



SAN FRANCISCO PLANNING DEPARTMENT

Community Plan Exemption Checklist

Case No.: 2013.0882ENV
Project Address: 524 Howard Street
Zoning: C-3-O (SD) (Downtown Office Special Development) District
Transit Center C-3-O (SD) Commercial Special Use District
Transbay C-3 Special Use District
450-S Height and Bulk District
Block/Lot: 3721/13
Lot Size: 12,266
Plan Area: Transit Center District Plan
Project Sponsor: Howard First Property, LLC
c/o Adam Tartakovsky
415.527.9742
Staff Contact: Michael Jacinto
415.575.9033
Michael.Jacinto@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

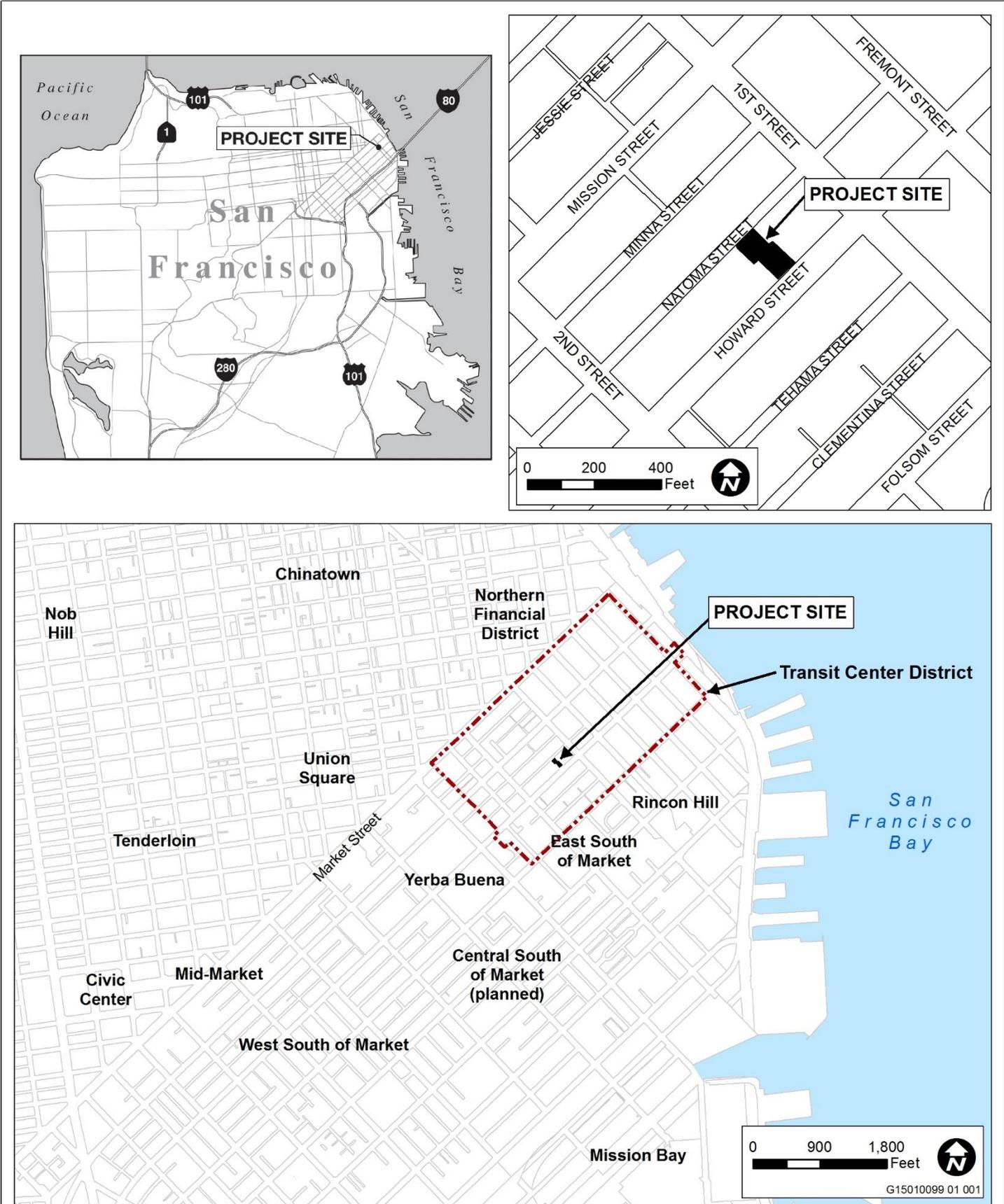
PROJECT DESCRIPTION

The project entails the development of a 48-story, residential tower (up to 515 feet in height) at 524 Howard Street within the Transit Center District with approximately 392,000 square feet (sf) of residential uses, including common space, and up to approximately 3,800 sf of retail uses on the ground and seventh floors. The proposed residential tower would include up to 334 dwelling units comprising a mix of studio, one-bedroom, and two-bedroom units and would provide on-site bicycle parking (352 total spaces with 334 Class 1 and 19 Class 2 spaces) and automobile parking (176 spaces) via an automated stacker-storage system on the ground floor and four subterranean parking levels. A pedestrian skybridge between the project site and the proposed 5.4-acre rooftop park of the Transbay Transit Center may also be constructed.

As a variant to the proposed development, the tower would be constructed with approximately 163,000 sf of residential uses, including common space, and approximately 253,000 sf of hotel, which could also be designated as extended-stay accommodations. The variant would provide up to 72 dwelling units, 273 hotel rooms, and approximately 700 sf of retail space. On-site bicycle (98 total spaces with 82 Class 1 and 16 Class 2 spaces) and automobile parking (54 spaces) would also be provided as part of the variant.

Project Location and Site Characteristics

The project site is located on a single parcel (Lot 13) mid-block between 1st Street and 2nd Street on Assessor's Block 3721 along Howard Street within the Transit Center District Plan (TCDP) subarea of the San Francisco General Plan's Downtown Plan (see **Figure 1**). The site is two blocks (0.3 miles) north of Interstate 80 (I-80), and is 12,266 sf or 0.28 acres in size. Both Howard Street and Natoma Street front the project site, which is currently developed with a surface parking lot and kiosk.



Source: Adapted by Ascent Environmental in 2016

Figure 1. Project Location

The project site is within the C-3-O (SD) (Downtown Office Special Development) Use District, the Transit Center C-3-O (SD) Commercial Special Use District, the Transbay Redevelopment Plan's C-3 Special Use District, and the 450-S Height and Bulk District. The C-3-O Use District is intended to play a leading national role in finance, corporate headquarters and service industries, and serve as an employment center for the region. It consists primarily of high-quality office development, supported by residential, retail and service uses, all of which are served by City and regional transit systems. The 450-S Height and Bulk District allows for 450-foot maximum heights with setbacks above the building base and limits on tower plan dimensions, per *San Francisco Planning Code* Section 270. Exceptions to established height limits are allowed, pursuant to *Planning Code* Section 263.9. The proposed project is consistent with the development density established by the TCDP and therefore qualifies for a Community Plan Exemption (CPE) pursuant to Section 15183 of the CEQA Guidelines.

Project Characteristics

The project includes the development of a multi-story residential tower with an ancillary commercial component and potential skybridge connection to the Transbay Center. As a variant to the proposed project, the lower floors of the tower would be developed with a hotel. Both the proposed project and variant to the proposed project are explained in detail below.

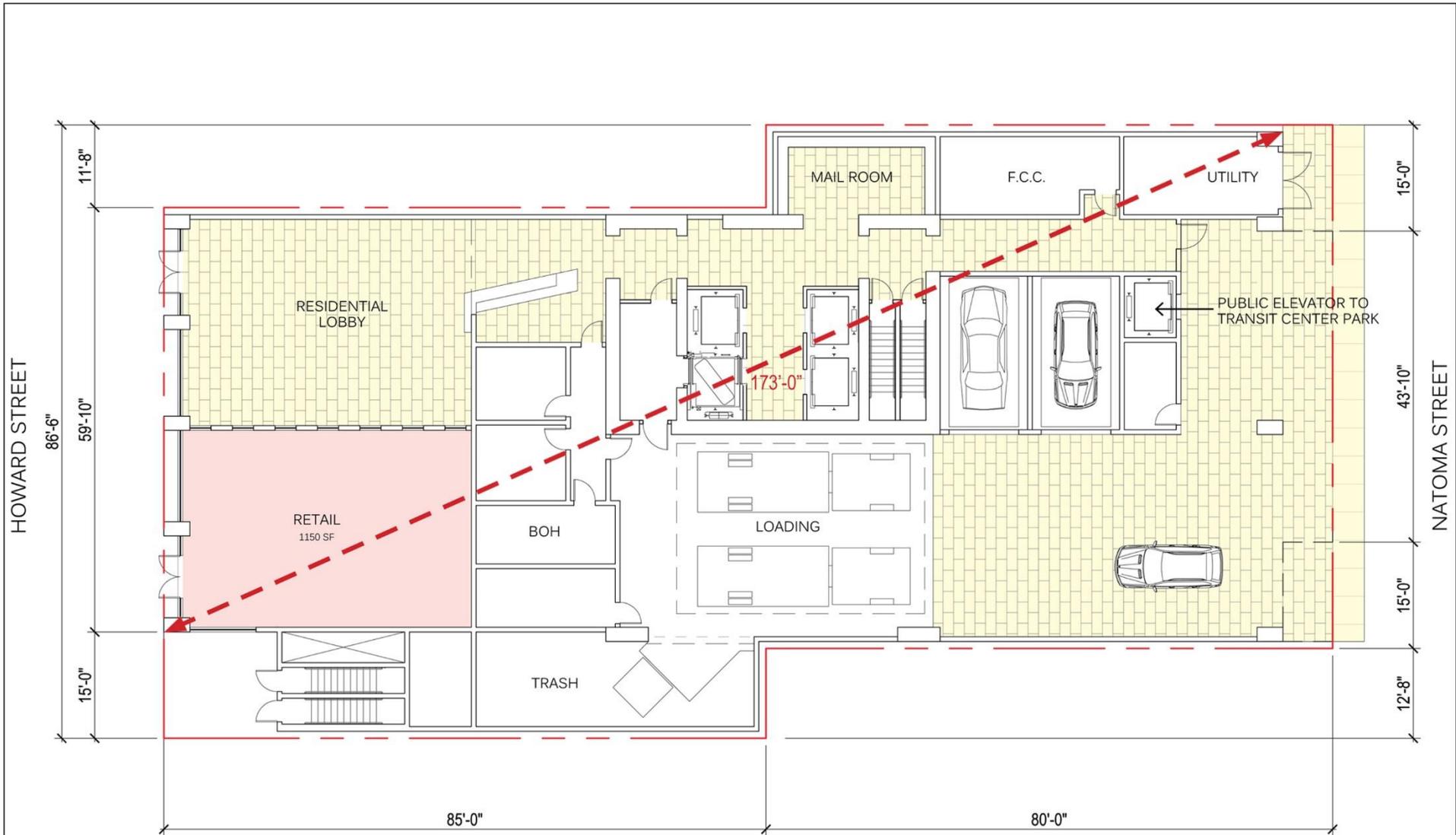
Proposed Residential Tower

The project sponsor, Howard/First Property, LLC, proposes to remove the existing surface parking lot at 524 Howard Street and develop the site with a 48-story residential tower, approximately 495 feet in height to the roofline and 515 feet tall to the top of the elevator machine room and roof screen. As noted above, the project site is located within the 450-S Height and Bulk District and would request a rooftop extension of 10 percent of the base permitted 450-foot height limit, as permitted by *Planning Code* Section 263.9.¹ Up to 334 residential units would be located within the tower with between six and nine residences per floor. There would be a mix of studio, one-bedroom, and two-bedroom units. Square footage per unit would vary depending on the type with studios ranging from approximately 450 sf to 500 sf, one-bedroom units ranging from approximately 675 sf to 825 sf, and two-bedroom units ranging from approximately 925 sf to 1,300 sf. Bicycle and pedestrian access for residents would be provided along Natoma and Howard Streets, while vehicle access would be provided along Natoma Street (see **Figure 2**). The lower floors (1-10) would provide the most units per floor (nine or less) with the density of unit-per-floor decreasing as the height of the building increases (see **Figures 3** through **10**). The seventh floor may also include a skybridge connection to the Transbay Center's rooftop park, located north of the project site, for use by residents (see **Figure 11**). The 48-story building would contain approximately 3,800 sf of commercial retail space on the ground and seventh floors.

On-site parking for residents, as well as mechanical equipment, would be located within four subterranean floors (see **Figures 12** and **13**). Additional mechanical equipment, including the elevator machine room and a diesel-powered emergency backup generator, would be located on a portion of the roof of the tower.

The project characteristics are summarized in **Table 1**. Elevations of the proposed project are presented in **Figure 14**).

¹ Section 263.9 allows an additional 10 percent of the heights shown on the Zoning Map in S Districts as an extension of the upper tower subject to the volume reduction requirements of the Code. The additional height may be allowed if determined that the upper tower volume is distributed in a way that will add to the sense of slenderness of the building and to the visual interest of the termination of the building, and that the added height will improve the appearance of the skyline when viewed from a distance, and will not adversely affect light and air to adjacent properties, and will not add significant shadows to public open spaces.



Sources: Howard/First Property LLC and Handel Architects LLP 2016

X15010099 01 006

Figure 2. Conceptual Ground Floor Site Plan

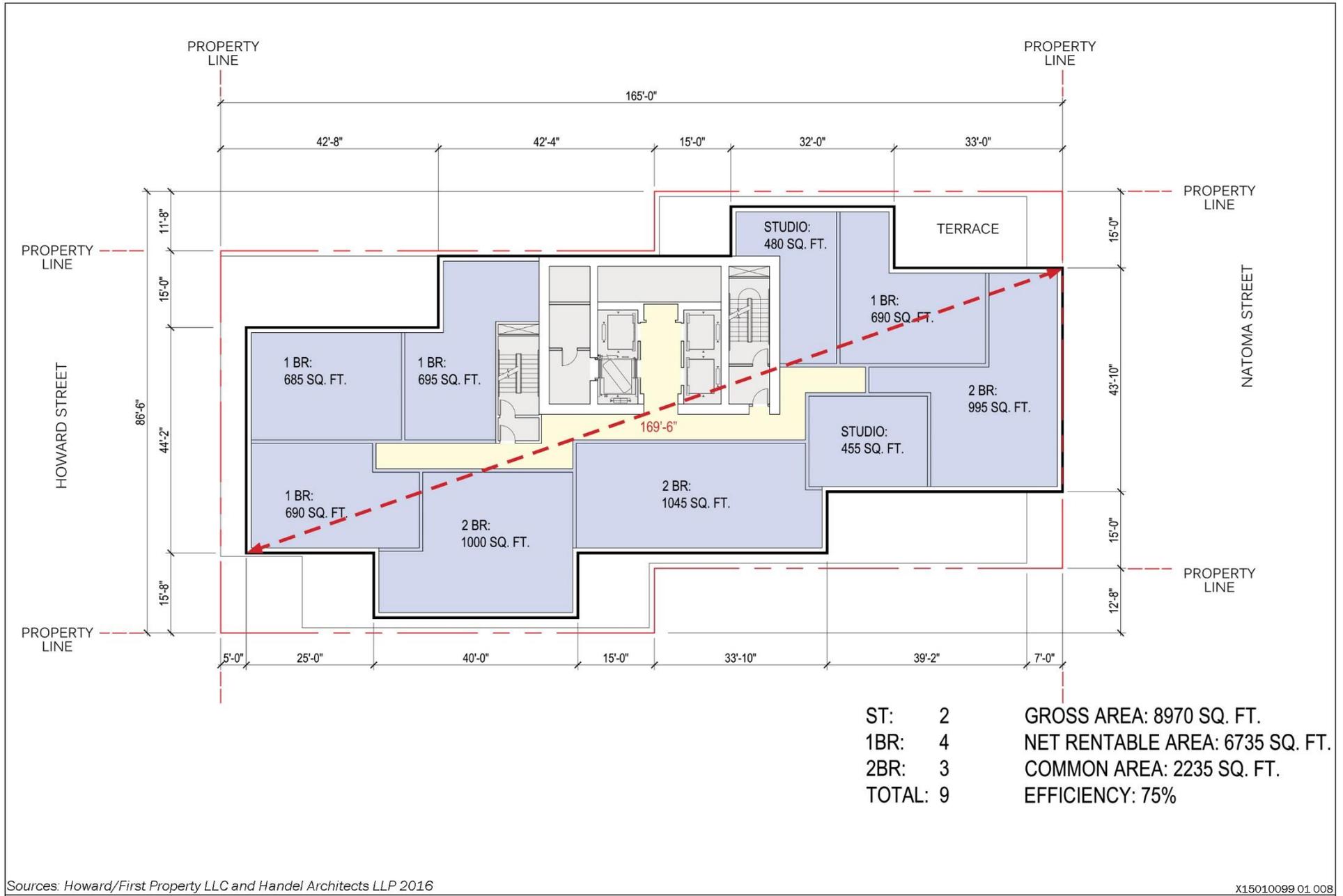
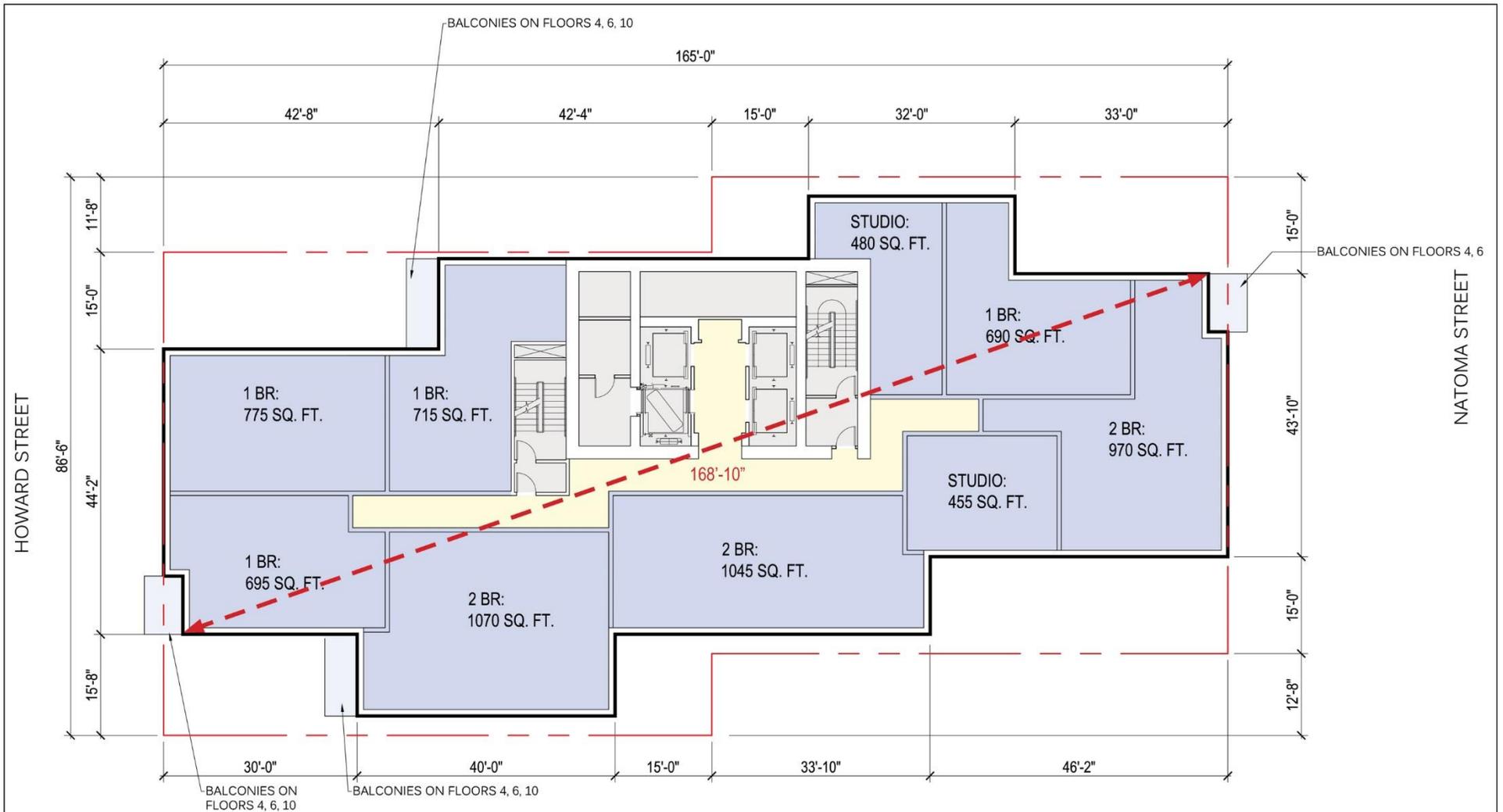


Figure 3. Conceptual Residential Floor Plan (Floor 2)



ST:	2	GROSS AREA:	9135 SQ. FT.
1BR:	4	NET RENTABLE AREA:	6895 SQ. FT.
2BR:	3	COMMON AREA:	2240 SQ. FT.
TOTAL:	9	EFFICIENCY:	75%

Sources: Howard/First Property LLC and Handel Architects LLP 2016

X15010099 01 010

Figure 4. Conceptual Residential Floor Plan (Floors 3, 6, 9, and 10)

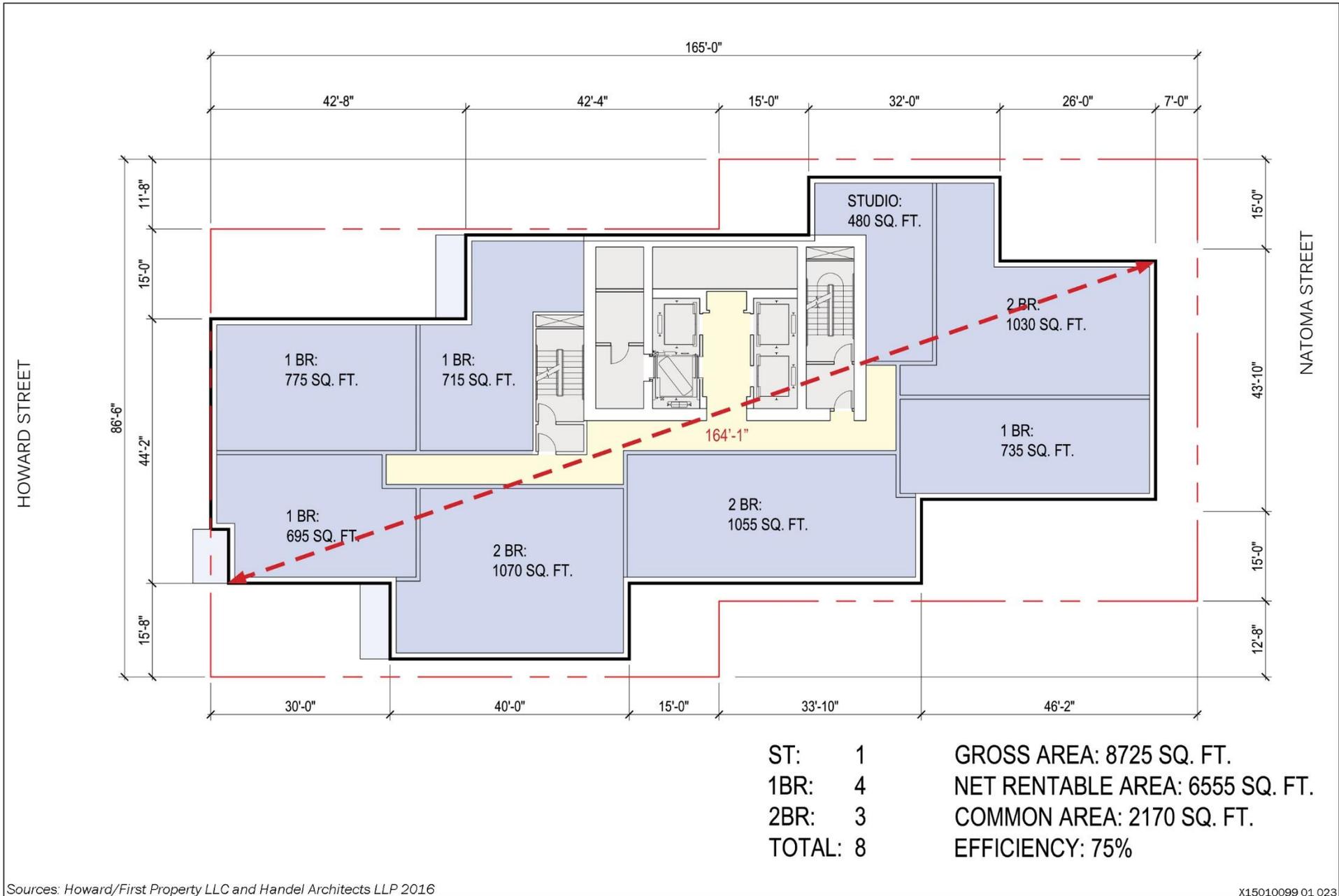


Figure 5. Conceptual Residential Floor Plan (Floor 8)

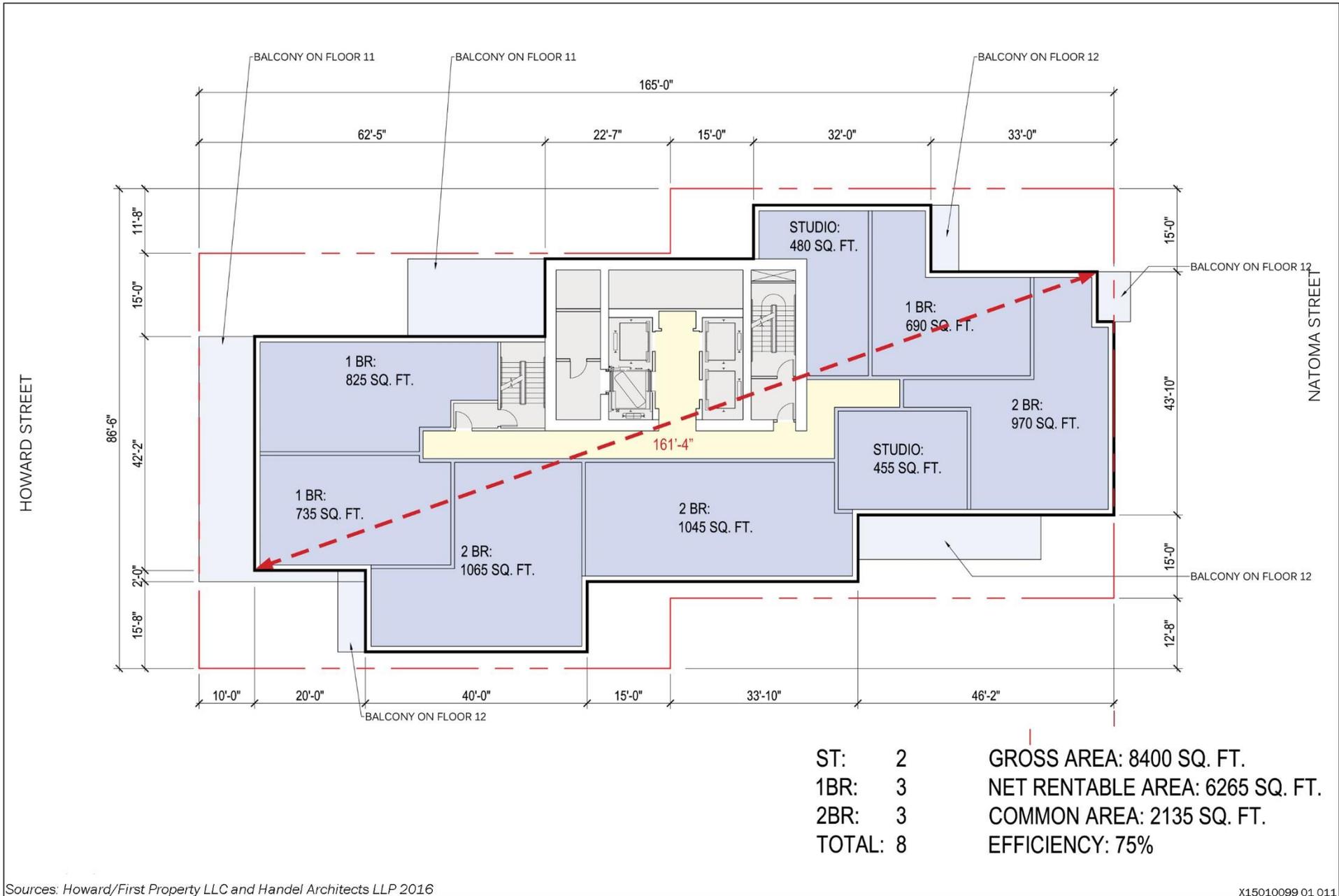
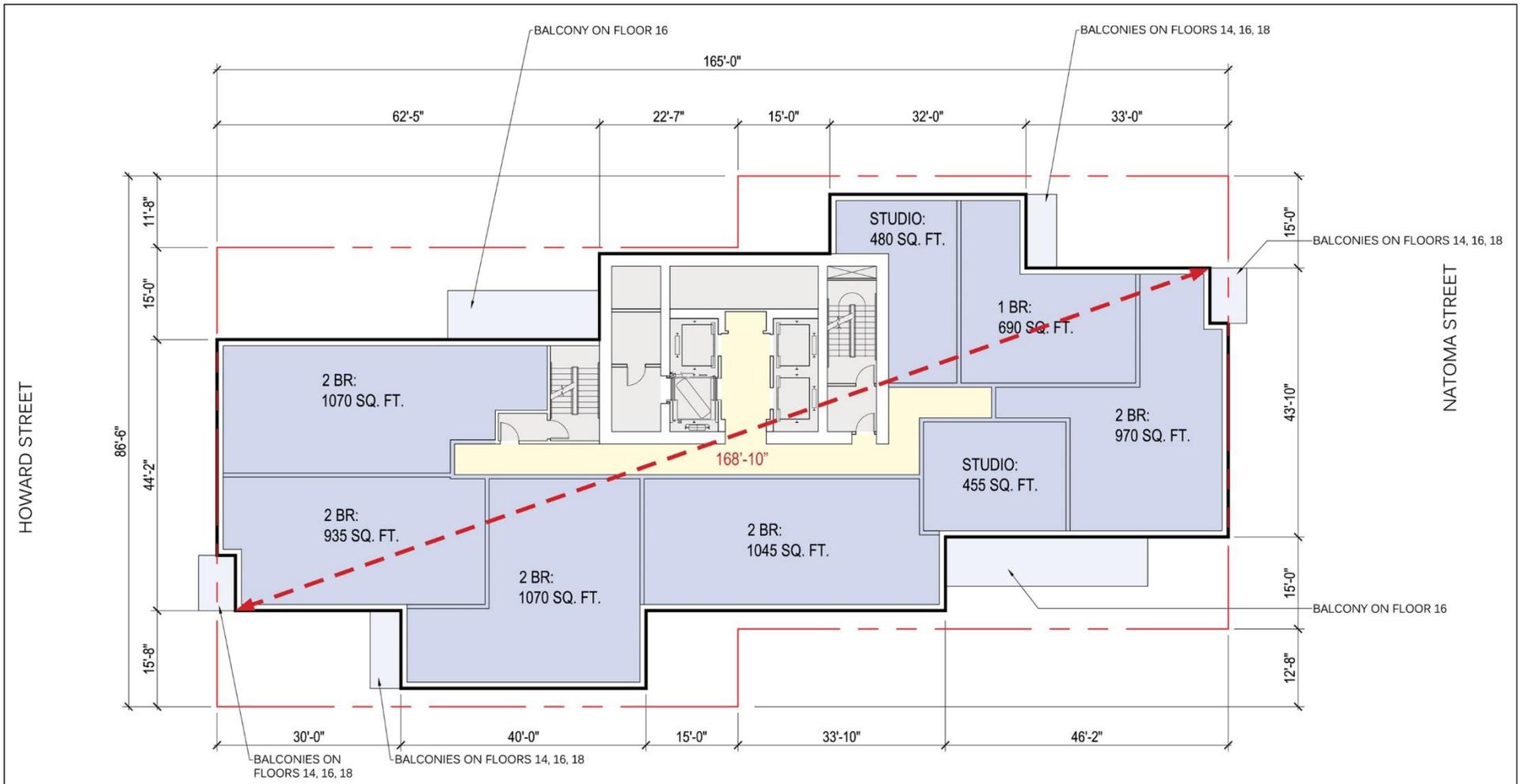


Figure 6. Conceptual Residential Floor Plan (Floors 11 and 12)

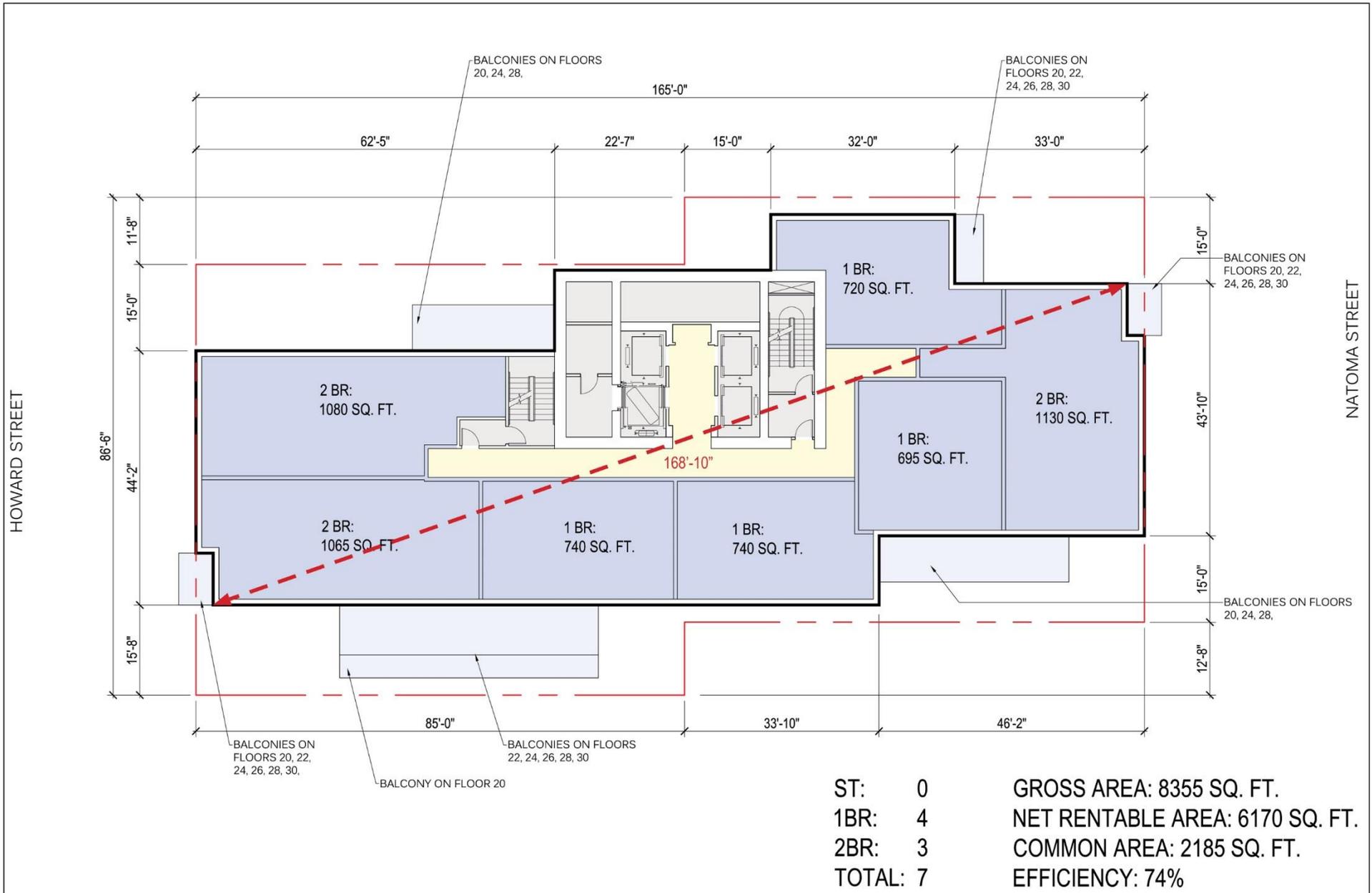


ST:	2	GROSS AREA:	8860 SQ. FT.
1BR:	1	NET RENTABLE AREA:	6715 SQ. FT.
2BR:	5	COMMON AREA:	2145 SQ. FT.
TOTAL:	8	EFFICIENCY:	76%

Sources: Howard/First Property LLC and Handel Architects LLP 2016

X15010099 01 024

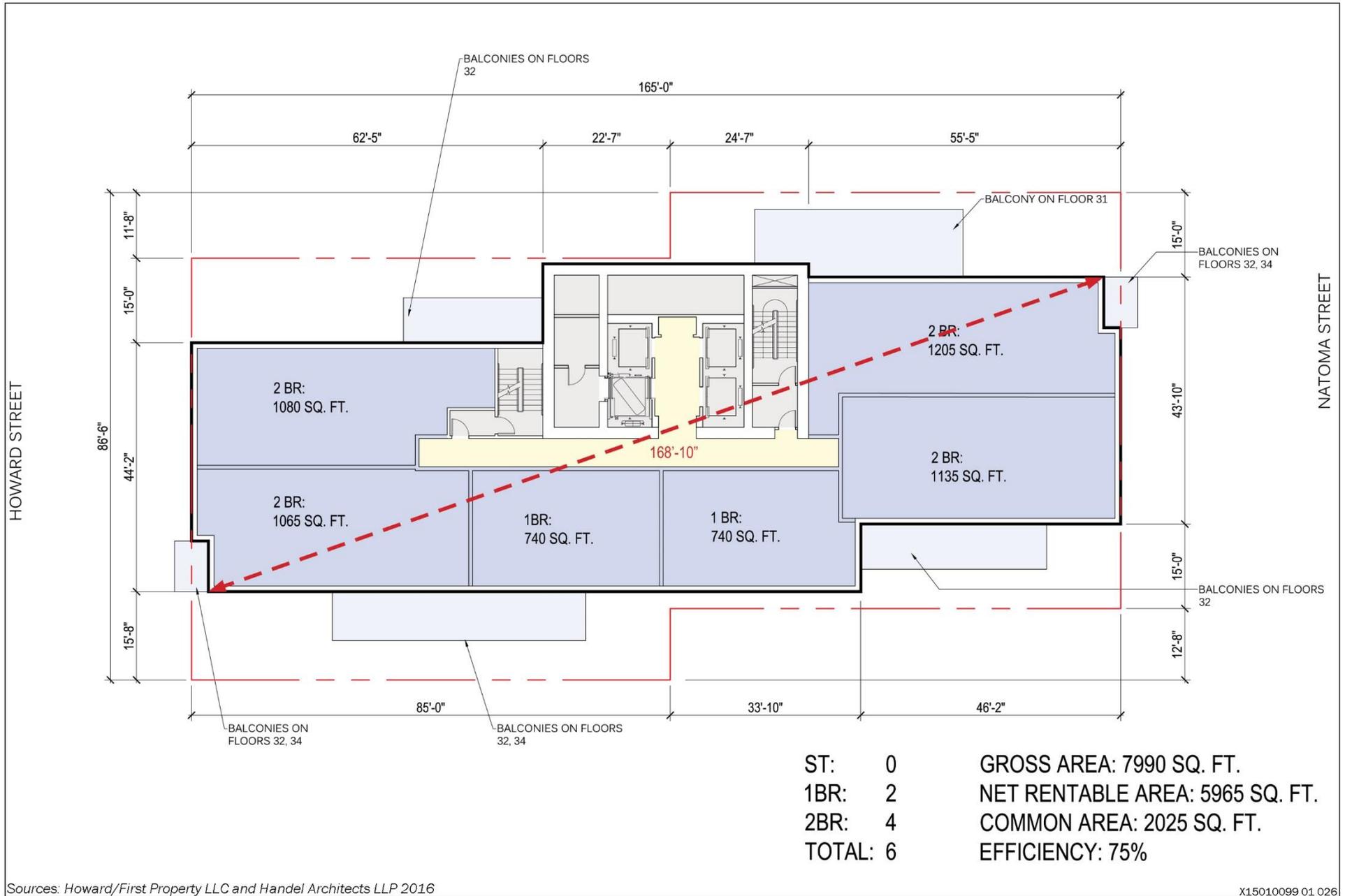
Figure 7. Conceptual Residential Floor Plan (Floors 13 through 19)



Sources: Howard/First Property LLC and Handel Architects LLP 2016

X15010099 01 025

Figure 8. Conceptual Residential Floor Plan (Floors 20 through 30)



Sources: Howard/First Property LLC and Handel Architects LLP 2016

X15010099 01 026

Figure 9. Conceptual Residential Floor Plan (Floors 31 through 35)

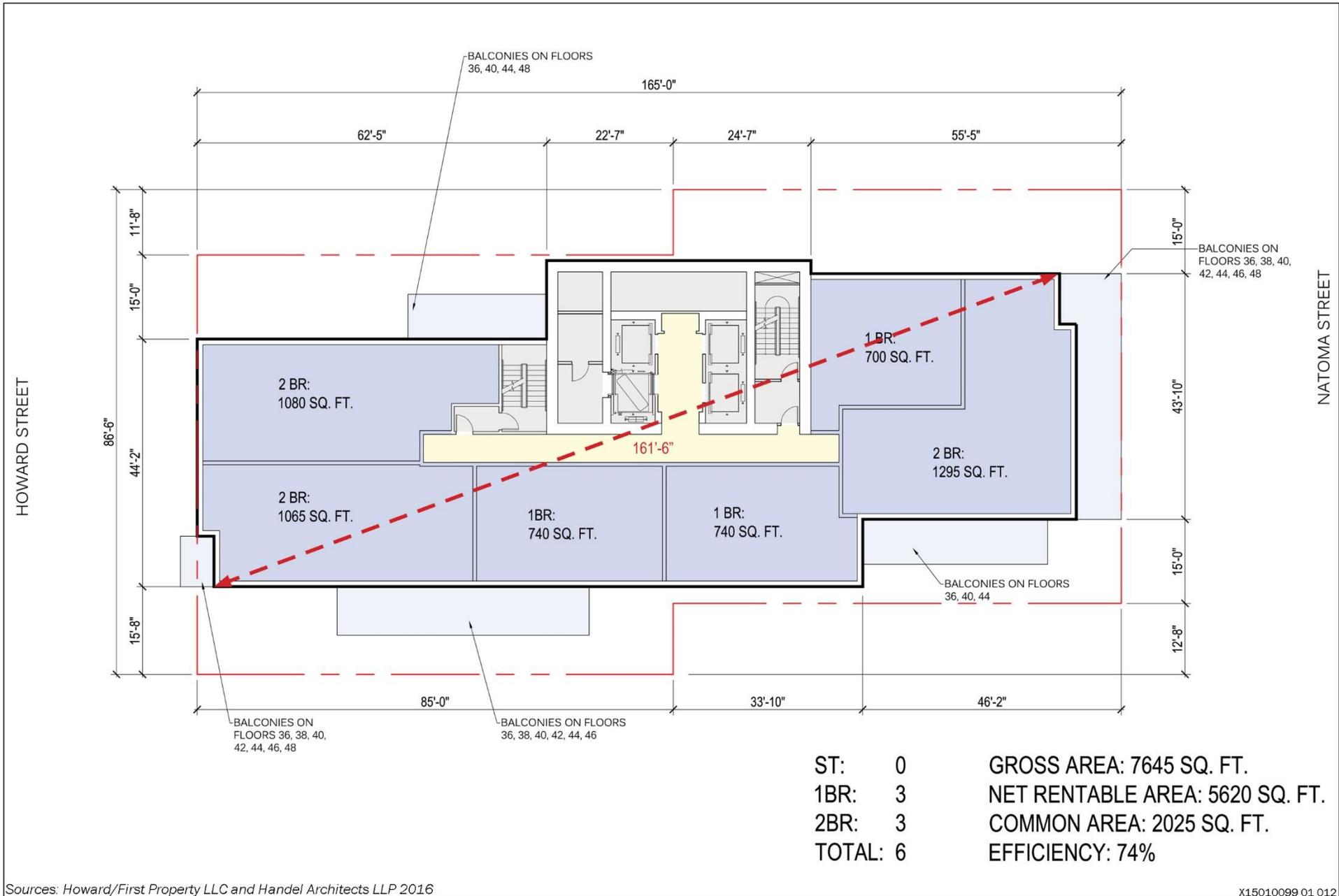


Figure 10. Conceptual Residential Floor Plan (Floors 36 through 48)

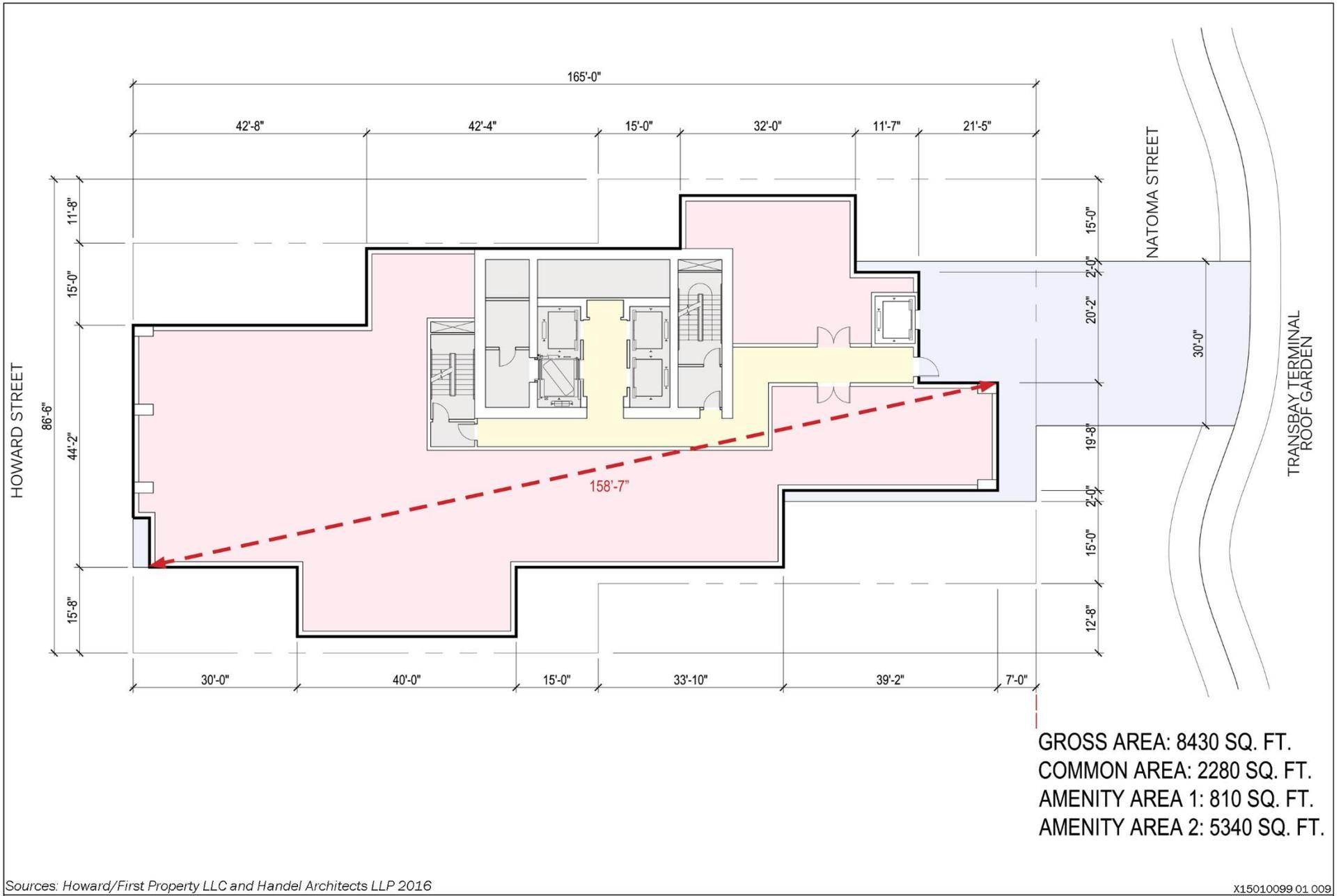
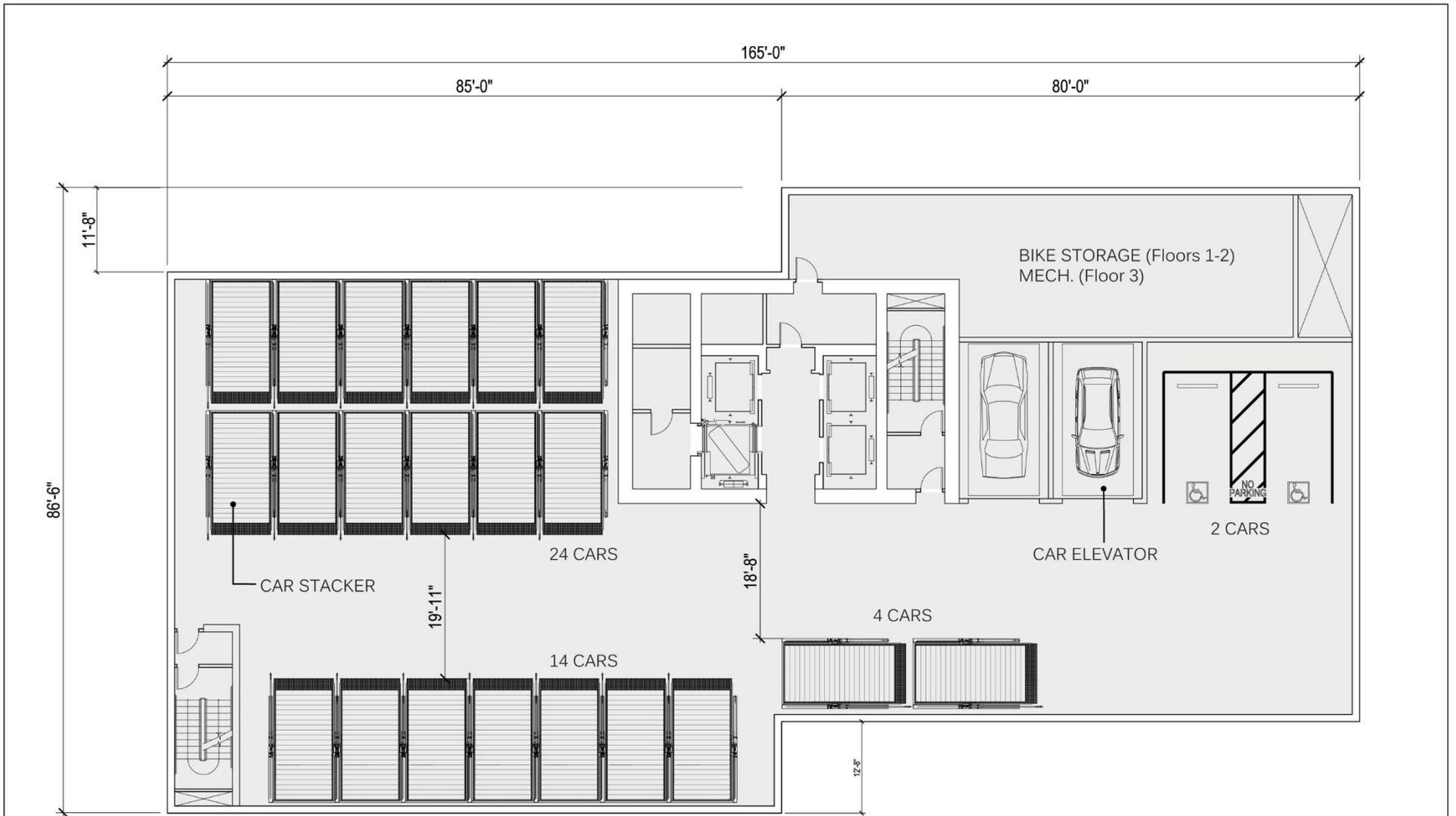


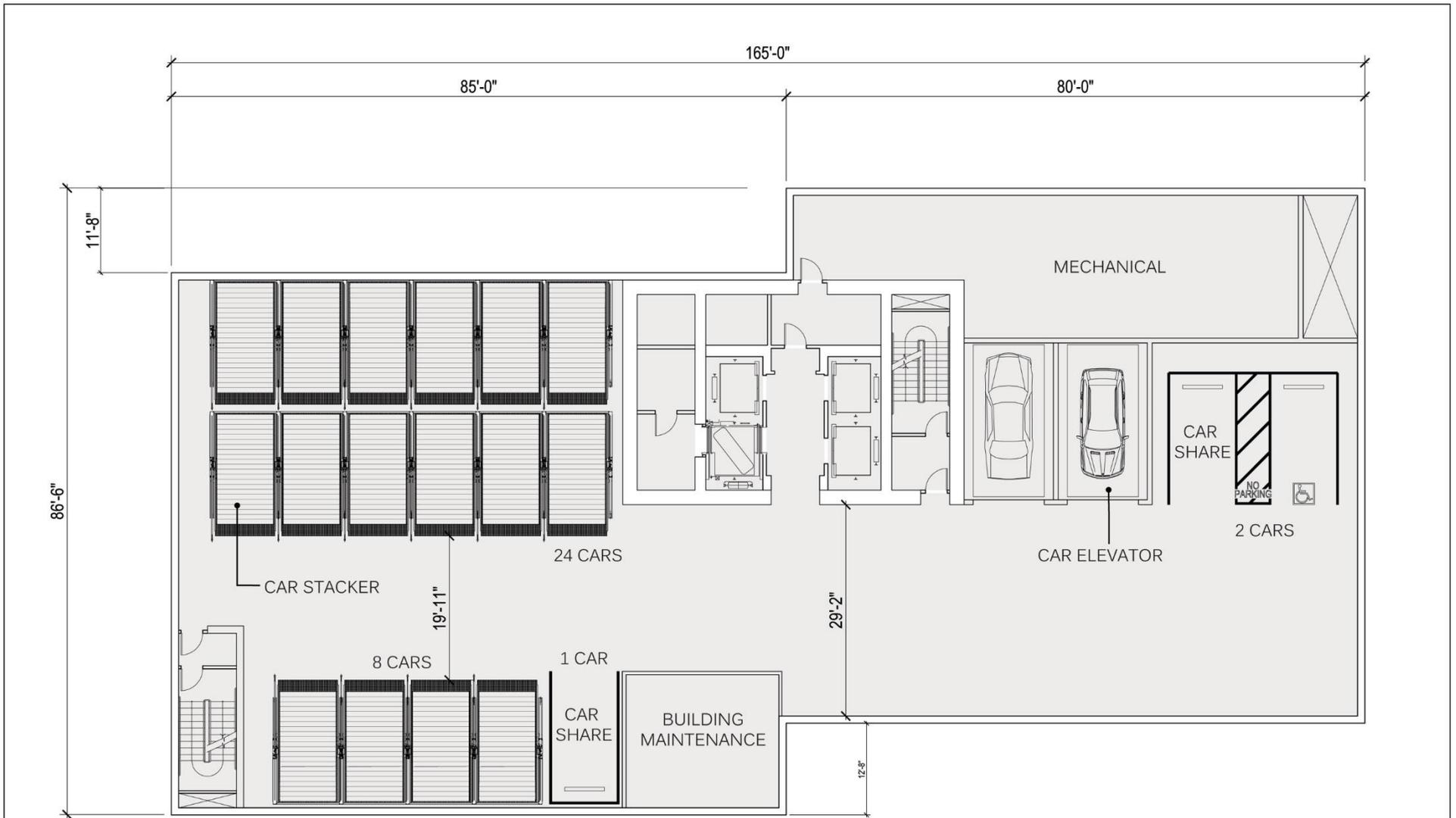
Figure 11. Conceptual Residential Floor Plan (Floor 7)



TOTAL 44 CARS PER FLOOR

Sources: Howard/First Property LLC and Handel Architects LLP 2016

Figure 12. Conceptual Parking Levels 1 through 3



24 CARS

CAR ELEVATOR

CAR SHARE

2 CARS

CAR STACKER

8 CARS

1 CAR

CAR SHARE

BUILDING MAINTENANCE

MECHANICAL

TOTAL 35 CARS

Figure 13. Conceptual Parking Level 4 Floor Plan



HOWARD STREET



NATOMA STREET

Sources: Howard/First Property LLC and Handel Architects LLP 2016

X15010099 01 027

Figure 14. Proposed North and South Elevations

Table 1
Project Characteristics

Proposed Use	Proposed Residential Tower	Hotel/Residential Tower Variant
Residential	334 units (392,277 gross sf ¹)	72 units (163,278 sf ²)
Hotel	--	273 rooms (252,702 sf)
Retail	3,813 sf	718 sf
Total Built Area	396,090 sf	417,598 sf
Private Open Space	5,112 sf	1,188 sf
Public Open Space	9,913 sf	5,355 sf
Total Public and Private Open Space	15,025 sf	6,543 sf
Vehicle Parking Spaces	167	54
Bicycle Parking Spaces	334 Class 1 and 19 Class 2	82 Class 1 and 16 Class 2
Number of stories	48	45
Height to Roofline	495 feet	495 feet
Height to Top of Parapet	515 feet	515 feet

1 – includes common space (~87,000 sf)

2 – includes common space (~35,800 sf)

SOURCE: Handel Architects, January 2016

Circulation, Parking, and Loading

The project would provide public access along Howard Street and Natoma Street. Primary vehicular access would occur along Natoma Street via a 20-foot-wide driveway that would also be used for loading and trash pick-up. Pedestrian access would be provided at both Howard Street and Natoma Street entrances to the project site, with bicycle access and parking provided via the Howard Street entrance.

As noted above, the proposed project would contain a subterranean parking garage under the tower. The garage would be four stories below grade. The garage would be accessible via a vehicle elevator located within the Natoma Street vehicular entrance. It would contain a total of 167 vehicular parking spaces. A total of 353 bicycle parking spaces would be provided, of which 334 would be Class 1 bicycle parking spaces and 19 would be Class 2 bicycle parking spaces.²

The project would include sidewalk improvements, such as the installation of street trees, pervious paving, and furniture, and other public realm upgrades consistent with the public realm improvements called for in the TCDP. New street trees would be planted in accordance with *Planning Code* Section 138.1(c)(1).

Open Spaces and Landscaping

The residential tower would include approximately 15,025 sf of open space, 5,112 of which would be private open space associated with balconies for residences. A total of approximately 9,913 sf of commonly accessible open space would be available for residential use, 6,955 of which would be dedicated to a rooftop open space area, split between the north and south ends of the structure.

² Per *San Francisco Planning Code* Section 155.1, Class 1 bicycle parking spaces are secured, weather-protected, and intended for long-term, overnight, and work-day storage, and Class 2 bicycle parking spaces are located in a publicly-accessible, highly visible location and intended for short-term storage.

Hotel/Residential Tower Variant

The project sponsor is also considering a variant to the proposed project that would involve substituting the majority of on-site residential uses with a hotel. Under this variant, the roofline height would be maintained. The total number of floors would be 45, three fewer than the proposed project, with the additional height absorbed by more height per floor to accommodate certain hotel functions. Bicycle and pedestrian access would be provided along Natoma and Howard Streets, while vehicle access would be provided along Natoma Street (see **Figure 15**).

The hotel would occupy floors 1 through 27 with approximately 13 rooms per floor beginning on Floor 7 (see **Figure 16**). Up to 72 residential units would be located in the upper 18 floors of the structure (see **Figure 17**). The potential skybridge would be similarly located to facilitate a pedestrian connection for hotel guests and residents to the Transbay Center's rooftop park. The 45-story building would also contain approximately 700 sf of commercial retail space at the ground floor.

On-site parking for residents and mechanical equipment would be located within two subterranean floors (see **Figures 18 and 19**). The variant's characteristics are also summarized in **Table 1**. Elevations of the variant are presented in **Figures 20 and 21**).

Circulation, Parking, and Loading

Primary vehicular access would occur along Howard Street for residents, hotel guests, loading, and trash pick-up activities. Pedestrian and bicycle access would be provided at both Howard Street and Natoma Street entrances to the project site, with primary bicycle access and parking provided via the Natoma Street entrance.

Under the variant, the subterranean parking garage would consist of two floors under the tower. The garage would be accessible via a vehicle elevator located within the Howard Street vehicular entrance. It would contain a total of 54 vehicular parking spaces for residents. As noted above, a total of 98 bicycle parking spaces would be provided, of which 82 would be Class 1 bicycle parking spaces and 16 would be Class 2 bicycle parking spaces.³

The variant would also include the same sidewalk improvements identified above for the proposed project, consistent with those identified in the TCDP and in accordance with *Planning Code* Section 138.1(c)(1).

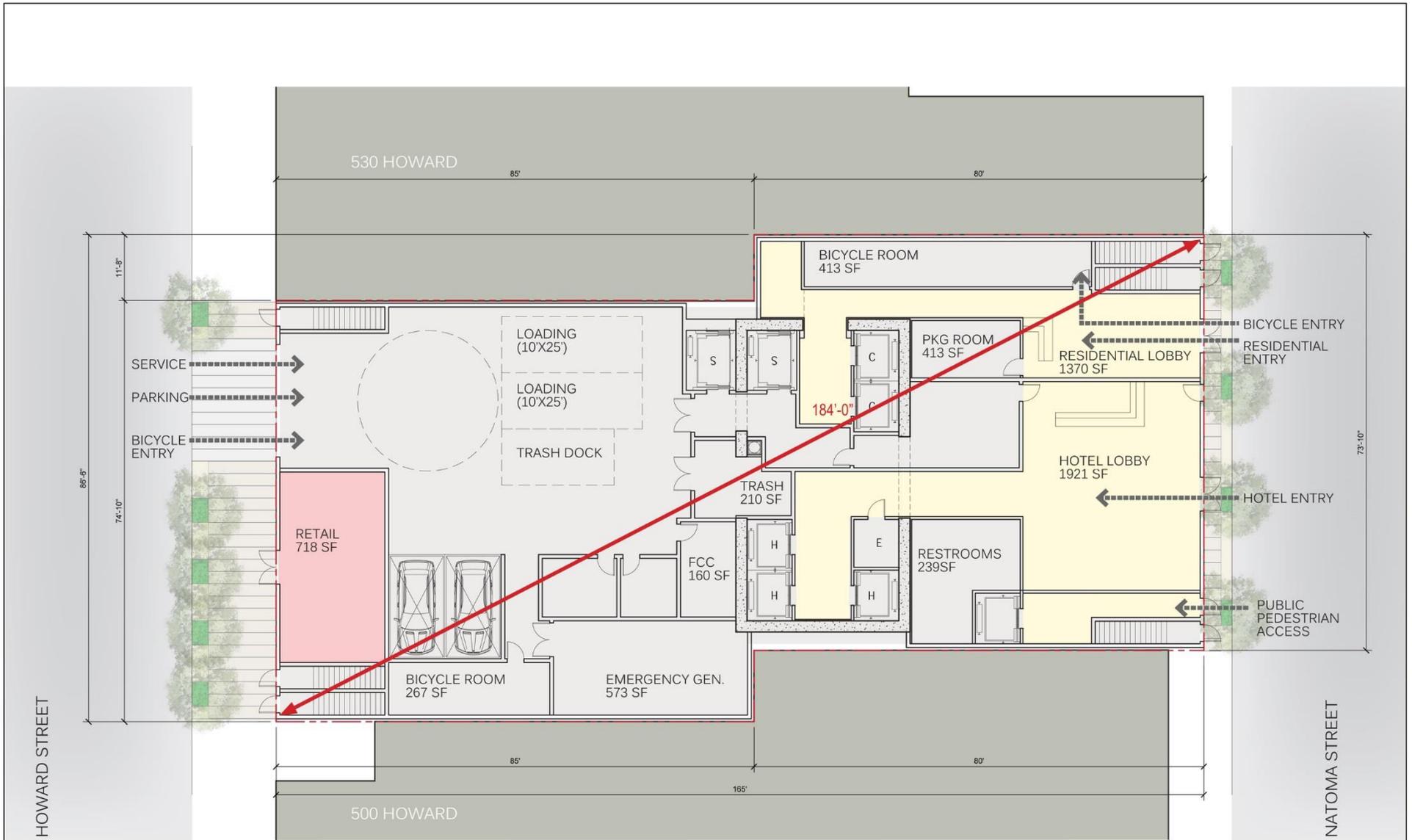
Open Spaces and Landscaping

The variant would include approximately 6,500 sf of open space, 1,188 of which would be private open space consisting of balconies for residences. A total of approximately 5,355 sf of commonly accessible open space would be available for hotel/residential use, 4,305 of which would be dedicated to a rooftop open space area, split between the north and south ends of the structure.

Construction

Project construction for either the proposed project or the variant would take approximately 30 months in total. Excavation would be conducted to a maximum depth of approximately 60 feet below the ground surface (bgs) for construction of the below-grade parking levels, which would result in the removal of approximately 21,000 cubic yards of soil over the course of four months. Construction of the tower's foundation would involve the use of pre-drilled and press-in piles, drilled and cast-in-place piers, or rectangular-profile load bearing elements (LBE), and would not require the use of typical, impact-driven piles (i.e. pile driving). Where proposed excavations are within 5 feet of adjacent buildings and would extend below the foundations of adjacent structures, those adjacent structures will be underpinned as necessary to provide vertical support throughout the shoring and excavation process.

³ Per *San Francisco Planning Code* Section 155.1, Class 1 bicycle parking spaces are secured, weather-protected, and intended for long-term, overnight, and work-day storage, and Class 2 bicycle parking spaces are located in a publicly-accessible, highly visible location and intended for short-term storage.



Sources: Howard/First Property LLC and Handel Architects LLP 2016

X15010099 01 015

Figure 15. Conceptual Variant Ground Floor Site Plan

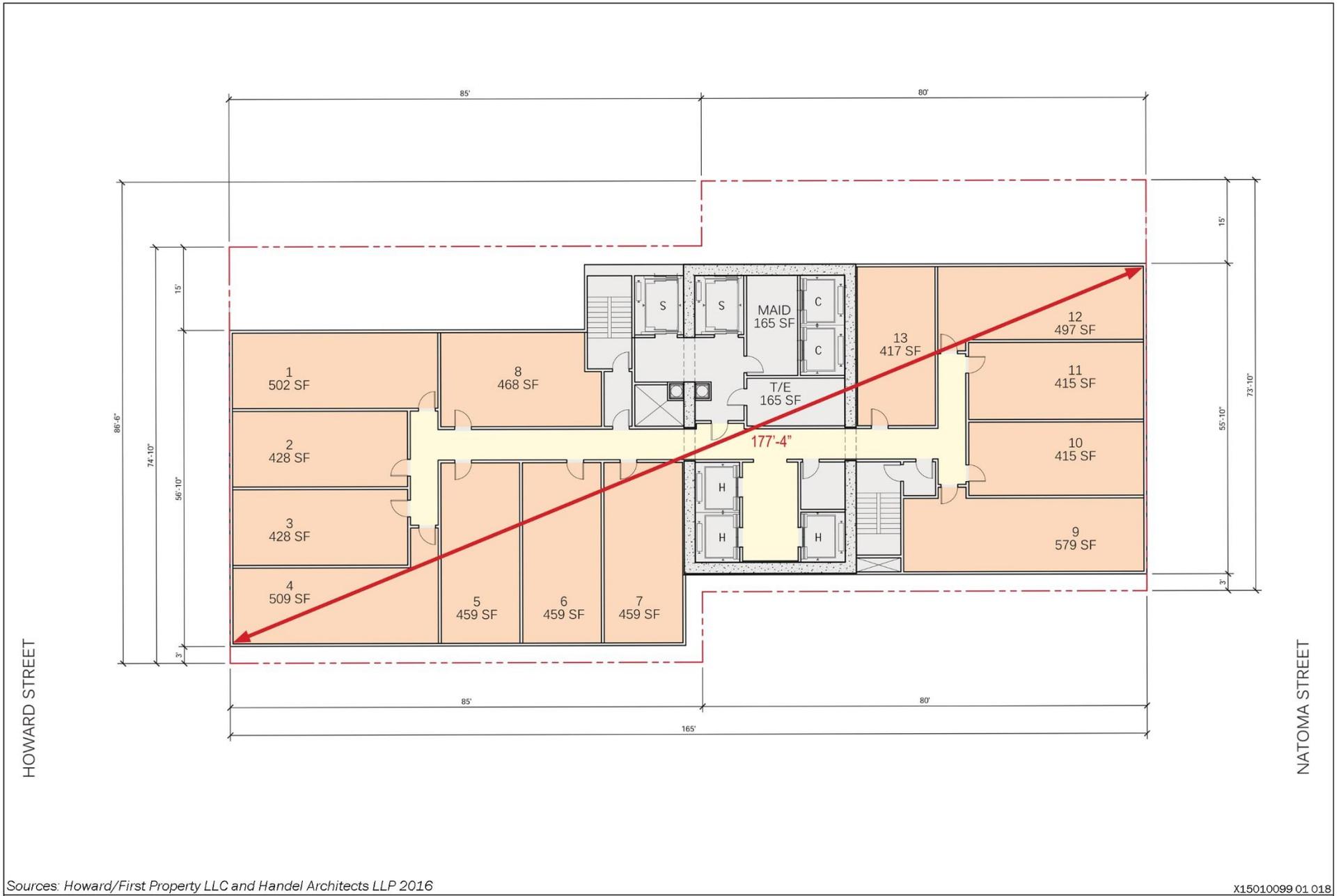
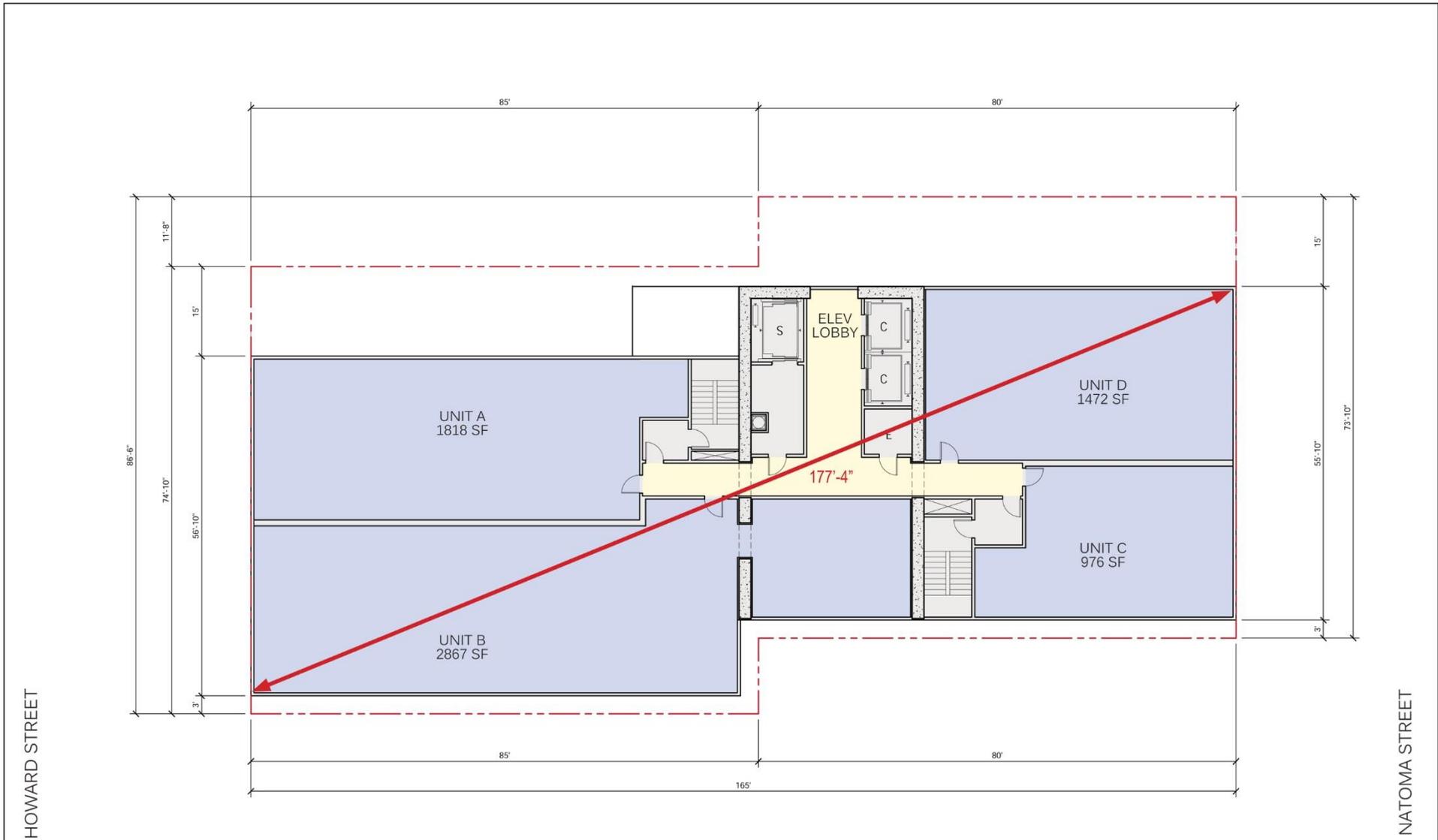


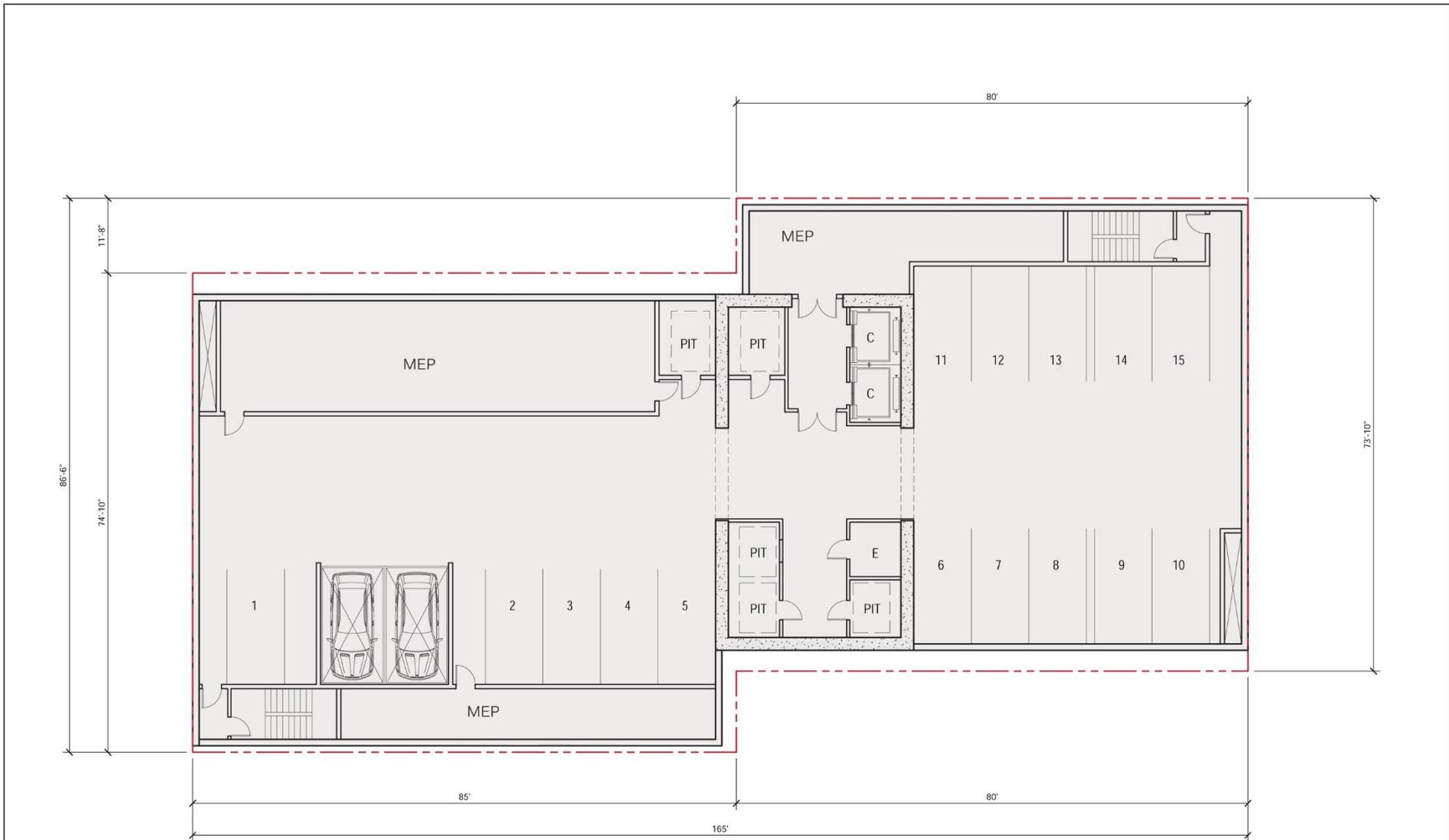
Figure 16. Conceptual Variant Hotel Floor Plan (Floors 7 through 27)



Sources: Howard/First Property LLC and Handel Architects LLP 2016

X15010099 01 019

Figure 17. Conceptual Variant Residential Floor Plan (Floors 28 through 45)

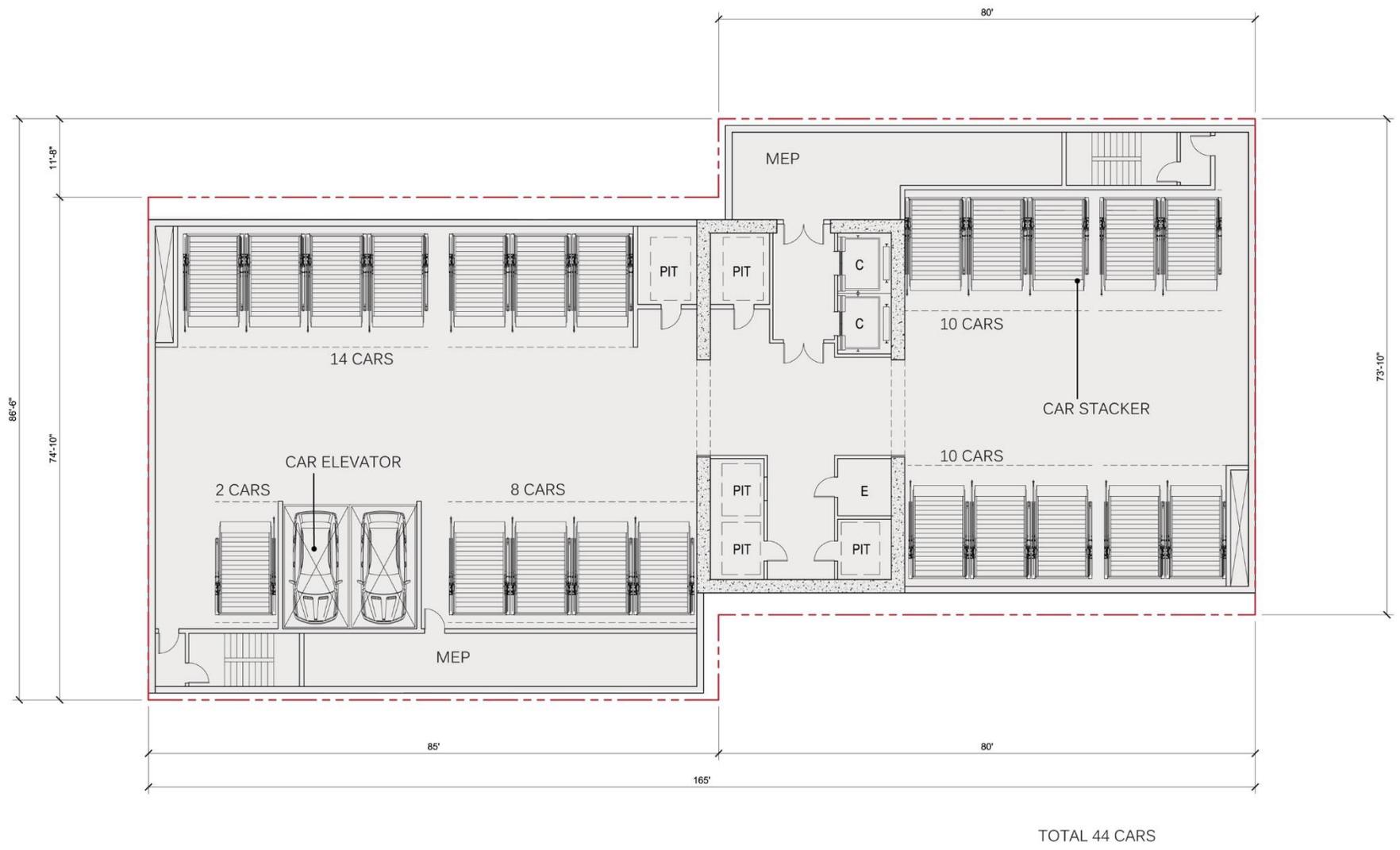


TOTAL 15 CARS

Sources: Howard/First Property LLC and Handel Architects LLP 2016

X15010099 01 016

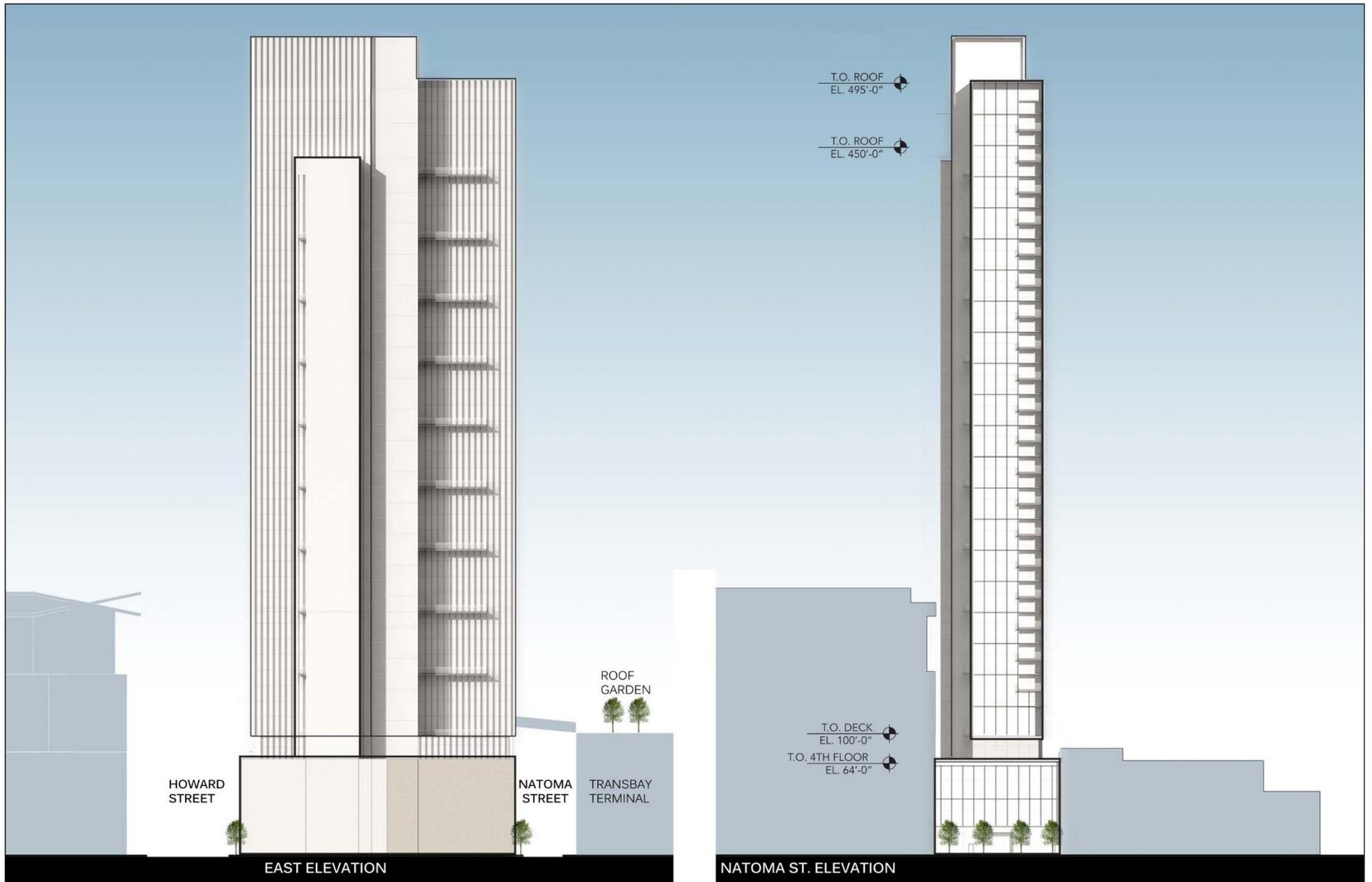
Figure 18. Conceptual Variant Parking Floor Plan – Level 1



Sources: Howard/First Property LLC and Handel Architects LLP 2016

X15010099 01 017

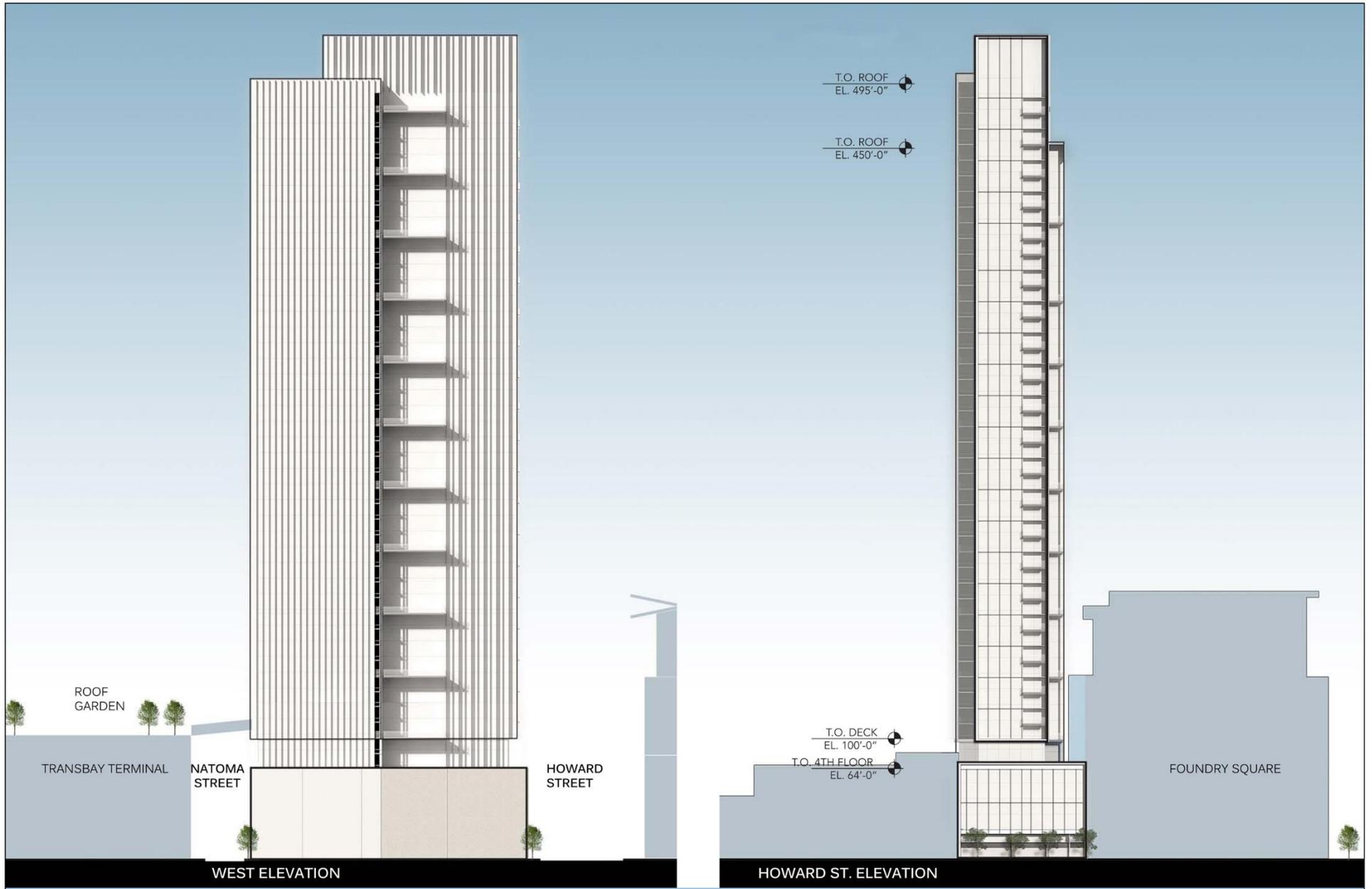
Figure 19. Conceptual Variant Parking Floor Plan – Level 2



Sources: Howard/First Property LLC and Handel Architects LLP 2016

X15010099 01 020

Figure 20. Variant East and North Elevations



Sources: Howard/First Property LLC and Handel Architects LLP 2016

X15010099 01 021

Figure 21. Variant West and South Elevations

Project Vicinity

As noted above, the project site is within the TCDP area, which is centered on the new Transbay Transit Center site. The TCDP is a comprehensive plan for a portion of the southern downtown financial district and contains the overarching premise that to accommodate projected office-related job growth in the City, additional office development capacity must be provided in proximity to the City's greatest concentration of public transit service. The TCDP, which was adopted and became effective in September 2012, includes a comprehensive program of zoning changes, including elimination of the floor area ratio (FAR) maximums and increased height limits on certain parcels, including the project site. The TCDP's policies and land use controls allow for increased development and improved public amenities in the project area, with the intention of creating a dense transit-oriented district.

The project site is within Zone 2 of the adopted Transbay Redevelopment Area. At the time of redevelopment plan adoption, the San Francisco Redevelopment Agency implemented a Delegation Agreement with the Planning Department to generally assign responsibility and jurisdiction for planning, zoning, and project entitlements in Zone 2 of the redevelopment area to the Planning Department and Planning Commission. As such, the Planning Department retains land use authority within Zone 2 and this zone is governed by the *Planning Code*, as administered by the Planning Department and Planning Commission. Although California dissolved all California Redevelopment Agencies, effective February 1, 2012, this act did not result in changes to land use controls or project approval processes for projects proposed within Zone 2.

As noted above, the project site is within the C-3-O (SD) Downtown Office Special Development Use District, and is also within the Transit Center C-3-O (SD), identified in the TCDP, in which the limits on non-commercial space apply (*Planning Code* Section 248). The project site is also located within the Transbay Redevelopment Plan C-3 Special Use District, which is coterminous with Zone 2 of the Redevelopment Area and which contains additional land use controls to implement the Transbay Redevelopment Plan and its companion documents (*Planning Code* Section 249.28). In general, these controls require proposed development within the SUD to undertake streetscape improvements, deposit fees into the Downtown Open Space Fund, pay other fees into the Citywide Affordable Housing Fund to construct affordable housing on-site, and (for any parcels adjacent or facing the new Transit Center and its ramp structures) provide active ground floor uses and direct pedestrian access from these areas to the ramps around the future Transit Center. Of note and as described in the Transbay Redevelopment Plan Section 4.9.3, the City's standard Inclusionary Housing Ordinance (*Planning Code* Section 415) does not apply to the project site. Instead, a minimum of 15 percent of all units constructed on-site must be affordable (as defined by the Transbay Redevelopment Plan), with no permitted off-site or "in lieu" fee payment. On-site rental units must be provided at a price affordable to households earning 60 percent of the area median income, while on-site ownership units must be provided at a price affordable to households earning 100 percent of the area median income. The proposed project would comply with these requirements.

In addition, the TCDP establishes new development impact fees to be collected from almost all development projects within the C-3-O (SD) Downtown Office Special Development Use District. These include the Transit Center District Open Space Impact Fee and Fund, Transit Center District Transportation and Street Improvement Impact Fee and Fund, and the Transit Center District Mello Roos Community Facilities District Program. The Transbay Transit Center building site is located immediately north of the project site and extends from Beale Street westward almost to Second Street. Anticipated for completion in 2019, the five-story (three above ground) Transbay Transit Center will provide a one-million-square-foot regional bus and rail station with a five-acre public park atop the building.

Project Approvals

The proposed 524 Howard Street project would require the following approvals:

San Francisco Planning Commission

- Downtown Project Authorization, pursuant to *Planning Code* Section 309, including exceptions (under *Planning Code* provisions) with regard to tower separation requirements (Section 132.1); rear yard requirements (Section 134(d)); upper tower height extension in S bulk districts (Section 263.9); and bulk requirement in S bulk district (Section 270).

San Francisco Zoning Administrator

- Variance from dwelling unit exposure requirements (Section 140)

San Francisco Recreation and Park Commission

- Determination that shadow would not adversely affect open spaces under Commission jurisdiction.

San Francisco Municipal Transportation Agency

- Approval of any necessary construction permits for work within roadways, if required.

San Francisco Department of Building Inspection

- Review and approval of building and demolition permits.

San Francisco Public Utilities Commission

- Review and approval of the stormwater management system to meet the Stormwater Design Guidelines.
- Review and approval of an Erosion and Sediment Control Plan in accordance with Article 4.1 of the San Francisco Public Works Code for construction activities.

San Francisco Public Works

- Approval of any necessary construction permits for work within roadways.

Bay Area Air Quality Management District

- Approval of a permit to operate for proposed backup emergency generators.

The Downtown Project Authorization is considered the project approval action for the purpose of establishing the start of the 30-day appeal period for this CEQA exemption determination pursuant to Section 31.04(h) of the San Francisco Administrative Code.

EVALUATION OF ENVIRONMENTAL EFFECTS

This CPE Checklist evaluates whether the environmental impacts of the proposed project are addressed in the Programmatic Environmental Impact Report for the Transit Center District Plan (TCDP PEIR).⁴ The CPE Checklist indicates whether the proposed project (and its variant, in this case) would result in significant impacts that: (1) are peculiar to the proposed project or project site; (2) were not identified as significant project-level, cumulative, or off-site effects in the PEIR; or (3) are previously identified significant effects, which as a result of substantial new information that was not known at the time that the TCDP PEIR was certified, are determined to have a more severe adverse impact than discussed in the PEIR.⁵ Such impacts, if any, will be evaluated in a project-specific Mitigated Negative Declaration or

⁴ San Francisco Planning Department, Transit Center District Plan and Transit Tower Final Environmental Impact Report, Planning Department Case Nos. 2007.0558E and 2008.0789E, State Clearinghouse No. 2008072073, certified May 24, 2012. Available online at: <http://sf-planning.org/area-plan-eirs>, accessed May 3, 2016. The 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. 2013.0882E.

⁵ Significant refers to "significant effect on the environment," defined as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance" by the California Environmental Quality Act Section 15382.

Environmental Impact Report. If no such impacts are identified, the proposed project is exempt from further environmental review in accordance with CEQA Section 21083.3 and CEQA Guidelines Section 15183. Furthermore, the analysis of cumulative impacts was conducted as part of the TCDP PEIR and included development of the project site. As a result, the analysis of cumulative impacts within the TCDP PEIR applies to the proposed project or variant, except where noted below in the following CPE Checklist.

Mitigation measures identified in the PEIR are discussed under each topic area, and measures that are applicable to the proposed project are provided under the Mitigation Measures Section at the end of this checklist.

The TCDP PEIR identified significant impacts related to aesthetics, cultural and paleontological resources, transportation, noise, air quality, shadow, wind, biological resources, and hazardous materials. Additionally, the PEIR identified significant cumulative impacts related to aesthetics, cultural and paleontological resources, noise, air quality, shadow, and wind. Mitigation measures were identified for the above impacts and reduced all impacts; however, certain impacts related to aesthetics, cultural resources, transportation, noise, air quality, and shadow were determined to be significant and unavoidable.

The proposed project would include the construction of a 48-story residential tower, approximately 495 feet in height to the roofline and 515 feet tall to the top of the elevator machine room and roof screen. Up to 334 residential units and 3,800 sf of accessory retail uses would be located within the tower. This CPE checklist also evaluates a variant to the proposed project that would involve the development of a similar tower on-site with a 273-room hotel, 72 residential units, and 718 sf of accessory retail uses. As discussed below in this checklist, neither the proposed project nor the variant would result in new, significant environmental effects or effects of greater severity, otherwise acknowledged as “peculiar effects,” than were already analyzed and disclosed in the TCDP PEIR.

Changes in the Regulatory Environment

Since the certification of the TCDP PEIR in 2012, several new policies, regulations, statutes, and funding measures have been adopted, passed, or are underway that affect the physical environment and/or environmental review methodology for projects in the TCDP plan area. As discussed in each topic area referenced below, these policies, regulations, statutes, and funding measures have or will implement mitigation measures or further reduce less-than-significant impacts identified in the PEIR. These include:

- State statute regulating Aesthetics and Parking Impacts for Transit Priority Infill,⁶ effective January 2014 (see associated heading below);
- San Francisco ordinance establishing Noise Regulations Related to Residential Uses Near Places of Entertainment effective June 2015 (see Checklist section “Noise”);
- San Francisco ordinance establishing Enhanced Ventilation Required for Urban Infill Sensitive Use Developments, effective December 2014 (see Checklist section “Air Quality”);
- San Francisco Resolution 19579, effected March 2016, which requires use of a vehicle miles traveled (VMT) metric instead of automobile delay to evaluate the transportation impacts of projects;
- San Francisco Clean and Safe Parks Bond passage in November 2012 and San Francisco Recreation and Open Space Element of the General Plan adoption in April 2014 (see Checklist section “Recreation”); and

⁶ Infill development refers to the construction of new housing, commercial, retail, industrial, or other land uses within an existing urban area with the intent of maximizing the potential of underutilized land.

- Article 22A of the Health Code amendments effective August 2013 (see Checklist section “Hazardous Materials”).

Aesthetics and Parking Impacts for Transit Priority Infill Development

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

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

The proposed project meets each of the above three criteria and thus, this checklist does not consider aesthetics or parking in determining the significance of project impacts under CEQA.⁷ Project elevations are included in the project description, and an assessment of parking demand is included in the Transportation section for informational purposes.

Automobile Delay and Vehicle Miles Traveled Analysis

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

In January 2016, OPR published for public review and comment a Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA recommending that transportation impacts for projects be measured using a VMT metric.⁸ 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 non-automobile modes of travel such as riding transit, walking and bicycling.) Therefore, impacts and mitigation measures from the TCDP PEIR associated with automobile delay are not discussed in this checklist, including **PEIR Mitigation Measures M-TR-1a** through **M-TR-1m**.

Accordingly, this CPE does not base its conclusions as to the significance of traffic impacts on an automobile delay analysis, although information on vehicle level of service was evaluated for comparison purposes to the PEIR. Instead, a VMT and induced automobile travel impact analysis is provided in Section 4, Transportation and Circulation and is the basis for the CEQA significance determination. The topic of automobile delay, nonetheless, 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.

⁷ San Francisco Planning Department. Transit-Oriented Infill Project Eligibility Checklist for 524 Howard Street, July 19, 2016.

⁸ This document is available online at: https://www.opr.ca.gov/s_sb743.php. Accessed May 9, 2016.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
1. LAND USE AND LAND USE PLANNING—Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial impact upon the existing character of the vicinity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The TCDP includes policies for the plan area designed to encourage transit-oriented commercial development, particularly office development, and to place certain limits on residential, institutional, and industrial uses so as to “[r]eserve the bulk of remaining space in the core Transit Center District for job growth” (TCDP Policy 1.3). However, in the interest of creating a 24-hour community in the plan area, the TCDP also states, “A mix of uses is generally desirable for very large projects, such as those with square footage greater than 500,000 gross square feet, ... [and] “some very large buildings contemplated in the [TCDP] (i.e. taller than 600 feet) may be too large from a risk and market absorption standpoint to be devoted to a single use” (text accompanying TCDP Policy 1.3).

The TCDP PEIR analyzed the land use changes anticipated under the TCDP and determined that significant adverse impacts related to the division of an established community would not occur; the TCDP would not conflict with an applicable land use plan (including the General Plan); and the TCDP would not have a substantial impact on the existing character of the vicinity.

Proposed Project and Variant

The project and variant would potentially add residential, hotel, and retail uses to the project site, all of which are uses that are anticipated under the TCDP for the project site and surrounding area. Because the potential future land uses at the project site would be the same as those evaluated for the area in the PEIR, there would be no significant land use impacts related to the proposed project.

The Citywide Planning and Current Planning Divisions of the Planning Department have determined that the proposed project is permitted in the C-3-O (SD) (Downtown Office Special Development) Use District, the Transit Center C-3-O (SD) Commercial Special Use District, Transbay C-3 Special Use District, and the 450-S Height and Bulk District. The C-3-O Use District is intended to play a leading national role in finance, corporate headquarters and service industries, and serve as an employment center for the region. It consists primarily of high-quality office development, supported by retail and service uses, all of which are served by City and regional transit systems. As noted above, the project site is also located within the Transit Center Commercial SUD, which mandates a minimum proportion of commercial development on large (15,000 sf or more) development sites (at least 2 gross square feet of commercial use for every gross square foot of residential use). In the case of the project and variant, the project site is 12,266 sf in size and would not be subject to the minimum commercial proportion requirement. Residential uses with no maximum dwelling unit density are principally permitted by the Planning Code at the project site, pursuant to

Planning Code section 210.1. Accordingly, the proposed project is consistent with the uses anticipated by the TCDP and the Planning Code for the project site.

The 450-S Height and Bulk District allows for 450-foot maximum heights with setbacks above the building base and limits on tower plan dimensions, per *Planning Code* Section 270. Exceptions to established height limits are allowed, pursuant to *Planning Code* Section 263.9. The proposed project is consistent with the development density established by the TCDP and therefore qualifies for a CPE pursuant to Section 15183 of the CEQA Guidelines.

The project site is located in an area of primarily higher-density office development oriented around the Transbay Transit Center, which is currently under construction. Development patterns in this area reflect its proximity to the downtown Financial District, the Bay Bridge and I-80 off-ramps, the former Transbay Terminal, and Rincon Hill. Ground-floor retail, residential space, and a mix of institutional uses are interspersed among the office uses. The potential land uses associated with the proposed project and its variant (residential, hotel, and retail) would not substantially conflict with those that exist in the vicinity. One of the primary goals of the TCDP is to encourage high-density office development downtown, and the number of residential units included as part of the project and variant would not conflict with this goal, and would fall within the limits on non-commercial uses under the TCDP. Therefore, the proposed project and variant would not result in substantial conflict with land use character or existing plans/policies that govern land use in the area, and impacts would be less than significant.

Because the proposed project and variant are consistent with the development density established in the TCDP, implementation of the proposed project or variant would not result in significant impacts that were not identified in the TCDP PEIR related to land use and land use planning, nor a substantially more severe impact than was previously identified in the PEIR.

Topics:	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</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 type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing units or create demand for additional housing, necessitating the construction of replacement housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

The key goal of the TCDP was to concentrate future employment growth where it is best served by public transit, through rezoning to allow increased density in the plan area. The TCDP PEIR (pp. 198 – 199) found that, with implementation of the TCDP, there would be more than 9,470 new residents (in about 6,100 households) and more than 29,300 new employees in the plan area by 2030. As stated in the PEIR, the

Planning Department forecasts that San Francisco's total household population⁹ would reach approximately 912,000 by 2030, an increase of some 132,500 residents from the 2005 total of 779,500.^{10,11} Employment in 2005 totaled approximately 552,000. The Department forecasts employment growth of 241,300 additional jobs by 2030. The TCDP PEIR (p. 205) found that the increased employment and household population generated by the TCDP would be in line with regionally forecasted growth for the City, and that the TCDP would not create substantial new demand for housing or reduce the existing supply to the extent that would result in a significant impact.

Proposed Project

The project would involve the development of 334 housing units, the majority of which would be market-rate. Assuming 1.55 persons per household, as estimated in the TCDP PEIR, the proposed project would accommodate approximately 520 people. By 2030, this population increase would amount to approximately 0.06 percent of the anticipated citywide population growth and 4.85 percent of the growth anticipated under the TCDP. The project would also develop approximately 3,800 square feet of retail space, which would generate approximately 11 total employees at full occupancy.¹² Project-related employment would be equivalent to less than 0.01 percent of the anticipated citywide growth by the year 2030, assuming that the project attracted entirely new employees to San Francisco; in reality, some of these workers would likely have relocated from other jobs in San Francisco. Project-related employment growth would amount to approximately 0.16 percent of the growth anticipated in the TCDP. This employment increase would result in a demand for five new housing units.¹³ These direct effects of the project on population and housing are within the scope of the population growth anticipated under the TCDP and evaluated in the TCDP PEIR.

The *San Francisco General Plan* Housing Element contains objectives and policies "that address this growing housing demand, focusing on strategies that can be accomplished within the City's limited land supply and that meet the housing goals developed during the outreach for this document, which include 1) prioritizing permanently affordable housing; 2) recognizing and preserving neighborhood character; 3) integrating housing, jobs, transportation, and infrastructure; and 4) continuing to be a regional model of sustainability."¹⁴ Housing Element Policy 1.9 calls for enforcement and monitoring of the Jobs-Housing Linkage Program requiring that new commercial development in the City provide affordable housing or pay an in-lieu fee to meet the housing need attributable to employment growth and new commercial development, particularly the demand for new housing affordable to low and moderate income households.

As discussed above, the project would include up to 334 residential units. Of the total number of units, the project sponsor would provide up to 50 affordable housing units on-site (15 percent of the total number of residential units), as defined and required by the Transbay Redevelopment Plan. In addition, the project sponsor would pay the housing fees that are required of all commercial development citywide under

⁹ Household population excludes about 2.5 percent of the City's total population that lives in what the U.S. Census calls "group quarters," including institutions (jails, nursing homes, etc.), college dormitories, group homes, religious quarters, and the like.

¹⁰ Consistent with recent trends, this incremental growth is anticipated to occur in relatively smaller households; that is, growth would occur in households that would be smaller than the average household size in 2010 of 2.3 persons per household.

¹¹ Because of the economic effects of the Great Recession, the Transit Center District Plan's employment growth forecast is conservative, when compared to more recent projections. The projections for household growth remain generally accurate.

¹² Employment calculations in this section are based on the City of San Francisco *Transportation Impact Analysis Guidelines*, which estimates 350 square feet per employee assigned to retail space (3,800 square feet).

¹³ Based on 57 percent of City workers who live in San Francisco, from 2010 Census data, 1.22 workers per household, and an assumed 8.3 percent vacancy factor.

¹⁴ *San Francisco General Plan* 2014 Housing Element, adopted by Planning Commission, April 27, 2015, Preface. <http://www.sf-planning.org/index.aspx?page=3899>.

Section 413.1 et seq., of the *Planning Code*, the Jobs-Housing Linkage Program. This would satisfy the City's regulatory requirements to mitigate the impact of market-rate housing and retail development on the demand for affordable housing in San Francisco. Impacts would be less than significant.

The project site is currently a parking lot with a small structure to accommodate staff. There are no housing units on the site; therefore, the project would not displace any existing housing units, and thus would not necessitate the construction of replacement housing elsewhere. No impact would occur.

Variant

The variant would be constructed with approximately 129,000 sf of residential uses and approximately 253,000 sf of hotel, which could also be designated as extended-stay accommodations. The variant would provide up to 72 dwelling units, 273 hotel rooms, and approximately 700 sf of retail space. On-site bicycle and automobile parking would also be provided as part of the variant. Assuming 1.55 persons per household, as estimated in the TCDP PEIR, the residential component of the variant would accommodate approximately 112 people. By 2030, this population increase would amount to approximately 0.01 percent of the anticipated citywide population growth and 1.0 percent of the growth anticipated under the TCDP. The variant would also develop approximately 700 square feet of retail space, which would generate approximately two total employees at full occupancy. Approximately 246 employees would be generated from new hotel rooms.¹⁵ Project-related employment would be equivalent to less than 0.03 percent of the anticipated citywide growth by the year 2030, assuming that the hotel development attracted entirely new employees to San Francisco; in reality, some of these workers would likely have relocated from other jobs in San Francisco. Project related employment growth would amount to approximately 3.5 percent of the growth anticipated in the TCDP. This employment increase would result in a demand for 114 new housing units.¹⁶ These direct effects of the variant on population and housing are within the scope of the population growth anticipated under the TCDP and evaluated in the TCDP PEIR.

The *San Francisco General Plan* Housing Element contains objectives and policies "that address this growing housing demand, focusing on strategies that can be accomplished within the city's limited land supply and that meet the housing goals developed during the outreach for this document, which include 1) prioritizing permanently affordable housing; 2) recognizing and preserving neighborhood character; 3) integrating housing, jobs, transportation and infrastructure; and 4) continuing to be a regional model of sustainability."¹⁷ Housing Element Policy 1.9 calls for enforcement and monitoring of the Jobs-Housing Linkage Program requiring that new commercial development in the City provide affordable housing or pay an in-lieu fee to meet the housing need attributable to employment growth and new commercial development, particularly the demand for new housing affordable to low and moderate income households.

Of the 72 residential units proposed under the variant, 11 would be designated as on-site affordable housing units, consistent with the requirements of the Transbay Redevelopment Plan. In addition, the project sponsor would pay the housing fees required of all commercial development citywide, including retail hotel uses, under Section 413.1 et seq., of the *Planning Code*, the Jobs-Housing Linkage Program. This would satisfy the City's regulatory requirements to mitigate the impact of market-rate housing and retail

¹⁵ Employment calculations in this section are based on the City of San Francisco *Transportation Impact Analysis Guidelines*, which estimates 350 square feet per employee assigned to retail space and 0.9 employees per hotel room.

¹⁶ Based on 57 percent of City workers who live in San Francisco, from 2010 Census data, 1.22 workers per household, and an assumed 8.3 percent vacancy factor.

¹⁷ *San Francisco General Plan* 2014 Housing Element, adopted by Planning Commission, April 27, 2015, Preface. <http://www.sf-planning.org/index.aspx?page=3899>.

development on the demand for affordable housing in San Francisco. Impacts would be less than significant

The project site is currently a parking lot with a small structure to accommodate staff. There are no housing units on the site; therefore, neither the project nor variant would displace any existing housing units, and thus would not necessitate the construction of replacement housing elsewhere. No impact would occur.

For the above reasons, neither the project nor variant would result in significant impacts on population and housing that were not identified in the TCDP PEIR, nor substantially more severe impacts than previously identified in the PEIR.

<u>Topics:</u>	<u>Significant Impact Peculiar to Project or Project Site</u>	<u>Significant Impact not Identified in PEIR</u>	<u>Significant Impact due to Substantial New Information</u>	<u>No Significant Impact not Previously Identified in PEIR</u>
3. CULTURAL AND PALEONTOLOGICAL RESOURCES—Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, including those resources listed in Article 10 or Article 11 of the <i>San Francisco Planning Code</i> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Historic Architectural Resources

Proposed Project and Variant

Direct Impacts

Pursuant to CEQA Guidelines Sections 15064.5(a)(1) and 15064.5(a)(2), historical resources are buildings, structures, or sites that are listed, or are eligible for listing, in the California Register of Historical Resources, are identified in a local register of historical resources, such as Articles 10 and 11 of the *San Francisco Planning Code*, or are otherwise determined by a lead agency to be “historically significant.” The TCDP PEIR determined that future development facilitated through the changes in use districts and height limits under the TCDP could have substantial adverse changes on the significance of historic architectural resources and on historical districts within the plan area. Although the precise nature of this impact could not be determined at the time, the PEIR determined that such an impact would be significant and unavoidable. To partially mitigate the impact, the PEIR identified **PEIR Mitigation Measures M-CP-3a** (HABS/HAER Documentation, p. 267), **M-CP-3b** (Public Interpretative Displays, p. 268), **M-CP-3c** (Relocation of Historical Resources, p. 268), and **M-CP-3d** (Salvage of Historical Resources, p. 268). These measures would reduce impacts to historic resources, but not to a level of less than significant.

The proposed project and variant would not entail demolition of existing structures, except for a small wooden shed used by parking lot staff. The shed is not considered to be a historic building as it is not at least 45 years old and, as such, does not necessitate a historic resources evaluation prior to its removal.

Thus, the proposed project and variant would not result in significant direct impacts on cultural resources that were not identified in the TCDP PEIR, nor substantially more severe impacts than previously identified in the PEIR. Furthermore, the mitigation measures identified above with respect to direct impacts to historic structures would not apply to the proposed project or variant. The project site is not within a historic district.

Indirect Impacts

The PEIR found that changes in height and bulk controls in the plan area could result in indirect impacts to historic architectural resources (p. 269). Larger buildings of such a different scale from existing historic buildings could result in an adverse effect on the setting of those resources, particularly in or adjacent to historic districts. The PEIR determined that the impacts would be less than significant when considered in conjunction with other policies, including recognition and protection of historic resources, retention, and rehabilitation of significant resources, and the design review program and other processes implemented through Article 11 of the *Planning Code*.

As noted above, the proposed project and variant would not include the demolition of historic structures at the project site. The existing building at 530 Howard Street, which was constructed in 1908 and abuts the western boundary of the project site, is considered a potentially historic structure. Neither the project site nor 530 Howard Street are located within a historic district. The project and variant would not cause material damage to the physical characteristics of 530 Howard Street and other nearby historic resources such that their historical significance and/or potential consideration for inclusion in the California Register of Historic Resources would be affected. The proposed project or variant would not affect the integrity of a historic district. Therefore, the project and variant would result in less-than-significant indirect impacts.

Construction Impacts

Construction activity can generate vibration that can cause structural damage to nearby buildings. As described in the PEIR (pp. 269–270), construction activity would result in a potentially significant impact on historic and potentially historic buildings, such as 530 Howard Street. **PEIR Mitigation Measures M-CP-5a** (Construction Best Practices for Historical Resources, p.270) and **M-CP-5b** (Construction Monitoring Program for Historical Resources, p. 270) were identified to reduce TCDP impacts to a less-than-significant level by requiring contractors to implement best-management practices during construction, as well as perform pre-construction surveys of historical resources within 125 feet of a project site.

The proposed project and variant would require removal of the surface parking lot and shed, as well as excavation to approximately 60 feet below grade.¹⁸ The use of heavy construction equipment would result in a temporary increase in localized vibration, which could result in structural damage. If structural damage were to occur, these activities would result in a potentially significant impact on historic buildings within and near to the project site, including 530 Howard Street. As a result, the project or the variant would implement **Project Mitigation Measure 1**, which would implement **PEIR Mitigation Measure M-CP-5a**, and **Project Mitigation Measure 2**, which would implement **PEIR Mitigation Measure M-CP-5b**, to reduce the potential for adverse impacts to nearby historic structures by requiring preconstruction surveys, monitoring of on-site vibration levels, other best management practices, and restoration of any changes to historic structures as a result of project construction identified during monitoring. As a result, impacts associated with construction activities at the project site would be less than significant.

¹⁸ This depth may be increased in certain locations to allow for proper installation of press-in piles.

In conclusion, the proposed project and variant would not result in significant impacts on historic architectural resources that were not identified in the TCDP PEIR, nor would they result in substantially more severe impacts than previously identified in the PEIR.

Archeological Resources

Proposed Project and Variant

The PEIR (pp. 253–258) found that development under the TCDP could cause a substantial adverse change to the significance of archaeological resources because the entire plan area could be considered generally sensitive for both prehistoric and historic-era archaeological resources. The TCDP Archaeological Resource Design and Treatment Plan (ARDTP) presented sensitivity assessments of five sites in the plan area, including the project site.¹⁹ No prehistoric archaeological sites have been documented within the 524 Howard Street site, although two prehistoric sites (SFR-112 and SFR-135) and one historic-era site (SFR-119H) are located within the general vicinity. Due to development that has occurred at the site, historic archaeological potential is considered to be low.

PEIR Mitigation Measure M-CP-1 (Subsequent Archaeological Testing Program, p. 254) was identified to ensure that projects developed within the TCDP plan area are subject to preliminary archeological review of Planning Department archaeologists. Based on the ARDTP, the in-house review would identify any data gaps and require additional investigations to make an archaeological sensitivity assessment. Projects found to have archaeological sensitivity would be required to prepare and implement an archeological testing program, and projects found to require data recovery would necessitate preparation of an archaeological monitoring program. The mitigation measure also states that any accidental discovery of human remains or potential associated funerary objects during soils-disturbing activity shall comply with all applicable laws.

As noted above, no prehistoric archaeological sites have been documented within the project site. Given the proximity to the project site of two prehistoric sites and one historic-era site, **Project Mitigation Measure 3**, which would implement **PEIR Mitigation Measure M-CP-1**, would apply to the project and variant, and the impact of development of the project site would be reduced to a less-than-significant level. The project and variant would not result in significant impacts on archeological resources that were not identified in the TCDP PEIR, nor would it result in substantially more severe impacts than previously identified in the PEIR.

Paleontological Resources

Proposed Project and Variant

As stated in the PEIR (p. 240), there are no known paleontological resources in the TCDP plan area. As explained in the CPE Checklist Geology and Soils section, a preliminary geotechnical analysis specific to the project site was also completed.²⁰ The project site is underlain by 9 to 18 feet of fill material including very loose and loose sand with varying amounts of gravel, brick, wood, rock, and concrete fragments. Below the fill is 13 to 25 feet of loose to very dense sand, known as Dune sand. The Dune sand extends from approximately 28 to 35 feet below the ground surface. Below the Dune sand is a weak, soft to medium stiff silt and clay marine deposit that extends to maximum depths of 44 to 56 feet below adjacent grades.

¹⁹ San Francisco Planning Department, *Archaeological Research Design and Treatment Plan for the Transit Center District Plan Area, San Francisco, California*, prepared by Far Western Anthropological Research Group, Inc.; Past Forward, Inc.; and JRP Historical Consulting, LLC; February 2010.

²⁰ Langan Treadwell Rollo, Preliminary Geotechnical Evaluation for 524 Howard Street, San Francisco, California, Langan Project No. 730272704. June 16, 2014. This material is available for review at the Planning Department, 1650 Mission Street, Suite 400, in File No. 2013.0882ENV

Below the marine deposit is the dense Coloma formation and then Old Bay Clay. Sand does not typically contain paleontological resources, and the marine deposits are considered relatively young in age, and therefore unlikely to contain rare or important fossils. As a result, development of the project site would not affect paleontological resources. The project and variant would not result in significant impacts on paleontological resources that were not identified in the TCDP PEIR, nor would it result in substantially more severe impacts than previously identified in the PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
4. TRANSPORTATION AND CIRCULATION—Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels, obstructions to flight, or a change in location, that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>

The TCDP PEIR anticipated that growth associated with the zoning changes could result in significant impacts on transportation and circulation. The TCDP PEIR identified 23 transportation mitigation measures, including implementation of traffic management strategies, and traffic and transit improvements. Even with mitigation, however, the PEIR concluded that the significant adverse impacts on certain local intersections and transit, pedestrian, loading, and construction impacts would not be fully mitigated, and these impacts were identified as significant and unavoidable. Effects on emergency access were determined to be less than significant.

A transportation impact study (TIS) was prepared for the proposed project and variant²¹ to evaluate potential project-specific effects of development of the project site, and it is summarized herein. Because it

²¹ Kittelson and Associates. 524 Howard Street Transportation Impact Study, San Francisco, CA. April 21, 2016.

was prepared prior to before the San Francisco Planning Commission's adoption of transportation impacts based on VMT instead of congestion (see discussion on page 26), the TCDP PEIR traffic impact analysis based its impacts on intersection level of service (LOS), which is a congestion metric. As described on page 26 of this analysis on March 3, 2016 the Planning Commission adopted a new metric for evaluation of traffic impacts, vehicle miles traveled (VMT).

This document, therefore, presents an analysis of CEQA impacts based upon the new VMT standard adopted by the Planning Commission. Mitigation measures in the PEIR that identified improvements intended to improve LOS are no longer considered applicable.

PEIR Findings

The TCDP PEIR found that traffic growth resulting from implementation of the TCDP, including proposed changes to the street system, would adversely affect local intersection operation and have a significant and unavoidable impact on the circulation system. The PEIR identified 13 mitigation measures (**M-TR-1a** through **M-TR-1m**) involving network management by San Francisco Municipal Transportation Agency (SFMTA) to reduce specific impacts to the circulation system; however, the impact remained significant and unavoidable. The mitigation measures that are applicable to the project/variant are described below; however, as noted, these measures are no longer applicable under the new VMT standard.

The TCDP PEIR determined that implementation of the TCDP would also result in a considerable contribution to the congested operations of the Fourth/Harrison Streets and First/Harrison Streets freeway on-ramps, resulting in a significant and unavoidable impact on freeway ramp operations. No feasible mitigation measures were identified to reduce this impact.

Additionally, the TCDP PEIR found that growth associated with implementation of the TCDP would generate a substantial increase in transit demand that would result in significant and unavoidable impacts to the transit system due to lack of capacity to accommodate the increased demand, resulting in unacceptable levels of transit service and a substantial increase in delays or operating costs. The TCDP PEIR identified five mitigation measures (**M-TR-3a** through **M-TR-3e**) to reduce these impacts, including installation and operation of transit-only and queue-jump lanes, exclusive Municipal Railway use of Mission Street boarding islands, transit improvements on streets within the plan area, and two measures to provide increased transit funding; however, impacts on the transit system remained significant and unavoidable.

The PEIR concluded that increased pedestrian activity would result from TCDP implementation, which would degrade the level of service at sidewalks, street corners, and crosswalks within the plan area and result in a significant and unavoidable impact. **Mitigation Measure M-TR-4** was identified, whereby SFMTA would widen crosswalks in the plan area; however, the impact remained significant and unavoidable. In addition, the TCDP PEIR concluded that the development of the large projects proposed in the plan area, as well a lack of capacity to accommodate loading demands, would create potentially hazardous conditions for pedestrians, bicycles, traffic, and transit in the plan area, resulting in significant and unavoidable impacts. **PEIR Mitigation Measures M-TR-5, M-TR-7a, and M-TR-7b** were identified to reduce impacts by requiring some projects to employ a parking garage and/or loading dock attendant, requiring some projects to develop a loading dock management plan, and encouraging SFMTA to increase the supply of on-street loading spaces; however, these impacts remained significant and unavoidable.

Finally, the PEIR determined that construction of individual projects within the plan area, with ongoing construction of the Transbay Transit Center, could disrupt nearby streets, transit services, and pedestrian and bicycle circulation. **Mitigation Measure M-TR-9** was identified to reduce impacts by requiring individual development projects within the TCDP plan area to develop a construction management plan

that would: restrict construction truck movements to times outside of weekday a.m. and p.m. peak periods; optimize truck routes; encourage construction employees to take transit; and require the project sponsor to coordinate construction activities with surrounding projects through creation of a construction phasing and operations plan. Even with implementation of **PEIR Mitigation Measure M-TR-9**, the impact was considered significant and unavoidable.

The TCDP plan area, including the project site, is not located within an airport land use plan area, or in the vicinity of a private airstrip. Therefore, CPE Checklist topic 4c is not applicable to the project or variant.

Trip Generation

Proposed Project

Under the proposed project, a new residential tower, totaling 392,277 sf of residential space with 334 residential units and 3,813 sf of retail space, would be constructed. The localized person-trip generation for the proposed project was based on the weekday daily and p.m. peak hour rates documented in the *2002 Transportation Impacts Analysis Guidelines for Environmental Review* (SF Guidelines). In accordance with common industry practice, the project's traffic analysis does not assume trip credits for any displaced trips associated with the replacement of the existing surface parking lot at the project site. The proposed project would generate an estimated 3,422 daily person trips (inbound and outbound), of which 24 percent would be on transit, 33 percent would be by auto, 38 percent would be pedestrian trips, and the remaining 5 percent would be by other modes of transportation. During the p.m. peak hour, the proposed project would generate an estimated 546 person trips, of which 178 would be automobile trips.

Variant

Under the variant, a tower similar to the project would be built with 72 residential units on top of a 273-room hotel and 700 sf of retail space. Using the same methodologies as those identified above for the proposed project, the variant would generate an estimated 2,632 daily person trips (inbound and outbound), of which 38 percent would be on transit, 33 percent would be by auto, 25 percent would be pedestrian trips, and the remaining 4 percent would be by other modes of transportation. During the p.m. peak hour, the variant would generate an estimated 308 person trips, of which 108 would be automobile trips.

Vehicle Miles Traveled (VMT) Analysis

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

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

The San Francisco County Transportation Authority (Transportation Authority) uses the San Francisco Chained Activity Model Process (SF-CHAMP) to estimate VMT by private automobiles and taxis for

different land use types. Travel behavior in SF-CHAMP is calibrated based on observed behavior from the California Household Travel Survey 2010-2012, Census data regarding automobile ownership rates and county-to-county worker flows, and observed vehicle counts and transit boardings. SF-CHAMP uses a synthetic population, which is a set of individual actors that represents the Bay Area’s actual population, who make simulated travel decisions for a complete day. The Transportation Authority uses tour-based analysis for office and residential uses, which examines the entire chain of trips over the course of a day, not just trips to and from the project. For retail uses, the Transportation Authority uses trip-based analysis, which counts VMT from individual trips to and from the project (as opposed to entire chain of trips). A trip-based approach, as opposed to a tour-based approach, is necessary for retail projects because a tour is likely to consist of trips stopping in multiple locations, and using tour VMT would over-estimate project-related VMT.^{22,23}

For residential development, the regional average daily VMT per capita is 17.2. For retail development, regional average daily work-related VMT per employee is 14.8 (see Table 2, which includes the traffic analysis zone [TAZ] in which the project site is located, 741). A project would have a significant effect on the environment if it would cause substantial additional VMT. The State Office of Planning and Research’s (OPR) *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA* (“proposed transportation impact guidelines”) recommends screening criteria to identify types, characteristics, or locations of projects that would not result in significant impacts to VMT. Further, based on statewide VMT reduction targets developed by Caltrans, a 15 percent reduction in per capita VMT (as reflected in Table 2) is considered necessary to achieve statewide 2020 targets. If a project meets screening criteria, then it is presumed that VMT impacts would be less than significant for the project and a detailed VMT analysis is not required.

Table 2
Vehicles Miles Traveled Per Land Use – Regional Average and Project Site TAZ

Land Use/Scenario	Regional Average	Threshold (Regional Average Minus 15%)	Project Site TAZ (TAZ 741)
Residential (per capita)			
Existing	17.2	14.6	2.8
Year 2040	16.1	13.7	2.1
Retail (per employee)			
Existing	14.8	12.6	9.2
Year 2040	14.6	12.4	8.3

SOURCE: SF Planning Department 2016.

Proposed Project

The proposed project is a mixed-use residential development with 3,800 sf of retail space, located on a previously-developed urban infill site in downtown San Francisco, within one-third mile of both the Montgomery and Embarcadero BART/Muni rail transit stations and 100 feet of the Transbay Transit Center

²² To state another way: a tour-based assessment of VMT at a retail site would consider the VMT for all trips in the tour, for any tour with a stop at the retail site. If a single tour stops at two retail locations, for example, a coffee shop on the way to work and a restaurant on the way back home, then both retail locations would be allotted the total tour VMT. A trip-based approach allows the apportionment of all retail-related VMT to retail sites without double-counting.

²³ San Francisco Planning Department. *Executive Summary: Resolution Modifying Transportation Impact Analysis*, Appendix F, Attachment A. March 3, 2016.

that is currently under construction. The project would have a floor area ratio (ratio of building floor area to lot square footage) greater than 0.75, and is located in a priority development area identified in the Bay Area's sustainable communities strategy (Plan Bay Area). As shown in Table 2 above, existing average daily VMT per capita for residential uses in TAZ 741 is 2.8 miles. This is a little more than one-third (39 percent) of the existing regional average daily VMT per capita of 17.2. Also, as shown in Table 2 above, existing average daily VMT per employee for retail uses is 9.2 miles. These employee-based VMT numbers are approximately two-thirds (62 percent) of the existing regional averages of 14.8. Given the project site is located in an area where existing VMT is more than 15 percent below the existing regional average, the proposed project's residential and retail uses are anticipated to have similarly reduced VMT and would therefore not result in substantial additional VMT. Therefore, consistent with the thresholds expressed in OPR's proposed transportation impact guidelines, impacts would be less-than-significant.

San Francisco 2040 cumulative conditions were projected using a SF-CHAMP model run, using the same methodology as outlined for existing conditions, but includes residential and job growth estimates and reasonably foreseeable transportation investments through 2040. Projected 2040 average daily VMT per capita for residential uses in TAZ 741 is 2.1 miles. This is approximately one-eighth (13 percent) of the projected 2040 regional average daily VMT per capita for residential uses of 16.1. Projected 2040 average daily VMT numbers per employee for retail uses in TAZ 741 are 8.3 miles. These figures are less than two-thirds (56 percent) of the projected 2040 regional average daily VMT per employee of 14.6 for retail uses. Given the project site is located in an area where VMT would be greater than 15 percent below the projected 2040 regional average, the proposed project's residential and retail uses would not result in substantial additional VMT. Therefore, the proposed project's residential and retail uses would not contribute considerably to any substantial cumulative increase in VMT.

Variant

For the purposes of this analysis, the hotel use that would be constructed as part of the variant is considered to generate similar trips/VMT as the proposed project. As a result, the same proportion of VMT per use type within TAZ 741 would occur under the variant. As a result, the variant would result in similar lower VMT compared to the regional average and development of the variant would not result in substantial additional VMT. The variant's residential, hotel, and retail uses would also not contribute considerably to any substantial cumulative increase in VMT.

Induced Automobile Travel Analysis

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

Proposed Project and Variant

The proposed project or variant would not modify existing roadways/alleyways such that additional capacity would be available to motorists, and as a result, neither the project nor variant would lead to a substantial or measurable increase in regional VMT. Therefore, the proposed project or variant would not substantially induce automobile travel and impacts would be less-than-significant. For the above reasons, the proposed project and variant would not result in significant impacts on traffic that were not identified in the PEIR, and the proposed project would not result in new or greater cumulative impacts than were identified in the PEIR.

Level of Service (LOS) Analysis

As noted above, the City no longer relies on LOS analysis as the basis for conclusions of significance under CEQA. Accordingly, no mitigation measures related to LOS are required. Although **PEIR Mitigation Measures M-TR-1a** through **M-TR-1m** were identified in the PEIR to reduce intersection effects, these measures were identified as being of uncertain feasibility or would not fully mitigate impacts identified in the PEIR; moreover, no feasible mitigation was identified for a number of PEIR study intersections. Accordingly, effects on intersection LOS were determined to be significant and unavoidable. As noted above, the San Francisco Planning Commission has since adopted OPR's recommendation to use the VMT metric instead of automobile delay to evaluate the transportation impacts of projects (Resolution 19579). Therefore, mitigation measures in the PEIR that identified improvements intended to alleviate automobile delay and improve LOS are no longer considered applicable, and these measures, therefore, are not applicable to the proposed project.

Transit

Although **PEIR Mitigation Measures M-TR-3a** through **M-TR-3e** were identified in the PEIR to reduce effects to transit, these measures were identified as being of uncertain feasibility and/or effectiveness or would not fully mitigate impacts; accordingly, effects on transit were determined to be significant and unavoidable. These measures are not applicable to the proposed project, as they are plan-level mitigations to be implemented by City and County agencies. The SFMTA is implementing the Transit Effectiveness Project (TEP), which was approved by the SFMTA Board of Directors in March 2014. The TEP (now called Muni Forward) includes system-wide review, evaluation, and recommendations to improve service and increase transportation efficiency.

Proposed Project

The proposed project would generate an estimated 133 new transit trips (82 inbound and 51 outbound) during the weekday p.m. peak hour. Transit trips to and from the project site would likely use the nearby Muni bus and light rail lines for local trips, and the regional lines such as BART, AC Transit, Golden Gate Transit, Caltrain, and SamTrans (potentially with transfers to and from Muni) for trips outside San Francisco. Based on the transit trip distribution pattern, it was estimated that of the 51 outbound trips during the weekday p.m. peak hour, approximately 33 trips would cross the Muni screenlines and 18 trips would cross the regional screenlines. Project transit ridership would not result in a significant impact with regard to the majority of Muni screenlines; however, two of 14 screenlines that the project would cross in the p.m. peak hours would exceed Muni's 85 percent standard. Project ridership would constitute less than five percent of ridership on each corridor, which, based on criteria established in the SF Guidelines, would not be considered substantial or significant. As a result, the project's impact on transit ridership would be less than significant. With respect to regional transit, project ridership would not result in exceedance of any operator's standard.

Under cumulative conditions, a number of Muni corridors and screenlines would have ridership in excess of Muni's standard and, as was identified in the PEIR, this would be a significant impact. However, in no case would project ridership exceed one percent on a particular corridor, as discussed in the PEIR, and thus the project would not contribute considerably to the impact identified in the PEIR. With respect to regional transit, the transit riders generated by the project would account for a relatively small portion of the overall cumulative ridership totals. This level of ridership increase represents less than one percent of the overall ridership and based on criteria in the *SF Guidelines*, the project would not be cumulatively considerable with respect to cumulative impacts on regional transit ridership and capacity utilization during the weekday p.m. peak hour.

The project would not require the relocation or removal of any existing bus stops or other changes that would alter transit service. Additionally, while the project would add traffic to surrounding roadways, project-generated vehicle, bicycle, and pedestrian trips would not substantially affect transit operations on nearby routes or interfere with operations of buses that operate along Howard Street.

Variant

The variant would generate an estimated 117 new transit trips (61 inbound and 56 outbound) during the weekday p.m. peak hour. Transit trips to and from the project site would likely use the nearby Muni bus and light rail lines for local trips, and the regional lines such as BART, AC Transit, Golden Gate Transit, Caltrain, and SamTrans (potentially with transfers to and from Muni) for trips outside San Francisco. Based on the transit trip distribution pattern, it was estimated that of the 56 outbound trips during the weekday p.m. peak hour, approximately 36 trips would cross the Muni screenlines and 20 trips would cross the regional screenlines. Variant transit ridership would not result in a significant impact with regard to the majority of Muni screenlines; however, similar to conditions identified above for the project, two of 14 screenlines that the variant would cross in the p.m. peak hours would exceed Muni's 85 percent standard. Variant ridership would constitute less than one percent of ridership on the two corridors, which, based on criteria established in the SF Guidelines, would not be considered substantial or significant. As a result, the variant's impact on transit ridership would be less than significant and within the scope of the TCDP PEIR. With respect to regional transit, variant ridership would not result in exceedance of any operator's standard.

Under cumulative conditions, a number of Muni corridors and screenlines would have ridership in excess of Muni's standard and, as was identified in the PEIR, this would be a significant impact. However, in no case would variant ridership under cumulative conditions exceed one percent on a particular corridor, and thus the variant would not contribute considerably to the impact identified in the PEIR. With respect to regional transit, the transit riders generated by the variant would account for a relatively small portion of the overall cumulative ridership totals. This level of ridership increase represents less than one percent of the overall ridership and based on criteria in the *SF Guidelines*, the variant would not be cumulatively considerable with respect to cumulative impacts on regional transit ridership and capacity utilization during the weekday p.m. peak hour.

Under the variant, the existing curb cut on Howard Street would be widened to provide access to the garage and loading dock. During periods of high demand, queues could spill back across the sidewalk and vehicles could block the rightmost travel lane on Howard Street and affect transit operations. Additionally, trucks reversing into the loading dock could interfere with operations of buses and shuttles along Howard Street. As a result, the variant would have a significant impact by creating potentially hazardous conditions for transit vehicles. The variant would implement **Project Mitigation Measure 4**, which would implement **PEIR Mitigation Measure M-TR-5**, and **Project Mitigation Measure 5**, which would implement **PEIR Mitigation Measure M-TR-7a**, to reduce the potential for driveway and loading dock activities along Howard Street to affect transit operations by providing a site-specific loading dock/garage management plan and on-site attendant for active management of site traffic operations along Howard Street. As a result, impacts to transit facilities/operations at the project site under the variant would be less than significant.

Pedestrians and Bicyclists

Impacts to pedestrian conditions and facilities as a result of activities at the project site were assessed, including the number of new pedestrian trips that would be added to the network. The adequacy of pedestrian connections to nearby transit routes, safety and right of way issues, and general compliance with the *Better Streets Plan* sidewalk widths and requirements were qualitatively assessed.

Proposed Project

The project is estimated to generate 207 walk-only trips (145 inbound, 62 outbound) and 133 walk-to-transit trips (82 inbound, 51 outbound) during the weekday p.m. peak hour. With the additional pedestrian trips associated with the project, all study crosswalks, sidewalks, and street corners would operate at acceptable levels of service during the weekday p.m. peak hour. During this period, pedestrian flow is reasonably uncongested but pedestrians may need to change speed and position at a few locations where pedestrian volumes are high and circulation space is limited, such as on the west crosswalk at First Street / Mission Street and along the north sidewalk of Howard Street between Second Street and First Street. Based on the current levels of pedestrian activity, the new pedestrian trips generated by the project could be accommodated on the nearby sidewalks and would not substantially affect pedestrian operations along the nearby sidewalks and crosswalks. The addition of project-generated pedestrian traffic would cause minor decreases in crosswalk and street corner circulation area and minor increases in flow rates along the sidewalks for pedestrians, but would not cause any of the study locations to worsen to unacceptable conditions. Therefore, the project's pedestrian trips would have a less than significant impact on surrounding pedestrian facilities.

With respect to potential pedestrian conflicts with vehicular traffic associated with the project, vehicles accessing the garage and trucks accessing the loading dock would need to cross the crosswalk at First Street/Natoma Street, which currently has high pedestrian volumes during the peak periods. As this intersection is currently unsignalized, for both inbound and outbound movements, vehicles would need to wait for a gap in pedestrian traffic. If few gaps are available, there is the potential for drivers to merge into the crosswalk and force their way into pedestrian traffic to complete the maneuver. However, nearby signals at First Street/Howard Street and First Street/Mission Street effectively meter pedestrian flow and traffic is generally moving slowly enough along First Street that vehicles are able to merge onto Natoma Street. Additionally, installation of mid-block pedestrian signals, as proposed under TCDP Public Realm Plan, would improve conditions at this location. It is not anticipated that the project would introduce a hazardous condition adversely affecting pedestrian accessibility.

The additional vehicle and truck traffic turning into the project site via Natoma Street could disrupt the flow of pedestrians along Natoma Street and increase exposure to potential conflicts. Although pedestrian volumes on Natoma Street are currently fairly low and the project's proposed pedestrian entrance is located on Howard Street, it is likely that some pedestrians would be walking along Natoma Street, including after the opening of the Transbay Transit Center and conversion of the western portion of Natoma Street to a pedestrian-only space. As such, project-related vehicles accessing the project site via Natoma Street could expose pedestrians to potential conflicts and safety concerns as vehicles enter and exit the project site. Therefore, the proposed project would result in a significant pedestrian hazard impact, consistent with PEIR Impact TR-5 (significant impact on pedestrians due to operation of project entrance/exit drives). **Project Mitigation Measure 4** and **Project Mitigation Measure 5** would implement **PEIR Mitigation Measures M-TR-5** and **M-TR-7a**, respectively, and this impact would be reduced to a less-than-significant level by requiring a traffic management plan and attendant(s) to minimize conflicts with pedestrians and ensure the safe movement of project-related vehicles along Natoma Street. As the project applicant has already agreed to implement signage and audible/visible warning devices that might be required as part of **Project Mitigation Measure 4** pending final determination by the Planning Department, **Project Improvement Measure 1** reflects these as components to the project, in addition to driver education requirements, to further reduce the project's impact.

The proposed project would provide a minimum of 334 Class 1 bicycle parking spaces and 19 Class 2 bicycle parking spaces, which would exceed the requirements of the *Planning Code* for bicycle parking.

Although the proposed project would add bicycle trips on surrounding streets, the increase would not be substantial enough to affect overall bicycle circulation in the area or the operations of adjacent bicycle facilities. The addition of project-generated vehicular traffic would also not result in any substantial negative effects to bicycle conditions in the vicinity of the project site. Overall, no significant impacts to bicyclists were identified.

No cumulative pedestrian or bicycle impacts were identified beyond those discussed in the PEIR.

Variant

The variant is estimated to generate 77 walk-only trips (47 inbound, 30 outbound) and 117 walk-to-transit trips (61 inbound, 56 outbound) during the weekday p.m. peak hour. With the additional pedestrian trips associated with the variant, all study crosswalks, sidewalks, and street corners would operate at acceptable levels of service during the weekday p.m. peak hour. Similar to the proposed project, pedestrian flow is reasonably uncongested but pedestrians may need to change speed and position at a few locations where pedestrian volumes are high and circulation space is limited, such as on the west crosswalk at First Street / Mission Street and along the north sidewalk of Howard Street between Second Street and First Street. Based on the current levels of pedestrian activity, the new pedestrian trips generated by the variant could be accommodated on the nearby sidewalks and would not substantially affect pedestrian operations along the nearby sidewalks and crosswalks. The addition of variant-generated traffic would cause minor decreases in crosswalk and street corner circulation area and minor increases in flow rates along the sidewalks for pedestrians, but would not cause any of the study locations to worsen to unacceptable conditions. Therefore, the variant's pedestrian trips would have a less than significant impact on surrounding pedestrian facilities.

With respect to potential pedestrian conflicts with vehicular traffic associated with the variant, vehicles accessing the garage and trucks accessing the loading dock would make a right-turn to cross the north sidewalk on Howard Street, which currently has relatively high pedestrian volumes during the peak periods. Inbound and outbound vehicles would need to wait for a gap in pedestrian traffic and if few gaps are available, there is the potential for drivers to merge into the crosswalk and force their way into pedestrian traffic to complete the maneuver. This is similar to what occurs on the site currently and it is not anticipated that the variant would substantially worsen this condition. Nonetheless, the additional vehicle and truck traffic turning into the project site via Natoma Street could disrupt the flow of pedestrians along Natoma Street and increase exposure to potential conflicts. As such, variant-related vehicles accessing the project site via Howard Street could expose pedestrians to potential conflicts and safety concerns as vehicles enter and exit the project site. Therefore, the variant would result in a significant pedestrian hazard impact, consistent with PEIR Impact TR-5 (significant impact on pedestrians due to operation of project entrance/exit drives). **Project Mitigation Measure 4** and **Project Mitigation Measure 5** would implement **PEIR Mitigation Measures M-TR-5** and **M-TR-7a**, respectively, and this impact would be reduced to a less-than-significant level by requiring a traffic management plan and attendant(s) to minimize conflicts with pedestrians and ensure the safe movement of variant-related vehicles along Howard Street.

The variant would provide a minimum of 82 Class 1 bicycle parking spaces and 16 Class 2 bicycle parking spaces, which would be in compliance with the requirements of the *Planning Code* for bicycle parking. Although bicycle trips on surrounding streets would increase with development of the project site, the increase would not be substantial enough to affect overall bicycle circulation in the area or the operations of adjacent bicycle facilities. However, under the variant, vehicles accessing the project site, especially trucks accessing the loading dock, would increase the length of time during which a vehicle may be crossing the bicycle lane on Howard Street, which could increase potential bicycle vehicle conflicts. This would result in a significant impact to bicycle conditions, similar to the conclusions of the TCDP PEIR.

Implementation of **Project Mitigation Measure 4** and **Project Mitigation Measure 5** would reduce this impact to a less-than-significant level by requiring a traffic management plan and attendant(s) to minimize conflicts with bicyclists and ensure the safe movement of variant-related vehicles along Howard Street.

No cumulative pedestrian or bicycle impacts were identified beyond those discussed in the PEIR.

Freight Loading

The *San Francisco Planning Code* requires the provision of off-street loading spaces for delivery and service vehicles based on the gross square footage within each building. The following are the *San Francisco Planning Code* requirements for loading facilities (§152.1 and §162) in the C-3-O(SD) district that are applicable to this project:

- Residential: Zero (0) spaces for projects up to 100,000 gross square feet, one (1) space for buildings from 100,001 to 200,000 gross square feet; two (2) spaces for buildings from 200,001 to 500,000 gross square feet; and three (3) plus (1) space for each additional 400,000 square feet.
- Hotel:
 - Zero (0) spaces for projects up to 100,000 gross square feet, one (1) space for buildings from 100,001 to 200,000 gross square feet; two (2) spaces for buildings from 200,001 to 500,000 gross square feet; and three (3) plus (1) space for each additional 400,000 square feet; and
 - One (1) tour bus loading space for developments with 201 to 350 hotel rooms.
- Retail: Zero (0) spaces for projects up to 10,000 gross square feet, one (1) space for buildings from 10,001 to 30,000 gross square feet; two (2) spaces for buildings from 30,001 to 50,000 gross square feet; and one (1) space per 25,000 square feet or closest whole number for buildings over 50,000 gross square feet.

The *San Francisco Planning Code* requires every off-street freight loading space to have a minimum length of 35 feet, a minimum width of 12 feet, and a minimum vertical clearance including entry and exit of 14 feet, except as provided below:

- Minimum dimensions specified shall be exclusive of platform, driveways and maneuvering areas except that minimum vertical clearance must be maintained to accommodate variable truck height due to driveway grade;
- The first such space required for any structure or use shall have a minimum width of 10 feet, a minimum length of 25 feet, and a minimum vertical clearance, including entry and exit, of 12 feet. Substitution of two service vehicle spaces for each required off-street freight loading space is permitted; and

Each substituted service vehicle space provided under Section 153(a)(6) of the *San Francisco Planning Code* shall have a minimum width of 8 feet, a minimum length of 20 feet, and a minimum vertical clearance of 7 feet.

Proposed Project

Consistent with the requirements listed above, the project would provide two off-street loading spaces. During operation, the project would generate approximately 12 daily service vehicle trips, resulting in a demand for less than one loading space during the average and peak hour of loading activities. In addition, loading activities at the project site would be expected to occur primarily during off-peak hours. Given the low traffic volumes occurring along Natoma Street and the number of loading spaces on-site, the project's loading activity would have a less-than-significant impact on the operations of Natoma Street.

Due to the relatively narrow curb-to-curb width of Natoma Street (21 feet), longer trucks may have some difficulty maneuvering into and out of the loading dock. Additionally, as a result of the location of the dock and use of a shared driveway, there is the potential for loading vehicle-passenger vehicle conflicts if both are attempting to use the space at the same time. For example, if a vehicle is in the car elevator on the way to the ground floor exit and a loading truck arrives and begins to reverse into the dock, the passenger vehicle would essentially be stuck in the elevator and would have to wait for the loading truck to enter the dock before continue to exit. Therefore, the proposed project would have a significant loading impact. Implementation of **Project Mitigation Measure 4** and **Project Mitigation Measure 5** would reduce the potential for conflict between delivery/service vehicles with vehicles entering/exiting the garage, pedestrians and bicyclists traveling along Natoma Street and would facilitate trucks safely and efficiently entering and exiting the loading dock by providing building personnel, such as a dock operator, to assist in the truck maneuvers and management of loading activity. With implementation of these measures, the impact would be reduced to a less-than-significant level.

Assuming that residents would utilize designated loading areas, including the on-site loading docks when available, the project would have less-than-significant impacts related to residential moving operations. The project would have adequate facilities to manage garbage and recycling pickup, and freight loading such that significant impacts would not occur.

No cumulative loading impacts were identified beyond those discussed in the PEIR.

Variant

Consistent with the requirements listed above, the variant would provide three off-street loading spaces, one for residential use and two for the hotel use. The variant would generate approximately 28 daily service vehicle trips, resulting in a demand for less than two loading spaces during the average and peak hour of loading activities. In addition, loading activities at the project site would be expected to occur primarily during off-peak hours. In recognition of the fact that site constraints in C-3 Districts may make provision of required freight loading and service vehicle spaces impractical or undesirable, a reduction in or waiver of the provision of freight loading and service vehicle spaces for uses in C-3-0 (SD) district may be permitted, in accordance with the provisions of *San Francisco Planning Code* Section 309. Nonetheless, due to the potential for loading vehicle-passenger vehicle conflicts associated with the number of loading spaces that would be provided under the variant compared to *San Francisco Planning Code* requirements, the variant would have a potentially significant loading impact. Implementation of **Project Mitigation Measure 4**, **Project Mitigation Measure 5**, and **Project Mitigation Measure 6**, which would provide a specific design consideration (i.e. signage) related to loading dock management as required by **PEIR Mitigation Measure M-TR-7a**, would reduce this significant impact to less than significant levels by providing active management of loading activities.

Due to constraints within the variant's garage, such as the proximity of the loading spaces within the loading dock, longer trucks (e.g., trucks longer than 30 feet) may have some difficulty maneuvering into the space independently. Additionally, as a result of the location of the dock and use of a shared driveway, there is the potential for loading vehicle-passenger vehicle conflicts and resulting delay and queuing if both are attempting to use the space at the same time. For example, if a vehicle is in the car elevator on the way up to the ground floor exit and a loading truck arrives and begins to reverse into the dock, the passenger vehicle would essentially be stuck in the elevator and would have to wait for the loading truck to enter the dock before proceeding to the exit. Additionally, the proposed driveway on Howard Street is a primary means of access to one of the bicycle parking facilities and ingress and egress of trucks could result in potential hazards for bicyclists, which would be a significant impact. Implementation of **Project Mitigation Measure 4** and **Project Mitigation Measure 5** would reduce the potential for conflict between

delivery/service vehicles with vehicles entering/exiting the garage, pedestrians and bicyclists traveling along Natoma Street and would facilitate trucks safely and efficiently entering and exiting the loading dock by providing building personnel, such as a dock operator, to assist in the truck maneuvers and management of loading activity. **Project Mitigation Measure 6** would provide signage to designate the type of loading activities to be conducted at the three on-site loading spaces so as to minimize the potential need for simultaneous use. With implementation of these measures, the impact would be reduced to a less-than-significant level.

Assuming that residents would utilize designated loading areas, including the on-site loading docks when available, the variant would have less-than-significant impacts related to residential moving operations. Similar to the project, the variant would have adequate facilities to manage garbage and recycling pickup, and freight loading such that significant impacts would not occur.

No cumulative loading impacts were identified beyond those discussed in the PEIR.

Parking

Proposed Project

As discussed under the Project Description, the proposed project qualifies as an infill project under CEQA Section 21099(d), and therefore, parking impacts need not be considered in CEQA review. However, a discussion of parking is included for informational purposes. The proposed project is located in the C-3-O (SD) Use District, within which parking is not required. Instead, the *Planning Code* establishes maximum amounts of parking that may be provided, which are 0.5 spaces per residential unit (0.75 spaces with Conditional Use Authorization). The project would provide 167 off-street parking spaces for residential uses and two car-share parking spaces off-site, which would be consistent with the parking maximums defined in Section 151.1 and 204.5(c) of the *Planning Code*. The TIS determined that the proposed project would have a parking demand of approximately 341 parking spaces during the weekday midday period and 426 during the weekday evening period. The proposed parking supply of 167 spaces would not accommodate the midday and evening parking demand; however, there are several off-site parking facilities in the vicinity of the project site to accommodate the additional demand. It should be noted that project parking shortfalls are not considered significant effects on the environment, and that the City's "Transit First" policy places an emphasis on encouraging alternative transportation. While the project would not result in a significant impact to parking, there is a possibility that the vehicles arriving and departing the project site (approximately 1.5 inbound vehicles per minute and less than one vehicle per minute outbound during the p.m. peak hour) could result in limited queuing at the project driveway, potentially blocking the sidewalk and spilling back along Natoma Street. The project sponsor would minimize such queues through active queue abatement techniques identified as part of **Project Improvement Measure 2**.

Variant

The variant also qualifies as an infill project under CEQA Section 21099(d), and therefore, parking impacts need not be considered in CEQA review. However, a discussion of parking is included for informational purposes. The proposed project is located in the C-3-O (SD) Use District, within which parking is not required. Instead, the *Planning Code* establishes maximum amounts of parking that may be provided, which are 0.5 spaces per residential unit (0.75 spaces with Conditional Use Authorization) and one space per 16 hotel rooms. The variant would provide 55 off-street parking spaces for residential and hotel uses, which would be consistent with the parking maximums defined in Section 151.1 and 204.5(c) of the *Planning Code*. The TIS determined that the variant would have a parking demand of approximately 161 parking spaces during the weekday midday period and 179 during the weekday evening period. The variant's parking

supply of 55 spaces would not accommodate the midday and evening parking demand; however, there are several off-site parking facilities in the vicinity of the project site to accommodate the additional demand. It should be noted that variant's parking shortfalls are not considered significant effects on the environment, and that the City's "Transit First" policy places an emphasis on encouraging alternative transportation. Similar to the project, there is a possibility that the vehicles arriving and departing the project site could result in limited queuing at the project driveway, potentially blocking the sidewalk and spilling back along Howard Street. The project sponsor would minimize such queues through active queue abatement techniques identified as part of **Project Improvement Measure 2**.

Emergency Vehicles

Proposed Project and Variant

The proposed project and variant would have a less-than-significant impact on emergency vehicle access. Neither the project nor the variant include modifications to the existing roadway network or major modifications (circulation patterns or design features) to Natoma Street or Howard Street that would preclude or otherwise alter access by emergency vehicles and emergency vehicle access would be allowed on the western portion of Natoma Street between First and Second Streets after it is closed to vehicle traffic and converted to a pedestrian street. No cumulative impacts to emergency vehicle access were identified.

Construction Impacts

Proposed Project and Variant

Detailed plans for construction of either the project or the variant have not been finalized. However, it is anticipated that construction would take about 30 months to complete and would occur Monday through Friday from 7:00 a.m. to 8:00 p.m. Saturday work would occur from 8:00 a.m. to 4:00 p.m. on an as-needed basis, in compliance with the San Francisco Noise Ordinance and permit conditions. (Any nighttime work, such as for a multi-hour continuous concrete foundation pour, would require advance approval from Public Works.) Construction staging would occur primarily within the confines of the project site and use portions of the frontage along both Howard Street and Natoma Street. For sidewalks along these closed frontage portions, signage and pedestrian protection would be erected, as appropriate. If it is determined that sidewalk or travel lane closures would be needed, the closures would be coordinated with the City in order to minimize impacts on local traffic. Overall, the TIS determined that construction activity, including both construction truck traffic and additional vehicular traffic from construction workers, would not substantially affect vehicular, pedestrian, and bicycle circulation and potential impacts would not be considered significant under either the project or the variant due to their temporary and limited duration.

When combined with the concurrent construction of the Transbay Transit Center and other nearby buildings, the construction activities related to the project or the variant could contribute to cumulative significant, unavoidable impacts to transit, pedestrian, and bicycle circulation with respect to area-wide conditions, an impact that was previously disclosed in the PEIR; therefore, the project/variant would not result in any new or greater impacts than identified in the PEIR. **Project Mitigation Measure 7** which would implement **PEIR Mitigation Measure M-TR-9**, would reduce the project's contribution to less than cumulatively considerable by requiring a construction management plan that minimizes the transportation-related disruption caused by construction activities.

For the above reasons, the mitigated project or variant would not result in any significant transportation impacts that were not previously identified in the TCDP PEIR, nor would it result in substantially more severe impacts than those identified in the PEIR.

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
5. NOISE—Would the project:				
a) Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 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 checked="" type="checkbox"/>
g) Be substantially affected by existing noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The TCDP PEIR noted (p. 353) that noise levels adjacent to all major streets in the TCDP plan area from Main Street to the west exceed the level, 70 decibels (dBA) L_{dn} , at which the General Plan noise compatibility guidelines recommend that new residential construction should be undertaken only following completion of a detailed analysis of noise reduction requirements.^{24,25} The PEIR identified significant impacts related to the introduction of new sensitive uses that would be affected by existing noise levels and to the exposure of persons to noise levels in excess of standards in the General Plan. The PEIR also noted (pp. 359–360) that TCDP implementation may also result in temporary significant and unavoidable construction noise and vibration impacts from pile driving and other construction activities.

The TCDP PEIR included several mitigation measures (some of which are intended to guide the analysis of individual projects within the TCDP plan area and others that are intended to be implemented during the design and construction of a respective project). These mitigation measures include requirements for: noise surveys for residential uses (**PEIR Mitigation Measure M-NO-1a**), implementation of certain noise minimization measures to meet residential and non-residential noise standards (**PEIR Mitigation Measure M-NO-1b** and **M-NO-1c**), and noise minimization measures to meet mechanical equipment noise

²⁴ The dBA, or A-weighted decibel, refers to a scale of noise measurement that approximates the range of sensitivity of the human ear to sounds of different frequencies. On this scale, the normal range of human hearing extends from about 0 dBA to about 140 dBA. A 10-dBA increase in the level of a continuous noise represents a perceived doubling of loudness.

²⁵ Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law requires that, for planning purposes, an artificial dBA increment be added to “quiet time” noise levels to form a 24-hour noise descriptor, such as the day-night noise level (L_{dn}), which is used by the San Francisco Noise Ordinance. L_{dn} adds a 10-dBA nighttime penalty during the night hours (10:00 p.m. to 7:00 a.m.).

standards (**PEIR Mitigation Measure M-NO-1d** and **M-NO-1e**). Neither the proposed project nor the variant would include non-residential sensitive receptors—such as child care centers, schools, or libraries; as a result, **PEIR Mitigation Measure M-NO-1c** (Noise Minimization for Non-Residential Uses, p. 358) would not be applicable to the project or variant.

With respect to construction noise, the PEIR determined that construction activities in the plan area could expose persons to temporary increases in noise levels substantially in excess of ambient levels, but that these impacts could be mitigated to less-than-significant levels with implementation of certain noise control measures during pile driving (**PEIR Mitigation Measure M-NO-2a**) and other general construction noise control measures (**PEIR Mitigation Measure M-NO-2b**). With respect to **PEIR Mitigation Measure M-NO-2a**, the project and the variant, as part of their respective implementation, would include the potential pre-drilling for and use of press-in piles or cast-in-place piers, consistent with this mitigation measure instead of the use of pile-driving equipment, and as such, implementation of this mitigation measure is not required or applicable. The PEIR determined that construction activities could expose people to temporary increases in vibration levels that would be substantially in excess of ambient levels, which would result in significant and unavoidable vibration impacts. The PEIR acknowledged that specific projects may reduce vibration impacts to less than significant through adoption of **PEIR Mitigation Measures M-NO-2a**, **M-CP-5a**, and **M-CP-5b**; however, as noted above, the PEIR determined that program-level impacts would remain significant and unavoidable.

New Sensitive Uses

Proposed Project and Variant

Implementation of the proposed project or the variant would add residential uses (i.e. sensitive uses) on-site. In accordance with **PEIR Mitigation Measures N-NO-1a** and **M-NO-1d**, the project proponent conducted a technical noise study in 2015 that monitored existing ambient noise levels, estimated interior noise levels based on equivalent positioning of on-site residences (by floor and elevation), and evaluated whether Title 24 and San Francisco Building Code standards could be met at the various elevations within the project site.²⁶

To quantify the existing noise environment, two long-term (24-hour) continuous noise measurements were collected at a height of 12 feet above grade (approximately the lowest elevation of potential on-site residences under either the project or variant) along First and Howard Streets. The most common noise sources were trucks, buses, cars, and motorcycles driving along adjacent streets, although measured noise levels also reflected nearby construction (including that of the Transbay Transit Center). Overall, the 24-hour, day-night noise levels were measured at 78 dBA L_{dn} along First Street east of the project site and 76 dBA L_{dn} along Howard Street at the project site.

As noted above, the proposed project and the variant, whichever is selected, would be subject to Title 24 (California Building Code) and San Francisco Building Code Section 1207 noise insulation requirements and therefore must demonstrate how dwelling units have been designed to meet interior noise standards (45 dBA in any habitable room with windows closed). Consistent with building code requirements, the noise study conducted for the project site recommends specific Sound Transmission Class (STC) ratings by floor for both the project and variant ranging from 30 to 43.²⁷ It should be noted that the STC rating requirements generally decrease as elevation increases. The projected noise levels for residential open space at the roof terraces are estimated to be 60 dBA L_{dn} , which includes consideration of the proposed perimeter wall (between 3 and 3.5 feet in height) along the perimeter of each open space area, which would be consistent with applicable noise

²⁶ Charles M Salter Associates, 524 Howard Residences Environmental Noise Study – CSA Project: 15-0626. October 28, 2015

²⁷ An STC rating is a single-number rating of the effectiveness of a material to dampen/reduce sound projected through it.

standards for exterior noise levels for residential open space. The modeling of the rooftop residential open space did account for on-site mechanical equipment that may also be located on the roof of the structure to be developed.

Since certification of the PEIR, San Francisco adopted Noise Regulations Relating to Residential Uses Near Places of Entertainment (Ordinance 70-15, effective June 19, 2015). The intent of the ordinance is to address noise conflicts between residential uses and in noise critical areas, such as in areas proximate to highways, city streets, railroads, rapid transit lines, airports, nighttime entertainment venues, or industrial areas. Residential structures to be located where the L_{dn} or community noise equivalent level (CNEL) exceeds 60 decibels shall require an acoustical analysis with the application of a building permit showing that the proposed design will limit exterior noise to the 45 decibels in any habitable room.²⁸ Furthermore, the regulations require the Planning Department and Planning Commission to consider the compatibility of uses when approving residential uses adjacent to or near existing permitted places of entertainment. This includes implementation of all reasonably available means through the City's design review and approval processes to ensure that, through design, the needs and interests of both the place(s) of entertainment and the future residents of the new development are protected. The project site is located within 300 feet of the Temple nightclub, which is located at 560 Howard Street and is a Place of Entertainment. With completion of the noise study, and implementation of the recommendations regarding STC ratings contained therein, the proposed project would be in compliance with the ordinance.

Although specific mechanical equipment has not yet been identified and the majority of mechanical equipment would be located below grade in the subterranean parking levels, some mechanical equipment associated with the structure's elevator and a potential emergency generator could be located on the roof. As a result, the project or the variant would have a significant noise impact on sensitive receptors. With implementation of **Project Mitigation Measure 8 (PEIR Mitigation Measure M-NO-1e)**, which contains standards for interior mechanical equipment noise, the impact of the project or the variant would be reduced to a less-than-significant level, and no new or more severe impacts would occur beyond those previously identified in the PEIR.

Building Operation and Traffic Noise

Proposed Project

The proposed project would generate new daily vehicle trips within the TCDP plan area, which would increase ambient noise levels. As such, the proposed project would contribute to the significant impact, identified in the PEIR, related to the exposure of persons to noise levels in excess of standards in the *General Plan*. However, it should be noted that the proposed project would generate fewer daily vehicle trips (120 fewer per day) than was evaluated under the soft-site analysis for the project site in the PEIR. Roadway traffic noise levels were modeled along local roadways in the project area to determine the project's contribution to ambient noise levels. Because traffic generated by the proposed project would result in less than 1 dB increase in traffic noise, which would not be noticeable, the proposed project's contribution to this impact would not be considerable, and no new or more severe impacts would occur beyond those previously identified in the PEIR.

Variant

Similar to the proposed project, the variant would generate new daily vehicle trips within the TCDP plan area. The variant would contribute to the significant impact, similar to the proposed project, however the

²⁸ In any case, based on a recent California Supreme Court decision, the effect of existing environmental noise on the proposed project would not be considered significant under CEQA *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal. 4th 369; 17 December 2015.

variant would generate even fewer daily vehicle trips (910 fewer per day) than was evaluated under the soft-site analysis for the project site in the PEIR. Roadway traffic noise levels were modeled along local roadways in the project area to determine the variant's contribution to ambient noise levels. Because traffic generated by the variant would result in less than 1 dB increase in traffic noise, which would not be noticeable, the variant's contribution to this impact would not be considerable, and no new or more severe impacts would occur beyond those previously identified in the PEIR.

Construction-Related Noise

Proposed Project and Variant

Construction activities under either the proposed project or variant would last for approximately 30 months and would include several noise and vibration-creating phases, including removal of the existing surface parking lot, excavation, and building construction. As noted above, the project and variant would involve the use of pre-drilled, press-in piles. No pile-driving (i.e. repeatedly dropping a weight on top of a pole to drive it into the ground) would be necessary for the proposed project. In general, pile-driving is a the most vibration intensive construction activity which can result in considerable vibration within a certain distance of the source. Therefore, as the project would not involve the use of traditional pile-driving, **PEIR Mitigation Measure M-NO-2a** (Noise Control Measures During Pile Driving, pp. 360–361) is not necessary or applicable to the proposed project. However, on-site construction activities would contribute to the significant cumulative impacts related to temporary construction noise and vibration impacts from construction activities, as identified in the PEIR, due to impacts to nearby sensitive noise receptors. Implementation of **Project Mitigation Measure 9** would implement **PEIR Mitigation Measure M-NO-2b** and would require the implementation of certain noise control measures to reduce construction noise to a less-than-significant level. The PEIR noted that cumulative construction noise impacts could occur if multiple projects, located adjacent to the Transbay Transit Center, were under construction at the same time as the Transbay Transit Center itself. With implementation of **Project Mitigation Measure 9** and **Project Mitigation Measure 10**, implementing **PEIR Mitigation Measure M-C-NO** (participation in a City-sponsored noise control program, if applicable), cumulative construction noise impacts would be reduced, but depending on the timing and location of the construction of various projects, the impact could still be significant. Although the proposed project or variant would implement each of the required mitigation measures, and the project-specific impacts would be reduced to less than significant, the mitigated project may still contribute to a significant and unavoidable cumulative impact given the amount of construction occurring in the surrounding area. As noted above, this impact was identified as significant and unavoidable in the PEIR and thus the proposed project would not result in new or more severe impacts than the significant and unavoidable cumulative impacts identified in the PEIR.

In addition, all construction activities for the project or variant would be subject to and would comply with the San Francisco Noise Ordinance (Article 29 of the San Francisco Police Code) (Noise Ordinance). Construction noise is regulated by the Noise Ordinance. The Noise Ordinance requires that construction work be conducted in the following manner: (1) noise levels of construction equipment, other than impact tools, must not exceed 80 dBA at a distance of 100 feet from the source (the equipment generating the noise); (2) impact tools must have intake and exhaust mufflers that are approved by the Director of Public Works or the Director of the Department of Building Inspection (DBI) to best accomplish maximum noise reduction; and (3) if the noise from the construction work would exceed the ambient noise levels at the site property line by 5 dBA, the work must not be conducted between 8:00 p.m. and 7:00 a.m. unless the Director of Public Works authorizes a special permit for conducting the work during that period.

DBI is responsible for enforcing the Noise Ordinance for private construction projects during normal business hours (8:00 a.m. to 5:00 p.m.). The Police Department is responsible for enforcing the Noise

Ordinance during all other hours. Nonetheless, during the approximately 30-month construction period for the proposed project or variant, occupants of the nearby properties could be disturbed by construction noise. Times may occur when noise could interfere with indoor activities in nearby residences and other businesses near the project site. The increase in noise in the project area during project construction would not be considered a significant impact of the proposed project, because the construction noise would be temporary, intermittent, and restricted in occurrence and level, as the contractor would be required to comply with the Noise Ordinance.

The project site is not located within an airport land use plan area, within two miles of a public airport, or in the vicinity of a private airstrip. Therefore, topic 12e and f from the CEQA Guidelines, Appendix G is not applicable.

For the above reasons, the mitigated project or variant would not result in any significant noise impacts that were not previously identified in the TCDP PEIR, nor would it result in substantially more severe impacts than those identified in the PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
6. AIR QUALITY—Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The TCDP PEIR identified significant and unavoidable air quality impacts related to exposure of existing and future sensitive receptors, such as residences and child care centers, to emissions of fine particulate matter (PM2.5) and toxic air contaminants (TACs) (PEIR pp. 396-406) as a result of existing and future mobile (vehicular travel) and stationary (generators, boilers, and cogeneration facilities) sources within and adjacent to the TCDP. **PEIR Mitigation Measure M-AQ-2** was identified to reduce impacts to sensitive receptors through the implementation of a risk and hazard overlay zone, within which certain health risk reduction policies would apply. **PEIR Mitigation Measure M-AQ-3** was identified to require site-specific analyses of on-site stationary sources and implement measures to reduce health risks where necessary; however, the PEIR determined that impacts at the program level would remain significant and unavoidable.

The TCDP PEIR also determined that future construction activity would result in significant and unavoidable impacts related to the generation of criteria air pollutants and exposure of sensitive receptors

to TACs. **PEIR Mitigation Measures M-AQ-4a, M-AQ-4b, and M-AQ-5** were identified to reduce project-specific impacts associated with the operation of construction vehicles. The PEIR determined that impacts at the program level would remain significant and unavoidable. In general, with respect to air quality, the PEIR found that project-specific impacts may be reduced to less than significant with mitigation incorporated.

Construction Dust Control

Proposed Project and Variant

The TCDP PEIR determined that emissions from fugitive dust would be less than significant with implementation of the San Francisco Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) and **PEIR Mitigation Measure M-AQ-4b** (Dust Control Plan, PEIR p. 409). The dust control ordinance applies to all projects in San Francisco that have the potential to create dust or that would disturb more than 10 cubic yards or more than 500 square feet of soil. For projects on sites over one half-acre in size, the ordinance requires preparation of a project-specific dust control plan subject to approval by the San Francisco Department of Public Health (SFDPH). The PEIR determined that projects on sites less than one half-acre in size that would involve more than 5,000 cubic yards of excavation and that would entail ground-disturbing activities lasting four weeks or longer, could generate fugitive dust in quantities similar to more typical (non-high-rise) projects on larger sites. Therefore, the PEIR included **PEIR Mitigation Measure M-AQ-4b**, requiring such projects to develop and implement a dust control plan as set forth in Article 22B of the San Francisco Health Code. As noted above in the project description, both the project and the variant would require the removal of approximately 21,000 cubic yards of material over a period of more than four weeks; therefore, the project and the variant would be subject to the requirements of the PEIR's dust control mitigation. Implementation of **Project Mitigation Measure 11** would implement **PEIR Mitigation Measure M-AQ-4b** and would require the implementation of certain dust control measures to reduce construction-related dust to a less-than-significant level.

Construction Criteria Air Pollutant Emissions

Proposed Project and Variant

Construction activities from the proposed project or the variant would result in the emission of criteria air pollutants from equipment exhaust, construction-related vehicular activity, and construction worker automobile trips. Construction of the proposed project or the variant would occur over approximately 30 months. The proposed project and the variant would exceed the BAAQMD screening levels and would contribute to the significant construction criteria air pollutant impact identified in the EIR. The proposed project or the variant would be subject to **Project Mitigation Measure 12**, implementing **PEIR Mitigation Measures M-AQ-4a and M-AQ-5**, to address construction criteria air pollutant impacts, and additional quantitative analysis is not required.

Operational Criteria Air Pollutant Emissions

Proposed Project and Variant

While the PEIR determined that at a program-level the TCDP would result in less-than-significant regional air quality impacts, the PEIR states that, "It is possible that individual development projects, if large enough, could result in significant effects related to emissions of criteria air pollutants, even if the [TCDP] is determined to have a less than significant impact."²⁹ The BAAQMD's *CEQA Air Quality Guidelines* (Air

²⁹ San Francisco Planning Department, Transit Center District Plan and Transit Tower Final Environmental Impact Report. See page 395. Available online at: <http://sf-planning.org/area-plan-eirs>. Accessed May 12, 2016.

Quality Guidelines) provide screening criteria³⁰ for determining whether a project's criteria air pollutant emissions 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. Pursuant to the Air Quality Guidelines, projects that meet the screening criteria would not have a significant impact related to criteria air pollutants. Criteria air pollutant emissions during operation of the proposed project or variant would not exceed the Air Quality Guidelines screening criteria (511 high-rise residential dwelling units or a 489-room hotel). The intensity of the land use that would be located at the project site under the proposed project represents 65 percent (i.e. 334 of 511) of the screening criterion for high-rise residential. Because the variant includes a residential and hotel component, the combined percentage of the two uses was considered when evaluating the screening criteria. For the purposes of this analysis and to take into consideration different pollutant emission levels by use type, a combined percentage of 90 percent or higher would be considered an indication of a potential violation of an air quality standard. Therefore, the variant represents 56 percent (i.e. 273 of 489) of the hotel screening criterion and 14 percent (i.e. 72 of 511) of the high-rise residential screening criterion, for a combined total of 70 percent. Therefore, the project or the variant would not have a significant impact related to criteria air pollutants, and a detailed air quality assessment is not required.

Health Risk

Proposed Project and Variant

Since certification of the TCDP PEIR, San Francisco Board of Supervisors approved a series of amendments to the San Francisco Building and Health Codes, generally referred to as the Enhanced Ventilation Required for Urban Infill Sensitive Use Developments or Health Code, Article 38 (Ordinance 224-14, effective December 8, 2014)(Article 38). The purpose of Article 38 is to protect the public health and welfare by establishing an Air Pollutant Exposure Zone and imposing an enhanced ventilation requirement for all urban infill sensitive use development within the Zone. The Air Pollutant Exposure Zone, as defined in Article 38, are areas that, based on modeling of all known air pollutant sources, exceed health protective standards for cumulative PM_{2.5} concentration, cumulative excess cancer risk, and incorporates health vulnerability factors and proximity to freeways. Projects within the Air Pollutant Exposure Zone require special consideration to determine whether the project's activities would expose sensitive receptors to substantial air pollutant concentrations or add emissions to areas already adversely affected by poor air quality.

Construction

The project site is located within an identified Air Pollutant Exposure Zone; therefore, the ambient health risk to sensitive receptors from air pollutants is considered substantial. Development of the project site would require heavy-duty off-road diesel vehicles and equipment during most of the anticipated 30-month construction period. Thus, construction of either the proposed project or variant would contribute to this significant impact, and **Project Mitigation Measure 12** would be required to reduce TAC emission related to construction vehicle operation. However, the impact, as stated in the TCDP PEIR, would remain significant and unavoidable.

Siting Sensitive Land Uses

For sensitive use projects within the Air Pollutant Exposure Zone as defined by Article 38, such as the proposed project or the variant, the Ordinance requires that the project sponsor submit an Enhanced Ventilation Proposal for approval by SFDPH that achieves protection from PM_{2.5} (fine particulate matter)

³⁰ Bay Area Air Quality Management District, CEQA Air Quality Guidelines, updated May 2010. See pp. 3-2 to 3-3. Available online at: http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/draft_baaqmd_ceqa_guidelines_may_2010_final.pdf?la=en. Access May 12, 2016.

equivalent to that associated with a Minimum Efficiency Reporting Value 13 filtration. DBI will not issue a building permit without written notification from the Director of Public Health that the applicant has an approved Enhanced Ventilation Proposal.

Thus, **PEIR Mitigation Measure M-AQ-2** has been implemented by the City through establishment of an Air Pollutant Exposure Zone and enhanced ventilation requirements under Article 38. The project site is located within the Air Pollutant Exposure Zone and the on-site residential uses would be subject to the enhanced ventilation requirements under *Health Code* Article 38. Compliance with *Health Code* Article 38 would satisfy **PEIR Mitigation Measure M-AQ-2**.

In compliance with Article 38, the project sponsor will submit an initial application to SFDPH. The regulations and procedures set forth by Article 38 would ensure that exposure of sensitive receptors to air pollutant emissions would not be significant. These requirements supersede the provisions of **PEIR Mitigation Measure M-AQ-2** (Implementation of Risk and Hazard Overlay Zone and Identification of Health Risk Reduction Policies, pp. 403–404). Therefore, **PEIR Mitigation Measure M-AQ-2** is no longer applicable to the proposed project or the variant, and impacts related to siting new sensitive land uses would be less than significant through compliance with Article 38.

Siting New Sources

In regards to siting new sources of air pollutant emissions, particularly the emergency generators and other mechanical equipment that would be installed on-site under either the proposed project or variant, **PEIR Mitigation Measure M-AQ-3** was identified to reduce the health risk impact from new sources of diesel particulate matter. As noted above, subsequent to publication of the PEIR, the City partnered with BAAQMD to model all stationary and mobile emissions sources in San Francisco, resulting in identification of the Air Pollutant Exposure Zone. This modeling obviates the need for project-specific modeling previously required by **PEIR Mitigation Measure M-AQ-3** and, in combination with Article 38 compliance, would implement **PEIR Mitigation Measure M-AQ-3** to reduce potential effects of new sources of stationary source emissions to a less than significant level.

For the above reasons, the mitigated project or variant would not result in any significant air quality impacts that were not previously identified in the TCDP PEIR, nor would it result in substantially more severe impacts than those identified in the PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
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 type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The TCDP PEIR concluded that adoption of the TCDP would not directly result in GHG emissions; however, implementation of reasonable foreseeable future projects in the TCDP plan area, including the proposed project, would generate GHG emissions. The TCDP includes goals and policies that would apply to the

project and variant, and these policies are generally consistent with the City’s *Strategies to Address Greenhouse Gas Emissions*. The TCDP PEIR concluded that emissions resulting from development under the TCDP, such as the proposed project or variant, would be less than significant and no mitigation measures were required.

The proposed project and the variant were evaluated separately and determined to not conflict with San Francisco’s GHG Reduction Strategy³¹, which is comprised of regulations that have proven effective in reducing San Francisco’s overall GHG emissions; GHG emissions have measurably reduced 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 2010 Clean Air Plan GHG reduction goals for the year 2020.³² Other existing regulations, such as those implemented through Assembly Bill (AB) 32, will continue to reduce a proposed project’s contribution to climate change. Therefore, the proposed project’s GHG emissions would not conflict with state, regional, and local GHG reduction plans and regulations, and thus the proposed project’s contribution to GHG emissions would not be cumulatively considerable or generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment.

As the project site is within the development projected under the TCDP, there would be no additional impacts on greenhouse gas emissions beyond those analyzed in the TCDP PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
8. WIND AND SHADOW—Would the project:				
a) Alter wind in a manner that substantially affects public areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>

Wind

Within the C-3-0(SD) district, the *Planning Code* establishes wind comfort and wind hazard criteria to evaluate new development. In terms of wind comfort criteria, wind speeds should not exceed, more than 10 percent of the time between 7 a.m. and 6 p.m., 11 miles per hour (mph) in substantial pedestrian use areas. Similarly, the hazard criterion is established within the *Planning Code* requires that buildings not cause equivalent wind speeds to reach or exceed the hazard level of 26 mph as averaged from a single full hour of the year. For the purposes of evaluation of a project’s wind impacts under CEQA, the hazard criterion is used to determine significance.

A wind tunnel test was conducted for the PEIR. The test included massing models of other potential future development in the vicinity of the Transit Tower project site and were modeled as boxy, rectangular massings, extending up to the maximum height limit. The PEIR identified significant but mitigable impacts related to the substantial increases in wind speeds in publicly accessible open spaces, including City Park,

³¹ San Francisco Planning Department, Compliance Checklist Greenhouse Gas Analysis, 524 Howard Street, Case No. 2013.0882ENV, April 7, 2016.

³² Executive Order S-3-05, Assembly Bill 32, and the Bay Area 2010 Clean Air Plan set a target of reducing GHG emissions to below 1990 levels by year 2020.

and new exceedances of the Section 148 *Planning Code* wind hazard criterion (pp. 460–463). It identified **PEIR Mitigation Measure M-WI-2** (Tower Design to Minimize Pedestrian Wind Speeds) to mitigate impacts to a less-than-significant level.

Proposed Project and Variant

Pursuant to **PEIR Mitigation Measure M-WI-2**, and based on the height and location of the project, a pedestrian wind assessment (“Wind Assessment”) was prepared by a qualified wind consultant for the proposed project and variant.³³ As shown in **Figures 14, 20, and 21**, above, the massings of the structures that would be constructed as part of either the project or the variant are substantially similar, and as a result, both the project and the variant were analyzed with the same model run.

The wind study measured wind speeds for the existing, existing plus project, and cumulative scenario. As with the PEIR wind study, the cumulative scenario included a model for the Transit Tower (now known as the Salesforce Tower or Transbay Tower) and massing models of other potential future development in the vicinity of the Transit Tower project site. Wind speed measurements were taken at 47 locations for the project and cumulative scenarios. **Figure 22** depicts the wind speed measurement locations within and around the project site, as well as the existing wind speeds at each location.

Hazard

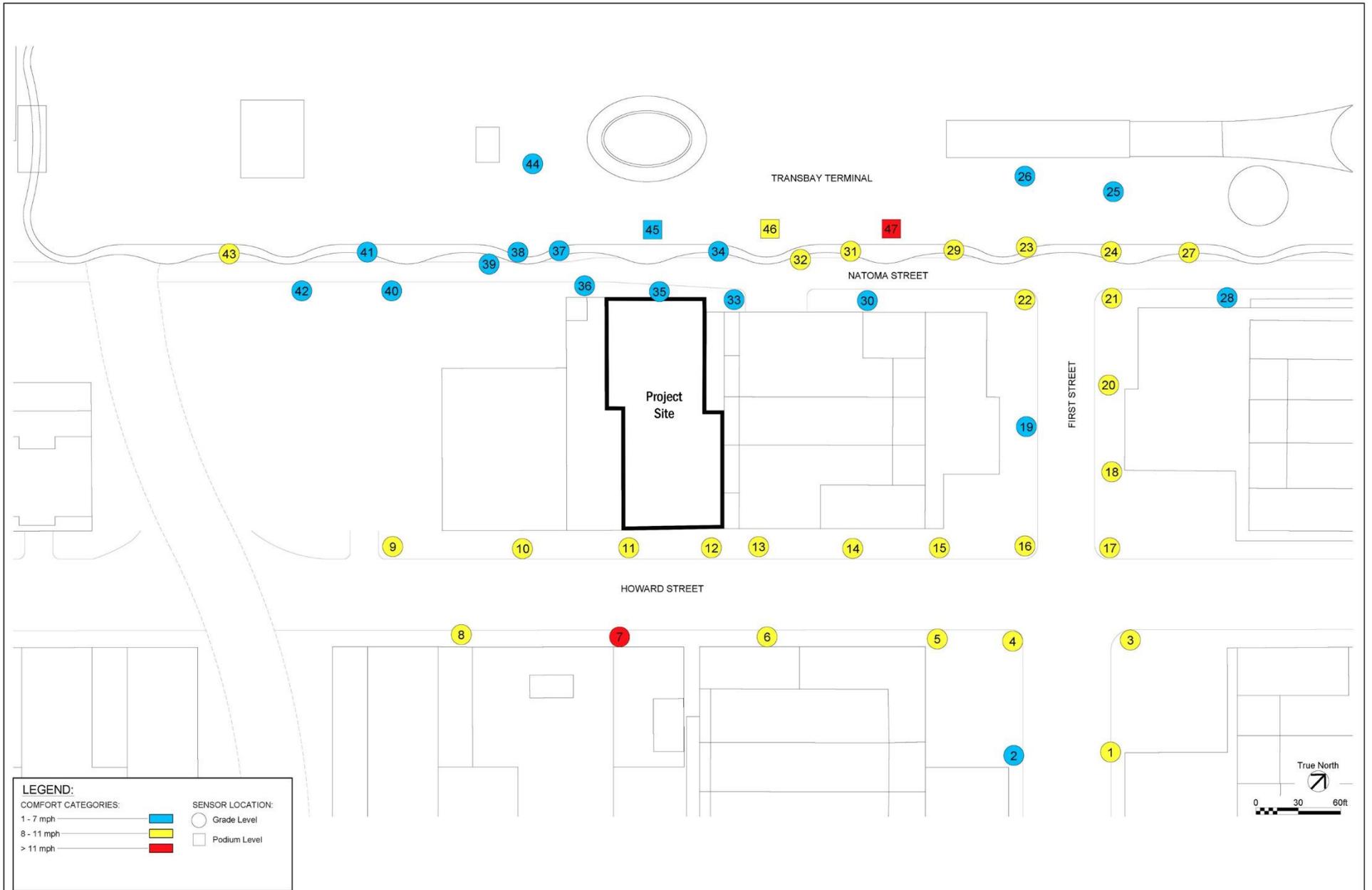
The Wind Assessment found that the existing wind conditions on the adjacent streets do not exceed the 26-mile-per-hour wind hazard criterion for a single full hour over the course of a year, or approximately 0.0114 percent of the time, as outlined in the *San Francisco Planning Code* Section 148. The project is not anticipated to cause adverse wind impacts or result in hazardous wind conditions. The Wind Assessment also found that the proposed project and variant would not cause winds to reach or exceed the 26-mile-per-hour wind hazard criterion at any pedestrian areas on and around the proposed development that were tested, and that wind speeds at building entrances and public sidewalks would be suitable for the intended pedestrian usage, under both existing plus project and project plus cumulative scenarios. As a result, the project is not anticipated to result in hazardous wind conditions in or around the project site.

Pedestrian Comfort

Regarding pedestrian comfort, wind conditions in the vicinity of the project site are moderate with wind speeds averaging 8 mph for all 47 measurement locations under existing conditions. Wind speeds at two locations exceed the *Planning Code*’s 11 mph pedestrian-comfort criterion (location 7 on Howard Street and location 47 on the terminal roof), under existing conditions. Under the existing plus project scenario, winds are expected to remain similar to the existing conditions, with the average wind speed for all test locations being slightly increased from 8 mph to 9 mph. Wind speeds at four locations are predicted to exceed the 11 mph criterion; this includes the two aforementioned locations from the existing conditions scenario (location 7 on Howard Street and location 47 on the terminal roof) and locations 1 and 16 at the intersection of First and Howard Streets. Locations 1 and 16 are anticipated to experience wind speeds of 12 mph, which is unlikely to be perceptible for pedestrians,³⁴ but nonetheless exceed the criterion and would require the project sponsor to seek exception under *San Francisco Planning Code* Section 309. The addition of the pedestrian bridge would reduce wind speeds at Location 16 to 11 mph. Wind speeds on the bridge would exceed the 11 mph criterion.

³³ RWDI, *524 Howard Street, San Francisco, CA. Pedestrian Wind Study*, July 14, 2016. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, File No. 2013.0882ENV.

³⁴ RWDI, *524 Howard Street, San Francisco, CA. Pedestrian Wind Study*, July 14, 2016. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, File No. 2013.0882ENV.



Source: RWDI 2015

X15010099 01 029

Figure 22. Wind Study Test Points and Existing Conditions

The wind study also evaluated potential wind speed increases within public seating areas, including the intersection of Howard and First Streets, and determined that the project would result in little to no (0-1 mph) increase in wind speeds within public seating areas. As a result, the proposed project would not result in new or peculiar impacts, or adverse effects of greater severity than were already analyzed and disclosed in the TCDP PEIR with respect to the wind comfort criteria.

Summary

The number of test points along Howard Street and First Street were greater in the 524 Howard Street wind study than the number of locations addressed in the TCDP PEIR wind study. Therefore, the project-specific wind assessment provides a more fine-grained analysis of the project's and variant's potential wind impacts and would be less than significant under CEQA. Development of the project site would not present a new significant impact not previously identified in the PEIR, nor a substantially more severe impact than identified in the PEIR.

Shadow

Planning Code Section 295 generally prohibits new structures above 40 feet in height that would cast additional shadows on open space that is under the jurisdiction of the San Francisco Recreation and Park Commission between one hour after sunrise and one hour before sunset, at any time of the year, unless that shadow would not result in a significant adverse effect on the use of the open space.

The PEIR considered reasonable foreseeable future projects on 13 specific sites in the TCDP, based on generalized massing models of buildings at the heights that would be allowed under the TCDP, including development on the 524 Howard Street project site. Therefore, the shadow effects of development of the project site were evaluated at a program level as part of the shadow effects of the entire TCDP. The PEIR found that new shadows from development within the plan area would affect nine parks, eight of which have established Absolute Cumulative Limits³⁵ for net new shadow under *Planning Code* Section 295. Considered together, development under the TCDP would require that the Absolute Cumulative Limit be increased on eight downtown parks. No mitigation is available for shadow impacts on existing parks, because it not possible to lessen the intensity or otherwise reduce the shadow cast by a building at a given height and bulk. Therefore, the PEIR (p. 527) found the TCDP would have an adverse impact with respect to shadow, and this impact would be significant and unavoidable.

Proposed Project and Variant

To evaluate the design of the project and variant, a project-specific shadow study for the 524 Howard Street project was performed using a detailed 3-D model of the project and variant. Because the massing of the structure under the project and the variant are substantially similar,³⁶ and as a result, a single model run for both the project and the variant was necessary. The results of this project-specific shadow study, including a quantitative analysis of potential shadow impacts on Section 295 parks and qualitative analysis of project consistency with other *Planning Code* sections regulating new shadow [Sections 146(a), 146(c),

³⁵ The Absolute Cumulative Limit represents the maximum percentage of new shadow, expressed as a percentage of theoretical annual available sunlight. The theoretical annual available sunlight is the amount of sunlight, measured in square-foot-hours that would fall on a given park during the hours covered by Section 295. It is computed by multiplying the area of the park by 3,721.4, which is the number of hours in the year subject to Section 295. Thus, this quantity is not affected by shadow cast by existing buildings, but instead represents the amount of sunlight that would be available with no buildings in place. Theoretical annual available sunlight calculations for each downtown park were used by the Planning and Recreation and Park Commissions in establishing the allowable Absolute Cumulative Limit for downtown parks in 1989.

³⁶ The portion of the project that would be different under the variant would be related to use, not form, of the on-site structure.

147, and 260(b)(1)(M)], and potential significant shadow impacts under CEQA were discussed in the 524 Howard Street Shadow Analysis technical memorandum and are summarized here.³⁷

Union Square

The project or variant would create a shadow fan to the west in the morning and to the east in the afternoon. The analysis modeled the project or variant consistent with the architectural drawing prepared by the project sponsor in addition to utilizing high resolution topography mapping. Based on the analysis, the project's or variant's shadow fan does not reach Union Square and would add no new square foot hours of shadow on the park.

St. Mary's Square

The project or variant would create a shadow fan to the west in the morning and to the east in the afternoon. The analysis modeled the project or variant consistent with the architectural drawing prepared by the project sponsor in addition to utilizing high resolution topography mapping. Based on the analysis, the project's or variant's shadow fan does not reach St. Mary's Square and would add no new square foot hours of shadow on the park.

Rincon Park

Rincon Park has approximately 471,914,160 square foot hours (sfh) of theoretical annual available sunlight (TAAS). Adjacent structures, trees or other facilities currently cast shadows on the park in the morning and evening hours. This existing shadow load on the park is approximately 137,684,860 sfh annually. The project and variant would add approximately 3,930 sfh of shadow on Rincon Park. The existing shadow load for Rincon Park is approximately 29 percent of the total TAAS. The project or variant would increase the total percentage of TAAS by less than 0.001 percent and would represent approximately 0.001 percent of the total shadow on Rincon Park. The maximum net new shadow cast by the project and variant would occur on October 18th and February 22nd. On these days, the new shadow load would be approximately 291.42 sfh and would be cast for approximately 13 minutes from 5:15 p.m. until 5:28 p.m.

Rincon Park is used throughout the day and evening hours. It is open to the general public and is visited by residents, visitors to San Francisco, and surrounding workers throughout the day. There is no particular important time of day for Rincon Park. The project or variant casts worst-case new shadows on Rincon Park in the evening for 13 minutes starting at 5:15 p.m. The project or variant casts a shadow on the paved and landscaped areas immediately adjacent to and in front of the northern restaurant located on Rincon Park. While shadows cast by development on Rincon Park are not subject to *Planning Code* Section 295 and were not studied as part of the TCDP EIR, the incremental increase in shadow duration, location, and amount of shadow cast on Rincon Park by the project or variant would not substantially affect use of Rincon Park, and impacts would be less than significant.

Privately Owned, Publicly Accessible Open Spaces (POPOS)

Most of the open spaces in the project site vicinity are privately owned, publicly accessible open spaces ("POPOS"). These open spaces are not subject to Section 295 controls, and they are not operated or managed by public agencies. However, these areas are subject to *Planning Code* Section 147, which is intended to minimize shading of public plazas or other publicly accessible open spaces, and thus they are evaluated for potential impacts under CEQA. The TCDP PEIR considered potential shadow impacts to POPOS within

³⁷ CADP, 524 Howard Street Shadow Analysis. April 15, 2016. This material is available for review at the Planning Department, 1650 Mission Street, Suite 400, in File No. 2013.0882ENV.

and adjacent to the TCDP plan area and found the TCDP would add new shadow to POPOS. Impacts were determined to be significant and unavoidable.

There are four POPOS in the adjacent area of the project site at 101 Second Street, 555 Mission Street, 100 First Street and Foundry Square. 101 Second Street is an entirely indoor space. 555 Mission is a recently constructed sitting area with landscaping and public art. 100 First Street Plaza is an elevated outdoor space with tables and chairs for lunch use. Foundry Square consists of several street-level plazas on the corners of Howard and First Street with sitting areas for lunch time use. Because 101 Second Street is entirely indoors and the 100 First Street Plaza is not shaded by the project, these POPOS are not discussed further.

The project or variant would cast shadow on the portion of Foundry Square on the south east corner of Howard Street, mostly in the vicinity of the sidewalk and the edge of the plaza. The shadow would be cast at 4:00 p.m. around the summer solstice. This particular plaza has mostly mid-day use and most of the sitting areas are outside of the shaded area. This particular plaza is frequented by office users and because the shading occurs at the end of the workday and into the evening it is anticipated that the shading duration, location, and amount is consistent with the requirements of *Planning Code* Section 147 and would not substantially adversely affect the usability of the POPOS.

The POPOS at 555 Mission Street is only briefly shaded at 9:00 a.m. around the summer solstice. This space is characterized by benches and displays of public art. The sitting area is frequented by lunch time users and would see little to no use for the briefly shaded period in the morning. The shading duration, location and amount is consistent with the requirements of *Planning Code* Section 147 and the shading does not substantially adversely affect the usability of the area.

For the above reasons, neither the project nor the variant would result in new or substantially more significant impacts related to shadow that were not previously identified in the TCDP PEIR.

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
9. RECREATION—Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Physically degrade existing recreational resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The TCDP PEIR (pp. 528–530) describes the general environmental conditions in the plan area with respect to recreation and public space. The TCDP PEIR found that implementation of the TCDP would have a less-than-significant impact related to recreational resources, including increased use of existing neighborhood parks and recreational facilities, and no mitigation measures were identified (pp. 531–533).

The project site is located in the TCDP area, which is served primarily by privately-owned, publicly-accessible open spaces (POPOS) associated with nearby developments. The 560 Mission Street Plaza is located one block northwest of the project site. Market Street Plaza and One Bush Plaza are both located two blocks northwest of the project site, and the Market Center (555-575 Market Street) greenspace is located two blocks west of the project site. Mechanics Monument Plaza and Beale Street Plaza are located two blocks to the northeast, and three blocks to the northeast, respectively. The planned 5.4-acre rooftop park of the new Transit Center would also be adjacent to the project site.

Proposed Project

The proposed project would include approximately 15,025 sf of open space, 5,112 of which would be private open space associated with balconies for residences. A total of approximately 9,913 sf of commonly accessible open space would be available for residential use, 6,955 of which would be dedicated to a rooftop open space area, split between the north and south ends of the building. A pedestrian skybridge between the project site and the proposed 5.4-acre rooftop park of the Transbay Transit Center is also being considered under the proposed project. The proposed project would include sidewalk widening, installation of street trees and furniture, and other public realm upgrades consistent with the public realm improvements called for in the TCDP. New street trees would be planted in accordance with *Planning Code* Section 138.1(c)(1).

Although new residents and employees at the project site would increase the use of nearby public and private open spaces, the provision of new open space resources at the project site and access to the planned Transbay Transit Center park would provide adequate nearby open space resources for on-site residents. In addition, the use of the Transbay Transit Center park by local residents, such as those who would be located at the project site, was anticipated during its design and evaluation as part of the TCDP PEIR. Therefore, the proposed project would not result in substantial or accelerated physical deterioration of recreational facilities beyond that previously identified and accounted for in the TCDP PEIR. Therefore, the proposed project would not result in a significant effect related to recreation.

Variant

Similar to the proposed project, the variant would include open space, including private open space and commonly accessible open space. However, the variant would only include 6,500 sf of open space, 1,188 of which would be private open space associated with balconies for residences. A total of approximately 5,355 sf of commonly accessible open space would be available for hotel/residential use, 4,305 of which would be dedicated to a rooftop open space area, split between the north and south ends of the building. As with the proposed project, the variant would include sidewalk widening, installation of street trees and furniture, and other public realm upgrades consistent with the public realm improvements called for in the TCDP, and may include a pedestrian skybridge connection to the rooftop park of the Transbay Transit Center.

Although new residents and employees at the project site would increase the use of nearby public and private open spaces, the provision of new open space resources and access to the planned Transit Center Park would satisfy the increased demand such that existing resources would not experience overuse or accelerated physical deterioration. Therefore, the variant would not result in a significant effect related to recreation.

For the reasons discussed above, development of the project site would not result in any new or more severe significant impacts related to recreation that were not identified in the TCDP PEIR, and no mitigation measures are necessary.

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
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 type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supply available to serve the project from existing entitlements and resources, or require new or expanded water supply resources or entitlements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The TCDP PEIR (pp. 534–537) describes the general environmental conditions in the plan area with respect to utilities and service systems. The TCDP PEIR (pp. 537–541) found that implementation of the TCDP would result in less-than-significant impacts to utilities and service systems, including wastewater, water supply, and solid waste, and no mitigation measures were identified.

Since certification of the PEIR, the San Francisco Public Utilities Commission (SFPUC) adopted the 2010 Urban Water Management Plan (UWMP) in June 2011. The UWMP update includes City-wide demand projections to the year 2035, compares available water supplies to meet demand and presents water demand management measures to reduce long-term water demand. Additionally, the UWMP update includes a discussion of the conservation requirement set forth in Senate Bill 7 passed in November 2009 mandating a statewide 20 percent reduction in per capita water use by 2020. The UWMP includes a quantification of the SFPUC's water use reduction targets and plan for meeting these objectives. The UWMP projects sufficient water supply in normal years and a supply shortfall during prolonged droughts. Plans are in place to institute varying degrees of water conservation and rationing as needed in response to severe droughts.

In addition, the SFPUC is in the process of implementing the Sewer System Improvement Program, which is a 20-year, multi-billion dollar citywide upgrade to the City's sewer and stormwater infrastructure to ensure a reliable and seismically safe system. The program includes planned improvements that will serve development in the Transit Center District Plan area including at the Southeast Treatment Plant, which is

located in the Bayview District and treats the majority of flows in the Plan area, as well as the North Point plant which is located on the northeast waterfront and provides additional wet-weather treatment capacity.

The San Francisco Public Utilities Commission (SFPUC) has concluded that under its Water Shortage Allocation Plan with additional local Water System Improvement Program supplies, sufficient water would be available to meet the existing and planned future water retail demand within San Francisco, inclusive of the growth in the plan area. Similarly, the TCDP PEIR (pp. 538–539) found that sufficient dry weather capacity exists at the Southeast Water Pollution Control plant, and that development under the TCDP would only result in new wet weather flow from sanitary sewage generation. Regarding solid waste, the TCDP PEIR (pp. 540–541) found that impacts would be less than significant because solid waste generated by development pursuant to the TCDP would be accommodated within existing projections.

Proposed Project and Variant

Development of the project site would adhere to plumbing, water conservation, and waste diversion requirements of the City of San Francisco. Development at the project site would represent a small fraction of the overall demand for utilities and service systems analyzed in the TCDP PEIR and found to result in less-than-significant impacts. The TCDP PEIR (pp. 538–539) concluded that development under the TCDP, including development of the project site, would not exceed wastewater treatment requirements of the Regional Water Quality Control Board and would not require the construction of new water or wastewater treatment facilities. Similarly, sufficient water supply is expected to be available from existing entitlements in accordance with water supply demands evaluated in the TCDP PEIR. The residents and businesses of the project site would not generate solid waste in amounts that would exceed permitted landfill capacity, and development of the project site would comply with solid waste regulations. Consistent with the findings in the TCDP PEIR, development of the project site would not, individually or cumulatively, result in a significant impact on utilities or services systems, and would not result in a new or more severe significant impact than was analyzed in the TCDP PEIR. No mitigation measures are necessary.

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
11. PUBLIC SERVICES—Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any public services such as fire protection, police protection, schools, parks, or other services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The TCDP PEIR (pp. 542–545) describes the general environmental conditions in the plan area with respect to public services. The TCDP PEIR (pp. 545–550) found that implementation of the TCDP would result in less-than-significant impacts to police, fire, and park services. The increased residential and employee population in the area would result in increased demand for police and fire protection services, as well as

park use, but this demand could be accommodated within existing infrastructure and planned improvements in the plan area, such as new parks and open spaces, or through re-deployment of resources from other areas of the City, if needed. Regarding schools, the TCDP PEIR determined that implementation of the TCDP would increase demand for school facilities, however, through the collection of school facilities impact fees, impacts would be less than significant. The proposed project and the variant would be within the scope of the development projected under the TCDP and would not result in any project-specific or cumulative impacts on public services beyond those identified in the TCDP PEIR.

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</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 type="checkbox"/>	<input checked="" 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 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 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The TCDP plan area is a dense, developed urban area with no natural vegetation communities remaining; therefore, development under the TCDP, as addressed as part of the TCDP PEIR, would not affect any special-status plants. There are no riparian corridors, estuaries, marshes, or wetlands in the plan area that could be affected by the development anticipated under the TCDP. In addition, development envisioned under the TCDP would not substantially interfere with the movement of any resident or migratory wildlife species through compliance with *San Francisco Planning Code* Section 139, which requires specific window

and façade treatments for structures over 300 feet in height. However, the PEIR determined that construction in the plan area could have a significant effect on special-status birds and bats through tree removal or building demolition. The PEIR concluded that implementation of the TCDP would not result in significant impacts on biological resources with implementation of **PEIR Mitigation Measures M-BI-1a** and **M-BI-1b** requiring pre-construction surveys for nesting birds and bats. **PEIR Improvement Measure I-BI-2** was suggested to reduce potential effects on birds from night lighting at the site.

Proposed Project and Variant

The project site is located within TCDP plan area and therefore, does not support habitat for any candidate, sensitive or special status species. No on-site structures, which could provide for bat roosting or marginal nesting opportunities, would be demolished. Up to two trees may be removed during project construction, and the project proponent would conduct preconstruction surveys consistent with **Project Mitigation Measures 13** and **14 (PEIR Mitigation Measures M-BI-1a and M-BI-1b, respectively)** to ensure that significant impacts do not occur. As such, implementation of the proposed project would not result in significant impacts to biological resources not identified in the TCDP PEIR.

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</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:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Change substantially the topography or any unique geologic or physical features of the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The TCDP PEIR (pp. 573–587) describes the general environmental conditions in the plan area with respect to geology and soils and seismic-related hazards. In addition, the TCDP PEIR (pp. 588–595) found that all impacts related to geology and soils would be less than significant, including impacts related to seismic hazards, erosion, and unstable soils. Compliance with applicable regulations and recommendations made in project-specific geotechnical analyses would not eliminate earthquake risks, but would reduce them to acceptable levels, given the seismically-active characteristics of the Bay Area. Thus, the TCDP PEIR concluded that implementation of the TCDP would not result in significant impacts with regard to geology and soils, and no mitigation measures were identified in the TCDP PEIR.

Proposed Project and Variant

A geotechnical evaluation was prepared for the project site.³⁸ The evaluation found that the project site is underlain by 9 to 18 feet of fill material including very loose and loose sand with varying amounts of gravel, brick, wood, rock, and concrete fragments. Below the fill is 13 to 25 feet of loose to very dense sand, known as Dune sand. The Dune sand extends from approximately 28 to 35 feet below the ground surface. Below the Dune sand is a weak, soft to medium stiff silt and clay marine deposit that extends to maximum depths of 44 to 56 feet below adjacent grades. Below the marine deposit is the dense Colma formation and then Old Bay Clay. Bedrock is between 150 and 170 feet below the existing ground surface. The evaluation concluded that buildings constructed on the project site should be supported by deep foundations that gain support from the bedrock below the Old Bay Clay. The evaluation also recommends a foundation of large diameter, reinforced concrete, drilled and cast-in-place piers or rectangular-profile load bearing elements. Shoring is also recommended during excavation of the basement level. The evaluation further states that in areas where excavations would extend below the foundations of the adjacent structures, adjacent buildings should be underpinned to provide vertical support.

Development of the project site is required to conform to the *San Francisco Building Code*, which ensures the safety of all new construction in the City. DBI will review the project-specific geotechnical evaluation during its review of the building permit for development of the project site. In addition, DBI may require additional site specific soils report(s) through the building permit application process, as needed. The DBI requirement for a geotechnical report and review of the building permit application pursuant to DBI's implementation of the *Building Code* would reduce impacts on geology and soils from development of the project site to a less-than-significant level.

Therefore, development of the project site would not result in any new or more severe significant impacts related to geology and soils that were not identified in the TCDP PEIR, and no mitigation measures are necessary.

³⁸ Langan Treadwell Rollo, Preliminary Geotechnical Evaluation for 524 Howard Street, San Francisco, California, Langan Project No. 730272704. June 16, 2014. This material is available for review at the Planning Department, 1650 Mission Street, Suite 400, in File No. 2013.0882ENV

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
14. HYDROLOGY AND WATER QUALITY— Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Proposed Project and Variant

The TCDP PEIR (pp. 596–611) describes the general environmental conditions in the plan area with respect to hydrology and water quality. In addition, the TCDP PEIR (pp. 611–623) found that all impacts related to hydrology and water quality would be less than significant, including impacts related to water quality, drainage, stormwater, flooding, and tsunamis and seiches. No mitigation measures were identified in the PEIR for hydrology and water quality.

Construction

Development at the project site would involve excavation to a maximum 50 feet below grade for construction of the building foundation and below-ground parking garage; excavation to this depth could require dewatering, given that groundwater is estimated to exist from 10 to 15 feet below grade.³⁹ Construction stormwater discharges to the City's combined sewer system would be subject to the requirements of Article 4.1 of the *San Francisco Public Works Code* (supplemented by Public Works Order No. 158170), which incorporates and implements the City's National Pollution Discharge Elimination System (NPDES) permit, and the federal Combined Sewer Overflow Control Policy. Stormwater drainage during construction would flow to the City's combined sewer system, where it would receive treatment at the Southeast plant or other wet weather facilities and would be discharged through an existing outfall or overflow structure in compliance with the existing NPDES permit. Therefore, compliance with applicable permits would reduce water quality impacts, and development at the project site would not result in new or more severe impacts related to violation of water quality standards or degradation of water quality due to discharge of construction related stormwater runoff.

Operation

Regarding groundwater supplies, the project would use potable water from the San Francisco Public Utilities Commission (SFPUC). Groundwater from the Downtown San Francisco Groundwater Basin is not used as drinking water, and development of the project site would not result in additional impervious surfaces to the extent that it would affect groundwater recharge because the site is currently a paved parking area. Development of the project site would not affect the course of a stream or river. Given the project site already comprises impervious surfaces, development at the site would not result in an increase in impervious surfaces, and it would not contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems. Stormwater flows and draining would be controlled by San Francisco's Stormwater Design Guidelines. The project sponsor would be required to submit and have approved by the SFPUC a Stormwater Control Plan (SCP) that complies with the Stormwater Design Guidelines using a variety of Best Management Practices, thereby ensuring that development of the project site meets performance measures set by the SFPUC related to stormwater runoff rate and volume. Compliance with San Francisco's Stormwater Design Guidelines would reduce the quantity and rate of stormwater runoff to the City's combined sewer system and improve the water quality of those discharges.

The project site is not in an area subject to reservoir inundation hazards and is not located in a volcanic area that could be subject to mudflow. The project site is not located within a 100-year flood hazard area or in an area subject to reservoir inundation hazards, mudflow, or seiches.⁴⁰ The project site is not shown on SFPUC maps as being subject to flooding from sea level rise by 2100, assuming 36 inches of sea level rise and a 100-year storm surge.⁴¹ Therefore, development of the project site would have no impact related to these hazards. Impacts from sea level rise and tsunamis are expected to be less than significant, given the existing National Warning System and San Francisco outdoor warning system.

³⁹ Langan Treadwell Rollo, Geotechnical Investigation for 1st and Mission Streets Development, San Francisco, California, July 1, 2015. This material is available for review at the Planning Department, 1650 Mission Street, Suite 400, in File No. 2006.1532.E

⁴⁰ URS Corporation, City and County of San Francisco Hazard Mitigation Plan, December, 2008. This material is available for review at the Planning Department, 1650 Mission Street, Suite 400, in File No. 2007.0558E.

⁴¹ San Francisco Public Utilities Commission (SFPUC), Climate Stressors and Impact: Bayside Sea Level Rise Mapping, Final Technical Memorandum. June 2014. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2006.1523E.

Consistent with the findings in the TCDP PEIR, development of the project site would result in less-than-significant impacts related to hydrology and water quality, and would not result in any new or more severe impacts than those identified in the TCDP PEIR. No mitigation measures are necessary.

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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"/>
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 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 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 type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury, or death involving fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The TCDP PEIR (pp. 625–635) describes the general environmental conditions in the plan area with respect to the presence of hazardous materials and wastes, a description of hazardous building materials likely to be present within the plan area, and an overview of the relevant hazardous materials regulations that are applicable to the plan area. The project site is not within 2 miles of an airport or private air strip and therefore would not interfere with air traffic or create safety hazards in the vicinity of an airport. There are no elementary, middle, or high schools within 0.25-mile of the TCDP plan area. Therefore, the criteria regarding to air traffic, airports, and hazardous emissions and materials within 0.25-mile of an existing or planned school, are not applicable. The TCDP PEIR (pp. 636–652) identified significant impacts related to

potentially exposing workers and the public to hazardous materials as a result of contaminated soils and groundwater or demolition or renovation of buildings.

Since certification of the TCDP PEIR, Article 22A of the *Health Code*, also known as the Maher Ordinance, was expanded to include properties throughout the City where there is potential to encounter hazardous materials, primarily industrial zoning districts, sites with industrial uses or underground storage tanks, sites with historic bay fill, and sites in proximity to freeways or underground storage tanks. The overarching goal of the Maher Ordinance is to protect public health and safety by requiring appropriate handling, treatment, disposal and when necessary, mitigation of contaminated soils that are encountered in the building construction process. Projects that disturb 50 cubic yards or more of soil that are located on sites with potentially hazardous soil or groundwater within TCDP plan area are subject to this ordinance.

The TCDP PEIR included several mitigation measures (some of which are site dependent and some that are applicable to all projects within the plan area). These mitigation measures include requirements for: preparing site assessments and corrective actions for sites located bayward of the historic tide line (**PEIR Mitigation Measure M-HZ-2a**), preparing site assessments and corrective actions for sites located landward of the historic tide line (**PEIR Mitigation Measure M-HZ-2b**), preparing site assessments and corrective actions for all sites (**PEIR Mitigation Measure M-HZ-2c**), and hazardous building materials abatement (**PEIR Mitigation Measure M-HZ-3**). With implementation of the aforementioned mitigation measures, potential impacts related to hazards and hazardous materials as a result of development within the TCDP plan area would be reduced to less than significant. In general, the actions identified in these mitigation measures are now required by the Maher Ordinance and are no longer required as mitigation to reduce project-level impacts to less than significant.

Neither the proposed project nor the variant would be located bayward of the historic tide line or include demolition or renovation of any buildings; as a result, **PEIR Mitigation Measures M-HZ-2a** (Site Assessments and Corrective Actions for Sites Located Bayward of the Historic Tide Line, pp. 640-641) and **PEIR Mitigation Measure M-HZ-3** (Hazardous Building Materials Abatement, p. 645) are not applicable to the project or variant.

Proposed Project and Variant

Routine Transport, Use, and Disposal of Hazardous Materials

The TCDP PEIR noted that, for all development under the TCDP, including development of the project site, compliance with the *San Francisco Health Code*, which incorporates state and federal requirements, as well as California Highway Patrol and California Department of Transportation regulations, would minimize potential exposure of site personnel and the public to any accidental releases of hazardous materials or waste and would also protect against potential environmental contamination (pp. 636-637). Therefore, consistent with the TCDP, the potential impacts related to the routine use, transport, and disposal of hazardous materials associated with development of the project site would not be new or of greater severity than what was already analyzed and disclosed in the TCDP PEIR.

Hazardous Building Materials

The TCDP PEIR determined that future development in the plan area may involve demolition or renovation of existing structures containing hazardous building materials. Some building materials commonly used in older buildings could present a public health risk if disturbed during an accident or during demolition or renovation of an existing building. Hazardous building materials addressed in the PIER include asbestos, electrical equipment such as transformers and fluorescent light ballasts that contain PCBs or di (2 ethylhexyl) phthalate (DEHP), fluorescent lights containing mercury vapors, and lead-based

paints. Asbestos and lead-based paint may also present a health risk to existing building occupants if they are in a deteriorated condition. If removed during demolition of a building, these materials would also require special disposal procedures. The TCDP PEIR identified a significant impact associated with hazardous building materials including PCBs, DEHP, and mercury and determined that that **Mitigation Measure M-HZ-3**: (Hazardous Building Materials Abatement, p. 645) would reduce effects to a less-than-significant level. As discussed above, the project site is currently a paved parking lot and development of the site would not include demolition of any existing buildings; therefore, **PEIR Mitigation Measure M-HZ-3** would not apply to development of the project site.

Soil and Groundwater Contamination

Development of the project site would require excavation up to a maximum 50 feet below grade for construction of the building foundation and below-ground parking garage, which would result in the removal of approximately 21,000 cubic yards of soil. Based on historic land uses on the project site, there is the potential for soil and/or groundwater contamination. Therefore, the project is subject to the Maher Ordinance, which is administered and overseen by the SFDPH. The Maher Ordinance requires the project sponsor to retain the services of a qualified professional to prepare a Phase I Environmental Site Assessment (ESA) that meets the requirements of Health Code Section 22.A.6.

In accordance with the Maher Ordinance, a Phase I ESA and a Limited Phase II Subsurface Investigation were conducted for the project site.^{42,43} The Phase I ESA found that concentrations of lead in fill soil beneath the project site exceed typical background concentrations for lead and exceed the California hazardous waste disposal criteria. Additionally, the Phase I ESA found that groundwater beneath the project site has been affected by low concentrations of volatile organic carbons and by gasoline-range and diesel-range petroleum hydrocarbons. The Phase I ESA concluded that past use of the project site as a boiler works and an automotive repair shop, the former presence of deteriorated gasoline and diesel fuel underground storage tanks on the site, as well as various operations on adjoining or nearby properties, have resulted in the potential for contamination at the project site.

As the project site is located landward of the historic tide line, development of the project site has the potential to expose workers or the environment to contaminated soils or groundwater. As noted above, compliance with the Maher Ordinance would include implementation of corrective actions based on site assessments prepared for the project site to reduce potential exposure to hazards to a less-than-significant level.

For the reasons discussed above, development to the project site would not result in any significant impacts related to hazardous materials that were not identified in the TCDP PEIR, nor would it result in substantially more severe impacts than identified in the TCDP PEIR.

⁴² AMEC Environment and Infrastructure, Inc., Phase I Environmental Site Assessment for CH Acquisitions 2, LLC, Miami, Florida, May 9, 2012. This material is available for review at the Planning Department, 1650 Mission Street, Suite 400, in File No. 2006.1532.E

⁴³ AMEC Environment and Infrastructure, Inc., Limited Phase II Subsurface Investigation for CH Acquisitions 2, LLC, Miami, Florida, June 18, 2012. This material is available for review at the Planning Department, 1650 Mission Street, Suite 400, in File No. 2006.1532.E

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
16. MINERAL AND ENERGY RESOURCES—Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 type="checkbox"/>	<input checked="" type="checkbox"/>

Proposed Project and Variant

As noted in the TCDP PEIR, all land in San Francisco, including the 524 Howard Street project site, is designated as Mineral Resource Zone 4 (MRZ-4) by the California Division of Mines and Geology (CDMG). This designation indicates that there is not adequate information available for assignment to any other MRZ, and thus the site is not a designated area of significant mineral deposits. The project site is not a mineral resource recovery site, and it would not require quarrying, mining, dredging, or extraction of locally important mineral resources on the project site, and it would not deplete non-renewable natural resources. As a result, no impacts to mineral resources would occur, consistent with the findings of the PEIR.

With respect to energy resources, the TCDP PEIR determined that the implementation of the TCDP would facilitate the construction of both new residential units and commercial buildings. Development of these uses would not result in use of large amounts of fuel, water, or energy in a wasteful manner or in the context of energy use throughout the City and region. The energy demand for individual buildings, such as the proposed project or variant, would be typical for such projects and would meet, or exceed, current state and local codes and standards concerning energy consumption, including Title 24 of the California Code of Regulations enforced by DBI. Therefore, development at the project site (proposed project or variant) would be energy efficient and would not result in the wasteful usage of fuel, water, or energy, consistent with the findings of the TCDP PEIR. No additional impacts with respect to energy resources would occur beyond those analyzed in the TCDP PEIR. No mitigation measures are necessary.

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
17. AGRICULTURE AND FOREST RESOURCES—Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)) or timberland (as defined by Public Resources Code Section 4526)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Proposed Project and Variant

The PEIR determined that no agriculture or forest resources exist within the boundaries of the TCDP; therefore, development under the TCDP would have no effect on agriculture or forest resources. No mitigation measures were identified in the PEIR. As the proposed project is within the development projected under the TCDP, there would be no additional impacts on agriculture and forest resources beyond those analyzed in the TCDP PEIR. No mitigation measures are necessary.

MITIGATION MEASURES

The following mitigation measures from the TCDP PEIR apply to the project or the variant and would be implemented as part of the project/variant:

Cultural Resources

Project Mitigation Measure 1: Construction Best Practices for Historical Resources. The project sponsor of a development project in the plan area shall incorporate into construction specifications for the proposed project a requirement that the construction contractor(s) use all feasible means to avoid damage to adjacent and nearby historic buildings, including, but not necessarily limited to, staging of equipment and materials as far as possible from historic buildings to avoid direct impact damage; using techniques in demolition (of the parking lot), excavation, shoring, and construction that create the minimum feasible vibration; maintaining a buffer zone when possible between heavy equipment and historical resource(s) within 125 feet, as identified by the Planning Department; appropriately shoring excavation sidewalls to prevent movement of adjacent structures; design and installation of the new foundation to minimize uplift of adjacent soils; ensuring adequate drainage from adjacent sites; covering the roof of adjacent structures to avoid damage from falling objects; and ensuring appropriate security to minimize risks of vandalism and fire.

Project Mitigation Measure 2: Construction Monitoring Program for Historical Resources. The project sponsor shall undertake a monitoring program to minimize damage to adjacent historic buildings and to ensure that any such damage is documented and repaired. The monitoring program would include the following components. Prior to the start of any ground-disturbing activity, the project sponsor shall engage a historic architect or qualified historic preservation professional to undertake a preconstruction survey of historical resource(s) identified by the Planning Department within 125 feet of planned construction to document and photograph the buildings' existing conditions. Based on the construction and condition of the resource(s), the consultant shall also establish a maximum vibration level that shall not be exceeded at each building, based on existing condition, character-defining features, soils conditions, and anticipated construction practices (a common standard is 0.2 inch per second, peak particle velocity). To ensure that vibration levels do not exceed the established standard, the project sponsor shall monitor vibration levels at each structure and shall prohibit vibratory construction activities that generate vibration levels in excess of the standard.

Should vibration levels be observed in excess of the standard, construction shall be halted and alternative techniques put in practice, to the extent feasible. The consultant shall conduct regular periodic inspections of each building during ground-disturbing activity on the project site. Should damage to either building occur, the building(s) shall be remediated to its preconstruction condition at the conclusion of ground-disturbing activity on the site.

Project Mitigation Measure 3: Subsequent Archeological Testing Program. When a project is to be developed within the TCDP plan area, it will be subject to preliminary archeological review by the Planning Department archeologist. This in-house review will assess whether there are gaps in the necessary background information needed to make an informed archaeological sensitivity assessment. This assessment will be based upon the information presented in the TCDP Archeological Research Design and Treatment Plan (Far Western Anthropological Research Group, Inc., *Archeological Research Design and Treatment Plan for the Transit Center District Plan Area, San Francisco, California*, February 2010), as well as any more recent investigations that may be relevant. If data gaps are identified, then additional investigations, such as historic archival research or geoarchaeological coring, may be required to provide sufficiently detailed information to make an archaeological sensitivity assessment.

If the project site is considered to be archaeologically sensitive and based on a reasonable presumption that archeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources. The project sponsor shall retain the services of an archeological consultant from the Planning Department ("Department") pool of qualified archeological consultants as provided by the Department archeologist. 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 and with the requirements of the TCDP archeological research design and treatment plan at the direction of the ERO. In instances of inconsistency between the requirement of the project archaeological research design and treatment plan and of this archaeological mitigation measure, the requirements of this archaeological mitigation measure shall prevail. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension

of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less than significant level potential effects on a significant archeological resource as defined in CEQA Guidelines Sections 15064.5 (a) (c).

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

At the completion of the archeological testing program, the archeological consultant shall submit a written report of the findings to the ERO. If based on the archeological testing program the archeological consultant finds that significant archeological resources may be present, the ERO in consultation with the archeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archeological testing, archeological monitoring, and/or an archeological data recovery program. If the ERO determines that a significant archeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

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

Archeological Monitoring Program. If the ERO in consultation with the archeological consultant determines that an archeological monitoring program shall be implemented, the archeological consultant shall prepare an archeological monitoring plan (AMP):

- The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils disturbing activities commencing. The ERO in consultation with the archeological consultant shall determine what project activities shall be archeologically monitored. In most cases, any soils-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archeological monitoring because of the risk these activities pose to potential archaeological resources and to their depositional context;
- Archeological monitoring shall conform to the requirements of the final AMP reviewed and approved by the ERO;
- The archeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archeological resource;
- The archeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archeological consultant and the ERO until the ERO has, in consultation with project

archeological consultant, determined that project construction activities could have no effects on significant archeological deposits;

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

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

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

The scope of the ADRP shall include the following elements:

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

- **Curation.** Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains and Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable state and federal laws. This shall include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The archeological consultant, project sponsor, and MLD shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines. Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.

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

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

Transportation

Project Mitigation Measure 4: Parking Garage/Loading Attendant: If warranted by project-specific conditions, the project sponsor of a development project in the plan area shall ensure that building management employs attendant(s) for the project's parking garage and/or loading dock, as applicable. The attendant would be stationed as determined by the project-specific analysis, typically at the project's driveway to direct vehicles entering and exiting the building and avoid any safety-related conflicts with pedestrians on the sidewalk during the AM and PM peak periods of traffic and pedestrian activity, with extended hours as dictated by traffic and pedestrian conditions and by activity in the project garage and loading dock. Each project shall also install audible and/or visible warning devices, or comparably effective warning devices as approved by the Planning Department and/or the Sustainable Streets Division of the Municipal Transportation Agency, to alert pedestrians of the outbound vehicles from the parking garage and/or loading dock, as applicable.

Project Mitigation Measure 5: Parking Garage/Loading Management Plan: To ensure that off-street loading facilities are efficiently used and that trucks longer than can be safely accommodated are not permitted to use a building's loading dock, and the project sponsor of a development project in the plan area shall develop a plan for management of the building's loading dock and shall ensure that tenants in

the building are informed of limitations and conditions on the loading schedules and truck size. Such a management plan could include strategies such as the use of an attendant to direct and guide trucks (see Project Mitigation Measure 4), installing a 'Full' sign at the garage/loading dock driveway, limiting activity during peak hours, installation of audible and/or visual warning devices, and other features. Additionally, as part of the project application process, the project sponsor shall consult with the Municipal Transportation Agency concerning the design of loading and parking facilities. Typically, a building property manager dictates the maximum size of trucks that can be accommodated by a building's loading dock, and when trucks may access the project site.

Project Mitigation Measure 6: Designated Loading Areas (Variant Only): The project sponsor shall designate and provide signage for on-site loading spaces to be used for freight loading and/or tour bus loading spaces.

Project Mitigation Measure 7: Construction Management Plan: To minimize potential disruptions to transit, traffic, and pedestrian and bicyclists, the project sponsor and/or construction contractor for any individual development project in the TCDP plan area shall develop a Construction Management Plan that could include, but not necessarily be limited to, the following:

- Limit construction truck movements to the hours between 9:00 a.m. and 4:00 p.m. (or other times, if approved by the Municipal Transportation Agency) to minimize disruption of traffic, transit, and pedestrian flow on adjacent streets and sidewalks during the weekday AM and PM peak periods;
- Identify optimal truck routes to and from the site to minimize impacts to traffic, transit, pedestrians, and bicyclists; and
- Encourage construction workers to use transit when commuting to and from the site, reducing the need for parking.

The project sponsor shall also coordinate with the Municipal Transportation Agency/Sustainable Streets Division, the Transbay Joint Powers Authority, and construction manager(s)/ contractor(s) for the Transit Center project, and with Muni, AC Transit, Golden Gate Transit, and SamTrans, as applicable, to develop construction phasing and operations plans that would result in the least amount of disruption that is feasible to transit operations, pedestrian and bicycle activity, and vehicular traffic.

Noise

Project Mitigation Measure 8: Interior Mechanical Equipment: The Planning Department shall require, as part of subsequent project-specific review under CEQA, that effects of mechanical equipment noise on adjacent and nearby noise-sensitive uses be evaluated by a qualified acoustical consultant and that control of mechanical noise, as specified by the acoustical consultant, be incorporated into the final project design of new buildings to achieve the maximum feasible reduction of building equipment noise, consistent with *Building Code* and Noise Ordinance requirements and CEQA thresholds, such as through the use of fully noise-insulated enclosures around rooftop equipment and/or incorporation of mechanical equipment into intermediate building floor(s).

Project Mitigation Measure 9: General Construction Noise Control Measures: To ensure that project noise from construction activities is minimized to the maximum extent feasible, the project sponsor of a development project in the plan area shall undertake the following:

- The project sponsor of a development project in the plan area shall require the general contractor to ensure that equipment and trucks used for project construction utilize the best available noise

control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).

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

Project Mitigation Measure 10: Cumulative Construction Noise Control Measures: The project sponsor of a development project in the plan area shall cooperate with and participate in any City-sponsored construction noise control program for the TCDP plan area or other City-sponsored area-wide program developed to reduce potential effects of construction noise in the project vicinity. Elements of such a program could include a community liaison program to inform residents and building occupants of upcoming construction activities, staggering of construction schedules so that particularly noisy phases of work do not overlap at nearby project sites, and, potentially, noise and/or vibration monitoring during construction activities that are anticipated to be particularly disruptive.

Air Quality

Project Mitigation Measure 11: Dust Control Plan. To reduce construction-related dust emissions, the project sponsor of each development project in the plan area and each public infrastructure project (such

as improvements to the public realm) in the plan area on a site of one-half acre or less but that would require more than 5,000 cubic yards of excavation lasting four weeks or longer shall incorporate into construction specifications the requirement for development and implementation of a site-specific Dust Control Plan as set forth in Article 22B of the *San Francisco Health Code*. The Dust Control Plan shall require the project sponsor to: submit a map to the Director of Public Health showing all sensitive receptors within 1,000 feet of the site; wet down areas of soil at least three times per day; provide an analysis of wind direction and install upwind and downwind particulate dust monitors; record particulate monitoring results; hire an independent, third party to conduct inspections and keep a record of those inspections; establish shut-down conditions based on wind, soil migration, etc.; establish a hotline for surrounding community members who may be potentially affected by project-related dust; limit the area subject to construction activities at any one time; install dust curtains and windbreaks on the property lines, as necessary; limit the amount of soil in hauling trucks to the size of the truck bed and secure soils with a tarpaulin; enforce a 15 mph speed limit for vehicles entering and exiting construction areas; sweep affected streets with water sweepers at the end of the day; install and utilize wheel washers to clean truck tires; terminate construction activities when winds exceed 25 miles per hour; apply soil stabilizers to inactive areas; and sweep adjacent streets to reduce particulate emissions. The project sponsor would be required to designate an individual to monitor compliance with dust control requirements.

Project Mitigation Measure 12: Construction Vehicle Emissions Evaluation and Minimization. The project sponsor or the project sponsor's contractor shall comply with the following:

1. Engine Requirements.

- a. All off-road equipment greater than 25 horsepower (hp) and operating for more than 20 hours over the entire duration of construction activities shall have engines that meet or exceed either U.S. Environmental Protection Agency (USEPA) or California Air Resources Board (ARB) Tier 2 off-road emission standards and have been retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy. Equipment with engines meeting Tier 4 Interim or Tier 4 Final off-road emissions standards automatically meet this requirement.
- b. Where access to alternative sources of power are available, portable diesel engines shall be prohibited.
- c. Diesel engines, whether for off-road or on-road equipment, shall not be left idling for more than two minutes, at any location, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment (e.g., traffic conditions, safe operating conditions). The Contractor shall post legible and visible signs in English, Spanish, and Chinese, in designated queuing areas and at the construction site to remind operators of the two minute idling limit.
- d. 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.

2. Waivers

- a. The Planning Department's Environmental Review Officer or designee (ERO) may waive the alternative source of power requirement of Subsection (A)(2) if an alternative source of power is limited or infeasible at the project site. If the ERO grants the waiver, the Contractor must submit

documentation that the equipment used for onsite power generation meets the requirements of Subsection (A)(1).

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 the table below.

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.

1. Construction Emissions Minimization Plan. Before starting on-site 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 1.
 - a. The plan shall include estimates of the construction timeline by phase, with a description of each piece of off-road equipment required for every construction phase. The description may include, but is not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), hp, engine serial number, and expected fuel usage and hours of operation. For VDECS install, 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.
 - b. The ERO shall ensure that all applicable requirements of the plan have been incorporated into the contract specifications. The plan shall include a certification statement that the contractor agrees to comply fully with the plan.
 - c. The contractor shall make the plan available to the public for review on-site during work hours. The contractor shall post at the construction site, 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.
2. 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.

Biological Resources

Project Mitigation Measure 13: Pre-Construction Bird Surveys: Conditions of approval for building permits issued for construction within the TCDP plan area shall include a requirement for pre-construction breeding bird surveys when trees or vegetation would be removed or buildings demolished as part of an individual project. Pre-construction nesting bird surveys shall be conducted by a qualified biologist between February 1st and August 15th if vegetation (trees or shrubs) removal or building demolition is scheduled to take place during that period. If special-status bird species are found to be nesting in or near any work area or, for compliance with federal and state law concerning migratory birds, if birds protected under the federal Migratory Bird Treaty Act or the California Fish and Game Code are found to be nesting in or near any work area, an appropriate no-work buffer zone (e.g., 100 feet for songbirds) shall be designated by the biologist. Depending on the species involved, input from the California Department of Fish and Wildlife (CDFW) and/or the U.S. Fish and Wildlife Service (USFWS) Division of Migratory Bird Management may be warranted. As recommended by the biologist, no activities shall be conducted within the no-work buffer zone that could disrupt bird breeding. Outside of the breeding season (August 16 – January 31), or after young birds have fledged, as determined by the biologist, work activities may proceed. Birds that establish nests during the construction period are considered habituated to such activity and no buffer shall be required, except as needed to avoid direct destruction of the nest, which would still be prohibited.

Project Mitigation Measure 14: Pre-Construction Bat Surveys: Conditions of approval for building permits issued for construction within the TCDP plan area shall include a requirement for pre-construction special-status bat surveys when large trees are to be removed or underutilized or vacant buildings are to be demolished. If active day or night roosts are found, the bat biologist shall take actions to make such roosts unsuitable habitat prior to tree removal or building demolition. A no disturbance buffer shall be created around active bat roosts being used for maternity or hibernation purposes at a distance to be determined in consultation with CDFW. Bat roosts initiated during construction are presumed to be unaffected, and no buffer would necessary.

IMPROVEMENT MEASURES

Transportation

Project Improvement Measure 1: Additional Pedestrian Safety Measures: As a means of reducing the severity of less-than-significant impacts related to pedestrian safety, the project sponsor has agreed to implement the following additional measures to reduce potential pedestrian/vehicle conflicts:

- Install audible and visible warning devices to alert pedestrians;
- Install signage along the First Street sidewalk reminding pedestrians of potential crossing vehicular traffic; and
- Require all truck drivers to meet truck driver education requirements, such as those that are part of SFMTA's Safe Streets SF education campaign.

Project Improvement Measure 2: Vehicle Queue Management: As a means of reducing the severity of less-than-significant impacts related to parking, the project sponsor has agreed to ensure that recurring vehicle queues do not occur on the public right-of-way. A vehicle queue is defined as one or more vehicles

(destined to the parking facility) blocking any portion of any public street, alleyway or sidewalk for a consecutive period of three minutes or longer on a daily or weekly basis.

If a recurring queue occurs, the owner / operator of the parking facility 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. Suggested abatement methods include but are not limited to the following: employment of additional valet attendants; redesign of parking facility to improve vehicle circulation and/or on-site queue capacity; use of off-site parking facilities or shared parking with nearby uses; travel demand management strategies such as additional bicycle parking and resident shuttles; and / or parking demand management strategies such as a time-of-day parking surcharge.

If the Planning Director, or his or her designee, suspects that a recurring queue is present, the Department shall notify the property owner in writing. The owner / operator shall hire a qualified transportation consultant to evaluate the conditions at the site for no less than seven days. The consultant shall submit a report to the Department for review. The Department shall determine whether or not a recurring queue does exist, and shall notify the garage owner / operator of the determination in writing.

If the Department determines that a recurring queue does exist, upon notification, the facility owner / operator shall have 90 days from the date of the written determination to abate the queue.