and limit demand on both the collection system and wastewater facilities resulting from stormwater discharges. A stormwater control plan would be designed for review and approval by SFPUC. The stormwater control plan would also include a maintenance agreement that must be signed by the project sponsor to guarantee

sewer system demand. 60,279 gallons per day x 90 percent = 54,251 gallons per day. The calculation for the project's water demand is shown in Impact UT-2.

¹⁴⁶ San Francisco Public Utilities Commission, *San Francisco's Wastewater Treatment Facilities*, June 2014, <http://sfwater.org/modules/showdocument.aspx?documentid=5801>, accessed January 2018
54,251 gallons per day/60,000,000 gallons per day = 0.090%

¹⁴⁷ City and County of San Francisco, Ordinance No. 19-92, San Francisco Municipal Code (Public Works), part II, chapter X, article 4.1 (amended), January 13, 1992.

proper care of the necessary stormwater controls. Therefore, the proposed project would not substantially increase the amount of stormwater runoff to the extent that existing facilities would need to be expanded or new facilities would need to be constructed; as such, the impact on the stormwater system would be less than significant.

Overall, although the proposed project would add to wastewater flows in the area, it would not cause the collection treatment capacity of the City's sewer system to be exceeded. The proposed project also would not exceed wastewater treatment requirements of the San Francisco Bay RWQCB, and would not require the construction of new wastewater/stormwater treatment facilities or expansion of existing ones. Therefore, because the proposed project would not require the construction of new or expanded wastewater or stormwater collection, conveyance, or treatment facilities that could have a significant impact on the environment, the impact would be *less than significant*.

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

As noted above under Impact UT-1, the proposed project would add hotel, entertainment, and public park uses to the project site, which would increase the demand for water on the site, but not in excess of amounts planned and provided for in the project area. SFPUC currently serves approximately 2.7 million customers in the Bay Area. Existing gross (all-sector) water use and residential-only water use by in-city retail customers are 77 and 44 gallons per capita per day, respectively.¹⁴⁸ Conservatively assuming that future project employees, patrons of the entertainment venue, restaurant, and bar, and hotel guests use the same amount of water, the proposed project would use an estimated 63,5829 gallons of water per day or 0.0635 million gallons per day.¹⁴⁹

As the water provider for San Francisco, SFPUC prepares an urban water management plan every 5 years to project future demand and evaluate the adequacy of existing and projected supply. Demands that are not met by local runoff are met with water diverted from the Tuolumne River through the Hetch Hetchy System. SFPUC's 2015 plan estimates that current and planned future supplies will be sufficient to meet future retail demands through 2035 under normal, dry, and multiple dry years; however, for 2040, a water shortfall of 1.1 million gallons per day is estimated for the city during the second and third years of multiple-dry-year conditions. The 2015 plan estimates a projected in-city water demand of 84.9 million gallons per day for 2040. The population generated by the proposed project would account for less than 0.02 percent of this projected demand. Therefore, although the proposed project would incrementally increase the demand for water in San Francisco, the estimated increase would not exceed the amounts expected and provided for in the project area, and the increase in demand is not significant compared to the demand projected for 2040.

The proposed project would be designed to incorporate water-conserving measures, such as low-flush toilets and urinals, as required by the San Francisco Green Building Ordinance. The project site is located in a designated recycled-water-use area, as defined in the Recycled Water Ordinance (sections 390-91 and 393-94). The ordinance requires projects of new construction totaling 40,000 square feet or more, such as the proposed project, to install recycled-water systems for all uses authorized by the State of California, including landscape irrigation and toilet and urinal flushing. Additionally, because the

¹⁴⁸ San Francisco Public Utilities Commission, *2015 Urban Water Management Plan for the City and County of San Francisco*, June 2016, p. 4-2, <https://sfwater.org/modules/showdocument.aspx?documentid=9300>, accessed September 2018.

¹⁴⁹ Ibid., p. 4-2 and Appendix D, <http://sfwater.org/modules/showdocument.aspx?documentid=9301>, The proposed project would employ 129 workers, the theater would accommodate 285 patrons, and the hotel would accommodate 365 guests (779 total). This total (779), multiplied by 77 gallons per capita per day yields a total of 59,983 gallons per day. A 6.0 percent water loss factor is also included in the total water usage per the 2015 UWMP's projected water loss rate for 2040 (see 2015 UWMP Table 4-1). Therefore, the anticipated total gallons per day usage for the proposed project would be 59,983 plus 3,599 (6.0 percent of 59,983) equals 63,582 gallons per day or 0.0635 million gallons per day.

project contains 500 square feet or more of landscape area through the community open space, street trees, and partial green roof, the project sponsor would be required to comply with San Francisco's Water Efficient Irrigation Ordinance, adopted as chapter 63 of the San Francisco Administrative Code, and the SFPUC Rules & Regulations Regarding Water Service to Customers. This ordinance requires projects to design, install, and maintain efficient irrigation systems, utilize low-water-use plantings, and set a maximum applied water allowance that is part of the annual water budget. The project's landscape and irrigation plans must be reviewed and approved by SFPUC before installation.

During project construction, the project sponsor and project building contractor must comply with article 21 of the San Francisco Public Works Code, which requires that nonpotable water be used for dust-control activities. City 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 SFPUC. Furthermore, to guarantee the welfare and safety of people and structures in the city, the project sponsor would be required to design all applicable water facilities, including potable water, fire suppression, and nonpotable water systems, to conform to the current standards and practices of SFPUC's City Distribution Division and SFFD.

In addition, a hydraulic analysis would be required to confirm the adequacy of the water distribution system for potable, nonpotable, and fire suppression use at the time of building permit review. If the current distribution system's pressures and flows are inadequate, the project sponsor would be responsible for any capital improvements required to meet the proposed project's water demands.

Because the proposed project's water demand could be accommodated by the existing and planned water supply and conveyance infrastructure anticipated under the 2015 UWMP, no expansion or construction of new water supply resources or facilities would be required. The proposed project would result in *less-than-significant* water supply impacts.

Impact UT-3: The proposed project would be served by a landfill with sufficient permitted capacity to accommodate the proposed project's solid waste disposal needs. (*Less than Significant*)

In September 2015, the City entered into a landfill disposal agreement with Recology Incorporated for disposal of all solid waste collected in San Francisco at the Recology Hay Road Landfill in Solano County for 9 years, or until 3.4 million tons have been disposed, whichever occurs first. The City would have an option to renew the agreement for a period of 6 years, or until an additional 1.6 million tons have been disposed, whichever occurs first.¹⁵⁰ The Recology Hay Road Landfill is permitted to accept up to 2,400 tons per day of solid waste; at that maximum rate, the landfill would have capacity to accommodate solid waste until approximately 2034. At present, the landfill receives an average of approximately 1,850 tons per day from all sources, with approximately 1,200 tons per day from San Francisco; at this rate, landfill closure would occur in 2041.¹⁵¹ The proposed project would be required to comply with the City's mandatory recycling and composting ordinance requiring separation of compost and recyclables from landfill waste (see Section E.7, Greenhouse Gas Emissions). The proposed project would be served by landfills with sufficient permitted capacity to accommodate its solid waste disposal needs. Therefore, solid waste disposal impacts would be *less than significant*.

¹⁵⁰ San Francisco Planning Department, *Agreement for Disposal of San Francisco Municipal Solid Waste at Recology Hay Road Landfill in Solano County Final Negative Declaration*, Planning Department Case No. 2014.0653, May 21, 2015, http://sfmea.sfplanning.org/2014.0653E_Revised_FND.pdf, accessed February 10, 2017.

¹⁵¹ Ibid.

Impact UT-4: Construction and operation of the proposed project would comply with all applicable statutes and regulations related to solid waste. (*Less than Significant*)

The California Integrated Waste Management Act of 1989 requires municipalities to adopt an integrated waste management plan to establish objectives, policies, and programs relative to waste disposal, management, source reduction, and recycling. Reports filed by the San Francisco Department of the Environment show the City generated approximately 476,424 tons of waste material in 2013.¹⁵² Waste diverted from landfills is defined as recycled or composted. San Francisco has a goal of 100 percent of waste diverted from landfills by 2020. As of 2011, 80 percent of San Francisco's solid waste was being diverted from landfills, having met the 2010 diversion target of 75 percent, and a target of zero waste by 2020 was established.

San Francisco Ordinance No. 27-06 requires that a minimum of 65 percent of all construction and demolition debris be recycled and diverted from landfills. 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 75 percent of all demolition debris. Furthermore, the proposed project would be required to comply with City Ordinance 100-09, the Mandatory Recycling and Composting Ordinance, which requires everyone in San Francisco to separate their refuse into recyclables, compostables, and trash. The Recology Hay Road Landfill is required to meet federal, state, and local solid waste regulations. The proposed project would comply with the solid waste disposal policies and regulations identified above and would have a *less-than-significant* impact with respect to solid waste statutes and regulations.

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

Past, present, and reasonably foreseeable projects in the vicinity of the project site would incrementally increase utilities demand in the city, such as water supply, water and wastewater conveyance and treatment facilities, and solid waste services. As noted above, SFPUC has accounted for such growth in its water demand and wastewater service projections, and the City has implemented various programs with a goal to achieve 100 percent landfill diversion by 2020. Cumulative development projects would be subject to water conservation, wastewater discharge, recycling and composting, and construction demolition and debris ordinances. Compliance with these City ordinances would reduce the effects of cumulative development projects in the city. None of the projects would result in substantial population growth beyond what has been planned by the City and ABAG, which the service providers have used to determine demand projections for the construction timelines of the reasonably foreseeable projects. Moreover, these projects would also be required to comply with the requirements of the City, SFPUC, and the San Francisco Bay Regional Water Quality Control Board related to the sustainable use of utilities.

None of the cumulative projects are expected to result in unusual quantities or types of discharge that would cause the local wastewater treatment facilities to exceed the applicable standards of the San Francisco Bay RWQCB. Projects would be required to comply with City ordinances related to water conservation. Projects creating or replacing at least 5,000 square feet of impervious surface would be required to prepare a stormwater control plan describing the postconstruction stormwater controls that would be implemented onsite to prevent pollutant runoff during project operation. Compliance with waste diversion ordinances to meet the City's goal for 100 percent diversion from landfills would be required for all projects. Therefore, the proposed project, in combination with past, present, and reasonably foreseeable future projects, would result in a *less-than-significant* cumulative impact.

¹⁵² San Francisco Indicator Project, <http://www.sfindicatorproject.org/indicators/view/4>, accessed February 10, 2017.

This page intentionally left blank.

E.11. PUBLIC SERVICES

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

The proposed project's impacts on parks and open spaces are discussed in Section E.9, Recreation. Impacts on other public services are discussed below.

Impact PS-1: The proposed project would not increase demand for police protection, fire protection, schools, or other services to an extent that would result in substantial adverse physical impacts associated with the construction or alteration of government facilities. (*Less than Significant*)

Police Protection

The project site currently receives police services from the San Francisco Police Department's Central Police Station, located at 766 Vallejo Street, approximately 0.6 mile from the project site. The proposed project, involving the demolition of an existing surface parking lot and construction of a hotel, entertainment venue, and public park, would result in more intensive use of the project site than currently exists, and thus, would likely incrementally increase police service calls in the project area. Most of the population associated with the uses onsite would be temporary. Although the proposed project could increase the number of calls received from the area, the increase in responsibilities would not be substantial in light of the existing demand for police protection services. In addition, security for the proposed public park would be provided by a private security service. The Central Station would be able to provide the necessary police services and crime prevention in the area.¹⁵³ Meeting the project's additional service demand would not require the construction of new police facilities that could cause significant environmental impacts. Hence, the proposed project would have a *less-than-significant* impact related to the provision of police services.

Fire Protection

SFFD currently provides fire protection to the project site. The two closest fire stations are Station 13, at 530 Sansome Street approximately 0.4 mile from the project site, and Station 2, at 1340 Powell Street approximately 0.65 mile from the project site. The proposed project, involving the demolition of an existing surface parking lot and construction of a hotel, entertainment venue, and public park, would result in more intensive use of the project site than currently exists. The project is expected to support approximately 129 employees of the theater, hotel, restaurant, and bar; patrons of the 285-seat entertainment venue, restaurant, and bar; and approximately 365 hotel guests. This increase in population associated with the proposed project would incrementally increase fire service calls in the project area. Although the proposed project would likely increase the number of calls received from the area, the increase in responsibilities would not be so substantial in light of existing demand for fire protection services that new or altered fire stations would be required to serve the proposed project. Furthermore, construction of the proposed project would be required to comply with all applicable building and fire

¹⁵³ San Francisco Police Department, 2014 Annual Report, p. 112, <http://sanfranciscopolice.org/annual-reports>, accessed January 18, 2017.

code requirements, including the California Fire Code, which establishes requirements for fire protection systems, including providing state-mandated fire alarms, fire extinguishers, appropriate building access and egress, and emergency response notification systems. Compliance with all applicable building and fire codes would further reduce the demand for SFFD service and oversight. For these reasons, the impact of the proposed project on fire protection services would be *less than significant*.

Schools

San Francisco Unified School District provides public and secondary education throughout the city. The proposed project would not include any residential units that would generate new students. The approximately 129 additional employees at the project site are likely to be residents of San Francisco or the Bay Area, and the number of additional school-aged children associated with them would be very small compared to the total school district enrollment. Therefore, the project would have a *less-than-significant impact* on schools.

Other Government Services

The proposed project would not add any permanent residents to the area. The population associated with the proposed project could result in a minor increase in demand for government services, including libraries, but the increase would be small compared to existing demand and projected capacity. The proposed project would not result in a demand for government services that would result in the need to construct or alter facilities. The proposed project would have a *less-than-significant impact* on government services.

Impact-C-PS-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the project site, would result in less-than-significant cumulative impacts related to public services. (Less than Significant)

Development of the proposed project in conjunction with the cumulative projects identified within a 0.25-mile radius of the project site listed in Table 3 and mapped in Figure 17 in Section B.3, Cumulative Projects and projected population growth in the in the project area and within the city would incrementally increase demand for public services in the city for police protection, fire protection, schools, and other government services, such as public libraries. Only one of the projects listed in Table 3 propose a large residential component the 88 Broadway and 753 Davis Street project, which would construct an additional 178 affordable residential units in the project vicinity. Because demand for public services is typically higher at projects with residential uses, because of their permanent occupants and the presence of school-aged children, it is not anticipated that cumulative development within 0.25 mile of the project site would contribute to a cumulative impact on public services.

In addition, as discussed in Section E.2, Population and Housing, the projects listed in Table 3 would not result in population growth beyond what has been projected by the City and ABAG, which have accounted and planned for such growth to continue to provide public services to San Francisco residents. This increase would not be considerable because this growth would not exceed growth projections for the area or the region. Further, the proposed project and cumulative projects in the vicinity would contribute to an increased demand for police services provided by the Central Station and fire services provided by Fire Stations 2 and 13, but the increased demand would not require the construction of new facilities or the expansion of existing facilities.

For these reasons, the proposed project would not combine with cumulative development projects to create or contribute to a cumulative impact on public services such that new or expanded facilities would be required. This impact would be *less than significant*.

E.12. BIOLOGICAL RESOURCES

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on 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 in a developed urban area completely covered by impervious surfaces. The project site does not support riparian habitat or other sensitive natural communities, as defined by the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service. The project site's eastern boundary is located approximately 165 feet from San Francisco Bay. Because the proposed project would be physically separated by The Embarcadero from riparian and aquatic communities in the bay, the proposed project would not involve any changes to riparian habitat. Therefore, question 12b is not applicable to the proposed project. In addition, the project vicinity does not contain wetlands, as defined by section 404 of the Clean Water Act; therefore, question 12c is not applicable to the proposed project. Moreover, the project site is not located within the jurisdiction of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan; therefore, question 12f is 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, riparian habitat or sensitive natural communities, and would not interfere substantially with 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*)

The project site and surrounding area are entirely covered with impervious surfaces and do not include riparian habitat or other sensitive natural communities as defined by the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service. Migrating birds do pass through San Francisco. Nesting birds, their nests, and their eggs are fully protected by California Fish and Game Code sections 3503 and 3503.5 and the federal Migratory Bird Treaty Act. The proposed

project would be subject to the Migratory Bird Treaty Act, which would prevent impacts on nesting birds from occurring as a result of the proposed project, as discussed further below under Impact BI-2.

The project site is located within an urban bird refuge. The location, height, and material of buildings, particularly transparent or reflective glass, may present risks for birds as they travel along their migratory paths. The City has adopted guidelines to address this issue and provided regulations for bird-safe design in the city. Planning code section 139, Standards for Bird-Safe Buildings, establishes building design standards to reduce avian mortality rates associated with bird strikes.¹⁵⁴ Section 139 identifies two types of bird hazards: location-related hazards, where the siting of a structure creates a high risk to birds, and feature-related hazards, which include building design features that create a high risk to birds, such as freestanding glass walls, wind barriers, skywalks, balconies, and greenhouses on rooftops that have unbroken glazed segments 24 square feet and larger in size.

Projects located less than 300 feet from an urban bird refuge that are located in an unobstructed line to the refuge are considered to pose location-related hazards. San Francisco Bay and its shoreline are considered an urban bird refuge because of the presence of open water. The project site is located approximately 165 feet from the bay and may be located in an unobstructed line to the bay. The proposed project would also include feature-related hazards, including freestanding glass walls enclosing the tent. As such, the proposed project is required to include bird-safe glazing treatment. Treatment may include fritting, netting, permanent stencils, frosted glass, exterior screens, physical grids placed on the exterior of the glazing, or ultraviolet patterns visible to birds. The treatment would be applied to the walls of the glass enclosing the tent. Section 139 also requires that exterior lighting be minimized and shielded. The proposed project would shield exterior lighting where included.

Overall, the proposed project would be subject to, and would comply with, City-adopted regulations for bird-safe buildings and federal and state migratory bird regulations; therefore, the proposed project would not interfere with the movement of native resident or wildlife species or with established native resident or migratory wildlife corridors. This impact would be *less than significant*.

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

The City's Urban Forestry Ordinance (Public Works Code section 801 et seq.) requires a permit from SFPW to remove any protected trees. 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.

There are 28 existing street trees along The Embarcadero, Broadway, and Davis Street adjacent to the project site. As part of the proposed project, all 28 existing street trees would be retained. Therefore, no impact on protected trees would occur, and no mitigation measures are required.

In addition, Public Works Code section 806(d)(2) requires that one 24-inch box tree be planted for every 20 feet of property frontage along each street, with any remaining fraction of 10 feet or more of frontage requiring an additional tree. The proposed project would consist of approximately 600 feet of frontage on The Embarcadero, 290 feet of frontage on Davis Street, and 210 feet of frontage on Broadway. Therefore, street frontage for the project site would total approximately 1,100 feet, which would require a total of 55 street trees. The proposed project would comply with planning code section 138.1(c)(1) by retaining the 28 existing trees along The Embarcadero, Broadway, and Davis Street, and by planting an additional 28 trees, for a total of 56 street trees. The locations of the new street trees would be subject to constraints

¹⁵⁴ San Francisco Planning Department, *Standards for Bird-Safe Buildings*, July 14, 2001, http://208.121.200.84/ftp/files/publications_reports/bird_safe_bldgs/Standards%20for%20Bird%20Safe%20Buildings%20-%2011-30-11.pdf, accessed August 18, 2016.

regarding the location of underground utilities. Public Works Code section 806(d)(4) includes a provision that the director may waive street tree requirements if planting a street tree would interfere with preexisting subsurface features. However, for each required street tree the director waives, the project sponsor must pay an in-lieu fee to fulfill all or a portion of the street tree requirement, or provide alternative landscaping comparable to or greater than the number of street trees waived. The proposed project would comply with the San Francisco Planning and Public Works codes. Because the proposed project would not conflict with the City's local tree ordinance, this impact would be *less than significant*.

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

The cumulative development projects shown in Table 3 and mapped in Figure 17 in Section B.3, Cumulative Projects, would result in an overall intensification of land uses typical of infill development in the project vicinity. The project site and the surrounding area do not currently support any candidate, sensitive, or special-status species, any riparian habitat, or any other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. The cumulative project sites do not contain habitat that supports any candidate, sensitive, or special-status species; does not include riparian habitat or other sensitive natural communities as defined by the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service, including onsite or street trees that could provide habitat for birds protected under the Migratory Bird Treaty Act; does not contain any wetlands as defined by section 404 of the Clean Water Act; and does not fall within any local, regional, or state habitat conservation plans. Therefore, the development of these projects would not have the potential to result in a cumulative impact on these resources.

The cumulative development projects could add a number of buildings that could potentially injure or kill birds in the event of a bird-strike collision. However, like the proposed project, nearby cumulative development projects would be subject to the City's bird-safe building regulations. Compliance with these regulations would reduce the effects of cumulative development projects to less-than-significant levels. Similarly, cumulative development projects would be required to comply with the Urban Forestry Ordinance. For these reasons, the proposed project would not combine with cumulative development projects to create or contribute to a cumulative impact on biological resources, and cumulative impacts would be *less than significant*.

This page intentionally left blank.

E.13. GEOLOGY AND SOILS

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
13. GEOLOGY AND SOILS.— Would the project:					
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project would connect to the combined municipal sewer system, which is the conveyance system for San Francisco, and would not use septic tanks or alternative wastewater disposal systems. Therefore, question 13e is not applicable to the proposed project.

In the *California Building Industry Association v. Bay Area Air Quality Management District* case decided in 2015,¹⁵⁵ the California Supreme Court held that CEQA does not generally require lead agencies to consider how existing hazards or conditions might impact a project's users or residents, except where the project would significantly exacerbate an existing environmental hazard. Accordingly, hazards resulting from a project that places development in an existing seismic hazard area or an area with unstable soils are not considered impacts under CEQA unless the project would significantly exacerbate the seismic hazard or unstable soil conditions. Thus, the following analysis evaluates whether the proposed project would exacerbate future seismic hazards or unstable soils at the project site and result in a substantial risk of loss, injury, or death. The impact is considered significant if the proposed project would exacerbate existing or future seismic hazards or unstable soils by increasing the severity of these hazards that would occur or be present without the project.

Regulatory Setting

Existing laws and regulations that stipulate a regulatory process to address seismic and geologic safety of new construction are described below.

¹⁵⁵ *California Building Industry Association v. Bay Area Air Quality Management District*, December 17, 2015.

Federal Regulations to Address Seismic Hazards

Earthquake Hazard Reduction Act of 1977. Federal laws codified in United States Code Title 42, Chapter 86, were enacted to reduce risks to life and property from earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program. Implementation of these requirements are regulated, monitored, and enforced at the state and local levels. Key regulations and standards applicable to the proposed project are summarized below.

California Regulations to Address Seismic Hazards

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (Alquist-Priolo Act). The Alquist-Priolo Act (Public Resources Code section 2621 et seq.) is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The Alquist-Priolo Act prohibits the location and construction of most types of structures intended for human occupancy¹⁵⁶ over active fault traces and strictly regulates construction in the corridors along active faults (i.e., earthquake fault zones).

The Seismic Hazards Mapping Act of 1990. Similar to the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (seismic hazards act, located in Public Resources Code section 2690 et seq.) is intended to reduce damage resulting from earthquakes. Although the Alquist-Priolo Act addresses surface fault rupture, the seismic hazards act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act (i.e., the state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped seismic hazard zones).

A primary purpose of the seismic hazards act is to assist cities and counties in preparing the safety elements of their general plans and encourage land use management policies and regulations that reduce seismic hazards. The intent of this act is to protect the public from the effects of strong ground shaking, liquefaction, landslides, ground failure, or other hazards caused by earthquakes. Under the act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites within seismic hazard zones until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans. In addition, the California Geologic Survey's Special Publication 117A, *Guidelines for Evaluating and Mitigating Seismic Hazards in California*, provides guidance for evaluating earthquake-related hazards for projects in the designated zones and includes a description of required investigations and recommends mitigation measures, as required by Public Resources Code section 2695(a).

The project site is within an area that may be prone to earthquake-induced ground failure during a major earthquake due to liquefaction hazard as mapped by the California Geological Survey. Because of this, site design and construction must comply with the seismic hazards act, its implementing regulations, and the California Department of Conservation's guidelines for evaluating and mitigating seismic hazards.

California Building Standards Code. The California Building Standards Code, or state building code, is codified in title 24 of the California Code of Regulations. The state building code provides standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures within the state. The state building code generally applies to all occupancies in California, with modifications adopted in some instances by state agencies or local governing

¹⁵⁶ With reference to the Alquist-Priolo Act, a *structure for human occupancy* is defined as one "used or intended for supporting or sheltering any use or occupancy, which is expected to have a human occupancy rate of more than 2,000 person-hours per year" (California Code of Regulations, title 14, division 2, section 3601[e]).

bodies. The current state building code incorporates, by adoption, the 2016 edition of the International Building Code of the International Code Council with the California amendments. These amendments include significant building design and construction criteria that have been tailored for California earthquake conditions.

Chapter 16 of the state building code deals with structural design requirements governing seismically resistant construction (section 1604), including, but not limited to, factors and coefficients used to establish a seismic site class and seismic occupancy category appropriate for the soil/rock at the building location and the proposed building design (sections 1613.5 through 1613.7). Chapter 18 includes, but is not limited to, the requirements for foundation and soil investigations (section 1803); excavation, grading, and fill (section 1804); allowable load-bearing values of soils (section 1806); foundation and retaining walls, (section 1807); and foundation support systems (sections 1808 through 1810). Chapter 33 includes, but is not limited to, requirements for safeguards at work sites to ensure stable excavations and cut-or-fill slopes (section 3304) and the protection of adjacent properties including requirements for noticing (section 3307). Appendix J of the state building code includes, but is not limited to, grading requirements for the design of excavations and fills (sections J106 and J107) specifying maximum limits on the slope of cut and fill surfaces and other criteria, required setbacks and slope protection for cut and fill slopes (J108), and erosion control in general and regarding the provision of drainage facilities and terracing (sections J109 and J110). San Francisco has adopted Appendix J of the state building code with amendments to J103, J104, J106, and J109 as articulated in the local building code.

California Division of Occupational Safety and Health Regulations. Construction activities are subject to occupational safety standards for excavation, shoring, and trenching, as specified in California Division of Occupational Safety and Health (Cal/OSHA) regulations (title 8).

San Francisco Building Code and Review

San Francisco Building Code. The City's building construction standards are based on the state building code, and include local amendments to reflect local conditions. These amendments are found in the Building Code of the San Francisco Building Inspection Commission Codes (local building code) including administrative bulletins. In addition, the building department clarifies implementing procedures within information sheets.¹⁵⁷

This section describes the geology, soils, and seismicity characteristics of the project area as they relate to the proposed project. Responses in this section rely on the information and findings provided in geotechnical investigations for the project site prepared by ENGEO Incorporated.^{158, 159} The geotechnical studies relied on available literature, geologic maps, and geotechnical reports pertinent to the site to develop conclusions and recommendations, including performing a field exploration. The field exploration at the subject site generally consisted of three mud-rotary borings to depths ranging from 121 to 132 feet below ground surface (bgs), and four cone penetrometer test soundings that were advanced to a maximum depth of approximately 130½ feet bgs.¹⁶⁰ The majority of the project site's subsurface material is undocumented fill composed of loose to medium dense sand and gravels intermixed with layers of medium stiff clays ranging from approximately 20 to 50 feet bgs. Below the undocumented fill lies a layer of soft to medium stiff, highly compressible Young Bay Mud, which varies in thickness from approximately 40 to 70 feet bgs at the site. Beneath the Young Bay Mud, there are stiff to hard clays and medium dense to dense sands that are approximately 40 feet thick. The Franciscan complex is anticipated to be at lower depths in the range of 50–80 feet bgs. Bedrock was found sloping down toward the northeast with approximate depths

¹⁵⁷ Available at <http://sfdbi.org/administrative-bulletins> and <http://sfdbi.org/information-sheets>.

¹⁵⁸ ENGEO Incorporated, *Geotechnical Feasibility Assessment for the Hotel and Teatro ZinZanni Project*, December 8, 2015.

¹⁵⁹ ENGEO Incorporated, *Geotechnical Exploration for the Hotel and Teatro ZinZanni Project*, September 13, 2016.

¹⁶⁰ ENGEO Incorporated, *Summary of Geotechnical and Environmental Studies and Summary of Project Construction Methodologies*, April 6, 2018.

ranging from 100 to 130 feet bgs. The presence of a buried seawall along the eastern boundary of the site has been identified in historic maps. Groundwater occurs between 6 and 10 feet bgs. However, because groundwater levels can fluctuate over time as a result of variations in temperature, precipitation, irrigation, or other factors such as proximity to San Francisco Bay, a design water level of elevation 5 feet bgs is recommended. The artificial fill material below the groundwater table is potentially liquefiable and the project site is mapped in a California Geological Survey (CGS) seismic hazard zone map for the area titled *State of California Seismic Hazard Zones, City and County of San Francisco, Official Map*, dated November 17, 2000.¹⁶¹

The geotechnical investigation recommended soil improvement to stabilize undocumented fill and address and mitigate liquefaction and lateral spreading risks.¹⁶² Approximately 11,100 cubic yards of existing fill would be removed, amended, and reused onsite as engineered fill to the extent possible; the remainder of the existing fill would be exported offsite to an appropriate disposal facility. The soil improvement is anticipated to involve in-place cement mixing of fill soils, which is a process to improve the strength of the underlying existing artificial fill. The depth of the treatment below excavation bottom would vary up to 39 feet.

The proposed building would be founded on a stiff reinforced structural mat foundation, shallow continuous footings, with interconnecting grade beams, or a combination of both of these systems to support anticipated structural loads. The uppermost 6 feet of the building pad area would be excavated, and approximately 5 feet of lightweight cellular concrete would be placed up to the bottom of the 1-foot-thick shallow mat foundation to reduce loads and potential settlement of the underlying Young Bay Mud.

Approach to Analysis

The preceding Regulatory Setting section presented the state and local laws that are currently in effect to ensure that proposed development sites are adequately investigated and that potential seismic hazards are evaluated and mitigated during the project design and construction phases of the project. This section discusses the roles and responsibilities of the engineers and building officials, and processes that ensure site investigations, grading, and construction is completed in accordance with the state and local laws developed to protect the public and property from adverse effects of earthquake-induced ground-shaking and ground failure.

The Building Department Role and Permit Review Process

In San Francisco, the building department implements and enforces the regulatory requirements of the state and local building code described above, and the project engineer as the registered design professional for the project is responsible for ensuring that a building is constructed in compliance with these standards.

The geotechnical engineer¹⁶³ is responsible for investigating the underlying soils and bedrock on a site and, if necessary, developing remedies to improve soil conditions based on standard, accepted, and proven engineering practices. The geotechnical investigation must characterize, log, and test soils and bedrock conditions, and determine the anticipated response of those underlying materials to ground shaking generated during an earthquake. Further, the geotechnical

¹⁶¹ California Geological Survey, *Seismic Hazard Zones, City and County of San Francisco, Official Map*, scale 1:24,000, released November 17, 2000.

¹⁶² ENGEO Incorporated, *Geotechnical Exploration for the Hotel and Teatro ZinZanni Project*, September 13, 2016.

¹⁶³ The geotechnical engineer, as a registered professional with the state, is required to comply with the California Building Standards Commission and local codes while applying standard engineering practice and the appropriate standard of care for the particular region in California. The California Professional Engineers Act (Business and Professions Code sections 6700-6799), and the Codes of Professional Conduct, as administered by the California Board of Professional Engineers and Land Surveyors, provide the basis for regulating and enforcing engineering practice in California.

investigation would result in a report that may include recommended methods and materials for all aspects of the site development, including the site preparation, building foundations, structural design, utilities, sidewalks and roadways, to remedy any geotechnical conditions related to potential seismic impacts. The geotechnical report must be reviewed, signed, and stamped by a qualified engineer and in some cases also a geologist.

Once finalized, the geotechnical report is submitted to building department for review and comment. The building department works with the applicant and the geotechnical engineer to resolve inconsistencies and ensure that the investigation complies with the state and local building codes, local administrative bulletins and implementing procedures. The building department reviews the permit including the construction plans for conformance with the recommendations provided in the geotechnical report and ensures permit requirements for grading, foundation, building, and other site development permits are based on the recommendations in the project-specific geotechnical report and state building code provisions. On large scale developments, the City may rely on expertise of outside professionals to peer review geotechnical studies, conclusions, and recommendations.

The following list outlines the typical geotechnical investigation and review process in the city.

1. The applicant prepares a preliminary geotechnical investigation (or a master plan geotechnical investigation for larger project sites).
2. The city fulfills environmental review requirements under the California Environmental Quality Act (CEQA), including the application of any relevant mitigation measures as part of the conditions of project approval.
3. The city approves project entitlements and issues a site permit.
4. The applicant prepares site-specific geotechnical investigations, which entail the following:
 - a. Conduct subsurface exploration of project site;
 - b. Submit soil samples for laboratory analysis;
 - c. Review results of soil sample engineering properties;
 - d. Conduct seismic hazards evaluation based on site location and engineering properties of site soils;
 - e. Assess effects of seismic hazards; and
 - f. Identify appropriate strategies to address seismic hazards.
5. The applicant submits site-specific, design-level geotechnical investigation report and construction plans to the building department.
6. The building department reviews the site-specific, design-level geotechnical investigation report and plans and recommendations for adherence to the local and state building code requirements and conformance with recommendations in the geotechnical investigation.
7. The applicant addresses the building department's comments.
8. The applicant resubmits modified construction plans based on the building department's comments.
9. The building department approves grading and foundation permits.

Impact GE-1: The proposed project would not expose people or structures to potential substantial adverse effects, including the rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, and landslides. (*Less than Significant*)

Fault Rupture

With respect to potential rupture of a known earthquake fault, no known active faults cross the project site and the site is not within an earthquake fault special zone. Therefore, the potential of surface rupture to occur at the site is very low. The proposed project would not exacerbate the potential for surface rupture. Therefore, the proposed project would have ***no impact*** on fault ruptures.

Strong Seismic Ground Shaking

In terms of the potential for strong seismic ground shaking, the project site is located 9 miles from the San Andreas Fault. According to the U.S. Geological Survey, the overall probability of a magnitude 6.7 or greater earthquake to occur in the San Francisco Bay region during the next 30 years is 63 percent. Therefore, it is possible that a strong to very strong earthquake would affect the project site during the lifetime of the proposed project. The severity of the event would depend on a number of conditions including distance to the epicenter, depth of movement, length of shaking, and the properties of underlying materials.

The proposed project would be designed in accordance with the 2016 California Building Code and therefore would not have the potential to exacerbate seismic-related ground shaking. Therefore, the proposed project would have a ***less-than-significant impact*** related to strong seismic ground shaking.

Landslides, Liquefaction, Lateral Spreading, and Seismic Settlement

Landslides

With respect to landslides, based on the San Francisco General Plan, the project site is relatively level and is not located within a mapped landslide zone.¹⁶⁴ The site is not within a designated earthquake-induced landslide zone as shown on the CGS seismic hazard zone map for the area. Therefore, the proposed project would have a no impact with respect to potential for landslides, and this topic is not discussed further.

Liquefaction and Lateral Spreading

Lateral spreading typically forms on gentle slopes that have rapid fluid-like flow movement and can occur when there is potential for liquefaction in underlying, saturated soils. Liquefaction occurs when saturated soils lose strength and stiffness when there is an applied stress such as an earthquake which causes solid soils to behave like a liquid when there is no cohesion, resulting in ground deformations. Ground deformations can take on many forms, including, but not limited to, flow failure, lateral spreading, lowering of the ground surface, or ground settlement, loss of bearing, ground fissures, and sand boils. Liquefaction of subsurface layers, which could occur during ground-shaking associated with an earthquake, could potentially result in ground settlement. In terms of seismic-related ground failure, including liquefaction, the site is within a designated liquefaction hazard zone as shown on the CGS seismic hazard zone map for San Francisco.¹⁶⁵ This means that there is a potential for permanent ground displacement onsite, such as liquefaction.¹⁶⁶ CGS provided recommendations for the content of site investigation reports within seismic hazard zones in Special Publication 117A, *Guidelines for Evaluating*

¹⁶⁴ San Francisco Planning Department, *San Francisco General Plan*, Community Safety Element, Map 4, http://www.sf-planning.org/ftp/General_Plan/Community_Safety_Element_2012.pdf, accessed June 22, 2017.

¹⁶⁵ California Geological Survey, *Seismic Hazard Zones, City and County of San Francisco, Official Map*, scale 1:24,000, released November 17, 2000.

¹⁶⁶ Ibid.

and Mitigating Seismic Hazards in California, which recommends that at least one exploration point extend to a depth of at least 50 feet to evaluate liquefaction potential.

Review of borings from the geotechnical investigations indicates that loose to medium dense sand is likely present both above and below the natural groundwater table in the site area. The site-specific explorations encountered fill that is potentially liquefiable based on the cone penetration test results and standard penetration test blow counts. The estimated liquefaction-induced settlement ranges between 3.6 and 10.5 inches because of thick layers of artificial fill extending up to 40 feet bgs. Loose sand above the groundwater table may densify and loose to medium dense sand below the groundwater table may liquefy during strong ground shaking associated with a seismic event on a nearby fault. The preliminary geotechnical reports also determined that the lateral displacement would not affect the foundation of the proposed building.

Based on the geotechnical investigation borings, the potential for liquefaction was analyzed. The analysis as discussed above determined that soils consisted of undocumented fill composed of loose to medium dense sand and gravels intermixed with layers of medium stiff clays ranging from approximately 20 to 50 feet bgs. Below the undocumented fill lies a layer of soft to medium stiff, highly compressible Young Bay Mud, which varies in thickness from approximately 40 to 70 feet bgs at the site. Beneath the Young Bay Mud, there are stiff to hard clays and medium dense to dense sands that are approximately 40 feet thick. The soil improvement is anticipated to involve in-place cement mixing of fill soils, which is a process to improve the strength of the underlying existing artificial fill. The depth of the treatment below excavation bottom would vary up to 39 feet. The Franciscan complex is anticipated to be at lower depths in the range of 50–80 feet bgs with a lower likelihood to liquefy or settle. Some of the on-site sand could generally be re-used and combined to make engineered fill around the foundation including use of crushed rock or other controlled density fill to strengthen the existing soil. Where the marsh deposit and/or loose sands are present and thicker than 2 feet, the soil may have to be improved in situ using a soil-cement mixing method to create columns of soil-cement. These soil improvements would secure the foundation reducing the potential for the proposed project to exacerbate the potential for seismic-related ground failure, including liquefaction and lateral spreading.

As discussed above under “Regulatory Framework,” to ensure that the potential for adverse geologic, soils, and seismic hazards is adequately addressed, San Francisco relies on the state and local regulatory process for review and approval of building permits pursuant to the California Building Standards Code (state building code, California Code of Regulations, title 24); the San Francisco Building Code (local building code), which is the state building code plus local amendments that supplement the state code; the building department’s implementing procedures including Administrative Bulletins and Information Sheets, and the state seismic hazards act (Public Resources Code sections 2690 to 2699.6).

As discussed previously, the preliminary geotechnical reports recommended that the proposed project seismic design comply with the provisions of the 2016 California Building Code and Special Publication 117A.. Additionally, the building department permit review process would ensure that the project’s structural and foundation plans comply with applicable building code provisions and are in conformance with the measures recommended in the project-specific geotechnical reports and recommendations made by the engineering design review team as required by IS S-18, AB-082, and AB-083; ensuring that the proposed project would not exacerbate the potential for seismic-related ground failure, including liquefaction and lateral spreading. Therefore, this impact would be *less than significant*.

Impact GE-2: The proposed project would not result in substantial erosion or loss of topsoil, nor would the project change substantially the topography of any unique geologic or physical features of the site. (*Less than Significant*)

The project site is generally flat and covered entirely with impervious surfaces. The proposed project would require grading but would not substantially change the general topography of the site or any unique geologic or physical features of the proposed project. Therefore, the proposed project would result in *less-than-significant* impact with respect to topography, or unique geologic or physical features.

However, construction-related activities would be required to comply with the Construction Site Runoff Ordinance (Ordinance No. 260-13), which requires all construction sites, regardless of size, to implement best management practices to prevent construction site runoff discharges into the City's combined stormwater/sewer system. Furthermore, construction sites that disturb 5,000 square feet or more of ground surface are required to apply for a construction site runoff control permit from the SFPUC, and submit an erosion and sediment control plan that includes best management practices to prevent stormwater runoff and soil erosion during construction. Compliance with the Construction Site Runoff Ordinance would ensure that the project would not result in the loss of topsoil or erosion, and no mitigation is required.

As discussed previously in Section A.4, Construction Activities and Schedule, the proposed project would involve excavation to a depth of 6 feet bgs and removal of approximately 11,100 cubic yards of soil and debris, and soil mixing and construction of a mat foundation for the proposed building. Because the project site occupies more than 1 acre (it is 1.37 acres), the project sponsor would be required to obtain a National Pollutant Discharge Elimination System (NPDES) general construction permit. The NPDES permit would require the project sponsor and its contractor to implement BMPs that include erosion and sedimentation control measures, as required by the City and/or resource agencies. Implementing these measures would reduce short-term construction-related erosion impacts to *less-than-significant* levels.

Impact GE-3: The project site is not located on a geologic unit or soil that is unstable, or that could become unstable as a result of the proposed project. (*Less than Significant*)

The area around the project site is a flat urban area and does not include hills or cut slopes that could be subject to landslide; however, as discussed under Impact GE-1, the project site is within a state-designated seismic hazard zone for liquefaction. Recommendations in the preliminary geotechnical reports for the proposed project include a stiff reinforced structural mat foundation, shallow continuous footings, with interconnecting grade beams, or a combination of both of these systems. The reports also include earthwork recommendations for demolition and site preparation, and excavation and underpinning, use of appropriate fill, surface drainage, and stormwater infiltration and bioretention areas.

The proposed project would be constructed on a mat foundation with a depth of approximately 1 foot bgs on top of 5 feet of lightweight cellular concrete to support anticipated structural loads. The geotechnical investigation recommends soil improvement to stabilize undocumented fill and address and mitigate liquefaction and lateral spreading risks. The final design of the foundation system would be included in a design-level geotechnical investigation based on the site-specific data to be prepared in accordance with San Francisco Building Code requirements.

The California Seismic Hazards Mapping Act of 1990, PRC sections 2690 to 2699.6, was enacted to identify and map seismic hazard zones for cities and counties to encourage land use management policies and regulations to reduce and address seismic hazards to protect public safety. Section 2697 states that before approval of a project within a seismic hazard zone, cities and counties must require preparation of a geotechnical report defining and delineating the seismic hazard on the site (i.e., a design-level geotechnical investigation). In conjunction with these provisions in the Public Resources Code, CCR title 14, section 3724 specifies that a project located in a state seismic hazard zone shall be approved only when the nature and severity of the seismic hazards at the site have been evaluated in a geotechnical report and appropriate measures have been proposed. CGS Special Publication 117A provides considerations to address earthquake hazards.

Pursuant to the Seismic Hazards Mapping Act, DBI, the local permitting authority, must regulate certain development projects within the mapped hazard zones. For projects in a hazard zone, such as the proposed project, DBI requires that appropriate measures, if any, be incorporated into the development plans and made conditions of the building permit. DBI would review the design-level geotechnical report prepared for the proposed project to confirm that the potential settlement and subsidence impacts of excavation and dewatering are addressed appropriately in accordance with section 1704.15 of the San Francisco Building Code. DBI would also require that the report include a determination as to whether a lateral movement and settlement survey should be done to monitor any movement or settlement of surrounding buildings and

adjacent streets during construction. If a monitoring survey were recommended, DBI would require that a special inspector be retained by the project sponsor to perform this monitoring.

With adherence to San Francisco Building Code requirements, the project sponsor would address the potential impacts related to unstable soils as part of the design-level geotechnical investigation prepared for the proposed project. Therefore, any potential impacts related to unstable soils would be *less than significant*.

Impact GE-4: The proposed project would not create substantial risks to life or property as a result of being located on expansive soil. (*Less than Significant*)

Expansive soils expand and contract in response to changes in soil moisture and are characterized by their ability to undergo significant volume change (i.e., to shrink and swell), particularly when near-surface soils fluctuate from saturated to low-moisture-content conditions and back again. Expansive soils are typically very fine grained and have a high to very high percentage of clay. They can damage structures and buried utilities and increase maintenance requirements. The presence of expansive soils is typically associated with high clay content and determined based on site-specific data. As outlined in the preliminary geotechnical investigation, the site is underlain by a 20- to 50-foot-thick layer of undocumented fill. The undocumented fill contains loose to medium dense sand and gravels intermixed with layers of medium stiff clays, and these clays have the potential to create expansive soil conditions.¹⁶⁷ Section 1803 of the state building code states that in areas likely to have expansive soil, the building official shall require soil tests to determine where such soils do exist, and if so, the geotechnical report must include recommendations and special design and construction provisions for foundations of structures on expansive soils, as necessary. However, through the DBI review and approval of this project, the design-level geotechnical investigation would address the potential impacts of expansive soil, if present, and incorporate measures into the design of the project. Any foundation fortification would be included in the design phase of this project. Compliance with San Francisco Building Code requirements would ensure that potential impacts related to expansive soils would be *less than significant*.

Impact GE-5: The proposed project would not directly or indirectly destroy a unique paleontological resource or site. (*Less than Significant*)

Paleontological resources include fossilized remains or traces of mammals, plants, and invertebrates, as well as their imprints. Such fossil remains and the geological formations that contain them are also considered a paleontological resource. Together, they represent a limited, nonrenewable scientific and educational resource. 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 would not be present. Lithological units that may be fossiliferous include sedimentary formations. Artificial fills do not contain paleontological resources. There is a 20- to 50-foot-thick layer of undocumented fill underneath the project site. Typically, undocumented fill does not contain paleontological resources. Based on the type of soil underlying the project site, it is unlikely that paleontological resources would be discovered during ground-disturbing activities.

The potential to affect fossils varies with the depth of disturbance, construction activities, and previous disturbance. The logistics of excavation also affect the possibility of recovering scientifically significant fossils because information regarding location, vertical elevation, geologic unit of origin, and other aspects of context is critical to the significance of any paleontological discovery. The Franciscan complex that is located at lower depths of 50–80 feet bgs is anticipated to be under the project site, and if so, it may be fossiliferous. However, the proposed project would not involve grading or ground

¹⁶⁷ ENGEO Incorporated, *Geotechnical Feasibility Assessment for the Hotel and Teatro ZinZanni Project*, December 8, 2015.

disturbance at these depths. Accordingly, impacts on paleontological resources during ground-disturbing activities would be *less than significant*.

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

Geology and soils impacts are generally site-specific. Past, present, and foreseeable cumulative projects could require various levels of excavation or cut and fill, which could affect local geologic conditions. The San Francisco Building Code regulates construction in the City and County of San Francisco, and all development projects would be required to comply with its requirements for maximum feasible seismic safety and reduction of geologic impacts. Site-specific geotechnical measures would also be implemented as site conditions warrant to reduce potential impacts from unstable soils, ground shaking, liquefaction, or lateral spreading. The cumulative development projects located within an approximate 0.25-mile radius of the project site identified in Table 3 and mapped in Figure 17 in Section B.3, Cumulative Projects, would be subject to the same seismic safety standards and design review procedures applicable to the proposed project. Compliance with the seismic safety standards and the design review procedures would reduce potential cumulative seismic and geotechnical hazard impacts to *less than significant*.

E.14. HYDROLOGY AND WATER QUALITY

Topics:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
14. HYDROLOGY AND WATER QUALITY.— Would the project:					
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project site is not within a 100-year flood hazard area designated on the City's interim floodplain map, and would not place housing or structures within a 100-year flood hazard area that would impede or redirect flood flows as shown on the Federal Emergency Management Agency's Preliminary Flood Insurance Rate Map for the northeast quadrant of San Francisco.¹⁶⁸ Therefore, questions 14g and 14h are not applicable to the proposed project. The site also is not within a dam inundation zone or subject to flooding from levee failure.¹⁶⁹ In addition, the project site would not be subject to mudflows because the project site is not near any landslide-prone areas.¹⁷⁰ Thus, question 14i is not applicable.

¹⁶⁸ Federal Emergency Management Agency, *San Francisco Interim Floodplain Map: NE San Francisco*, Preliminary, 2015, http://sfgsa.org/sites/default/files/Document/SF_NE.pdf, accessed May 16, 2016.

¹⁶⁹ San Francisco Planning Department, Map 06 – Potential Inundation Areas Due to Reservoir Failure, *San Francisco General Plan Community Safety Element*, October 2012.

¹⁷⁰ San Francisco Planning Department, Map 04 – Seismic Hazard Zones (Landslide Zones), *San Francisco General Plan Community Safety Element*, October 2012.

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

The project site is in an area of the city served by a combined stormwater and sewer system. With the proposed development, stormwater and wastewater from the site would continue to be discharged to an underground piping network, which conveys the waters to the Southeast Water Pollution Control Plant for treatment. The City currently holds a National Pollutant Discharge Elimination System permit (San Francisco Bay Regional Water Quality Control Board Order No. R2-2013-0029) that covers the Southeast Water Pollution Control Plant, the North Point Wet Weather Facility, and all of the Bayside wet-weather facilities, including combined sewer discharge structures along the bayside waterfront from Marina Green to Candlestick Point. Collected wastewater and stormwater flows in the combined sewer system are directed first to the Southeast Water Pollution Control Plant and North Point Wet Weather Facility for primary or secondary treatment and disinfection. Flows in excess of the capacity of these facilities are diverted to combined sewer discharge structures throughout the city and receive the equivalent of primary treatment before being discharged into San Francisco Bay.

New development projects must comply with article 4.2, section 147 of the San Francisco Public Works Code, which was last updated on April 2, 2016. The intent of this San Francisco Stormwater Management Ordinance (No. 64-16) is to reduce the volume of stormwater entering the City's combined and separate sewer systems. Stormwater Management Ordinance compliance approvals for this project will be conducted by the SFPUC and Port. SFPUC has developed the 2016 Stormwater Management Requirements and Design Guidelines in accordance with the requirements of this ordinance.

Construction Impacts

Construction activities have the potential to result in runoff of surface water that contains sediments and other pollutants from the site, which could drain into the combined sewer and stormwater system. Stormwater runoff from temporary onsite use and storage of vehicles, fuels, wastes, and building materials could also carry pollutants into the Southeast Water Pollution Control Plant or receiving water if improperly handled. Construction-related stormwater discharges to the combined sewer system would occur in accordance with the Bayside NPDES permit and site runoff would be subject to the Construction Site Runoff requirements of article 4.2 of the Public Works Code. This requires any construction activity that disturbs 5,000 square feet or more of ground surface to obtain a construction site runoff control permit and to implement and maintain BMPs to minimize surface runoff, erosion, and sedimentation. The application for the permit must also include an erosion and sediment control plan that contains a vicinity map; a site survey; depictions of existing and proposed topography and area drainage; proposed construction sequencing; proposed drainage channels; erosion and sediment controls; dewatering controls, if applicable; sampling, monitoring, and reporting schedules; and other information deemed necessary by SFPUC. Improvements to any existing grading, ground surface or site drainage must also meet the requirements of article 4.2 for new grading, drainage, and erosion control. A building permit would not be issued until a construction site runoff control permit has been submitted and approved. In addition, the proposed project would be required to comply with the Maher Ordinance (article 22A of the San Francisco Health Code), which requires further site management and reporting requirements for potential hazardous soils (see Impact HY-2 for discussion of the Maher Ordinance).

The provisions of the construction site runoff control permit would require the project sponsor to conduct daily inspections and maintenance of all erosion and sediment controls and to provide inspection and maintenance information to SFPUC. SFPUC may also inspect the site periodically to confirm compliance with the erosion and sediment control plan. The project sponsor must notify SFPUC at least 2 days before the start of construction, when the erosion and sediment control measures have been installed, and upon completion of final grading. SFPUC has the discretion to require sampling, metering, and monitoring, if necessary. Compliance with these regulatory requirements, implementation of the erosion and sediment control plan and BMPs during construction activities, and the fact that site runoff would be treated pursuant to the City's National Pollutant Discharge Elimination System permit before discharge to receiving waters would reduce construction impacts on water quality to *less than significant*.

Operational Impacts

Runoff from mixed-use properties and parking lots can contain oil and grease; dissolved metals such as lead, zinc, cadmium, copper, chromium, and nickel; nutrients from fertilizers; sediments and trash; and organic compounds. Pollutants at the beginning of the rainy season may result in an initial stormwater runoff (first flush) with high pollutant concentrations. Stormwater runoff is regulated locally by the San Francisco Stormwater Management Ordinance, which provides implementation guidance with the San Francisco Stormwater Management Requirements and Design Guidelines. In accordance with these guidelines, project developers that create and/or replace 5,000 square feet of impervious surface and discharge to the combined sewer system must implement low impact design and best management practices to manage the flow rate and volume of stormwater that enters the combined sewer system.

Because more than 50 percent of the project site is covered with existing impervious surfaces, the proposed project's stormwater management approach must reduce the existing runoff flow rate and volume by 25 percent for a 2-year, 24-hour design storm, using a hierarchy of best management practices set forth in the Stormwater Management Requirements. Examples of BMPs that may be implemented for mixed-use projects include rainwater harvesting, vegetated roofs, permeable paving, and bioretention planters. Alternatively, if site conditions limit the potential for stormwater infiltration, the project sponsor may apply for modified compliance in accordance with the Stormwater Management Ordinance and Stormwater Management Requirements and Design Guidelines to adjust the amount by which the proposed project must reduce stormwater runoff volume and flow rates as compared to existing conditions. Stormwater Management Ordinance compliance approvals for this project will be conducted by the SFPUC and Port. Additionally, a maintenance agreement also must be signed by the project sponsor so that the stormwater controls are maintained in perpetuity.

In summary, the proposed project would be required to comply with state and City regulations requiring the preparation of an erosion and sediment control plan for construction activities, a stormwater control plan for postconstruction activities, and the implementation of low impact design and best management practice features. Additionally, through the development review process, the City would confirm that the proposed project complies with various statutory requirements necessary to minimize stormwater pollutants. Site runoff would also be treated pursuant to the City's National Pollutant Discharge Elimination System permit before discharge to receiving waters. Therefore, impacts related to water quality from development of the proposed project would be *less than significant*.

Impact HY-2: The proposed project would not 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*)

The project site is currently entirely covered in impervious surfaces; therefore, the proposed project would not increase the amount of impervious surface and would not result in any substantial change in infiltration or runoff on the project site. As noted above in Section E.13, Geology and Soils, groundwater was encountered between 6 and 10 feet bgs during the geotechnical investigation. The proposed project would necessitate excavation to a maximum depth of approximately 6 feet for construction of the foundation. If groundwater were encountered onsite, then temporary dewatering activities would be necessary. SFPUC's Bureau of Systems Planning, Environment, and Compliance must be notified regarding projects necessitating dewatering. SFPUC may require a water analysis before discharge. The proposed project would be required to obtain a batch wastewater discharge permit from SFPUC's Wastewater Enterprise Collection System Division before any dewatering activities. Groundwater encountered during construction of the proposed project would be subject to requirements of Public Works Code article 4.1, Industrial Waste, requiring that groundwater meet specified water quality standards before it may be discharged into the sewer system. These measures would protect water quality during construction of the proposed project. In addition, the proposed project would not extract any underlying groundwater supplies. Therefore, groundwater resources would not be substantially degraded or depleted, and the proposed project would not substantially interfere with groundwater recharge. Thus, the proposed project would have a *less-than-significant* impact on groundwater.

Impact HY-3: The proposed project would not 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 onsite or offsite. (*Less than Significant*)

The project site is currently covered by impervious surfaces and no streams or creeks occur on the project site. Impervious surfaces at the site would not substantially change as part of the proposed project and drainage patterns would remain generally the same. The project would incrementally reduce the amount of impervious surface on the project site through implementation of low impact development and other measures identified in the Stormwater Management Ordinance, which also requires that the project decrease stormwater runoff. In particular, because the project site is within the combined sewer area and is more than 50 percent impervious, the proposed project would be required to decrease the stormwater runoff rate and volume by 25 percent from predevelopment conditions for the 2-year, 24-hour design storm. Therefore, the proposed project would not be expected to result in substantial erosion or flooding associated with changes in drainage patterns. The impact of the proposed project related to potential erosion or flooding would be *less than significant* through compliance with the City's regulatory requirements.

Impact HY-4: The proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. (*Less than Significant*)

The proposed project involves the construction of mixed-use development, including a hotel, entertainment venue, and public park, on an existing developed parking lot that is currently connected to the City's combined sewer system. The proposed project would not result in an increase in impervious surfaces that would increase the amount of stormwater runoff from the property. In addition, during construction and operation, the proposed project would be required to comply with local wastewater discharge, stormwater runoff, and water quality requirements, including the 2016 San Francisco Stormwater Management Requirements and Design Guidelines, and the Stormwater Management Ordinance (No. 64-16). Stormwater Management Ordinance compliance approvals for this project will be conducted by the SFPUC and Port. Compliance with these guidelines requires that specified quantity of stormwater generated by the proposed project be managed onsite, resulting in a reduction in the existing runoff flow rate and volume by 25 percent for a 2-year, 24-hour design storm. Therefore, the proposed project would not result in an exceedance of existing storm drainage system capacity and impacts would be *less than significant*.

The project site is located in an area that was previously part of San Francisco Bay and was filled with material of unknown origin in the 1860s.¹⁷¹ Areas located on fill or Bay Mud can subside to a point at which the combined sewers do not drain freely during a storm event, and backups or flooding can occur near these streets and sewers.¹⁷² Additionally, the project site is in an area identified as being prone to flooding hazards as a result of the underlying fill and close proximity to San Francisco Bay. The proposed project would be referred to SFPUC at the beginning of the building permit process to determine whether the project would result in ground-level flooding during storms. If SFPUC determines that the proposed project would result in ground-level flooding, the side sewer connection permits would be reviewed and approved by SFPUC at the beginning of the review process for all permit applications submitted to the San Francisco Planning Department or DBI. The project sponsor must then comply with SFPUC requirements for projects in flood-prone areas. Such requirements may include providing a pump station for sewage flow, raising the elevations of entryways, and constructing special sidewalks and deep gutters.

¹⁷¹ ENGEO Incorporated, *Environmental Site Characterization Work Plan*, August 2016.

¹⁷² San Francisco Planning Department, 2007. *Planning Director Bulletin No. 4: Review of Projects in Areas Prone to Flooding*, April 2007, http://www.sf-planning.org/ftp/files/publications_reports/DB_04_Flood_Zones.pdf, accessed on February 16, 2018.

With the implementation of site design, source control, treatment control, low impact design, and best management practice features, and with compliance with SFPUC requirements for projects in flood-prone areas, the proposed project would not contribute additional volumes of polluted runoff to the City's combined sewer system. In addition, the proposed project would be required to comply with local wastewater discharge, stormwater runoff, and water quality requirements, pursuant to the effluent discharge standards of the City's National Pollutant Discharge Elimination System permit for the Southeast Water Pollution Control Plant. Therefore, the proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, and impacts would be *less than significant*. No mitigation measures are required.

Impact HY-5: 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, or inundation by seiche, tsunami, or mudflow. (Less than Significant)

No levees or dams are located in the area.

The project site is located approximately 100 feet from San Francisco Bay, within a tsunami inundation zone.¹⁷³ A tsunami is an ocean wave originating from an underwater disturbance, such as earth movement caused by an earthquake, volcanic eruption, landslide, or explosion. San Francisco's Emergency Response Plan reports that a 100-year return period tsunami wave could have a runup elevation of 8.2 feet (National Geodetic Vertical Datum of 1929) at the Golden Gate Bridge, but this wave runup would dissipate as it moved eastward.¹⁷⁴

A seiche is an oscillation wave generated in an enclosed or partially enclosed body of water, such as San Francisco Bay. Because the project site is within the tsunami inundation zone, it would also be subject to seiches and could expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche and tsunami.¹⁷⁵ Tidal records of San Francisco Bay, maintained for more than a century, indicate that no damaging seiche has occurred during this period.¹⁷⁶ The 1906 earthquake, which caused a seiche of approximately 4 inches, had a magnitude of about 8.3 on the Richter scale. It is likely that an earthquake of the same magnitude as the 1906 earthquake would be the largest to occur in the Bay Area.¹⁷⁷ Therefore, a seiche larger than 4 inches is considered unlikely.

The National Warning System would notify San Francisco if an earthquake occurred with the potential to cause a tsunami or seiche. San Francisco has an established outdoor warning system for tsunamis or similar natural events, in which sirens and loudspeakers are initiated to sound an alarm alerting the public to tune into local TV, cable TV, or radio stations, which would carry instructions for appropriate actions to be taken as part of the Emergency Alert System. Police would also canvass the neighborhoods sounding sirens and bullhorns, and knocking on doors as needed, to provide emergency instructions. Evacuation centers would be set up if required. The advance warning system would allow people to evacuate before a seiche and would provide a level of protection for public safety. Therefore, the impact would be *less than significant*.

¹⁷³ California Emergency Management Agency, *Tsunami Inundation Map for Emergency Planning, State of California – City and County of San Francisco, San Francisco North Quadrangle, San Francisco South Quadrangle (San Francisco Bay)*, June 15, 2009.

¹⁷⁴ City and County of San Francisco, *Emergency Response Plan: An Element of the CCSF Emergency Management Program, Tsunami Response Annex*, September 2008, p. 24, <http://www.sfdem.org/fip/uploadedfiles/DEM/PlansReports/TsunamiAnnex-2008.pdf>, accessed February 28, 2017.

¹⁷⁵ California Emergency Management Agency, *Tsunami Inundation Map for Emergency Planning, State of California – City and County of San Francisco, San Francisco North Quadrangle, San Francisco South Quadrangle (San Francisco Bay)*, June 15, 2009.

¹⁷⁶ San Francisco Planning Department, *Candlestick Point–Hunters Point Draft Environmental Impact Report*, 2009, p. III.M-14.

¹⁷⁷ Working Group On California Earthquake Probabilities, *Earthquake Probabilities in the San Francisco Bay Region: 2002–2031*, United States Geological Survey Open-File Report 03-214, Appendix D. Magnitude and Area Data for Strike Slip Earthquakes, Dr. William L. Ellsworth, Research Seismologist, United States Geological Survey, 2003.

Impact-C-HY-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would result in less-than-significant cumulative impacts related to hydrology and water quality. (*Less than Significant*)

The proposed project would result in no impact with respect to 100-year flood zones, failure of dams or levees, and/or mudflow hazards. Therefore, the project would not have the potential to contribute to cumulative impacts related to these issue areas. The proposed project itself is within the seiche and tsunami inundation zone. However, San Francisco has alert systems and evacuation plans in place. As stated above in Impacts HY-1, HY-2, HY-3, and HY-4, the proposed project would result in less-than-significant impacts related to water quality, groundwater levels, alteration of drainage patterns, and the capacity of drainage infrastructure. The proposed project and all future projects within San Francisco would be required to comply with the water quality and drainage control requirements that apply to all land use development projects in the city, including the development of an erosion and sediment control plan for construction activities and a stormwater control plan for postconstruction operation. Because development projects would be required to follow the same regulations as the proposed project, peak stormwater drainage rates and volumes resulting from design storms would gradually decrease over time with the implementation of new, conforming development projects. As a result, cumulative impacts with respect to drainage patterns, water quality, stormwater runoff, and stormwater capacity of the combined sewer system would be less than significant.

In addition, San Francisco's very limited current use of groundwater would preclude any significant adverse cumulative effects on groundwater levels, and the latest urban water management plan states that there are sufficient water supplies to meet demand for existing and future projects through the year 2040.

Cumulative impacts are not anticipated because all development projects would be required to comply with the same drainage, dewatering, and water quality regulations as the proposed project. Thus, the proposed project would not combine with cumulative development projects to create or contribute to a cumulative impact related to hydrology and water quality, and cumulative impacts would be *less than significant*.

E.15. HAZARDS AND HAZARDOUS MATERIALS

Topics:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
15. HAZARDS AND HAZARDOUS MATERIALS.— Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not located within an airport land use plan or within 2 miles of a public or private airport. Therefore, questions 15e and 15f are not applicable to the proposed project. The proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires because of the urbanized nature of the project site. There are no residences intermixed with wildlands in the project vicinity. Therefore, question 15h is not applicable to the proposed project.

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

Construction-related activities would involve soil disturbance of approximately 11,100 cubic yards. This could result in the generation of hazardous soil and asphalt materials for transport off-site. The City would require the project sponsor and its contractor to comply with the Maher Ordinance, as discussed under Impact HZ-2 below, which would require material sampling and analysis before demolition and excavation to ensure proper handling of any hazardous materials in accordance with state and federal laws. Construction activities associated with the proposed new buildings would require the use of limited quantities of hazardous materials such as fuels, oils, solvents, paints, and other common construction materials that would not result in a significant impact on the environment. The City requirements, such as article 22, section 1203 of the San Francisco Health Code, would require the project sponsor to comply with the minimum standards of management of hazardous waste as specified in Title 22 of the California Code of Regulations, chapter 30, division 4, and grants the City the

right to conduct inspections of “any factory, plant, construction site, waste disposal site, transfer station, establishment or any other place or environment where hazardous wastes are stored, handled, processed, disposed of, or being treated to recover resources.”¹⁷⁸ As a result of existing regulations requiring the proper disposal of hazardous materials, construction-related transport and disposal of hazardous materials would not result in a significant impact on the environment.

Once constructed, the project would likely result in use of common types of hazardous materials typically associated with cleaning products and disinfectants. These products are labeled to inform users of their potential risks and to instruct them in appropriate handling procedures. However, most of these materials are consumed through use, resulting in relatively little waste. Businesses are required by law to guarantee employee safety by identifying hazardous materials in the workplace, providing safety information to workers who handle hazardous materials, and adequately training workers. For these reasons, hazardous materials used during project operation would not pose any substantial public health or safety hazards resulting from hazardous materials. In addition, transportation of hazardous materials would be regulated by the California Highway Patrol and the California Department of Transportation. These hazardous materials are not expected to cause any substantial health or safety hazards. Therefore, potential impacts related to the routine use, transport, and disposal of hazardous materials would be *less than significant*.

Impact HZ-2: The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5, and 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*)

Several environmental site investigations and analyses have taken place for the project site, with the latest performed in April 2018^{179, 180, 181, 182}. Baseline Environmental Consulting and ENGEO Incorporated prepared a Phase I and other environmental site assessments (ESAs) that analyzed the potential for adverse environmental impacts from the proposed project related to the contemporary and historical uses and practices on the project site and the surrounding area.

Historic documents and previous reports indicated that the site was previously part of San Francisco Bay and located between two wharves. The site was filled with material of unknown origin in the 1860s. The site was used as a wood and coal yard and a railyard from 1913 until 1960. The Embarcadero Freeway ramp traversed a southern portion of the site from 1958 through 1991. The site has been a paved parking lot since that time.

Phase I Environmental Site Assessments

The purpose of the Phase I ESA is to determine the potential for site contamination and level of exposure risk associated with the project. Based on that information, the project sponsor may be required to conduct soil and/or groundwater sampling and analysis. Where such an analysis reveals the presence of hazardous substances in excess of federal or state standards, the project sponsor is required to submit a *site mitigation plan* to the San Francisco Department of Public Health or other appropriate federal or state agency (or agencies), and to remediate any site contamination in accordance with an approved *site mitigation plan* before the issuance of any building permit.

¹⁷⁸ City of San Francisco, San Francisco Health Code, article 22: Hazardous Waste Management, section 1203, Implementation and Enforcement of Hazardous Waste Control Act, [http://library.amlegal.com/nxt/gateway.dll/California/health/article22hazardouswastemanagement?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:sanfrancisco_ca\\$anc=JD_Article22](http://library.amlegal.com/nxt/gateway.dll/California/health/article22hazardouswastemanagement?f=templates$fn=default.htm$3.0$vid=amlegal:sanfrancisco_ca$anc=JD_Article22), accessed June 22, 2018.

¹⁷⁹ ENGEO Incorporated, *Geotechnical Feasibility Assessment for the Hotel and Teatro ZinZanni Project*, December 8, 2015.

¹⁸⁰ ENGEO Incorporated, *Environmental Site Characterization Work Plan*, August 2016.

¹⁸¹ ENGEO Incorporated, *Environmental Site Characterization*, September 7, 2016.

¹⁸² ENGEO Incorporated, 2018, *Summary of Geotechnical and Environmental Studies and Summary of Project Construction Methodologies, Hotel and Theater Project Seawall Lots 323 and 324, San Francisco, California*, April 6, 2018.

In compliance with the Maher Ordinance, the project sponsor has submitted a Maher application to the San Francisco Department of Public Health¹⁸³ and an updated Summary of Geotechnical and Environmental Studies¹⁸⁴ has been prepared to assess the potential for site contamination. No observed evidence of any significant staining, spillage, and/or ponded liquids or unconfined solids was discovered on the project site during site reconnaissance. No recognized environmental conditions associated with the storage of hazardous materials at the project site were observed during a site reconnaissance for the Phase I and other ESAs. A summary of the findings from the Phase I and other ESAs prepared for the project site follows.

Earlier environmental site assessments, until recently (2015–2016), date back to October 1998 and before. In 1995 a 10,000-gallon underground storage tank was removed and replaced with a new tank. In 1997 the San Francisco Department of Public Health indicated that the storage tanks had not impacted groundwater and issued a closure letter. Previous contaminants included metals, polynuclear aromatic hydrocarbons, petroleum hydrocarbons, VOCs, and unknown hazardous materials.

The project site is not on a list of identified hazardous material sites pursuant to Government Code section 65962.5, as determined by the database searches compiled for the Phase I ESA reports, which include databases maintained by U.S. EPA, the California Department of Toxic Substances Control, and the State Water Resources Control Board. One site that is hydraulically upgradient of the project site had previously reported a release of gasoline that may affect subsurface conditions at the project site. According to the State Water Resources Control Board's GeoTracker website, this hydraulically upgradient site was closed on October 11, 2009. Sites previously identified as leaking underground storage tank cleanup sites are present in surrounding areas; however, those sites have since been designated as completed–case closed, and have been remediated to the satisfaction of the applicable regulatory authority (San Francisco Bay RWQCB, California Department of Toxic Substances Control, or San Francisco Department of Public Health).

The most recent environmental soil and groundwater samples were analyzed as part of an additional site characterization analysis completed on August 12, 2016 by Torrent Laboratory, Inc.¹⁸⁵ Nine exploratory borings were taken on the southern end and four borings were taken on the northern end, where the future public park would be located, in addition to 66 soil samples that were taken within the borings at depths ranging from one to 20 feet below ground surface. The findings indicated that select VOC and semivolatile organic compound analytes were in excess of either and/or both residential or commercial screening levels established by San Francisco Bay Regional Water Quality Control Board. Three groundwater samples were taken from the boring locations which exhibited detectable concentrations of petroleum hydrocarbons, VOCs, SVOCs and metallic analytes.

Based on the results of the soil and groundwater samples, ENGEO Incorporated concluded that due to past site use it is possible that unknown areas with potentially impacted soil, buried debris or solid waste could be encountered and should be handled under observation of an environmental professional. Preparation of a Soil Management Plan with procedures and protocols was also recommended. Additional environmental site characterization should be done in conformance with the Maher Ordinance program to address potential soil and groundwater impacts that may have resulted from earlier industrial and commercial uses associated with the railyard, gasoline service station, and surface parking lot. Demolition, excavation, and construction activities would follow all appropriate standards and regulations for hazardous materials, including the California Health and Safety Code.

¹⁸³ The project sponsor submitted the Maher Application to the San Francisco Department of Public Health in accordance with San Francisco Health Code article 22A on June 26, 2016 and received the letter of compliance on April 26, 2017.

¹⁸⁴ ENGEO Incorporated, 2018, *Summary of Geotechnical and Environmental Studies and Summary of Project Construction Methodologies, Hotel and Theater Project Seawall Lots 323 and 324, San Francisco, California*, April 6, 2018.

¹⁸⁵ ENGEO Incorporated, *Environmental Site Characterization*, September 7, 2016.

Lead Exposure

According to the environmental site assessments, lead was detected at elevated levels in most of the samples; therefore, before excavation of soil for off-site disposal, further characterization and testing would be necessary to determine characterization for appropriate removal and disposal.¹⁸⁶ Demolition of the parking lots and excavation of underlying soil also would be subject to the Division of Occupational Safety and Health's Lead in Construction Standard (CCR title 8, section 1532.1). This standard requires development and implementation of a *lead compliance plan* when materials containing lead would be disturbed during construction. The plan must describe activities that could emit lead, methods that would be used to comply with the standard, safe work practices, and a plan to protect workers from exposure to lead during construction activities. The Division of Occupational Safety and Health would require 24-hour notification if more than 100 square feet of materials containing lead would be disturbed. Implementation of procedures required by section 3426 of the San Francisco Building Code and the Lead in Construction Standard would guarantee that potential impacts of demolition or excavation with lead-contaminated asphalt or soil would not be significant.

A Maher response letter from the City Department of Public Health was provided on April 26, 2017,¹⁸⁷ and indicated based on the Phase I and other ESAs, the subsurface investigation work plan, and the environmental site characterization report were approved and the geotechnical feasibility assessment report was accepted; however, further investigation and documentation may be warranted and a *site mitigation plan* will be required. As described in the letter, the project sponsor would be required to remediate any groundwater or soil contamination in accordance with an approved *site mitigation plan* before issuance of any building permit pursuant to the Maher Ordinance. Normal grading procedures, including dust control regulations, routine soil disposal criteria mandated by landfills and the use of approved fill material, if needed, would offset any adverse site conditions.

Based on mandatory compliance with existing regulatory requirements, the information and conclusions from the Phase I and other ESAs, and adherence to the Maher Ordinance, the proposed project would result in a ***less-than-significant*** impact on the public or environment from releasing contaminated soil, groundwater, or construction debris.

Impact HZ-3: The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. (*Less than Significant*)

One school is within 0.25 mile of the project site: John Yehall Chin Elementary School, a San Francisco Unified School District school at 350 Broadway, about 0.20 mile west of the project site.

As stated in this section the proposed project would not result in the storage, handling, or disposal of significant quantities of hazardous materials and would not otherwise include any uses that would result in the emission of hazardous substances. Any hazardous materials currently on the site, such as contaminated soil or asphalt, would be sampled, analyzed, and removed before or during demolition of the parking lots and excavation for the foundation and before project construction. Such materials would be handled in compliance with applicable laws and regulations as described in this section. With the required adherence to these regulations, the impact related to hazardous emissions or the handling of hazardous materials during construction or post-construction would be ***less than significant*** for the nearby school.

¹⁸⁶ ENGEO Incorporated, 2018, *Summary of Geotechnical and Environmental Studies and Summary of Project Construction Methodologies, Hotel and Theater Project Seawall Lots 323 and 324, San Francisco, California*, April 6, 2018.

¹⁸⁷ City and County of San Francisco Department of Public Health and Environmental Health, April 26, 2017. *San Francisco Health Code article 22A, Compliance, Hotel and Teatro ZinZanni Project Seawall Lots 323 and 324, San Francisco, CA*, EHB-SAM NO. – SMED: 1461.

Impact HZ-4: The proposed project would not expose people or structures to a significant risk of loss, injury, or death involving fires, nor would the project interfere with the implementation of an emergency response plan. (*Less than Significant*)

San Francisco applies fire safety measures primarily through provisions of the building and fire codes. Final building plans are reviewed by SFFD (as well as DBI) to confirm conformance with these provisions. In this way, potential fire hazards, including those associated with hydrant water pressures and emergency access, would be addressed during the permit review process. Compliance with fire safety regulations would ensure that the proposed project would not impair implementation of or physically interfere with an adopted emergency response 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*.

Impact C-HZ-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the project site, would result in less-than-significant cumulative impacts related to hazards and hazardous materials. (*Less than Significant*)

Impacts from hazardous materials are generally site-specific and typically do not result in cumulative impacts. Any potential hazards occurring at nearby sites would be subject to the same safety, investigation, and/or remediation requirements discussed for the proposed project, which would reduce any cumulative hazardous effects to less-than-significant levels. As such, the proposed project would not combine with cumulative development projects to create or contribute to a cumulative impact related to hazards and hazardous materials. Cumulative impacts would be *less than significant*.

This page intentionally left blank.

E.16. MINERAL AND ENERGY RESOURCES

Topics:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
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"/>

The project site is designated by the California Division of Mines and Geology as Mineral Resource Zone (MRZ) 4 under the Surface Mining and Reclamation Act of 1975.¹⁸⁸ The MRZ-4 designation indicates that the site does not belong to any other MRZ and does not have any significant mineral deposits. As a result, the proposed project's development and operation would not have an impact on operational mineral resource recovery sites. Therefore, questions 16a and 16b are not applicable to the proposed project.

Impact ME-1: The proposed project would not encourage activities that would result in the use of large amounts of fuel, water, or energy or use these resources in a wasteful manner. (*Less than Significant*)

The proposed project would demolish an existing parking lot and construct a mixed-use development with an entertainment venue and a 192-room hotel, which would increase the intensity of uses at the project site, although not to an extent that would exceed planned growth in the area. Because it would include a new building in San Francisco, the proposed project would be subject to the energy conservation standards included in the San Francisco Green Building Code and Title 24 of the California Code of Regulations (Title 24). The San Francisco Green Building Code would require the project to meet a number of conservation standards, including installation of water-efficient fixtures and energy-efficient appliances. The proposed project would also provide features that encourage alternative modes of transportation, such as bicycle racks and car-share parking spaces. Documentation showing compliance with the San Francisco Green Building Code would be submitted with the application of the building permits, and would be enforced by DBI. In addition, the proposed project would be required to comply with Title 24, which regulates energy consumption for the heating, cooling, ventilation, and lighting of residential and nonresidential buildings and is enforced by DBI. Compliance with Title 24 and the San Francisco Green Building Code would guarantee a reduction in the use of fuel, water, and energy by the proposed project.

In addition, San Francisco has a lower VMT ratio than the Bay Area region as a whole. The transportation analysis zone in which the project site is located (TAZ 830) has between 25 and 85 percent fewer daily VMT per employee than the Bay Area's regional average.¹⁸⁹ Furthermore, the following transportation-related aspects of the proposed project would discourage single-occupancy vehicle trips: proximity to transit, bicycle storage, and a transportation demand management plan with strategies to discourage the use of automobiles and to encourage transit and other modes of transportation. Because the proposed project is an infill mixed-use development in a transit-rich area, the proposed project's vehicle trips and

¹⁸⁸ California Division of Mines and Geology, *Update of Mineral Land Classification: Aggregate Materials in the South San Francisco Bay Production-Consumption Region*, Open-File Report 96-03 and Special Report 146, parts I and II.

¹⁸⁹ CHS Consulting Group, *Seawall Lot 323 and 324 (Teatro Zinzanni) Project Final Transportation Impact Study*, May 2018.

associated fuel use would not constitute wasteful use of energy, and therefore would be consistent with the *Plan Bay Area* land use strategy, which seeks to reduce per-capita VMT.

For the above reasons, the proposed project would not result in the use of large amounts of fuel, water, or energy, or result in the use of these resources in a wasteful manner. Impacts related to the use of these resources would be *less than significant*.

Impact C-ME-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the project site, would result in a cumulative impact on mineral and energy resources. (*Less than Significant*)

No known minerals exist in the project site or in the vicinity, because all of San Francisco falls within MRZ-4, meaning that no known minerals exist in the project site or in the vicinity. Therefore, there would be no cumulative impacts on mineral resources.

The cumulative development projects identified in Table 3 and mapped in Figure 17 in Section B.3, Cumulative Projects, as well as other projects in the city would be required by DBI to conform to Title 24 and the San Francisco Green Building Code. They would be required to minimize the use of large amounts of fuel, water, or energy by, for instance, installing energy-efficient appliances and water-efficient fixtures, which would preclude cumulative significant impacts on fuel, water, or energy. Furthermore, the cumulative projects are also infill projects and would contribute to reduced transportation-related fuel demand compared to projects located in a less VMT efficient setting. Additionally, statewide efforts are being made to increase power supply and to encourage energy conservation, the demand for energy created by the proposed project would be insubstantial in the context of the total demand in San Francisco and the state, and would not require a major expansion of power facilities. The City also plans to reduce GHG emissions to 25 percent below 1990 levels by 2017, and ultimately reduce GHG emissions to 80 percent below 1990 levels by 2050, which would be achieved through a number of different strategies, including energy efficiency. Thus, the proposed project combined with cumulative projects would result in a *less-than-significant* cumulative impact on fuel, water, and energy resources.

E.17. AGRICULTURE AND FORESTRY RESOURCES

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
----------------	---	---	---	------------------	-----------------------

17. AGRICULTURE AND FORESTRY 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 Department of Conservation as a 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 State inventory of forest land, including the Forest and Range Assessment and Forest Legacy Assessment projects; 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"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 is in an urbanized area of San Francisco. No land in San Francisco County has been designated by the California Department of Conservation's Farmland Mapping and Monitoring Program as agricultural land. Because the project site does not contain agricultural uses and is not zoned for such uses, the proposed project would not require the conversion of any land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use. The proposed project would not conflict with any existing agricultural zoning or Williamson Act contracts.¹⁹⁰ No land in San Francisco is designated as forest land or timberland by the California Public Resources Code. Therefore, the proposed project would not conflict with zoning for forest land, cause a loss of forest land, or convert forest land to a different use. For these reasons, questions 17a, 17b, 17c, 17d, and 17e are not applicable to the proposed project.

¹⁹⁰ San Francisco is identified as "Urban and Built-Up Land" on the California Department of Conservation Important Farmland in California Map, 2012, <http://www.consrv.ca.gov>, accessed January 12, 2017.

This page intentionally left blank.

E.18. MANDATORY FINDINGS OF SIGNIFICANCE

Topics:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	Not Applicable
18. MANDATORY FINDINGS OF SIGNIFICANCE—					
a) Does the project 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

As discussed in the previous sections (E.1 through E.17), impacts of the proposed project are anticipated to be less than significant or less than significant with mitigation in the areas discussed. The foregoing analysis identifies potentially significant impacts related to cultural resources and air quality, which would be mitigated through implementation of mitigation and improvement measures, as described in the following paragraphs. Section F, Mitigation Measures and Improvement Measures, identifies mitigation and improvement measures applicable to the proposed project.

As described in Section E.3, Cultural Resources, the proposed project could result in a substantial adverse change on historic and archeological resources, including tribal cultural resources. In addition, the proposed project could disturb human remains. Implementation of **Mitigation Measures M-CR-2, Archeological Testing**, and **M-CR-4, Tribal Cultural Resources Interpretive Program**, would reduce the impacts to **less-than-significant** levels. Therefore, the proposed project would not result in a significant impact through the elimination of important examples of major periods of California history or prehistory.

As described in Section E.6, Air Quality, the proposed project’s construction activities would generate TACs, including diesel PM, which could expose sensitive receptors to substantial pollutant concentrations. The proposed project would add a new source of TACs in an area that already experiences poor air quality. Implementation of **Mitigation Measures M-AQ-2, Construction Emissions Air Quality**, and **M-AQ-4, Best Available Control Technology for Diesel Generators**, would reduce the impacts to **less-than-significant** levels. With implementation of these measures, the proposed project would not result in a significant air quality impact.

Both long-term and short-term environmental effects, including substantial adverse effects on human beings, associated with the proposed project would be **less than significant with mitigation**, as discussed under each environmental topic. Each environmental topic area includes an analysis of cumulative impacts. This initial study concludes that cumulative impacts for all environmental topic areas would be **less than significant**.

This page intentionally left blank.

F. MITIGATION MEASURES AND IMPROVEMENT MEASURES

The following mitigation measures have been identified to reduce potentially significant impacts resulting from the proposed project to a less-than-significant level. Improvement measures recommended to reduce or avoid less-than-significant impacts are also identified below. Accordingly, the project sponsor has agreed to implement the mitigation measures and improvement measures described below.

F.1. MITIGATION MEASURES

Mitigation Measure M-CR-2: Archeological Testing

Based on a reasonable presumption that archeological resources may be present on 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 Archaeological Consultants List maintained by the San Francisco Planning Department's archeologist. The project sponsor shall contact the department's archeologist to obtain the names and contact information for the next three archeological consultants on the list. 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 4 weeks. At the direction of the ERO, the suspension of construction can be extended beyond 4 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 sections 15064.5(a) and 15064.5(c).

Consultation with Descendant Communities: On discovery of an *archeological site*¹⁹¹ associated with descendant Native Americans, the Overseas Chinese, or other potentially interested descendant group, an appropriate representative¹⁹² 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 archeological 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. The archeological testing program shall be conducted in accordance with the approved testing plan. The archeological testing plan 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

¹⁹¹ The term "archeological site" is intended here to minimally include any archeological deposit, feature, burial, or evidence of burial.

¹⁹² 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.

possible the presence or absence of archeological resources and to identify and evaluate whether any archeological resource encountered on the site constitutes a 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 whether 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 San Francisco Planning Department's 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 redesigned 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 archeological monitoring program a reasonably prior to any project-related soil-disturbing activities commencing. The ERO in consultation with the archeological consultant shall determine what project activities shall be archeologically monitored. In most cases, any soil-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (e.g., foundation, shoring), and site remediation, shall require archeological monitoring because of the risk these activities pose to potential archeological 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), how to identify the evidence of the expected resource(s) and 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 the project's 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 soil-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 or deep foundation activities (e.g., foundation, shoring), the archeological monitor has cause to believe that the pile driving or deep foundation activities may affect an archeological resource, the pile driving or deep foundation activities 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 accordance with an archeological data recovery plan (ADRP). The archeological consultant, project sponsor, and ERO shall meet and consult on the plan's 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 the 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 onsite/offsite 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 unintentionally 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, Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity shall comply with applicable state and federal laws, including immediate notification of the Office of the Chief Medical Examiner of the City and County of San Francisco and, in the event of the medical examiner's determination that the human remains are Native American, notification of the Native American Heritage Commission, which shall appoint a Most Likely Descendant (MLD) (PRC section 5097.98). The ERO shall also be immediately notified upon discovery of human remains. The archeological consultant, project sponsor, ERO, and MLD shall have up to but not beyond 6 days after the 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, section 15064.5[d]). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, curation, possession, 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 the 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. If no agreement is reached, state regulations shall be followed, including the reburial of the human remains and associated burial objects with appropriate dignity on the property in a location not subject to further subsurface disturbance (PRC section 5097.98).

Final Archeological Resources Report. The archeological consultant shall submit a draft final archeological resources report 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 draft final archeological resources report shall be distributed as follows: The California Archaeological Site Survey Northwest Information Center shall receive one copy and the ERO shall receive a copy of the transmittal of the report to the Northwest Information Center. The Environmental Planning Division of the San Francisco Planning Department shall receive one bound, one unbound, and one unlocked, searchable PDF copy on CD of the report, along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the NRHP/CRHR. 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-CR-4: Tribal Cultural Resources Interpretive Program

If the ERO determines that a significant archeological resource is present, and if in consultation with the affiliated Native American tribal representatives, the ERO determines that the resource constitutes a tribal cultural resource and that the resource could be adversely affected by the proposed project, the proposed project shall be redesigned to avoid any adverse effect on the significant tribal cultural resource, if feasible.

If the ERO, in consultation with the affiliated Native American tribal representatives and the project sponsor, determines that preservation in place of the tribal cultural resources is not a sufficient or feasible option, the project sponsor shall implement an interpretive program of the tribal cultural resource in consultation with affiliated tribal representatives. An interpretive plan produced in consultation with the ERO and affiliated tribal representatives, at a minimum, and approved by the ERO would be required to guide the interpretive program. The plan shall identify, as appropriate, proposed locations for installations or displays, the proposed content and materials of those displays or installation, the producers or artists of the displays or installation, and a long-term maintenance program. The interpretive program may include artist installations, preferably by local Native American artists, oral histories with local Native Americans, artifact displays and interpretation, and educational panels or other informational displays.

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. Where access to alternative sources of power is available, portable diesel engines shall be prohibited. Diesel engines, whether for off-road or on-road equipment, shall not be left idling for more than 2

minutes, at any location, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment (e.g., traffic conditions, safe operating conditions). The contractor shall post legible and visible signs in English, Spanish, and Chinese, in designated queuing areas, and at the construction site to remind operators of the 2-minute idling limit.

The contractor shall instruct construction workers and equipment operators on the maintenance and tuning of construction equipment, and require that such workers and operators properly maintain and tune equipment in accordance with manufacturer specifications.

B. Waivers.

1. The Planning Department's environmental review officer or designee may waive the alternative source of power requirement of subsection (A)(2) if an alternative source of power is limited or infeasible at the project site. If the ERO grants the waiver, the contractor must submit documentation that the equipment used for onsite power generation meets the requirements of subsection (A)(1).
2. The ERO may waive the equipment requirements of subsection (A)(1) if: a particular piece of off-road equipment with an ARB Level 3 VDECS is technically not feasible; the equipment would not produce desired emissions reduction due to expected operating modes; installation of the equipment would create a safety hazard or impaired visibility for the operator; or there is a compelling emergency need to use off-road equipment that is not retrofitted with an ARB level 3 VDECS. If the ERO grants the waiver, the contractor must use the next cleanest piece of off-road equipment, according to Table M-AQ-2.

TABLE M-AQ-2 OFF-ROAD EQUIPMENT COMPLIANCE STEP-DOWN SCHEDULE
COMPLIANCE

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 onsite construction activities, the contractor shall submit a construction emissions minimization 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 project sponsor shall ensure that all applicable requirements of the plan have been incorporated into the contract specifications. The plan shall include a certification statement that the contractor agrees to comply fully with the plan.

3. The contractor shall make the plan available to the public for review onsite 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 meets or exceeds one of the following emission standards for particulate matter: (1) tier 4 certified engine, or (2) tier 2 or tier 3 certified engine that is equipped with an ARB level 3 verified diesel emissions control strategy (VDECS). A nonverified diesel emission control strategy may be used if the filter has the same particulate matter reduction as the identical ARB-verified model and if 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.

F.2. IMPROVEMENT MEASURES

Improvement measures have been identified to further reduce any potential effects related to conflicts between vehicles (general traffic and freight/delivery trucks) and other users of roadways at the project site (e.g., pedestrians and bicyclists) and encourage bicycle use by residents, employees, and patrons of the proposed project. Although the proposed project's pedestrian impacts would be less than significant, implementation of the following transportation improvement measures would reduce and/or eliminate any potential conflicts and improve circulation for pedestrians, bicyclists, and drivers engaged with the site.

Improvement Measure I-TR-2a: Monitoring and Abatement of Queues

As an improvement measure to reduce the potential for queuing of vehicles accessing the project site, it will be the responsibility of the project sponsor or subsequent property owner to ensure that recurring vehicle queues do not occur adjacent to the site (i.e., along Davis Street and Broadway loading areas or other surrounding streets).

It will be the responsibility of the owner/operator of the building to ensure that recurring vehicle queues do not occur on the public ROW. A vehicle queue is defined as one or more vehicles (destined to the loading zones on Davis Street or Broadway) blocking any portion of any public street, alley, or sidewalk for a consecutive period of 3 minutes or longer on a daily or weekly basis.

If a recurring queue occurs, the owner/operator of the building will employ abatement methods as needed to abate the queue. Appropriate abatement methods will vary depending on the characteristics and causes of the recurring queue, as well as the characteristics of the loading zone, the street(s) adjacent to the zone, and the associated land uses (if applicable).

Suggested abatement methods include but are not limited to the following: redesign of loading zones to improve vehicle circulation; use of additional offsite parking facilities or shared parking with nearby uses; and travel demand management strategies such as additional bicycle parking, customer shuttles, and delivery services.

If the planning director, or his or her designee, suspects that a recurring queue is present, the San Francisco Planning Department will notify the property owner in writing. Upon request, the owner/operator will hire a qualified transportation consultant to evaluate the conditions at the site for no less than 7 days. The consultant will prepare a monitoring report to be submitted to the planning department for review. If the planning department determines that a recurring queue does exist, the owner/operator will have 90 days from the date of the written determination to abate the queue.

Improvement Measure I-TR-2b: Active Valet Parking Management

Queues for arriving hotel patrons at the curbside valet passenger loading zone on Broadway will be managed by professionally trained valet staff to ensure that valet vehicle queues are confined within the valet loading zone and there is no vehicle spillover into the travel lanes on westbound Broadway back to The Embarcadero. The proposed project will provide adequate valet staffing to ensure the most efficient processing of arriving and departing hotel patron vehicles, which will be parked in an offsite garage facility under a covenant agreement with the project sponsor. Guests returning to the project curbside for their vehicles will be retrieved by valet staff and returned to the proposed 80-foot-long passenger loading zone along the project frontage on Broadway. Although no spillover queues are anticipated, if any recurring queues occur, the owner/operator of the project building will employ abatement methods as needed to abate such queues. Appropriate abatement methods will vary depending on the characteristics and causes of recurring queues, as well as the characteristics of the loading zone, the street(s) adjacent to the zone, and the associated land uses (if applicable), and are detailed in **Improvement Measure I-TR-2a, Monitoring and Abatement of Queues**.

Improvement Measure I-TR-2c: Active Loading Dock Driveway Controls

As an improvement measure to reduce and/or eliminate any potential conflicts between freight delivery vehicles entering and exiting the project driveway to and from the off-street freight loading spaces and conflicts between moving vehicles and other users of the roadway (e.g., cyclists, pedestrians in sidewalk areas), it will be the responsibility of the project sponsor and/or property owner to install active management controls at the off-street freight loading space driveway and within the off-street freight loading area.

It is recommended that sensors be installed at the gated loading dock ramp and at the driveway entrance/exit lane at Davis Street to detect any outbound vehicles and pedestrians within the driveway and ramp area. Upon exiting the loading dock, vehicles traveling along the garage ramp and approaching the gate would then trigger a sensor that would activate an electronic sign, signal, or audible devices at the driveway entrance to notify any vehicles, pedestrians, or bicyclists of the exiting vehicle.

Additional traffic calming and safety treatments will be installed within the loading dock area. Specific signage will be installed to notify drivers exiting the parking driveway to slow, stop, and yield to any pedestrians walking along the sidewalk on Davis Street (e.g., “Caution: Pedestrian Crossings,” “Watch for Pedestrians,” “Exit Slowly,” “STOP”). Diagonal mirrors will also be installed so that motorists exiting the loading dock area and pedestrians on the sidewalk can see each other. The project sponsor will also install rumble strips or similar devices to maintain slow speeds for vehicles exiting the loading dock.

Improvement Measure I-TR-2d: Coordination of Large Deliveries and Garbage Pickup

Trucks exceeding 40 feet in length will be scheduled and coordinated through hotel management and restaurant tenants, and directed to use the proposed curbside 142½-foot-long commercial loading zone along the Davis Street frontage of the project site.

To reduce the potential for double-parking (or other illegal parking activity) by delivery or trash vehicles in the travel lanes along the Davis Street or Broadway frontages of the project site (in the event that the existing or proposed on-street loading spaces are occupied), appropriate delivery and trash pickup procedures will be enforced to avoid any blockages of Davis Street or Broadway over an extended period of time and reduce any potential conflicts between deliveries and pedestrians walking along Davis Street or Broadway.

The building manager will notify the hotel, restaurant, entertainment venue, and retail tenants of garbage pickup times and locations so that they are efficiently coordinated and result in minimum conflict with other loading activity and traffic circulation in the immediate vicinity of the project.

Improvement Measure I-TR-2e: Construction Truck Deliveries during Off-Peak Periods

Any construction traffic occurring between 7 a.m. and 9 a.m. or between 3:30 p.m. and 6 p.m. on weekdays would coincide with weekday commute-period traffic and could temporarily disrupt traffic and transit flow, although it would not be considered a significant impact. Limiting truck movements to the hours between 9 a.m. and 3:30 p.m. on weekdays (or other times, if approved by SFMTA) would further minimize disruptions to circulation along adjacent streets during the weekday a.m. and p.m. peak periods.

As required, the project sponsor and construction contractor(s) will meet with SFMTA, SFFD, and the San Francisco Planning Department to determine feasible measures to reduce traffic congestion, including potential transit disruption and pedestrian circulation impacts, during construction of the project. To minimize cumulative traffic impacts due to project construction, the project sponsor will coordinate with construction contractors for any concurrent nearby projects that are planned for construction or which later become known, including the proposed mixed-use development at 88 Broadway and 753 Davis Street.

Improvement Measure I-TR-2f: Construction Management Plan

In addition to items required in the construction management plan, the project sponsor will include the following:

- *Carpool and Transit, and Other Access for Construction Workers.* As an improvement measure to minimize parking demand and vehicle-trips associated with construction workers, the construction contractor(s) will include methods to encourage carpooling, transit and bicycle use, or on-foot travel to and from the project site by construction workers in the construction management plan contracts.
- *Project Construction Updates.* As an improvement measure to minimize construction impacts on nearby businesses, the project sponsor will provide regularly updated information (typically in the form of a website, news articles, and onsite postings) regarding project construction and schedule, as well as contact information for specific construction inquiries or concerns.

G. PUBLIC NOTICE AND COMMENT

On October 6, 2016, the Planning Department mailed a Notice of Project Receiving Environmental Review to property owners within 300 feet of the project site, adjacent tenants, and other potentially interested parties. Nine comments received addressed the following:

- Waterfront views and protection of view corridors from residential properties
- Height of 55 foot hotel building will block residential views of waterfront
- Passenger and commercial loading zones will cause traffic congestion on streets
- Loss of a parking lot will cause parking problems
- Increased traffic congestion from hotel and theater patrons on streets around the project site
- Increase in pollution from buses and trucks
- Proximity of hotel drop-off and interference with vehicle, bicycle or pedestrian traffic on Broadway
- Vacating street areas
- Increased noise from hotel roof deck and hotel operations; noise from theater performances
- Light and glare from roof deck
- Roof treatment incorporation of industrial skylights
- Proximity to designated historic and cultural resources
- Construction of project in area potentially subject to liquefaction during earthquake
- Construction of project in area potentially affected by seismic failure of seawall
- Conflicts with sea level rise
- Sensitivity of project's location at Broadway gateway to North Beach and Chinatown
- Cumulative effects of proposed project including proposed 88 Broadway Project and Davis Street Project

The comments that directly relate to a physical impact on the environment were directly addressed in: section E.3, Cultural Resources (historic resources); section E.4, Transportation and Circulation (transit demand); section E.5, Noise (noise concerns); section E.6, Air Quality (emissions); section E.13, Geology and Soils; and section E.14, Hydrology and Water Quality.

This page intentionally left blank.

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

10/17/18

for



Lisa Gibson
Environmental Review Officer
for
John Rahaim
Director of Planning

This page intentionally left blank.

I. INITIAL STUDY PREPARERS

Planning Department, City and County of San Francisco

Environmental Planning Division

1650 Mission Street, Suite 400

San Francisco, CA 94103

Environmental Review Officer: Lisa Gibson

Environmental Planner: Laura Lynch

Principal Planner: Chelsea Fordham

Archeologist: Randall Dean

Preservation Planner: Eiliesh Tuffy

Transportation Planner: Chris Espiritu

AECOM

300 California Street, Suite 600

San Francisco, CA 94104

Project Director: David Reel

Deputy Project Manager: Jillian Adams

Senior Reviewer: Rod Jeung

Cultural Resources Specialist: Mark Hale

Noise Specialist: Mark Storm

Air Quality Specialists: Jason Paukovits, Paola Pena

Transportation Planner: Anthony Mangonon

Biologist: Lidia D'Amico

Environmental Planner: Jillian Adams

ESA (Shadow)

550 Kearny Street, Suite 800

San Francisco, CA 94108

Charles Bennett

CHS (Transportation)

220 Montgomery Street, Suite 346

San Francisco, CA 94104

Andrew Kluter

Charles Felder

Project Sponsor

TZK Broadway LLC

1215 K Street, Suite 1150

Sacramento, CA 95814

Jay Wallace

This page intentionally left blank.