July 22, 2019

Clerk San Francisco Board of Supervisors
1 Dr. Carlton B. Goodlett Place
City Hall Room 244
S.F. Ca. 94102

VIA HAND DELIVERY

RE: APPEAL OF CEQA CATEGORICAL EXEMPTION DETERMINATION
CASE: 2014-000203ENV
PROJECT Address: 655 4th Street

Dear Honorable Members of the San Francisco Board of Supervisors:

We are the 601 4th Street Coalition -- Homeowners in 601 4th Street building. 601 4th Street is a:
> Four story building
> 30 feet away from the 655 Fourth Street

Project (655 Fourth Street) in question, is a:
> 40 story building
> Two towers
> 960 residents
> 38 room hotel
> Retail

We are basing this appeal on the following grounds:

Number 1 - DOES NOT QUALIFY
The project does not qualify for a community plan exemption under section 15183 of the CEQA guidelines or under the Public Resources Code Section 21083.3.

We submit to you that this project is not consistent with the San Francisco General Plan.

Number 2 - CENTRAL SUBWAY CONSTRUCTION and 655 4TH STREET PROJECT
In addition, the proposed project results in effects on the environment that are peculiar to this project that were not identified as significant effects in the Central SOMA Environmental Impact Report (EIR). One example of this is the Central Subway construction project. This major construction project has been ongoing for the last four years in front of 601 4th street. Fourth Street is partially blocked. There are construction crews drilling and digging five days a week. The cumulative impact of the Central Subway project and the 655 4th street project was not taken into account in the SOMA EIR and subsequent studies.

The proposed project WOULD result in cumulative impacts that were not addressed in the SOMA EIR. The cumulative impact of the Central Subway project immediately outside our front door combined with the new project 30 feet adjacent to our homes, was never addressed.

Number 3 -- MILLENIUM TOWER SOIL AND FOUNDATION

The proposed project WOULD result in significant effects, which as a result of substantial new information that was not known at the time of the Central SOMA EIR was certified, would be more severe than were already analyzed and disclosed in the EIR. In addition to the Central Subway Project, additional issues relating to the soil surrounding the project as evidenced by the problems with the Millennium Tower, have not been adequately addressed.

Number 4 -- LOSS OF AFFORDABLE OFFICE SPACE

This project will cause the loss of older smaller commercial buildings that provide more affordable office-type space for new small businesses, including technology start-ups which cannot afford newer space that provides more amenities. Such buildings are vital to SOMA's character and the City's economy. Thus the project is not consistent with the San Francisco General Plan.

Number 5 -- INCREASED TRAFFIC CONGESTION

The SOMA EIR never addressed the unique cumulative effect of this project and the confluence of traffic from:

> Oracle Park
> 4th and King Street transportation Center: MUNI, CalTrain
> Chase Center
> Uber, Lyft
> Facebook, Google buses
> Taxis
> Electric scooters
> Bicycles
> Hotel guests from 655 Fourth Street
> Businesses employees from 655 Fourth Street
> Residents from 655 Fourth Street

Number 6 -- HEARING DAMAGE AND LOSS dB LEVELS OF 96

Other unique effects of this project are the vibrations caused during construction. Our building is within 30 feet of the construction site, with trucks utilizing the driveway directly adjacent to our property.

Decible Level Comparison

> 60 dB -- Current Central Rail construction
> 85 dB -- Hearing damage warning
> 86 dB -- Average construction noise during 3 years
> 96 dB -- Height of construction noise

Because our building is within 30 feet of the project, there are unique issues in regard to air and soil pollution.

Number 7 -- PEDESTRIAN INJURY

The SOMA EIR and subsequent studies never considered the driveway of 601 4th street. The driveway entrance and exit is on 4th street, a busy street with a lot of pedestrian and automobile traffic. The driveway crosses over the

pedestrian sidewalk. Both during construction and after the completion of the project, the problem of pedestrian access, and or injury will be greatly exacerbated.

We reserve the right to supplement our issues and arguments in this appeal.

We submit that the CEQA exemption violates the US Constitution ,the California Constitution, the California Environmental Quality Act, the San Francisco Municipal Code, and other controlling law, which we may describe in supplemental materials.

Thank you for your consideration.

Kevin Rudich
601 Fourth Street Coalition Member
kevrudich@aol.com

Michael Cruz
601 Fourth Street Coalition Member
michaelcruz100@comcast.net

OTHER MEMBERS OF THE 601 FOURTH STREET COALITION

Michael Guthrie
601 Fourth Street Coalition Member

Carol Guthrie
601 Fourth Street Coalition Member

Katharina Natividad
601 Fourth Street Coalition Member

Noel Natividad
601 Fourth Street Coalition Member

Sandy Lee
601 Fourth Street Coalition Member

EXHIBITS ATTACHED

1 San Francisco Planning Department Certificate of Determination Community Plan Evaluation
2 Initial Study -- Community Plan Evaluation
3 Mitigation Monitoring and Reporting Program

cc: Lisa Gibson / Environmental Review Officer

SAN FRANCISCO
PLANNING DEPARTMENT

Certificate of Determination
Community Plan Evaluation

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Case No.:	**2014-000203ENV**
Project Address:	**655 Fourth Street**
Zoning:	Central South of Market (SoMa) Mixed-Use Office District 400-CS Height and Bulk District
Block/Lot:	3787/Lots 26, 28, 50 and 161-164
Lot Size:	71,290 square feet (1.64 acres)
Plan Area:	Central SoMa Area Plan
Project Sponsor:	655 Fourth Street Owner LLC attn. Jeremy Bachrach 415.344.6277; jbachrac@tishmanspeyer.com
Staff Contact:	Elizabeth White 415.575.613; elizabeth.white@sfgov.org

PROJECT DESCRIPTION

The 655 Fourth Street project site is approximately 71,300 square feet, located in San Francisco's South of Market (SoMa) neighborhood, on the southeast corner of Fourth Street and Townsend Street. Composed of seven lots (lots 26, 28, 50, and 161–164 of Assessor's Block 3787), the project site is currently occupied by three buildings (one of which contains residential units), an approximately 4,000-square-foot surface parking lot, and a 2,300-square-foot loading area. The proposed project would entail demolition of the three existing buildings, associated surface parking lots, and vegetation on the project site, including street trees and other plantings. The project would merge the seven existing lots and construct two new buildings containing approximately 1,003,970 square feet of residential area, 24,500 square feet of hotel area (38 hotel rooms), 21,840 square feet of office area, and approximately 18,454 square feet of ground-floor retail use. The proposed project would consist of approximately 960 dwelling units in a mix of 242 studios, 330 one-bedroom units, 351 two-bedroom units, and 37 three-bedroom condominiums. Each building would have two towers: one of which would rise to a height of 425 feet aboveground (including rooftop appurtenances 25 feet above the highest occupied floor) and the second which would rise to a height of 370 feet aboveground (including 10 feet for rooftop appurtenances).

The proposed project would also include a 94,500-square-foot below-grade, four-level garage containing building amenities, a vehicle drop-off area, a loading dock, back of the house retail operations, refuse handing area, 276 car parking spaces, and other back-of-house features such as mechanical equipment required for operation and maintenance of the building. A 35-foot-wide curb cut on Townsend Street would provide two vehicle lanes and one two-way truck lane to access the vehicular ramp to the basement level. The project proposes 540 Class 1 bicycle parking stalls to be located in the basement and 81 Class 2 bicycle parking stalls at grade.[1]

[1] Class 1 bicycle spaces are spaces in secure, weather-protected facilities intended for use as long-term, overnight, and work-day bicycle storage by dwelling unit residents, nonresidential occupants, and employees. Class 2 bicycle spaces are spaces located in a publicly-accessible, highly visible location intended for transient or short-term use by visitors, guests, and patrons to the building or use.

The project would include a number of wind reduction features: a porous Tower 1B façade; canopies installed on all four towers; a wind screen installed on southside of Townsend Street near the intersection of Townsend and Lusk streets; and onsite landscaping consisting of shrubs and deciduous trees.

The proposed project would require excavation to a maximum depth of approximately 55 feet below the ground surface for construction of the below-grade parking garage and building foundations, which would require the removal and disposal of approximately 142,000 cubic yards of soil.

The *approval action* for the proposed project is the approval of the large project authorization by the Planning Commission. The *approval action* date establishes the start of the 30-day appeal period for this CEQA determination pursuant to section 31.04(h) of the San Francisco Administrative Code.

COMMUNITY PLAN EVALUATION OVERVIEW

California Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183 provide that projects that are consistent with the development density established by existing zoning, community plan or general plan policies for which an Environmental Impact Report (EIR) was certified, shall not be subject to additional environmental review except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. Section 15183 specifies that examination of environmental effects shall be limited to those effects that: a) are peculiar to the project or parcel on which the project would be located; b) were not analyzed as significant effects in a prior EIR on the zoning action, general plan or community plan with which the project is consistent; c) are potentially significant off-site and cumulative impacts that were not discussed in the underlying EIR; or d) are previously identified in the EIR, but which, as a result of substantial new information that was not known at the time that the EIR was certified, are determined to have a more severe adverse impact than that discussed in the underlying EIR. Section 15183(c) specifies that if an impact is not peculiar to the parcel or to the proposed project, then an EIR need not be prepared for the project solely on the basis of that impact.

This determination evaluates the potential project-specific environmental effects of the 655 Fourth Street project, described above and incorporates by reference information contained in the Programmatic EIR for the Central SoMa Plan (PEIR).[2] Project-specific studies were prepared for the proposed project to determine if the project would result in any significant environmental impacts that were not identified in the Central SoMa PEIR.

FINDINGS

As summarized in the Initial Study- Community Plan Evaluation (Attachment A):

1. The proposed project is consistent with the development density established for the project site in the Central SoMa Plan;

2. The proposed project would not result in effects on the environment that are peculiar to the project or the project site that were not identified as significant effects in the Central SoMa PEIR;

[2] San Francisco Planning Department. Central SoMa Plan Final Environmental Impact Report. Planning Department Case Number 2011.1356E. Available online at: https://sfplanning.org/environmental-review documents?field_environmental_review_categ_target_id=214&items_per_page=10, accessed June 3, 2019.

3. The proposed project would not result in potentially significant off-site or cumulative impacts that were not identified in the Central SoMa PEIR;

4. The proposed project would not result in significant effects, which, as a result of substantial new information that was not known at the time the Central SoMa PEIR was certified, would be more severe than were already analyzed and disclosed in the PEIR; and

5. The project sponsor will undertake feasible mitigation measures specified in the Central SoMa PEIR to mitigate project-related significant impacts (see Attachment B).

Mitigation measures are included in this project. See the attached and signed Mitigation Monitoring and Reporting Program.

CEQA DETERMINATION

The project is eligible for streamlined environmental review per Section 15183 of the California Environmental Quality Act (CEQA) Guidelines and California Public Resources Code Section 21083.3.

DETERMINATION

I do hereby certify that the above determination has been made pursuant to State and Local requirements.

Lisa Gibson
Environmental Review Officer

6/11/19
Date

ATTACHMENTS

A. Initial Study – Community Plan Evaluation

B. Mitigation Monitoring and Reporting Program

CC: Jeremy Bachrach and Sarah Dennis-Phillips, project sponsor; Melinda Sarjapur, attorney; Supervisor Matt Haney, District 6; Linda Ajello-Hoagland, Current Planning Division; Virna Byrd, M.D.F.; Exemption/Exclusion File

Attachment 1

SAN FRANCISCO
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Certificate of Determination
Community Plan Evaluation

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Mitigation measures are included in this project. See the attached and signed Mitigation Monitoring and Reporting Program.

CEQA DETERMINATION

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DETERMINATION

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Attachment 2

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Attachment A

Initial Study – Community Plan Evaluation Checklist

Case No.:	2014-000203ENV
Project Address:	**655 Fourth Street**
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Block/Lot:	3787/Lots 26, 28, 50 and 161-164
Lot Size:	71,290 square feet (1.64 acres)
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Project Sponsor:	655 Fourth Street Owner LLC attn. Jeremy Bachrach 415.344.6277; jbachrac@tishmanspeyer.com
Staff Contact:	Elizabeth White 415.575.613; elizabeth.white@sfgov.org

A. PROJECT DESCRIPTION

Project Location

The project site is located at 655 Fourth Street, 280–290 Townsend Street, and 292–296 Townsend Street in San Francisco's South of Market (SoMa) neighborhood (**Figure 1**, Project Location).[1] The intersection of Fourth Street and Townsend Street is directly south of the project site, with Fourth Street to the west and Townsend Street to the south. The elevated I-80 structure is approximately two blocks north, and the Caltrain Station is located diagonally across the street, at the intersection of Townsend Street and Fourth Street. Oracle Park is located two blocks to the southeast. The closest public transit stop is located at Fourth Street and Townsend Street. It serves the E-Embarcadero Historic Streetcar; the N-Judah and T-Third Street Muni Metro Rail lines; the 10, 30, 45, and 47 Muni Bus lines; and 81X and 82X bus lines. **Figure 2**, Vicinity Map, provides an aerial view of the site.

Existing Site Conditions

The approximately 71,300-square-foot project site (1.64 acres) is composed of seven lots (lots 26, 28, 50, and 161–164 of Assessor's Block 3787). Buildings on lots 26 and 28 were built in 1947. The building on lots 162–164 was built in 1996. **Figure 3**, Existing Project Site Conditions, illustrates existing site conditions, including locations of the lots, building heights, and access into the project site. The project site currently contains three buildings, an approximately 4,000-square-foot surface parking lot, and a 2,300-square-foot loading area. The project site is completely developed, has minimal landscaping, and has served largely commercial land uses. The project site measures approximately 275 feet along each border.

Lot 26, in the northwest portion of the site, fronts onto Fourth Street and consists of one building. The one-story portion of the building on the southern end of the lot is currently occupied by The Creamery—a café and restaurant. A restaurant, gym, and several commercial office tenants occupy the rest of the building on the remainder of lot 26. The building is 12 to 33 feet high and is not set back from the property line at the street front.

[1] Following San Francisco convention, Market Street and streets parallel to it are considered to run east/west and the perpendicular numbered streets are considered to run north/south.

Lot 161 is a privately-owned driveway accessed via a 31-foot-wide curb cut along Townsend Street, which diagonally splits the project site between lot 26 and lot 28. This driveway is approximately 275 feet long by 30 feet wide and is lined with approximately 30 trees. There is one larger tree on the project site located on lot 161. Excluding the loading zone, there are 14 off-street parking spaces along lot 161 on the southern portion of the project site. There are also 11 off-street parking spaces (including one handicap space) within lot 50, a surface parking lot. Lot 50 is accessed via a 12-foot-wide curb cut along Townsend Street.

One building occupies lot 28 in the southeastern portion of the site. The two-story portion fronting Townsend Street is occupied by HD Buttercup (retail business). The one-story portion behind HD Buttercup is occupied by Bulthaup (a remodeling business) and accessed from the surface parking lot that is lot 50 and the loading area that is part of lot 161.

Lots 162–164 consist of one three-story building. The first floor is a commercial unit and the upper two floors are two separate residential units. Off-street parking for lots 162, 163, and 164 is accessed via the 31-foot-wide curb cut on Townsend Street, and each lot has an easement for one parking space within lot 161 and an easement for ingress and egress through lot 161 to access the reserved parking spaces.

The northwest property line of the project site faces the vehicular access driveway for 601 Fourth Street.

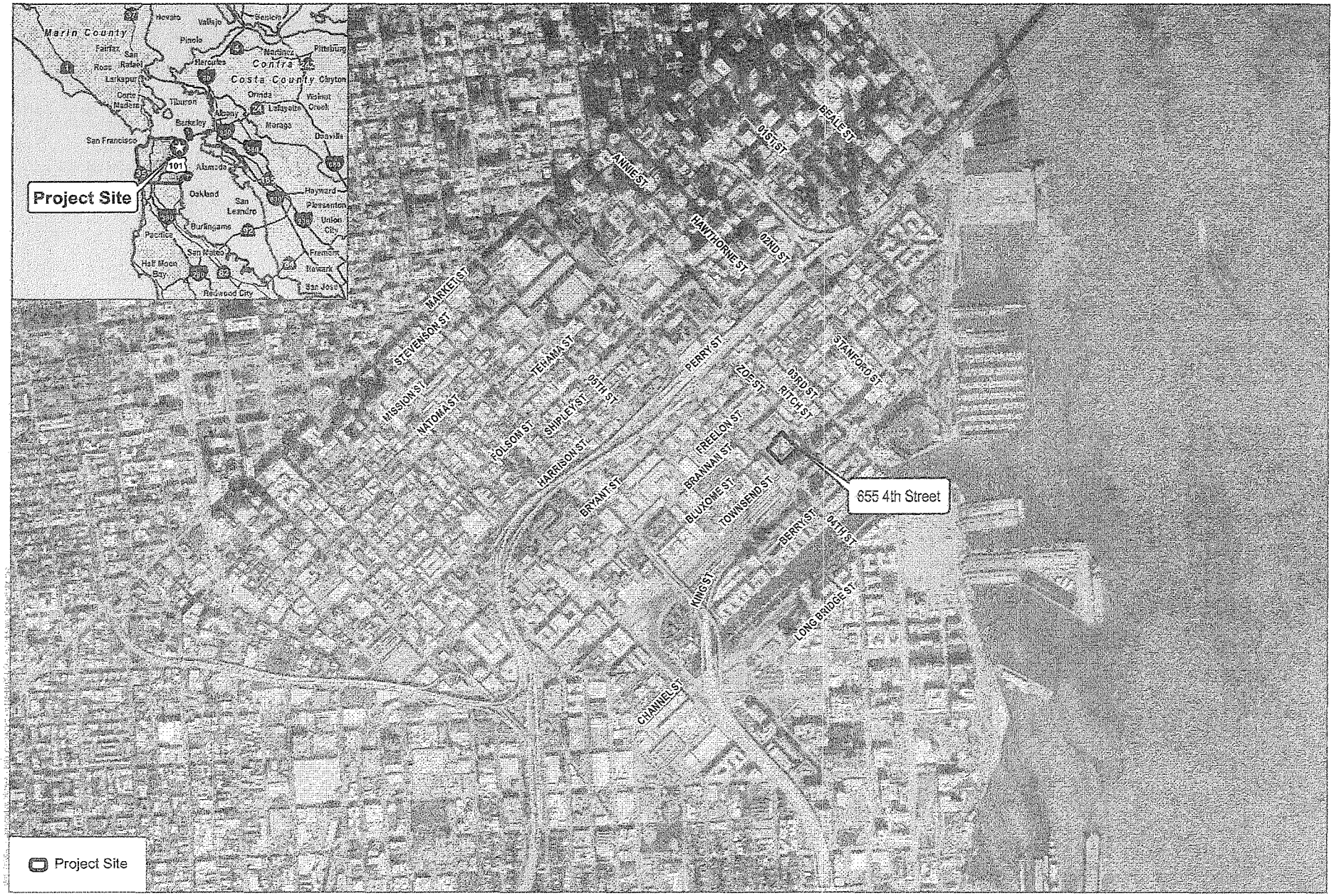
Existing Land Use Designation and Zoning

The project site falls within the Central SoMa plan area, which was evaluated in the Central SoMa Plan Final Programmatic Environmental Impact Report (Central SoMa PEIR), certified on May 10, 2018. The zoning for the project site is Central SoMa Mixed-Use Office and Central SoMa Special Use District, which collectively permit a mix of residential and nonresidential uses, including office, retail, small-scale light industrial, and tourist hotels. The project site is located within the 400-CS height and bulk districts, as shown in **Figure 4**, Height and Bulk Limits.

Project Characteristics

The 655 Fourth Street Project (project or proposed project) would entail demolition of the three existing buildings, associated surface parking lots, and vegetation on the project site, including street trees and other plantings. The project would merge the seven existing lots and construct two new 39-story, 425-foot-tall buildings containing approximately 1,014,968 square feet of residential area including 10,900 square feet of lounge and event space, 24,509 square feet of hotel area, 21,840 square feet of office area, 18,454 square feet of ground-floor retail use, and 2,484 square feet of interior privately owned, publicly accessible open space (POPOS). The new development would also include a 170,300-square-foot, below-grade, four-level basement containing building amenities, a vehicle drop-off area, a loading dock, back-of-house retail operations, refuse handling area, car parking, and other back-of-house features such as mechanical equipment required for operation and maintenance of the building. The project is subject to Health Code article 38 and would be equipped with appropriate (MERV-13) filtration systems.[2]

[2] For sensitive-use projects within the air pollutant exposure zone, such as the proposed project, article 38 requires the project sponsor to submit an enhanced ventilation proposal for approval by the Department of Public Health that achieves protection from $PM_{2.5}$ (fine particulate matter) equivalent to that associated with a Minimum Efficiency Reporting Value (MERV) 13 filtration.



SOURCE: ESRI 2018; San Francisco County 2018

FIGURE 1

Project Location

655 Fourth Street Project

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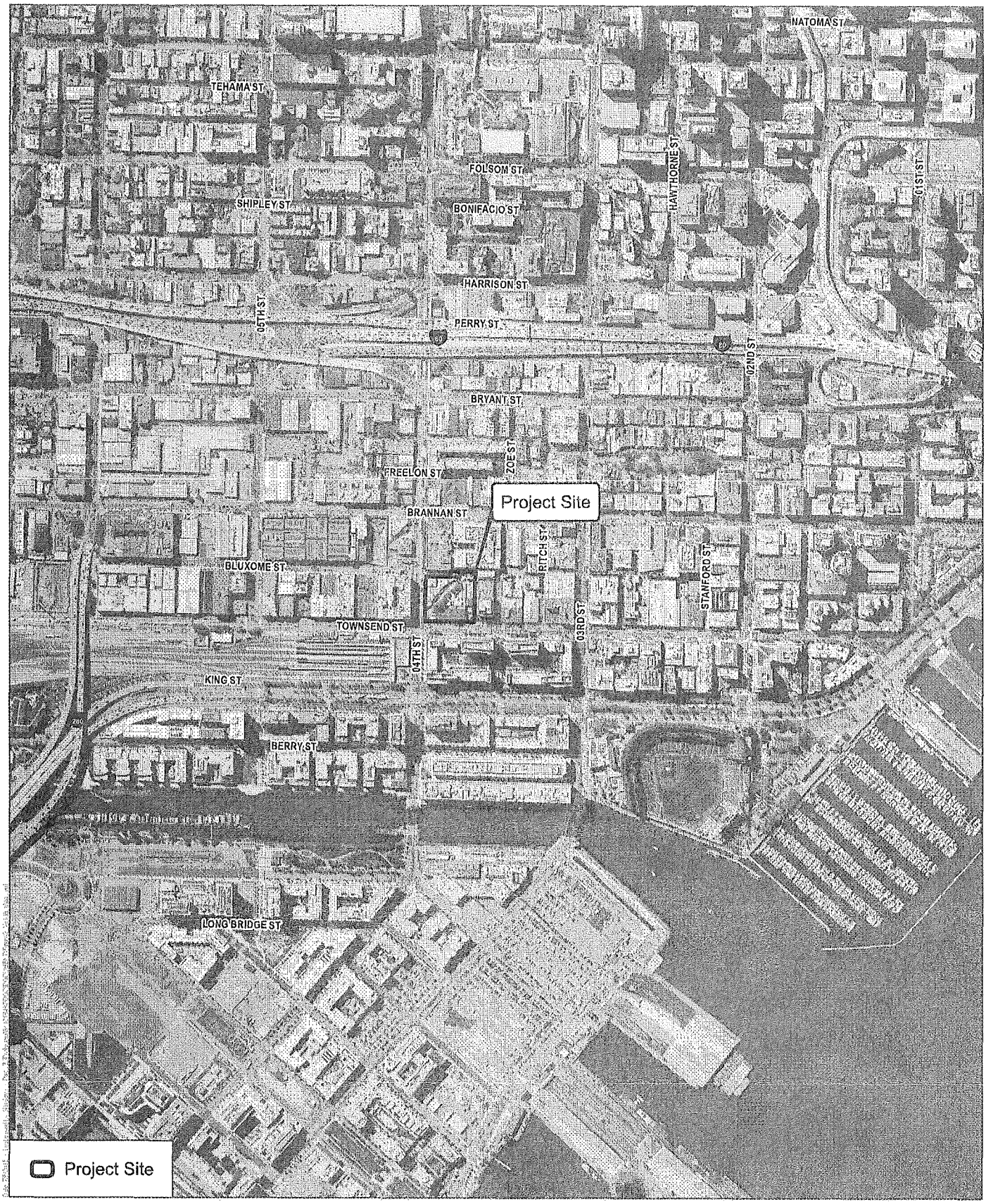

SOURCE: NAIP 2016; San Francisco County 2018

0 350 700 Feet

FIGURE 2

Vicinity Map

655 Fourth Street Project

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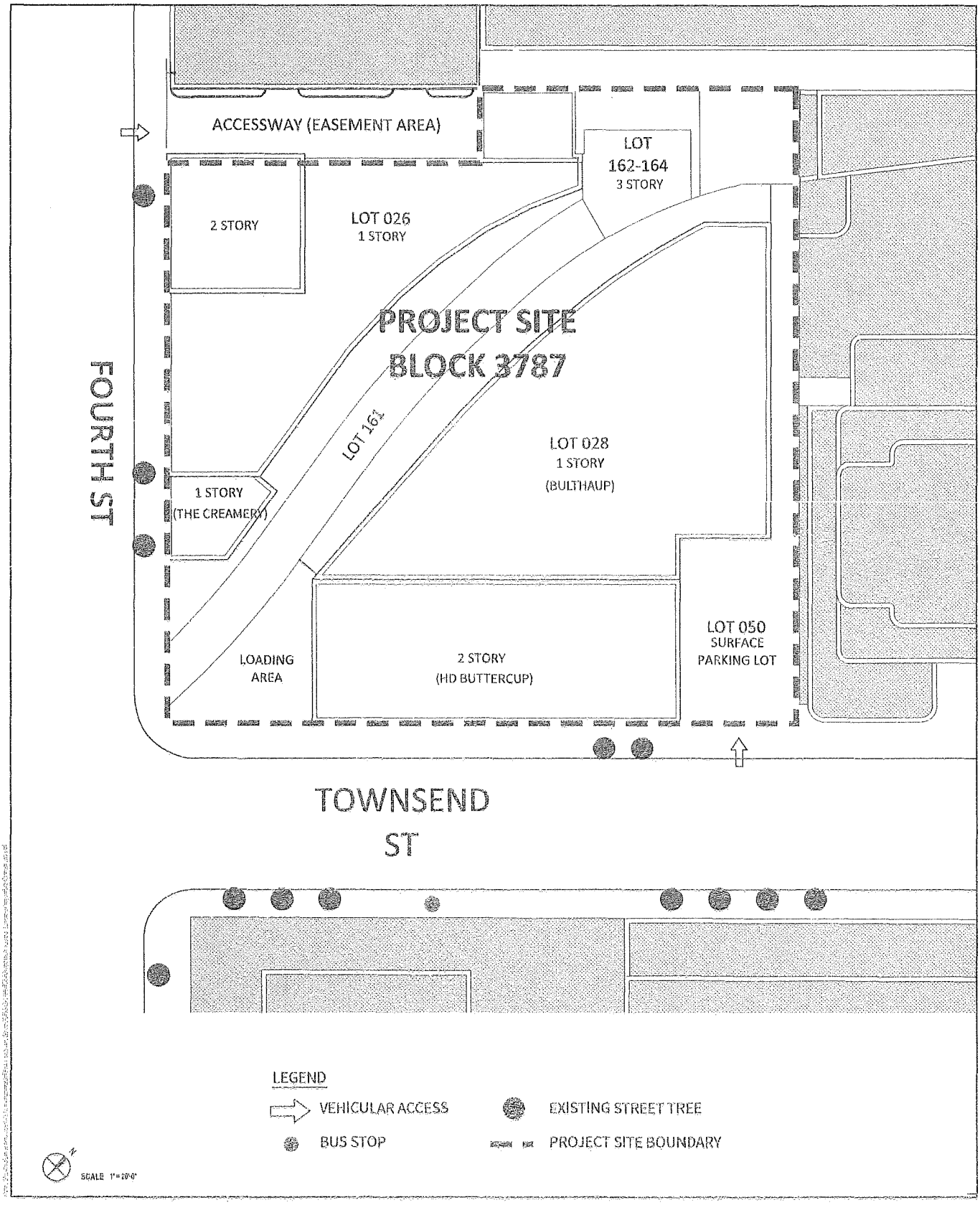

SOURCE: TISHMAN SPEYER

FIGURE 3

Existing Project Site Conditions

655 Fourth Street Project

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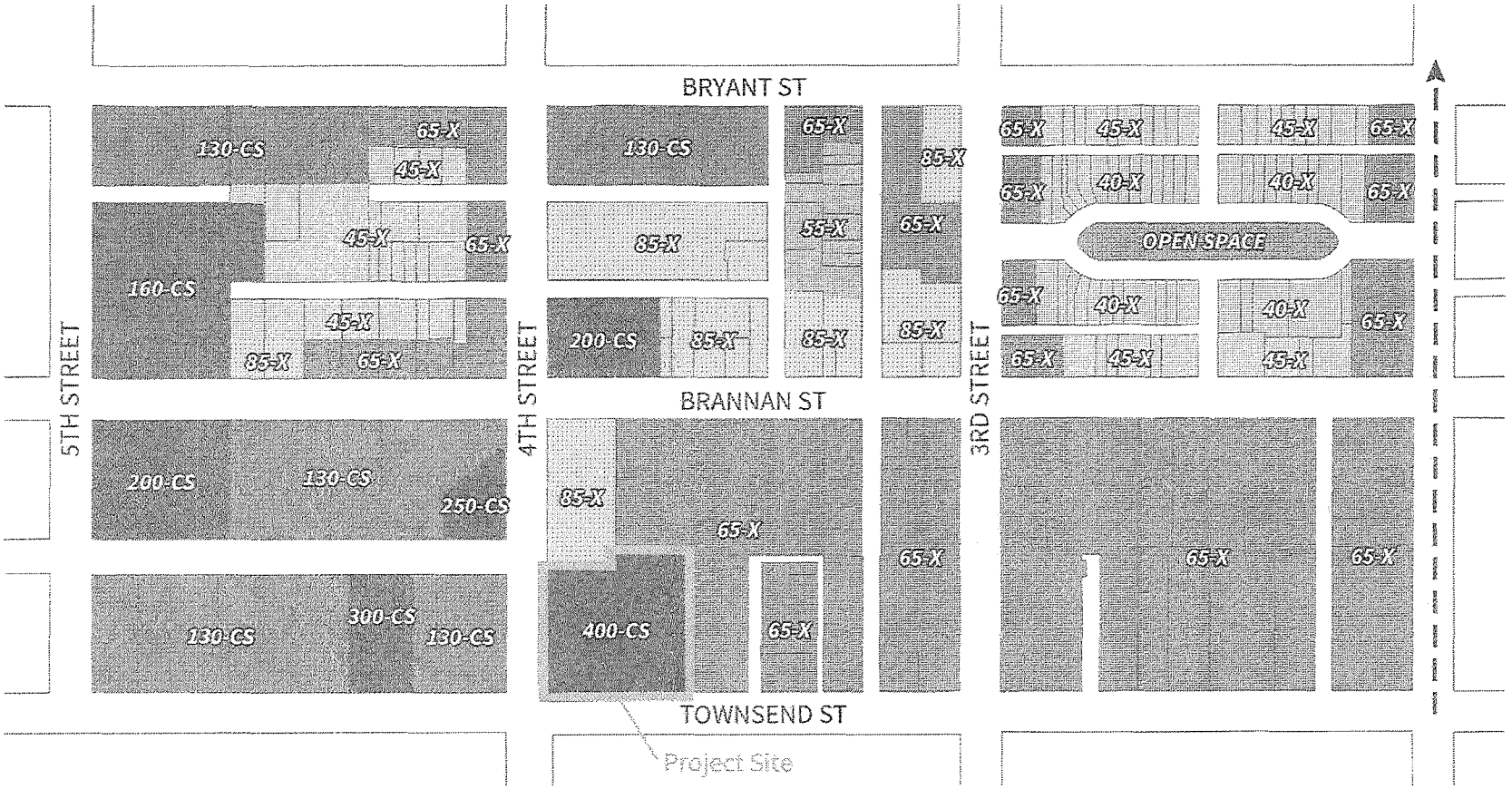

NOTES:
All numbers refer to heights.
For "CS" bulk controls reference the Central SoMa Implementation Matrix.
For all other bulk controls, reference Planning Code Section 270.

SOURCE: San Fransisco Planning, August 2016

FIGURE 4
Height and Bulk Limits
655 Fourth Street Project

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The proposed project would consist of approximately 960 dwelling units in a mix of approximately 242 studios, 330 one-bedroom units, 351 two-bedroom units, and 37 three-bedroom units. In addition, Building 2 would include 38 hotel rooms, which would be located on the sixth and seventh floors. The lobby entrance for the hotel would be accessed through the building's central plaza.

Each building would be made up of two tower structures, one approximately 55 feet taller than the other (**Figure 5**, Axonometric View of Proposed Project). Unlike a typical building where each floor is the same square footage, these buildings would have large ground floors and each subsequent higher floor would be slightly smaller than the floor below it until approximately two-thirds up each tower, when all floors would become uniform in size. This design creates a stepping effect, allowing for private balconies on the lower portions of each tower. Further, cantilevered floors are placed in such a way as to allow for the two segments of the building to operate as separate structures until the seventh floor, where they connect as one building (**Figure 6**, Proposed Project Rooftop View). The two towers would be placed on the site as mirror images of each other. This design would give the impression of four distinct buildings. All towers within the two buildings would include screened rooftop appurtenances, including mechanical elements such as cooling towers, a generator, elevator penthouses, and building maintenance units. All towers would access common basement levels, with residential amenities on the first two levels, such as a swimming pool, a children's play area, a fitness center, bike facilities, pet care, spa facilities; special interest rooms supporting music, games, and maker activities; and car parking on the lowest level. **Figure 7**, Proposed Project Ground Floor Plan, provides a plan view of the proposed ground floor uses and shows the location of the off-site wind screen proposed on Lusk and Townsend streets (described further below).

Building 1

Building 1, on the west side of the project site, would be split into two towers, which, for the purpose of environmental analysis, are referred to as *Tower 1A* and *Tower 1B*.

Tower 1A

Tower 1A would rise 425 feet aboveground (including rooftop appurtenances 25 feet above the highest occupied floor) and have 39 floors of residential units. The ground floor of Tower 1A would feature one level of retail space and residential lobbies facing a landscaped central plaza. As shown in **Table 1**, Tower 1A would have 3,070 square feet of ground-floor retail and 297,075 square feet of residential space. On the ground floor, Tower 1A would be set back from the property line by 44 feet, creating the Fourth Street Plaza. The bases of Tower 1A and Tower 1B would be separated by an approximately 28-foot-wide public pedestrian walkway, known as the Fourth Street Gateway, leading from Fourth Street into the central plaza. After the ground floor of Tower 1A, the first six floors would angle toward Tower 1B until they join together on the seventh floor. The floors of Tower 1B would cantilever toward Fourth Street by 5.5 feet and then by incrementally smaller steps on each floor. The northwest corner of the building would be set back approximately 44 feet from Fourth Street to allow for a landscaped street-level plaza. Pedestrian access to the central plaza would be provided between Tower 1A and Tower 2B from the North Alley.

Table 1
Proposed Building Uses by Gross Square Feet

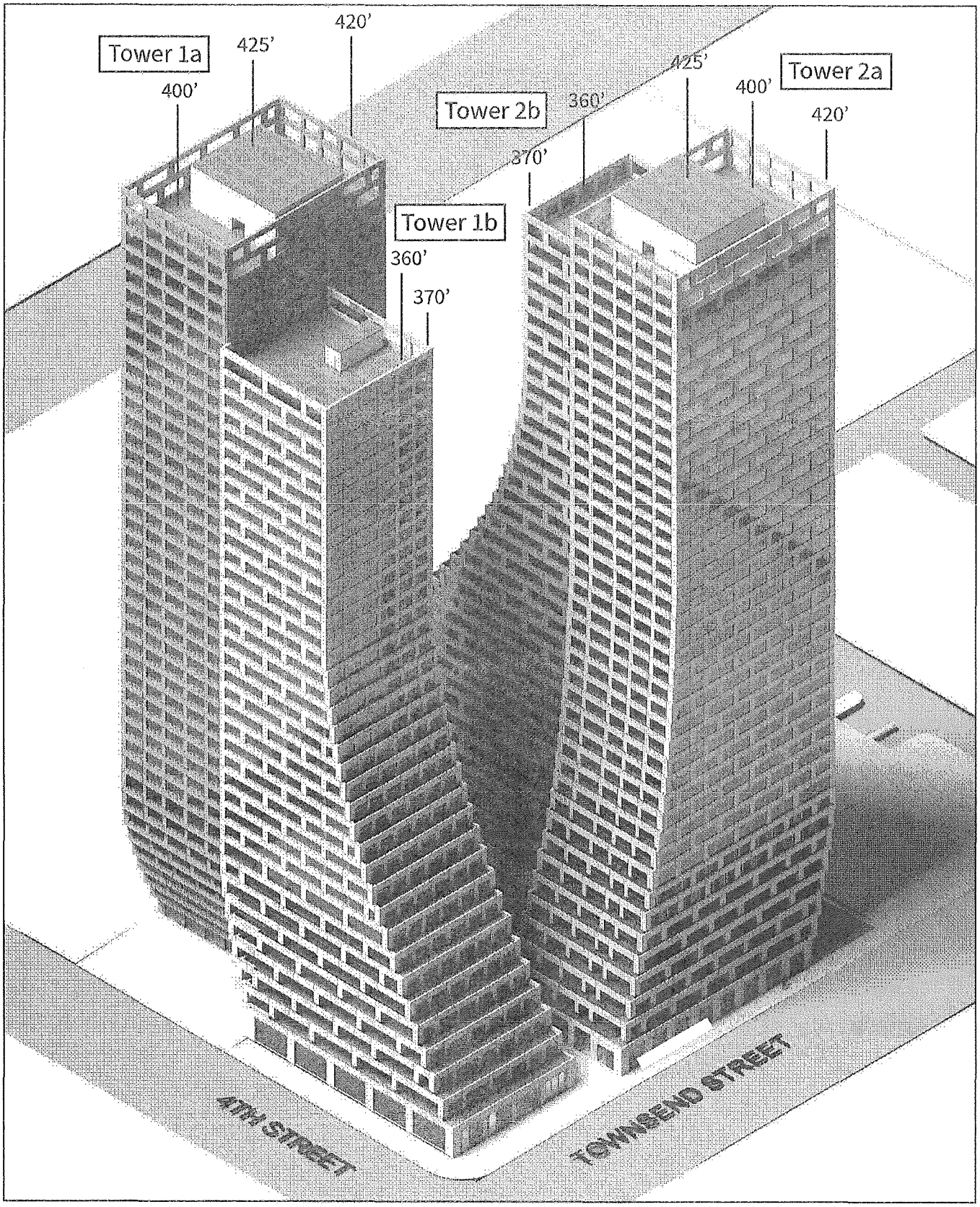
	Tower 1A	Tower 1B	Tower 2A	Tower 2B	Total
Ground-Floor Retail	3,070	4,130	4,254	7,000	18,454
Interior Privately Owned, Public Open Space (POPOS)	—	2,484	—	—	2,484
Office (2nd and 3rd Floors)	—	—	—	21,840	21,840
Hotel (6th and 7th Floors)	—	—	—	24,509	24,509
Residential	297,075	208,986	318,305	179,604	1,003,970
Event (8th floor)*				10,900*	10,900*
Total	**300,145**	**215,600**	**322,559**	**243,853**	**1,082,157**

* Event space will generally serve as a residential amenity during most hours; the frequency of events expected for the space is approximately two large events and two medium-sized events per month.

Note: Table values have been rounded.

Tower 1B

Tower 1B would be 370 feet high, including rooftop appurtenances 10 feet above the highest occupied floor. Similar to Tower 1A, the ground floor of Tower 1B would feature one level of retail space and residential lobbies facing a landscaped central plaza. Tower 1B would have 4,130 square feet of ground-floor retail, 2,484 square feet of interior POPOS, and 208,986 square feet of residential space. Tower 1B's Townsend Street-facing façade would step back 8 feet after the first floor and then in incrementally smaller steps every floor until it reaches a 103-foot setback at 220 feet in height. At this point, the building would rise as a flush vertical façade. Tower 1B's Fourth Street façade would incorporate a smaller incremental setback starting at 2 feet after the first floor and then in incrementally smaller steps every floor until it reaches a height of 85 feet. At 85 feet above street level, the building would reach a 20-foot setback from Fourth Street, at which point it would rise as a flush vertical façade.



SOURCE: TISHMAN SPEYER

FIGURE 5

Axonometric View of Proposed Project

655 Fourth Street Project

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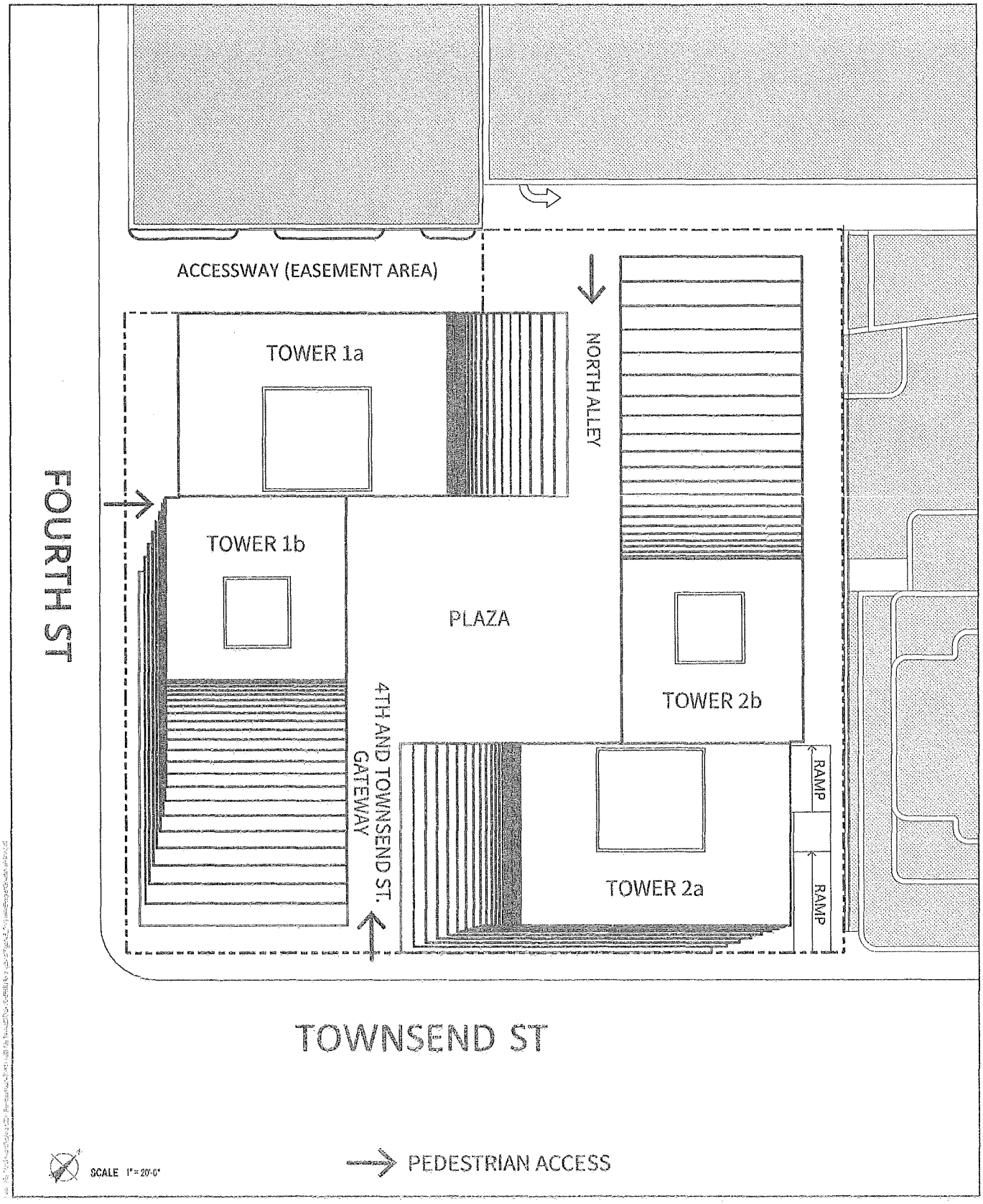

SOURCE: TISHMAN SPEYER

FIGURE 6

Proposed Project Rooftop View

655 Fourth Street Project

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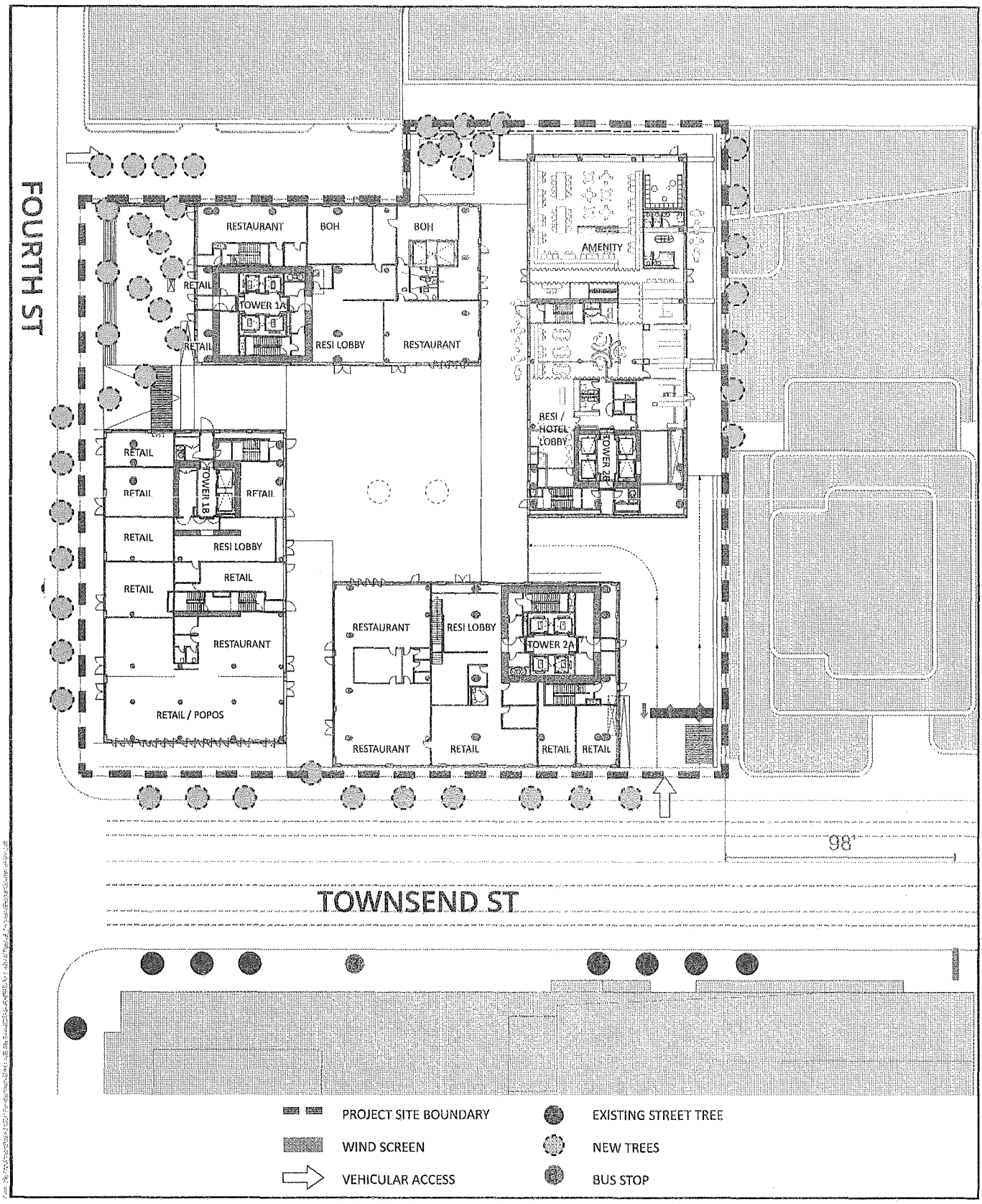

SOURCE: TISHMAN SPEYER

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FIGURE 7

Proposed Project Ground Floor Plan

655 Fourth Street Project

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Building 2

Building 2, on the east side of the project site, would be split into two towers, which, for the purpose of environmental analysis, are referred to as *Tower 2A* and *Tower 2B*. Similar to Building 1, the two towers of Building 2 would be different heights.

Tower 2A

Tower 2A would be 425 feet high, including rooftop appurtenances 25 feet above the highest occupied floor. Tower 2A would front Townsend Street and the adjacent properties to the east of the project site. The tower structures would be mirror images of Building 1, but the 28-foot-wide gap would continue down to the basement level following the footprint of the vehicular ramp. Similar to Building 1, the ground floor would feature 4,254 square feet of retail space and a residential lobby. Above the ground floor, Tower 2A would have 318,305 square feet of residential space. Consistent with Tower 1A, the first six floors of Tower 2A would step toward Tower 2B and the two towers would join together on level seven. Starting at the second floor, the tower would cantilever toward the neighboring property over the driveway on Townsend Street with the same dimensions as Tower 1A of Building 1. On the Townsend Street side, the massing would step back starting at 2 feet after the first floor and then in incrementally smaller steps every floor until it reaches a height of 85 feet. The rooftop appurtenances would be consistent with Tower 1B and reach a height of 25 feet above the top of the last occupied floor. Pedestrian access from Townsend Street to the central plaza would be provided between Tower 1B and Tower 2A through the Fourth Street and Townsend Street Gateway.

Tower 2B

Tower 2B would be 370 feet high, including rooftop appurtenances 10 feet above the highest occupied floor. The ground floor would have 7,000 square feet of retail space and the second and third floors would have 21,840 square feet of office space. Above the ground floor, Tower 2B would have 179,604 square feet of residential space. The sixth and seventh floors would have 38 hotel rooms totaling 24,509 square feet and an entrance through Tower 2B's central plaza frontage. The eighth floor of Tower 2B would contain a 10,900-square-foot residential amenity and event space with an outdoor terrace. It would hold a maximum occupancy of 300 individuals. This space is intended to function as a meeting and event space available for building occupants; it will also be available for rental and reservation by external entities and groups for limited programmed events (approximately two large events and two medium-sized events are expected per month). Large events would include approximately 150–200 people and medium events would include approximately 75–150 people. Events on the exterior eighth floor would generally be restricted to a 10 p.m. completion time, though on occasion events may go beyond 10 p.m. If required, an entertainment event permit would be obtained from the San Francisco Entertainment Commission for associated events. The interior eighth floor event space would have no event restrictions. Tower 2B would be set back 80 feet from Townsend Street at grade to allow room for a vehicular ramp accessing below-grade parking. Unlike Building 1's Tower 1B, Building 2's Tower 2B would start to step back 9.5 feet at 80 feet high. Incremental step-backs would continue until the building reaches a total 125-foot setback from the rear property line at 270 feet high, at which point it would rise as a vertical façade.

Access to the four respective lobbies would be provided through the publicly accessible central courtyard. Ground-floor retail uses would be connected to the central courtyard and to the public right-of-way along Townsend Street and Fourth Street. A 35-foot-wide curb cut on Townsend Street would provide two vehicle lanes and one two-way truck lane to access the vehicular ramp to the basement level, serving the valet parking drop-off and a loading dock with five loading bays.

Floor plans for the 2nd–3rd, 8th, 10th, 33rd–36th, 37th, and 39th floors are shown in **Figures 8–13**.

Loading Dock Operations

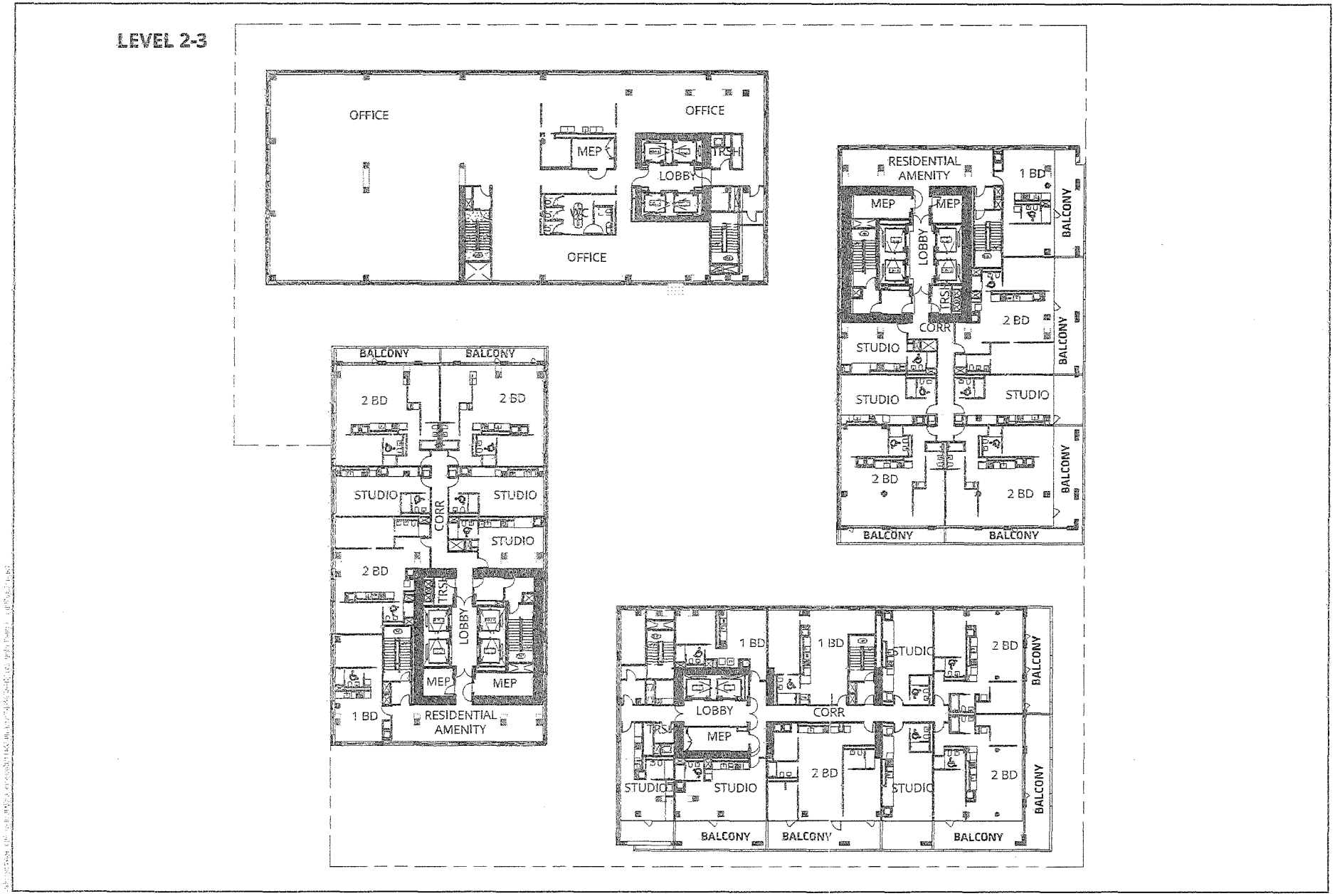
The loading dock would facilitate the majority of delivery operations for the building, including the following:

- Residential move-in and move-out operations
- Residential package, furniture, dry cleaning, grocery, and other deliveries
- Retail food supply/servicing and wholesale delivery
- Refuse compaction and recycling services
- Load in and load out of prepared food and materials for events (as described above)
- Building maintenance service vehicles

The loading dock would also contain a central receiving office and a processing/storage facility for package processing for building residents.

Loading Zones

The project proposes to establish a new on-street loading zone for passenger loading (white curb) along the north side of Townsend Street adjacent to the project site. The zone would measure approximately 120 feet in length (equivalent to approximately five on-street parking spaces). Within this loading zone, 45 feet of the 120-foot loading zone would be reserved for San Francisco Municipal Transportation Agency (SFMTA) vehicles during the hours of 6–9 a.m., Monday through Friday.



SOURCE: Tishman Speyer 2019

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FIGURE 8

Floor Plan: Level 2-3

655 Fourth Street Project

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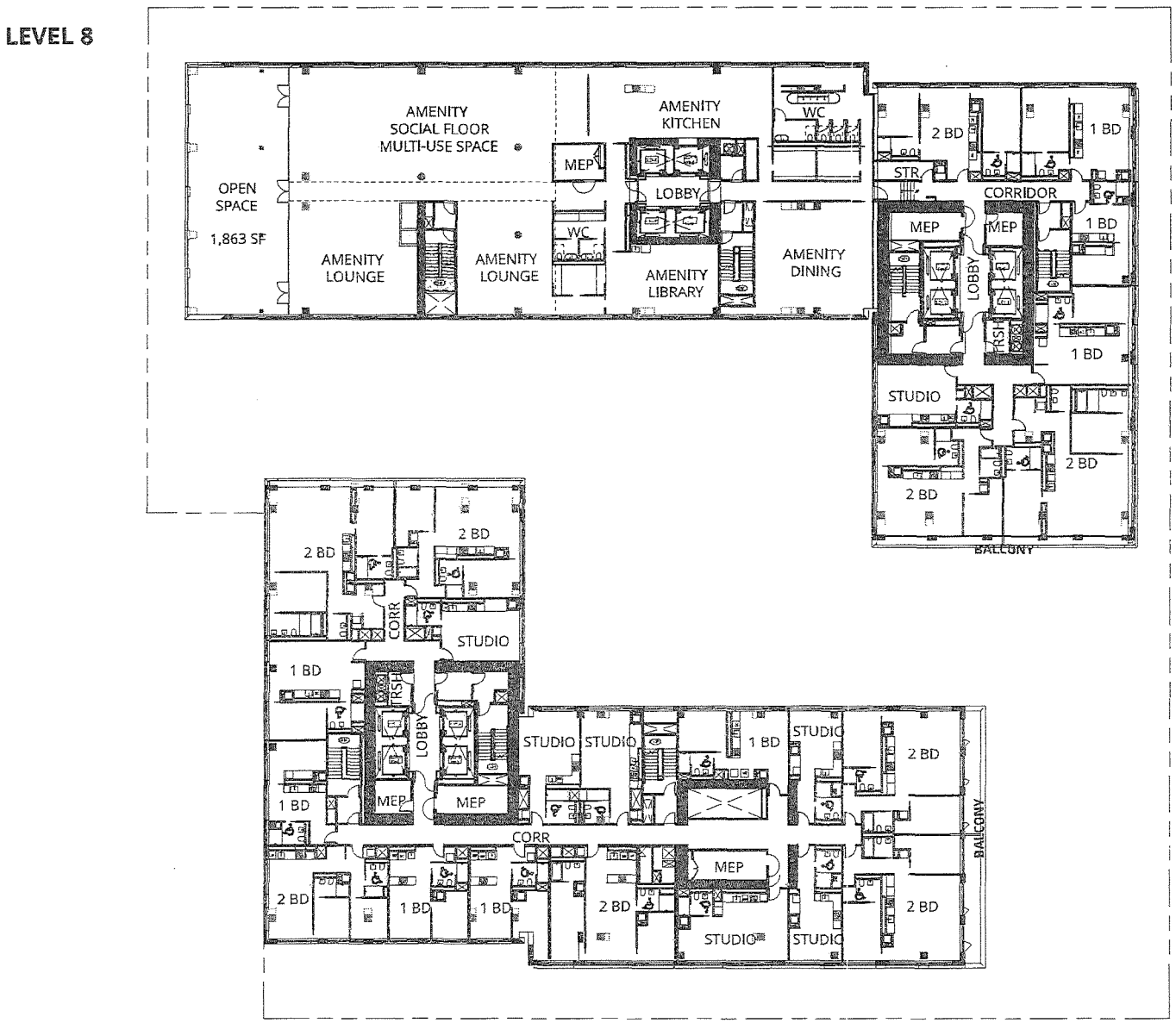

SOURCE: Tishman Speyer 2019

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FIGURE 9

Floor Plan: Level 8

655 Fourth Street Project

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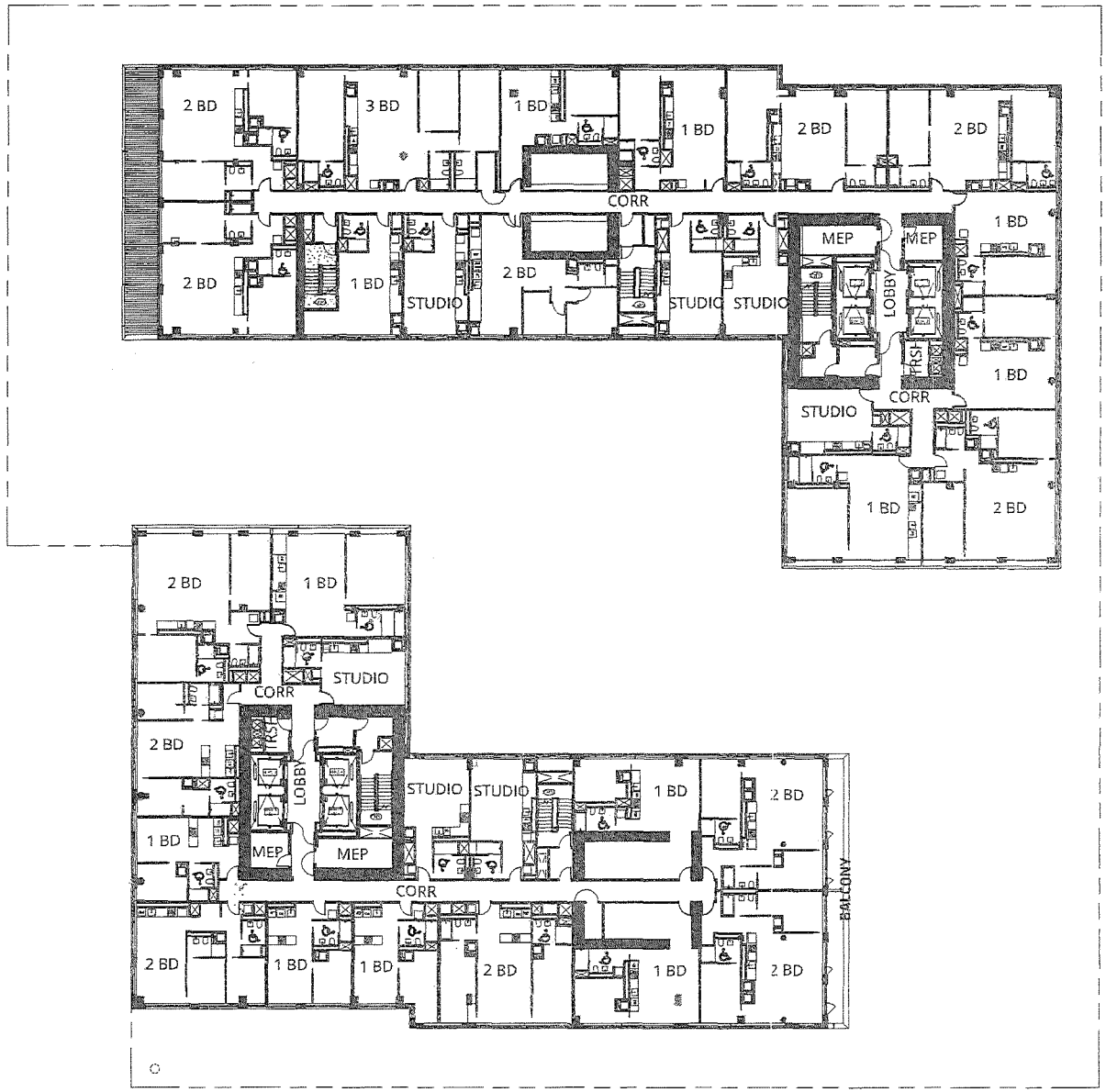

SOURCE: Tishman Speyer 2019

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FIGURE 10

Floor Plan: Level 10

655 Fourth Street Project

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LEVEL 33-36

SOURCE: Tishman Speyer 2019

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FIGURE 11

Floor Plan: Level 33-36

655 Fourth Street Project

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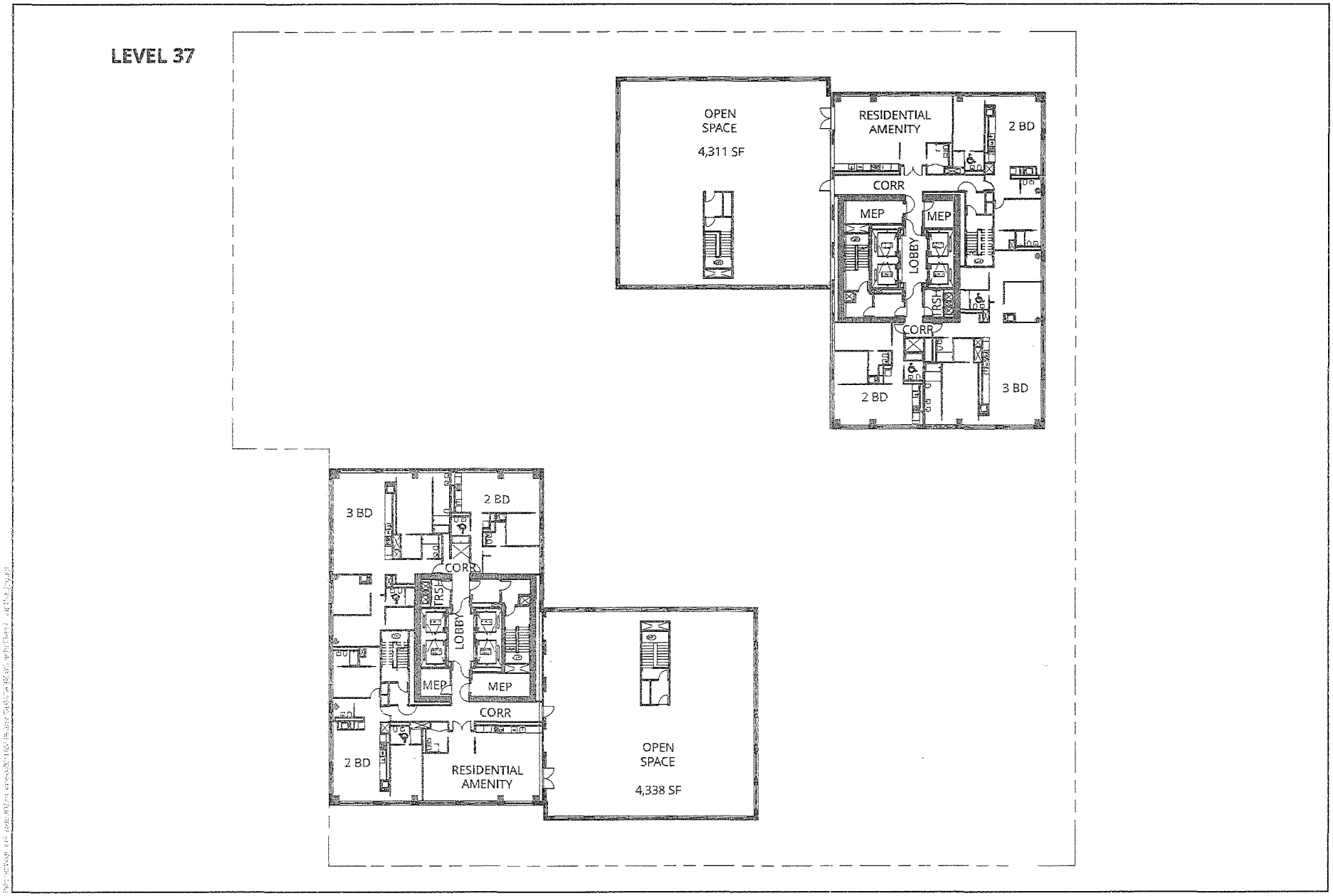

SOURCE: Tishman Speyer 2019

0' 20' 40' 100'

FIGURE 12

Floor Plan: Level 37

655 Fourth Street Project

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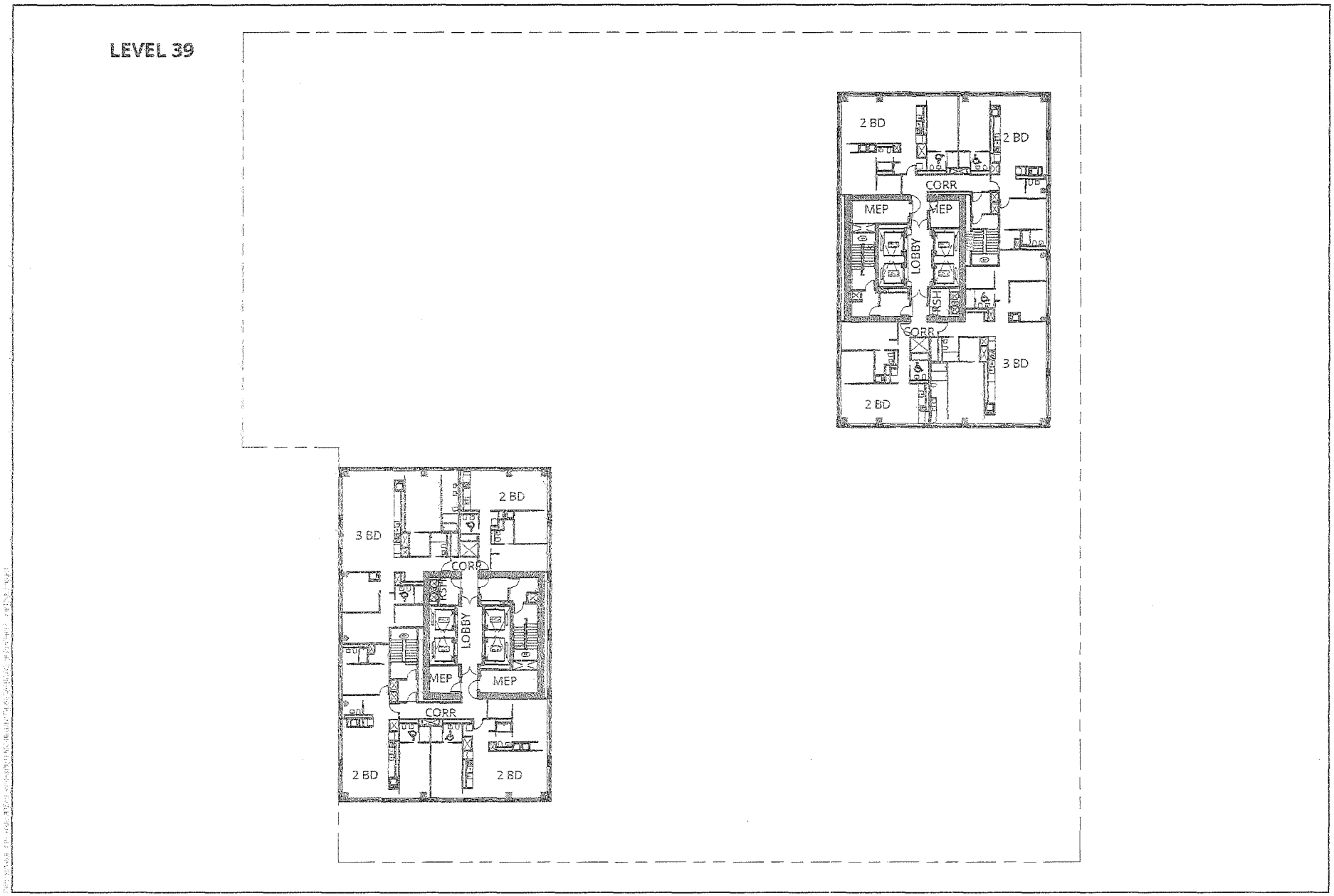

SOURCE: Tishman Speyer 2019

0' 20' 40' 100'

FIGURE 13

Floor Plan: Level 39

655 Fourth Street Project

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Driveway and Loading Operation Plan

The proposed project would result in new construction of more than 100,000 gross square feet; therefore, the proposed project is required to implement a driveway and loading operations plan (DLOP) pursuant to planning code section 155(u). As required under planning code section 155(u), the project sponsor is required to prepare a DLOP to reduce potential conflicts between driveway and loading operations, including passenger and commercial loading activities and pedestrian, bicycles, and vehicles, to maximize reliance of off-street loading spaces to accommodate loading demand, and to ensure that off-street loading activity is considered in the proposed project's design. The proposed DLOP includes the following components:

- *Loading Dock Management.* To ensure that off-street loading facilities are efficiently used, and that trucks that are longer than can be safely accommodated are not permitted to use a building's loading dock, the project sponsor will develop a plan for management of the building's loading dock and ensure that tenants in the building are informed of limitations and conditions on loading schedules and truck size.
- *Loading Dock Attendant.* Building management will employ attendant(s) for the project's loading dock. The attendant would be stationed at the project's driveway to direct freight loading/service vehicles entering and exiting the building and avoid any safety-related conflicts with pedestrians on the sidewalk during the a.m. and p.m. peak periods of traffic, bicycle, and pedestrian activity, with extended hours as dictated by traffic, bicycle, and pedestrian conditions and by activity in the loading dock. The project will also install audible and/or visible warning devices, or comparably effective warning devices as approved by the San Francisco Planning Department and/or the SFMTA, to alert pedestrians of the outbound vehicles from the loading dock.
- *Large Truck Access.* The loading dock attendant will dictate the maximum size of truck that can be accommodated at the on-site loading area. In order to accommodate any large trucks (i.e., generally longer than 40 feet) that may require occasional access to the site (e.g., large move-in trucks that need occasional access for both residential and commercial tenants), the DLOP plan will include procedures as to the location of on-street accommodation, time-of-day restrictions for accommodating larger vehicles, and procedures to reserve available curbside space on adjacent streets from the SFMTA.
- *Trash/Recycling/Compost Collection Design and Management.* The project sponsor or representative will meet with the appropriate representative from Recology (or other trash collection firm) to determine the location and type of trash/recycling/compost bins, frequency of collections, and procedures for collection activities, including the location of Recology trucks during collection. The location of the trash/recycling/compost storage room(s) for each building will be indicated on the building plans prior to submittal of plans to the building department. Procedures for collection will ensure that the collection bins are not placed within any sidewalk, bicycle facility, parking lane or travel lane adjacent to the project site at any time.
- *Delivery Storage.* The loading dock area will be designed to allow for unassisted delivery systems (i.e., a range of delivery systems that eliminate the need for human intervention at the receiving end), particularly for use when the receiver site (e.g., retail space) is not in operation. Examples could include the receiver site providing a key or electronic fob to loading vehicle operators, which enables the loading vehicle operator to deposit the goods inside the business or in a secured area that is separated from the business.

The final DLOP and all revisions will be reviewed and approved by the environmental review officer or designee of the planning department and the sustainable streets director or designee of the SFMTA. The DLOP will be memorialized in the notice of special restrictions on the project site permit.

Parking and Valet Operations

A vehicular ramp from Townsend Street would lead to an approximately 94,500-square-foot, three-level subterranean garage with approximately 276 vehicle parking stalls serving the residential and retail components of the project. There are anticipated to be approximately 40 spaces on basement levels 1 and 2, for a total of 80 spaces, with the balance of the vehicle parking capacity located on basement levels 3 and 4. The garage would be open 24 hours a day, 7 days a week. No vehicle stackers or special parking systems are proposed.

The parking would be unbundled and open to all occupants, visitors, and guests who choose to park their vehicle in the valet-operated garage, as described below. Of the 276 parking spaces, 240 would be made available to residents, 15 would be made available for the retail uses, six spaces for office use, three for hotel guests, and 12 car-share parking spaces.

When vehicles arrive at the first basement level, signage and an attendant would assist drivers in pulling forward and exiting their vehicle. The valet attendant would greet the occupant and request expected time of departure. The attendant would also help guide the occupant to the proper tower. The valet attendant would park the vehicle in one of the levels below. Code-required Americans with Disabilities Act spaces would be provided and managed by the valet operator. If the need arises, specially equipped vehicles would be guided to the appropriate parking space by the valet attendant. When the patron returns for their vehicle, they would either pre-request their car or guests would go to the valet office to pay and request their car. Pre-requested cars would be staged near the pick-up/drop-off zone. The standard garage operation would employ approximately five valet attendants.

Bicycle Parking/Storage

The proposed project would provide 540 class 1 bike parking stalls within three rooms on the basement level and 81 class 2 stalls at-grade near the main pedestrian entries to the buildings.[3] These would be accessed through an elevator connecting to the ground level.

Landscaping

The project would have approximately 59,595 square feet of open space, including 35,100 square feet of private and commonly accessible open spaces for building residents and 2,484 square feet of ground-floor exterior POPOS (**Figure 14**, Proposed Access and Ground Floor Uses). POPOS areas would be provided within the central courtyard between the two buildings, at the Fourth Street Plaza in front of Tower 1A, in other areas in front of or between the buildings, and at an enclosed space at the corner of Fourth and Townsend streets. The POPOS would include landscaped trees and vegetation, seating, and public art displays. The project would include 70-foot by 70-foot privately accessible terraces located on the 37th floor of each building. The amenity floor in Tower 2B would include a terrace on floor eight.

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[3] As defined by the San Francisco Planning Code (section 155.1(A)), class 1 spaces are "spaces in secure, weather-protected facilities intended for use as long-term, overnight, and work-day bicycle storage by dwelling unit residents, nonresidential occupants, and employees," and class 2 spaces are "spaces located in a publicly-accessible, highly visible location intended for transient or short-term use by visitors, guests, and patrons to the building or use."

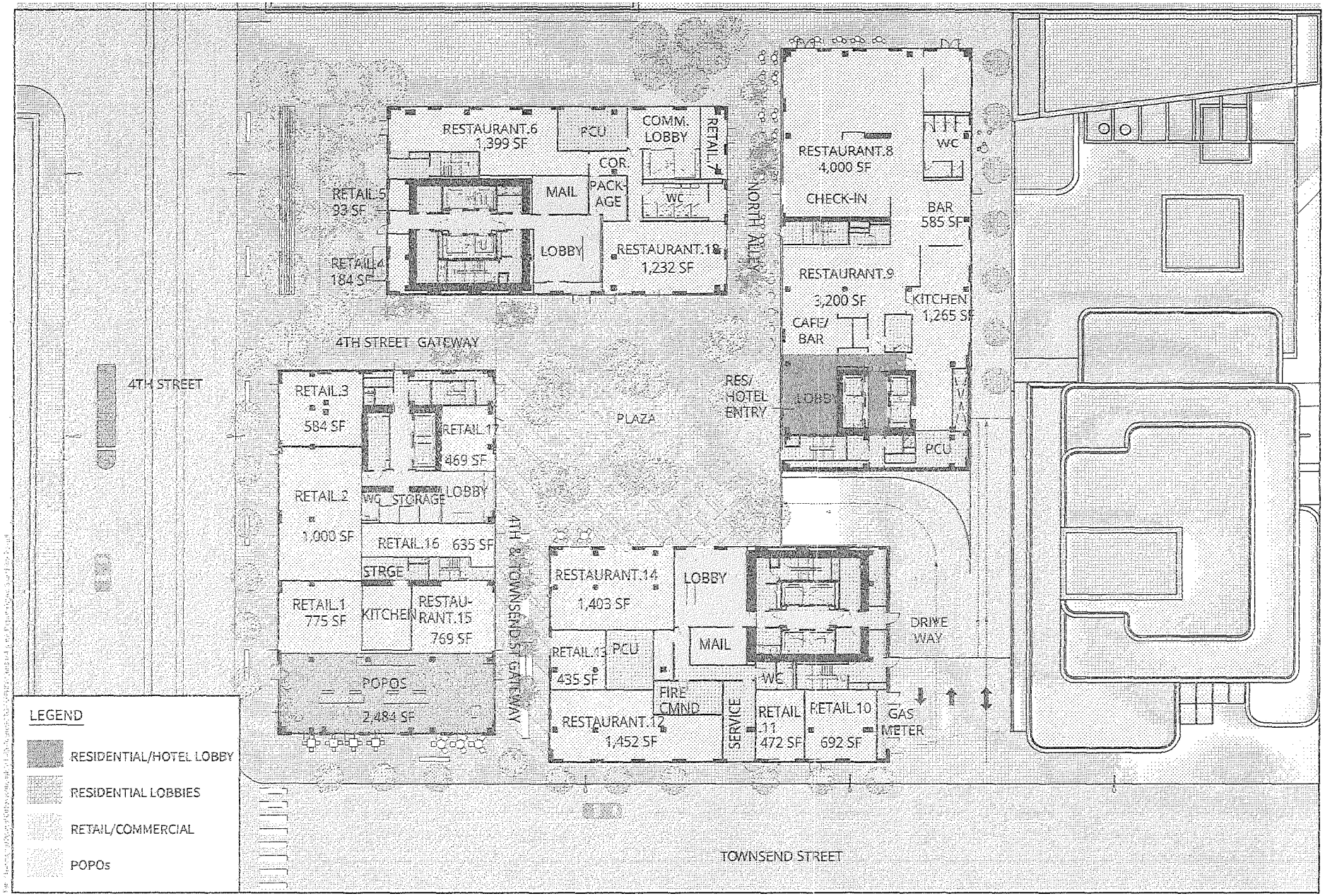

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FIGURE 14

Proposed Access and Ground Floor Uses

655 Fourth Street Project

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Wind Reduction Features

The project design was modified through an iterative process of repeated wind tunnel tests that resulted in the following wind reduction features:

- Tower 1B would be modified to include a design that would add more porosity to the façade, referred to as a *Voided Terrace.*
- Canopies would be installed on Towers 1A, 1B, 2A, and 2B to improve wind speeds within the Central Plaza.
- A 6-foot-wide and 10-foot-tall vegetated wind screen would be installed perpendicular to Townsend Street and 2 feet from the curb near the intersection of Lusk and Townsend streets to improve wind speeds on Townsend Street (see **Figure 15**, Pedestrian Wind Screen on Townsend Street).
- A combination of shrubs (5 feet tall) and porous vines attached to a 10-foot-tall artificial barrier would be installed on site within the alleyways between Towers 1A and 1B, as well as between Towers 1B and 2A and between Towers 1A and 2B, to improve wind speeds in the alleyway.
- Deciduous trees would be installed on the Fourth Street Plaza and within the Central Plaza to improve wind speeds in each respective area.

The project would involve removal of five street trees, including two London plane trees on Townsend Street and three purple leaf plum trees on Fourth Street. Approximately 26 street trees would be planted as part of the project.

The final streetscape would be designed in conformance with the City and County of San Francisco (city) Better Streets Plan[4] and would widen the sidewalks along Fourth Street from 10 feet to the recommended width of 15 feet. The project would also include corner bulb-outs consistent with Better Streets Plan recommendations. On the sidewalk along the south side of Townsend Street near Lusk Street, a 6-foot-wide and 10-foot-tall wind screen would be installed to improve wind speeds on Townsend Street (see **Figure 15**).

Building Designs

Solid L-shaped panels and large glazed openings are proposed for the building façade. The size of the openings would change gradually as the two towers merge. Each rooftop would have a screen wall to conceal cooling towers, mechanical equipment, the elevator penthouse, and building maintenance units. The screen walls on top of Towers 1A and 2A would be 20 feet tall and those on Towers 1B and 2B would be 10 feet tall. The screen would be shorter than the maximum height of some of the rooftop appurtenances; however, the appurtenances would not be visible from the surrounding buildings or the street level. The screen wall system would be an extension of the main tower exterior wall and would be constructed with the same materials, with the exception of custom metal louver grid infills at the openings in lieu of the window glazing used in the tower portion. The acoustical performance of the screen wall system and the metal louver infill would be designed to reduce mechanical equipment noise to below the limits required by article 29 of the San Francisco Police Code, the Noise Ordinance.

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[4] City and County of San Francisco. 2010. *Better Streets Plan.* Adopted December 2010. Available online at: https://sfplanning.org/resource/better-streets-plan, accessed June 3, 2019.

The project would provide one life safety diesel generator in the basement of Tower 2A with an appropriate diesel particulate filter for the engine exhaust. Since the project is not a commercial building, no additional tenant-related generators are anticipated. The project would have multiple domestic hot water and space heating, gas-fired, high-efficiency natural gas boilers located within the tower penthouses.

At roof level (level 41 for the taller towers and level 37 for the shorter towers), each of the taller towers would contain the following mechanical equipment:

- A two-cell cooling tower
- Exhaust fans: bathroom exhaust, residential kitchen exhaust, corridor exhaust, smoke exhaust
- Supply fans: stair pressurization, corridor ventilation air handling units
- Enclosed condenser water pump rooms
- Enclosed boiler rooms

Each of the shorter towers would contain the following mechanical equipment at roof level:

- Exhaust fans: bathroom exhaust, residential kitchen exhaust, corridor exhaust, smoke exhaust
- Supply fans: stair pressurization

Green Building Requirements

The project would feature an on-site rainwater and graywater harvesting and treatment facility that would reuse the treated water to meet 100 percent of the non-potable water demand. Additionally, the project is being designed to achieve Leadership in Energy and Environmental Design (LEED) Silver certification.

The project would provide domestic water sub-metering along with low-flow (WaterSense) fixtures throughout the buildings to track water use.

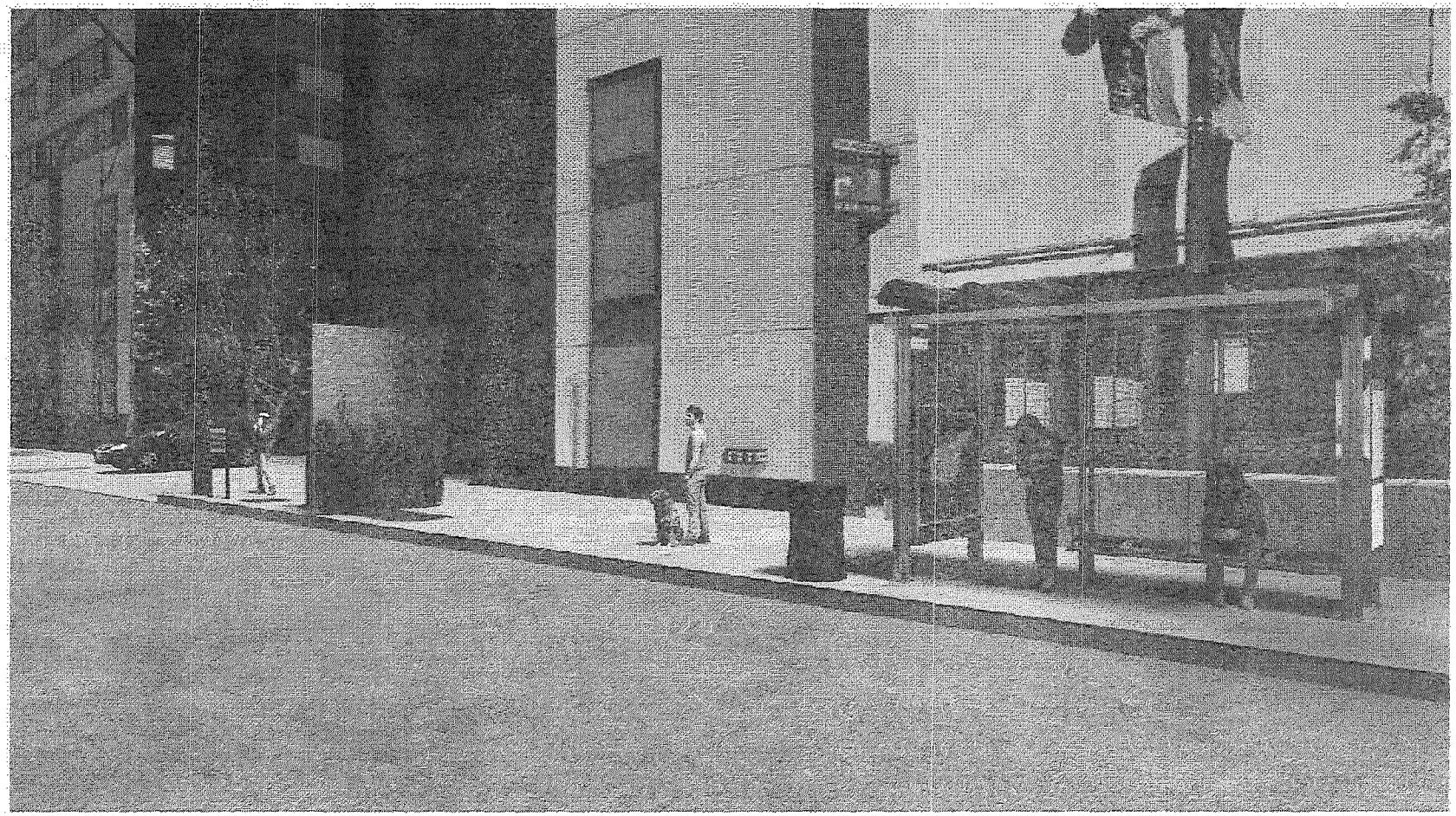

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FIGURE 15

Pedestrian Wind Screen on Townsend Street

655 Fourth Street Project

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Transportation Demand Management Measures

The project would require approval of a Transportation Demand Management Plan pursuant to planning code section 169. The project has elected the following transportation demand management measures to satisfy its obligations under the program:

- *ACTIVE-1: Improve Walking Conditions, Option A (Residential).* The project would complete streetscape improvements consistent with the city's Better Streets Plan and any local streetscape plan to ensure that the public right-of-way is safe, accessible, convenient, and attractive to pedestrians. This would entail widening the sidewalk from 10 feet to the city's recommended sidewalk width of 15 feet adjacent to the site and incorporating additional streetscape design elements and safety tools as identified by city staff that contribute to vehicle-miles-traveled reduction and increased walking.
- *ACTIVE-2: Bicycle Parking, Option A (Retail and Office); Option B (Residential).* The project would provide class 1 and class 2 bicycle parking spaces as required by the planning code for office and retail uses. For residential use, the project would provide one class 1 bicycle parking space for each of the first 100 dwelling units, and one class 1 space for every two dwelling units thereafter. The project would also provide two class 2 bicycle parking spaces for every 20 dwelling units.
- *ACTIVE-5A: Bike Repair Station.* The project would provide a bicycle repair station on site consisting of a designated, secure area within the building, such as within a bicycle storage room or in the building garage, where bicycle maintenance tools and supplies would be readily available on a permanent basis and offered in good condition to encourage bicycling.
- *CSHARE-1: Car Share Parking and Membership, Option C (Retail); Option D (Residential).* For retail uses, the project would provide one car-share membership per employee and car-share parking spaces as required by the planning code. For residential uses, the project would provide one car-share membership per dwelling unit and one car-share parking space per each 80 dwelling units.
- *DELIVERY-1: Delivery Supportive Amenities.* The project would facilitate delivery services by providing an area for receipt of deliveries that offers one of the following: (1) clothes lockers for delivery services; (2) temporary storage for package deliveries, laundry deliveries, and other deliveries; or (3) temporary refrigeration for grocery deliveries.
- *FAMILY-1: Family TDM Amenities, Option A and B (Residential):* The project would provide a secure location for storage of personal car seats, strollers, athletic or extracurricular gear, and cargo bicycles or other large bicycles. The project would also provide one collapsible shopping/utility cart for every 10 dwelling units and one cargo bicycle for every 20 dwelling units. All equipment shall be kept clean and well maintained. Cargo bicycles and carts shall be available for use to any unit by advanced reservation on an hourly basis.
- *FAMILY-3: Family TDM Package:* The project would provide amenities as described for the CSHARE-1 and FAMILY-1 TDM Measures.
- *INFO-1: Multimodal Wayfinding Signage.* The project would provide multimodal wayfinding signage in key locations that can withstand weather elements (e.g., wind, rain). This signage would alert building occupants and visitors to nearby transportation services and infrastructure, including transit, bike-share, car-share parking, bicycle parking and amenities, showers and lockers, and taxi stands.

- *INFO-2: Real-Time Transportation Displays (Residential).* The project would provide real-time transportation information on large television screens or computer monitors in prominent locations (e.g., entry/exit areas, lobbies, elevator bays) to highlight transportation options and support informed trip-making.
- *INFO-3: Tailored Transportation Marketing Services, Option B (Retail & Residential).* The project would provide building occupants with tailored marketing and communication campaigns, including incentives to encourage the use of sustainable transportation modes.
- *PKG-1: Unbundle Parking, Location E.* All accessory parking spaces would be leased or sold separately from rental or purchase fees for the life of the project, so that residents or tenants have the option of renting or buying a parking space at an additional cost and would, thus, experience a cost savings if they opt not to rent or purchase parking.
- *PKG-3: Parking Cash Out: Non-Residential Tenants (Retail).* Any retail tenant employer in the project that subsidizes parking for its employees will be required to provide all employees with a choice of forgoing any subsidized/free parking for a cash payment equivalent to the costs of the parking space to the employer.
- *PKG-4: Parking Supply: Option F (Office); Option H (Residential).* The project would provide accessory parking spaces at rates less than or equal to the applicable neighborhood parking rates for each use category.

To the extent that these measures affect vehicular or bicycle parking, loading operations, and building design, these features have been incorporated into the project's physical description and plans.

Improvements in the public right-of-way would be limited to widening sidewalks, creating bulb-outs, planting street trees, constructing a wind screen (on the south side of Townsend Street), and connecting sewer and stormwater drain services to the existing combined sewer and stormwater system. There are three points of connection on Fourth Street and one connection on Townsend Street.

Relocation of Existing Tenants

The project sponsor has agreements with the existing office, retail, and residential tenants to vacate the premises prior to construction. There are no other relocation plans for existing retail or market-rate residential occupants at the site.

Bird Safe Controls

In compliance with city Standards for Bird-Safe Buildings,[5] all balcony guardrails would be extensions of the solid parapets and would be made from wire mesh with a solid rail. Glass wind barriers at the 37th floor terraces would receive bird-friendly treatment such as Ornilux Bird Protection Glass[6] or similar.

Any lighting would be limited to the ground floor and public terraces on the 8th and 37th floors. All lighting would be shielded or directed downward. There would be no façade up-lighting or beacons.

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[5] City and County of San Francisco. 2011. *Standards for Bird-Safe Buildings.* San Francisco Planning Department. June 2011. Available at: https://sfplanning.org/standards-bird-safe-buildings, accessed June 3, 2019.

[6] Ornilux Bird Protection Glass has a patterned, UV-reflective coating making it visible to birds while remaining virtually transparent to the human eye (http://www.ornilux.com/).

Construction

Construction activities for both Buildings 1 and 2 are anticipated to take approximately 34–36 months. Buildings 1 and 2 would be constructed concurrently; phased construction of the project is not proposed.

The proposed project would use concrete-framed buildings supported on a 12-foot-thick, steel-reinforced concrete mat foundation. No pile driving would be used for the project. A grid of drilled tension piles would be required due to the depth of the proposed basement. The primary structure would consist of cast-in-place concrete core walls, concrete sheer walls, concrete columns, rebar flat slabs below and at grade, and post-tensioned slabs above grade. The 24- to 32-inch-thick concrete core and sheer walls reinforced with dense layers of reinforcing steel would provide the structure's lateral resistance to wind and seismic loads.

The project site would be initially enclosed by a temporary, covered chain-link fence to prepare for demolition of existing structures and other early site activities. It is anticipated that the city's metered parking spaces located on Fourth Street and Townsend Street would be incorporated as part of the site logistics and materials movement plans. Bus stops currently on Fourth Street and Townsend Street would require temporary relocation. Bus stop relocation would be coordinated with SFMTA and subject to SFMTA approval; all temporary relocations would be made within an estimated one-block distance of permanent locations. The bike lane currently located on Townsend Street would also require temporary relocation. Temporary locations for the bike lane would be determined in consultation with San Francisco Public Works and SFMTA at a future date, taking into account cumulative construction conditions within the neighborhood at the times any relocation should occur.

The project site would be operated and managed strictly in accordance with city regulations. It is possible that there would be sidewalk closures and occasional road closures surrounding the project site; all temporary sidewalk and road closures would be subject to SFMTA review.

The three existing buildings on site, adjacent surface parking lots, and access driveway canopies would all require demolition. Any materials that can be recycled would be separated on site from the waste debris. All materials would be loaded by excavator onto covered tractor-trailers and transported to either recycling centers or directly to landfill. All soils, construction waste, and any hazardous waste would be handled in accordance with all federal, state, and local laws, and would be sent to the appropriate facility based on the soil classification, which would be determined during excavation. It is anticipated that there would be approximately 100–150 trucks required to dispose of the demolished materials over an approximately four-week period.

Immediately following demolition, for approximately five to six months, hazardous soils and materials would be removed. Approximately 69,600 square feet of the project site would be excavated to a depth of approximately 55 feet below grade, resulting in the removal of approximately 142,000 cubic yards of earth.

Dewatering wells would be installed to drop the water level within the site and would be contained by a water containment wall. The project would only require dewatering during construction and only to the depth necessary to support construction of the foundation. The tie-back shoring system, or equivalent shoring system, would follow closely behind the mass excavation. The entire excavation and shoring operation would take five to six months. The anticipated equipment and time durations required to accommodate and supply the mass excavation and temporary shoring operations are discussed below.

Foundation construction would require two to three months to complete. Following installation of the tension piles, a single mat slab (4–12 feet thick) would be cast in two weekend operations. Nighttime work is anticipated during the continuous concrete pours for the foundation. Approximately 1,200 concrete mixers would be required over a continuous 24-hour period to pour the mat slab. The mat slab would require nighttime work for approximately eight nights (Friday and Saturday nights for four weekends); all other construction on the project is anticipated to be completed within standard business hours.

Once the mat slab is poured, basement construction would immediately follow. It would require four to six concrete pours per week; each concrete pour would require 20–40 trucks. Construction of the four basement floors would take approximately five to six months. No nighttime work is anticipated during construction of the basement floors.

Construction of the concrete and steel buildings would begin immediately after the basement is completed to the ground floor. Daily deliveries of steel-reinforcing anchors, link beams, and other materials would occur as the flow of construction dictates. The concrete requirements would be the same as the basement construction: there would be four to six concrete pours per week, and each pour would require 20–40 trucks. This concrete schedule would continue for an additional 9 to 11 months after basement construction; the entire concrete structure and exterior façade construction is expected to be completed over a 12- to 14-month timeframe.

Construction of the exterior wall would begin once the concrete superstructure is completed past the seventh floor, completing approximately one floor of exterior wall panels per week. Façade panel deliveries would take place on a daily basis. Interior framing and finishes would take approximately 16 months to complete. External paving and landscaping would begin once the superstructure and external wall is built and would require approximately four months to complete.

There would be approximately 8–10 days of nighttime work for additional activities that are required to occur at night by the San Francisco Building Department (e.g., large equipment deliveries, tower crane erections, and oversized loads). The project sponsor would apply to the city for permits for these additional activities on an as-required basis. These activities would take place at the commencement of the basement excavation and construction, and at the commencement of construction of the concrete super-structures.

Project Approvals

The proposed project would require the following approvals:

San Francisco Board of Supervisors

- Approval of sidewalk legislation and a major encroachment permit

San Francisco Planning Commission

- A large project authorization, with exceptions, per planning code section 329 for projects entailing new construction of a building taller than 85 feet in height or greater than 25,000 gross square feet in floor area
- Conditional use authorization per planning code sections 317 and 848 to establish a new hotel use and remove two existing residential dwelling units from the property
- Adoption of findings of consistency with the San Francisco General Plan and priority policies of planning code section 101.1
- San Francisco General Plan referral for sidewalk legislation to widen sidewalks, implement streetscape improvements, and implement other public realm improvements

San Francisco Public Works

- Review and approval of permits for street improvements for modifications to public sidewalks, street, trees, and curb cuts
- Approval of permits for streetscape occupancy during construction
- Recommendation to the board of supervisors for sidewalk legislation and a major encroachment permit, and approvals to implement streetscape and other public realm improvements
- Approval of parcel mergers and airspace parcel (condominium) maps

San Francisco Department of Building Inspection

- Approval of demolition permits for existing buildings, grading/excavation permits, and site/building permits for new construction
- Approval of a permit for nighttime construction

San Francisco Municipal Transportation Agency

- Approval of special traffic permits for temporary occupancy of streets and sidewalks during construction by the Sustainable Streets Division
- Approval of construction within the public right-of-way (e.g., bulb-outs, wind screen and sidewalk extensions)
- Approval of designated color curbs for on-street freight or passenger loading, or other restricted parking for the benefit of tenants, operators, and customers
- Review and approval of proposed changes to on-street passenger loading zones, if necessary

San Francisco Public Utilities Commission

- Approval of a stormwater management plan that complies with the city's stormwater design guidelines, including an erosion and sediment control plan (Public Works Code article 4.1)
- Approval of any changes to existing publicly owned fire hydrants, water service laterals, water meters, and water mains and approval of new fire, standard, irrigation, and recycled water service laterals
- Approval of a landscape plan and a water supply assessment
- Approval of the use of dewatering wells (Public Health Code article 12B) and required documentation per the Non-Potable Water Ordinance (joint approval by Department of Public Health)

San Francisco Department of Public Health

- Approval of a construction dust control plan per Health Code article 22B
- Approval of a site mitigation plan in compliance with article 22A of the San Francisco Health Code
- Approval of a work plan for soil and groundwater characterization, if determined necessary
- Approval of required documentation per the Non-Potable Water Ordinance (joint approval by the San Francisco Public Utilities Commission)
- Review for compliance with article 38 of the Health Code for enhanced ventilation

Bay Area Air Quality Management District

- Approval of a permit to operate the proposed backup emergency generator

The *approval action* for the proposed project is the approval of the large project authorization by the planning commission. The approval action date establishes the start of the 30-day appeal period for this California Environmental Quality Act (CEQA) determination pursuant to section 31.04(h) of the San Francisco Administrative Code.

B. COMMUNITY PLAN EVALUATION OVERVIEW

CEQA section 21083.3 and CEQA Guidelines section 15183 mandate that projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an environmental impact report (EIR) was certified, shall not be subject to additional environmental review except as might be necessary to examine whether there are project-specific significant effects that are peculiar to the project or its site. Guidelines section 15183(c) specifies that if an impact is not peculiar to the parcel or to the proposed project, then an EIR need not be prepared for the project solely on the basis of that impact.

This initial study evaluates the potential project-specific environmental effects of the proposed 655 Fourth Street project described above and incorporates by reference information contained in the Central SoMa PEIR.[7] The following project-specific studies were prepared, or reviews conducted, for the proposed project to determine if the project would result in any significant environmental impacts that were not identified in the Central SoMa PEIR[8]:

- Archeology review
- Pedestrian wind study
- Transportation study
- Supplemental wind screen analysis
- Assessment of transportation hazards related to proposed wind screen
- Shadow analysis
- Noise and vibration assessment
- Water supply assessment
- Air quality analysis
- Geotechnical report
- Greenhouse gas compliance checklist
- Phase I environmental site assessment

C. PROJECT SETTING

Site Vicinity

The surrounding neighborhood is a mix of commercial, residential, and entertainment land uses housed in a mixture of primarily three- to seven-story buildings, ranging from 30 to 70 feet in height (**Figure 3**). The neighborhood (sometimes referred to as China Basin) is built largely on landfill along the southern edge of SoMa. As noted above, the elevated I-80 structure is located approximately two blocks northwest of the site where it crosses above Fourth Street, and the Caltrain Station is located diagonally across the street, bounded by

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7 San Francisco Planning Department. Central SoMa Plan Final Environmental Impact Report. Planning Department Case Number 2011.1356E. Available online at: https://sfplanning.org/environmental-review-documents?field_environmental_review_categ_target_id=214&items_per_page=10, accessed June 3, 2019.

8 Project-specific studies prepared for the 655 Fourth Street project are available for public review at the Planning Department, 1650 Mission Street, 4th Floor, San Francisco, CA 94103 as part of case file number 2014-000203ENV.

Townsend Street to the north and Fourth Street to the east. Oracle Park is located two blocks to the southeast along the King Street corridor, which is developed with residential condominiums and numerous restaurants. Extensive public transportation (four to six lines depending on time of day) also runs along this portion of King Street. The Muni Metro Central Subway extension is currently under construction (scheduled to be completed in late 2019) and will operate along and beneath Fourth Street in the future, with the closest stop at Fourth Street and King Street.

There are no hospitals, daycare facilities, housing for older adults, or convalescent facilities within 0.5 miles of the project site. The nearest schools to the project site are the Bessie Carmichael Middle School on Harrison Street, which is west of Fourth Street, approximately 0.4 miles northeast of the project site, and the Five Keys Charter School on Oak Street, which is north of Bryant Street, approximately 0.4 miles west of the site. The nearest childcare centers are the Yerba Buena Gardens Child Development Center, approximately 0.8 miles northeast of the project site, and the Mission Head Start Mission Bay Child Development Center, approximately 0.6 miles southeast of the project site. The nearest residence to the project site is located 35 feet northwest of the project site.

Cumulative Setting

CEQA Guidelines section 15130(b)(1)(A) defines cumulative projects as past, present, and reasonably foreseeable projects producing related or cumulative impacts. CEQA Guidelines section 15130(b)(1) provides two methods for cumulative impact analysis: the "list-based approach" and the "projections-based approach." The list-based approach uses a list of projects producing closely related impacts that could combine with those of a proposed project to evaluate whether the project would contribute to significant cumulative impacts. The projections-based approach uses projections contained in a general plan or related planning document to evaluate the potential for cumulative impacts. This project-specific CEQA analysis employs both the list-based and projections-based approaches to the cumulative impact analysis, depending on which approach best suits the resource topic being analyzed. The following is a list of projects in the general vicinity of the project site that may be included in the cumulative analysis for certain localized impact topics (e.g., cumulative shadow and wind effects). The following projects within the Central SoMa Plan area have environmental review applications on file and were already evaluated programmatically within the Central SoMa PEIR.

- **505 Brannan Street (Case No. 2015-009704ENV):** The proposed 505 Brannan Street Project would consist of a vertical addition providing up to 156,000 square feet of office space on 11 floors above the existing building. The completed building would have a height of 240 feet
- **598 Brannan Street (Case No. 2012.0640E):** The proposed development would demolish the four existing one- and two-story commercial, industrial, and warehouse buildings and associated surface parking lots and construct four new buildings containing 922,700 square feet of office, 60,500 square feet of retail/production distribution repair space, 5,600 gross square feet of child care space, and 72 dwelling units. The 598 Brannan Street Project would also include a new approximately 38,000 square-foot park at the center of the development site
- **610–698 Brannan Street (Flower Mart site) (Case No. 2015-004256ENV):** The proposed development would demolish all existing buildings on the project site and construct three new buildings containing office space, retail/restaurant space, and the new wholesale flower market. The proposed project would include approximately 2,352,000 square feet of new construction, consisting of 2,032,800 square feet of office space, 204,000 square feet of retail/restaurant space, and 115,000 square feet of vendor space for the new wholesale flower market

- **88 Bluxome Street (Tennis Club site) (Case No. 2015-012490ENV):** The proposed development would include the demolition of the existing building on the project site and construction of three new buildings containing approximately 840,100 square feet of office space, 8,100 square feet of production distribution repair space, 16,600 square feet of ground floor retail/restaurant, 4,600 square feet of a child care facility, 29,700 square feet of a community/recreation center, 134,00 square feet of a private tennis club, and up to 118 units of affordable housing. The proposed 88 Bluxome Street Project includes approximately 1,262,400 square feet of new construction
- **636–648 Fourth Street (2015-003880ENV):** The proposed development would include the demolition of the existing one- and two-story commercial buildings and general advertising billboard and proposes to construct a 350-foot-tall primarily residential tower with 427 units and approximately 3,200 square feet of ground-floor commercial space
- **330 Townsend Street (2016-009102ENV):** The proposed development would include demolition of the existing two-story and partial basement office building and construct an approximately 300-foot-tall, mixed-use retail and residential building. The 330 Townsend Street Project proposes to include approximately 375 dwelling units and 12,000 square feet of retail space

Other cumulative projects in the project area consist of the following, which were included in the cumulative analysis for the Central SoMa PEIR:

- The Sixth Street Improvement Project (Case No. 2014.1010E), which would reduce two existing travel lanes on Sixth Street in each direction to a single lane in each direction, along with right-of-way and sidewalk improvements between Market and Bryant streets
- The University of California San Francisco's Long-Range Development Plan, which guides growth and directs the planning of 2.4 million gross square feet of University of California San Francisco's research and development, institutional, housing, and recreational uses over a 20-year period
- The San Francisco Giants' Mission Rock/Seawall Lot 337 Project (Case No. 2013.0208E) on a parcel bounded by Third Street, Terry A. Francois Boulevard, Mission Rock Street, and China Basin Park adjacent to Pier 48 that would be developed to include up to approximately 1.6 million gross square feet of residential uses (1,600 units), up to 1.4 million gross square feet of commercial uses, and about 5.4 acres of open space throughout the parcels
- Downtown Rail Extension, which will extend Caltrain commuter rail from its current terminus at Fourth and King streets to the new transit center; it will also deliver the California High-Speed Rail Authority's future high-speed rail service to the transit center
- Transbay Program Phase 2, which proposes construction of a new Fourth and Townsend Street Caltrain station; completion of the transit center's train station, including a pedestrian connection to BART and Muni; and a new intercity bus facility

The following projects were not analyzed in the cumulative analysis in the Central SoMa PEIR, but are within 0.25 miles of the project site and thus included in the cumulative analysis for the 655 Fourth Street Project:

- **Brannan Street Safety Project (Case No 2018-014568ENV):** SFMTA has proposed pedestrian and bicycle safety improvements along Brannan Street between The Embarcadero and Division Street, including a road diet from four travel lanes to three travel lanes, with a center two-way left-turn lane; bicycle lanes in both directions; intersection improvements including left-turn pockets and

pedestrian safety enhancements (e.g., crosswalk improvements); and signal timing changes. The Central SoMa PEIR evaluated, at a project level, similar changes to Brannan Street that would include a road diet, but only between Second to Sixth streets.

- **Townsend Corridor Improvement Project (Case No. 2018-011913ENV):** SFMTA is proposing improvements along Townsend Street between The Embarcadero and Eighth Street, including enhancements to existing bikeway facilities and improving connections to transit and surrounding destinations. A preferred design for near-term improvements has been developed for the segment between Fourth Street and Eighth Street that includes protected bicycle lanes and a new "sidewalk island" along the south side of the street between Fourth Street and Fifth Street to provide a continuous raised sidewalk along this section and physically separate bicyclists from moving vehicle traffic in the eastbound direction.
- **Fifth Street Improvement Project** (Case No. 2019-012169ENV): SFMTA would implement bicycle, pedestrian, transit, and loading/parking improvements along Fifth Street between Townsend and Market streets in the SoMa neighborhood. This project is a Vision Zero Project, and, while the Central SoMa PEIR discusses Vision Zero, this specific Fifth Street Improvement Project was not originally included in the Central SoMa PEIR cumulative analysis.

The nearest open spaces to the project site are Victoria Manalo Draves Park (on Sherman Street just west of I-80 and northwest of the project site), South Park Children's Play Center, and Gene Friend Recreation Center (at Sixth and Folsom streets); each of these parks is a Recreation and Parks Department property. Mission Creek Park (on the edge of Mission Creek at Fifth Street) and South Beach Park (north of Oracle Park) are under the jurisdiction of the Office of Community Investment and Infrastructure. There are other privately owned, publicly accessible plazas, gardens, and open spaces nearby, including areas associated with Oracle Park.

D. SUMMARY OF ENVIRONMENTAL EFFECTS

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

☐ Land Use/Planning	☐ Greenhouse Gas Emissions	☐ Hydrology/Water Quality
☐ Aesthetics	☒ Wind	☐ Hazards & Hazardous Materials
☐ Population and Housing	☐ Shadow	☐ Mineral Resources
☒ Cultural Resources	☐ Recreation	☐ Energy
☐ Tribal Cultural Resources	☐ Utilities/Service Systems	☐ Agriculture and Forestry Resources
☒ Transportation and Circulation	☐ Public Services	☐ Wildfire
☒ Noise	☒ Biological Resources	
☒ Air Quality	☐ Geology/Soils	

E. EVALUATION OF ENVIRONMENTAL EFFECTS

The Central SoMa PEIR identified significant plan-level impacts related to land use, cultural resources, transportation and circulation, noise and vibration, air quality, wind, biological resources, and hazards and hazardous materials. Additionally, the Central SoMa PEIR identified significant cumulative impacts related to land use, cultural resources, transportation and circulation, noise and vibration, and air quality. Mitigation measures were identified for the above impacts; these would reduce impacts to biological resources and hazards and hazardous materials to less-than-significant levels, but would not reduce impacts to the remaining resource topics to less-than-significant levels. Therefore, environmental impacts resulting from implementation of the plan related to land use, cultural resources, transportation and circulation, noise and vibration, air quality, and wind would remain significant and unavoidable.

This initial study checklist evaluates whether the environmental impacts of the proposed project are addressed in the Central SoMa PEIR, certified on May 10, 2018. This initial study checklist provides a project-specific and cumulative analysis of environmental effects to determine whether the proposed project would result in significant impacts that are peculiar to the project or project site; that were not identified as significant project-level, cumulative, or off-site effects in the Central SoMa PEIR; or that were previously identified as significant effects that, as a result of substantial new information that was not known at the time that the Central SoMa PEIR was certified, are determined to have a more severe impact than discussed in the Central SoMa PEIR (reference to the Central SoMa PEIR in this document includes, by reference, analysis contained in the Central SoMa initial study). Such impacts, if any, will be evaluated in a project-specific mitigated negative declaration or environmental impact report. If no such impacts are identified, no additional environmental review will be required for the project beyond that provided in the Central SoMa PEIR and this project-specific initial study in accordance with CEQA section 21083.3 and CEQA Guidelines section 15183. As discussed below in this initial study checklist, the proposed project would not result in new significant environmental effects, effects that are peculiar to the project site, or effects of greater severity than were already analyzed and disclosed in the Central SoMa PEIR.

Mitigation measures identified in the Central SoMa PEIR are discussed under each topic area, and measures that are applicable to the proposed project are summarized in the relevant sections of this initial study. Applicable project mitigation measures are denoted by topic code and number. For example, Project Mitigation Measure M-CR-1 refers to the first identified cultural resource mitigation measure that applies to the proposed project.[9] The full text of mitigation measures that are applicable to the proposed project is included in the mitigation monitoring and reporting program (Attachment B to the Community Plan Evaluation Certificate of Determination).

Updates to the Initial Study Checklist

In March 2019, the San Francisco Planning Department updated its initial study checklist to reflect revisions made by the California Natural Resources Agency to Appendix G of the CEQA Guidelines. The topics and questions in the department's revised checklist are reflected in this initial study checklist.

[9] Note that some Central SoMa PEIR mitigation measure topic codes differ from those in this initial study checklist because this initial study checklist has been updated to reflect revisions to CEQA Guidelines Appendix G (see Updates to the Initial Study Checklist).

Aesthetics and Parking Impacts for Transit Priority Infill Development

CEQA section 21099(d) states, "Aesthetic 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."[10] Accordingly, aesthetics and parking are not 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:

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

The proposed project meets each of the above three criteria; thus, this checklist does not consider aesthetics or parking in determining the significance of project impacts under CEQA.[11]

E.1 Land Use and Planning

Central SoMa PEIR Analysis

The Central SoMa PEIR determined that implementation of the Central SoMa Plan would not physically divide an established community because the plan does not provide for any new major roadways, such as freeways, that would disrupt or divide the plan area. Implementation of the plan would, however, result in street network changes within the plan area, including improvements to mid-block alleys and mid-block crosswalks. However, these changes could decrease physical barriers by reducing the length of many of the plan area block faces and thereby facilitate pedestrian movement through the neighborhood.

The Central SoMa PEIR determined that adoption of the Central SoMa Plan would result in a significant unavoidable plan-level and cumulative impact related to land use and planning because it would conflict with a policy in the environmental protection element of the city's general plan related to noise.[12] Specifically, implementation of the plan would generate significant traffic-related noise on Howard Street under the two-way option for Howard and Folsom streets. In addition, the plan would contribute to a cumulative impact related to traffic noise on several street segments in the plan area. Such an increase would conflict with general plan policy 9.6 related to modifying streets in a way that increases traffic noise. Implementation of **Central SoMa PEIR Mitigation Measure M-NO-1a, Transportation Demand Management for New Development Projects,**[13] would substantially reduce traffic noise, but not to a less-than-significant level. In addition, **Central SoMa PEIR Mitigation Measure M-NO-1b, Siting of Noise Generating Uses,** would be required to ensure that noise-generating uses are appropriately sited to reduce noise-related impacts to a less-than-significant level.

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10 See CEQA section 21099(d)(1).

11 San Francisco Planning Department, Eligibility Checklist: CEQA section 21099 – Modernization of Transportation Analysis, Case 2014-000203ENV, 655 Fourth Street.

12 San Francisco General Plan Environmental Protection Element policy 9.6. Available at http://generalplan.sfplanning.org/I6_Environmental_Protection.htm. Accessed November 6, 2018.

13 The requirements of Central SoMa PEIR Mitigation Measure M-NO-1a have been adopted in planning code section 169. Therefore, this mitigation measure is no longer required for subsequent development projects.

Topics	Significant Impact Peculiar to Project or Project Site	Significant Impact not Identified in Central SoMa PEIR	Significant Impact due to Substantial New Information	No Significant Impact not Previously Identified in Central SoMa PEIR
1. LAND USE AND PLANNING—Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant physical environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Project-Specific Analysis

The proposed project would be built on seven adjacent parcels (lots 26, 28, 50, and 161–164) that are all located on block 3787 and would not result in physical barriers along the major streets adjacent to the project site, including Fourth and Townsend streets. The proposed publicly accessible open spaces would serve to create mid-block pedestrian walkways connecting Fourth and Townsend streets. The proposed project would improve sidewalks adjacent to the project site in accordance with the Better Streets Plan. Therefore, the proposed project would not physically divide an established community.

The Central SoMa Plan designates the project site as Mixed-Use Office. The proposed project would add office, hotel, residential, and retail uses to the project site, which are uses that are anticipated under the Central SoMa Plan for the project site. The planning department has determined that the proposed project is consistent with the Central SoMa Mixed-Use Office Zoning District and the 400-CS Height and Bulk District and is therefore consistent with the development density principally permitted for the project site under the planning code and zoning map provision.[14]

The requirements of Central SoMa PEIR Mitigation Measure M-NO-1a have been incorporated into planning code section 169. As discussed in the project description, the project proposes various measures to meet the transportation demand management requirement of the planning code. With regards to Central SoMa PEIR Mitigation Measure M-NO-1b, the reader is directed to the noise analysis completed for this community plan evaluation initial study, which identifies this mitigation measure as being applicable to the proposed project.

In light of the above, the proposed project would not result in physical environmental effects beyond those disclosed in the Central SoMa PEIR related to a conflict with a land use plan, policy, or regulation adopted for the purpose of mitigating an environmental effect.

Cumulative Analysis

There are no cumulative development projects nearby that were not encompassed in the Central SoMa PEIR's analysis. The only additional cumulative projects not evaluated in the Central SoMa PEIR are three streetscape projects along Fifth, Townsend, and Brannan streets. The three streetscape projects would not divide an established community as they would primarily increase safety of those streets for all users. The proposed project in combination with cumulative projects, including the three streetscape projects, would increase traffic noise, but would not result in more severe cumulative land use impacts than previously identified in the Central SoMa PEIR.

[14] Jeff Joslin, San Francisco Planning Department, Community Plan Evaluation Eligibility Determination, Current Planning Analysis, 655 Fourth Street, March 13, 2019.

Conclusion

Consistent with the findings in the Central SoMa PEIR, the proposed project, individually and cumulatively, would not result in a significant impact related to the physical division of an established community. The Central SoMa Plan identified a significant and unavoidable impact due to a conflict with general plan policy 9.6 related to modifying streets in a way that increases traffic noise. The proposed project would implement a transportation demand management plan in accordance with planning code section 169, which would help to reduce project-generated traffic noise. For the reasons discussed above, implementation of the proposed project would not result in significant environmental impacts that were not identified in the Central SoMa PEIR related to land use and planning or that are peculiar to the project site, nor would the proposed project result in more severe project-specific or cumulative land use impacts than were identified in the Central SoMa PEIR.

E.2 *Population and Housing*

Central SoMa PEIR Analysis

A principal goal of the Central SoMa Plan is to accommodate anticipated population and job growth consistent with regional growth projections and to support a greater mix of uses while also emphasizing office uses in portions of the plan area. The Central SoMa PEIR found that the development projects that could be proposed and approved pursuant to the plan's zoning controls would accommodate population and job growth already identified for San Francisco and projected to occur within city boundaries and, thus, would not induce substantial unplanned population growth.[15] The environmental effects of population and job growth resulting from the plan are addressed in the Central SoMa PEIR and its initial study.

The Central SoMa PEIR stated that the estimated housing demand resulting from plan-generated employment would be accommodated by increases in housing supply, primarily within the plan area and elsewhere in San Francisco, and development under the Central SoMa Plan would not generate housing demand beyond projected housing forecasts. Office and other non-residential development would be required to pay in-lieu fees to address housing needs from commercial development projects pursuant to the jobs-housing linkage program. Therefore, effects of the Central SoMa Plan related to population and housing would be less than significant.[16]

Topics	*Significant Impact Peculiar to Project or Project Site*	*Significant Impact not Identified in Central SoMa PEIR*	*Significant Impact due to Substantial New Information*	*No Significant Impact not Previously Identified in Central SoMa PEIR*
2. POPULATION AND HOUSING—Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing units, necessitating the construction of replacement housing?	☐	☐	☐	☒

[15] Central SoMa PEIR, Appendix B, p. 84.

[16] Central SoMa PEIR, Appendix B, pp. 84–88.

Project-Specific Analysis

The existing project site contains two residential units and approximately 60,000 square feet of commercial space. The proposed project would develop approximately 21,840 gross square feet of office space, 24,509 gross square feet of hotel space (38 guest rooms), 18,454 square feet of ground-floor retail/restaurant space, and 1,014,968 gross square feet of residential space (960 dwelling units). The project is estimated to generate approximately 2,256 total residents (net new)[17] and 149 office, hotel, and retail employees at full occupancy (approximately 22 fewer employees than are currently on site).[18] Project-related residential growth at 655 Fourth Street would amount to approximately 9.2 percent of the residential development anticipated in the Central SoMa Plan. These direct effects of the proposed project on population and employment increases were accounted for in the Central SoMa PEIR growth projections, which found that the plan would result in an increase of about 15,580 residents and 32,000 employees in the plan area.

The occupants of the two existing dwelling units would need to relocate upon commencement of construction activities. After completion of the proposed project, there would be a net addition of 958 dwelling units on site. Therefore, although there would be a temporary displacement of housing units, there would be a net increase of residential units within the project site, and, thus, the project would not necessitate the construction of replacement housing elsewhere.

Cumulative Analysis

There are no cumulative development projects nearby that were not encompassed in the Central SoMa PEIR's analysis. The project is within the scope of development projected under the Central SoMa Plan and would not result in more severe cumulative population and housing impacts than previously identified in the Central SoMa PEIR.

Conclusion

For the above reasons, the proposed project would not result in physical environmental effects with respect to population and housing that were not identified in the Central SoMa PEIR or that would be peculiar to the project site nor would it have more severe impacts than those identified in the Central SoMa PEIR.

E.3 Cultural Resources

The Central SoMa PEIR anticipated that subsequent development projects resulting from the zoning changes could result in significant impacts on cultural resources. The Central SoMa PEIR identified 10 mitigation measures to reduce potentially significant cultural resource impacts. Even with mitigation, however, the Central SoMa PEIR anticipated that the significant adverse impacts on historic architectural resources and/or contributors to a historic district or conservation district located in the plan area (including as-yet unidentified resources) could not be fully mitigated. Thus, the Central SoMa PEIR found these impacts to be significant and unavoidable. Impacts to other resources covered under this topic were determined to be less than significant with mitigation. A more comprehensive discussion of the Central SoMa PEIR findings and the proposed project's impact with respect to each cultural resource subtopic is included below.

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[17] Population estimate is based on 2.35 persons per household; see https://www.census.gov/quickfacts/fact/table/sanfranciscocitycalifornia,US/PST045217

[18] Employment calculations in this section are based on the following employment density ratios: an average density of 200 square feet per office employee, 350 square feet per retail employee, and 787 square feet per hotel employee. See Central SoMa Plan Initial Study (February 2014), p. 82 (http://sfmea.sfplanning.org/2011.1356E_IS.pdf).

Topics	Significant Impact Peculiar to Project or Project Site	Significant Impact not Identified in Central SoMa PEIR	Significant Impact due to Substantial New Information	No Significant Impact not Previously Identified in Central SoMa PEIR
3. CULTURAL RESOURCES—Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco Planning Code?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Historic Resources

Central SoMa PEIR Analysis

The Central SoMa PEIR determined that plan-level and cumulative impacts to individually identified historic architectural resources and/or contributors to a historic district or conservation district located in the plan area, including as-yet-unidentified resources, would be significant and unavoidable, even with implementation of **Central SoMa PEIR Mitigation Measures M-CP-1a, Mandatory Consultation Regarding Avoidance or Minimization of Effects on Historical Resources; M-CP-1b, Documentation of Historical Resource(s); M-CP-1c, Oral Histories; M-CP-1d, Interpretive Program**; and **M-CP-1e, Video Recordation**. The Central SoMa PEIR also determined that construction could adversely affect historical resources by damaging historic architectural resources during construction activities. However, implementation of **Central SoMa PEIR Mitigation Measure M-CP-3a, Protect Historical Resources from Adjacent Construction Activities**, and **Mitigation Measure M-CP-3b, Construction Monitoring Program for Historical Resources**, would reduce this impact to less than significant.

Historic Architectural Resources in the Project Vicinity

The project site currently includes three buildings. Buildings on lots 26 and 28 were built in 1947. The building on lots 162–164 was built in 1996. The planning department surveyed all buildings on the project site as part of the South of Market Historic Resources Survey completed in 2010.[19] The survey determined that none of the buildings on the project site are historic resources.

The nearest identified historic resource to the project site is the building at 601 Fourth Street, at the corner of Fourth Street and Brannan, approximately 40 feet northwest of the project site. The 601 Fourth Street building is eligible for designation under article 10 of the planning code (Preservation of Historical, Architectural, and Aesthetic Landmarks). These designations provide for official listing of buildings, landmarks, and historic districts throughout the city that have "a special character or special historical, architectural or aesthetic interest or value." In addition, as described in the Central SoMa PEIR, the buildings approximately 200 feet northeast of the project site are part of the Clyde and Crooks Warehouse Historic District called out in the Central SoMa PEIR as a Proposed Extension to the South End article 10 Landmark District.

[19] San Francisco Planning Department. South of Market Area Historic Resource Survey. Available at https://sfplanning.org/project/central-soma-historic-resources-survey

Project-Specific Analysis

There are no historic resources on the project site; therefore, there are would be no direct impacts to historic architectural resources as a result of demolition of the existing buildings on the project site. No mitigation measures are required to address the demolition of the existing buildings on the project site. Furthermore, there would be no indirect impact to the article 10 Clyde and Crooks Warehouse Historic District as there is a sufficient buffer provided by the 260 Townsend Street building, which is situated between the project site and this historic district.

Construction of the project would not require pile driving, and therefore any potential damage to adjacent historic resources resulting from vibrations generated by pile-driving activities would not occur. Use of other construction equipment could also result in vibration at levels that could affect nearby structures. As demonstrated in the noise section of this initial study, vibration levels from construction activities at the closest historic resource, 601 Fourth Street, would be approximately 0.05 peak particle velocity (PPV). This vibration level is well below the standard of 0.25 PPV established by the California Department of Transportation as potentially resulting in damage to historic buildings.[20] Therefore, Central SoMa PEIR Mitigation Measures M-CP-3a and M-CP-3b would not be required and historical resource impacts from the proposed project would be less than significant.

Archaeological Resources and Human Remains

Central SoMa PEIR Analysis

The Central SoMa PEIR found that development under the plan could cause a substantial adverse change to the significance of archaeological resources because the entire plan area is considered generally sensitive for both prehistoric and historical archaeological resources including human burials. **Central SoMa PEIR Mitigation Measure M-CP-4a, Project-Specific Preliminary Archeological Assessment**, which requires site specific archaeological review of individual projects for identification of appropriate archaeological assessment and data recovery measures, as needed, and **Central SoMa PEIR Mitigation Measure M-CP-4b, Procedures for Accidental Discovery of Archeological Resources**, were found to reduce significant impacts to archaeological resources and human remains to less-than-significant levels.

Project-Specific Analysis

The planning department completed a preliminary archaeological review for the project site.[21] Based on an updated prehistoric archaeological sensitivity map recently drafted for the City of San Francisco,[22] this particular project site has low sensitivity for submerged, buried, or prehistoric archaeological resources because the site was submerged by the rising bay some 10,000 years ago. Although humans were present in the wider region by this date, few archaeological sites dating this early have been found, and none in San Francisco. On this account, the potential for impacts to prehistoric archaeological resources, and to prehistoric human remains, appears to be low. However, archival mapping indicates that two maritime features (piers) were present on either side of the site in 1857. Remnants of these features could be present in the landfill or on the bay bottom mud that underlies the project site, most likely in the areas of the parcel that are closest to

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20 California Department of Transportation. *Transportation and Construction Vibration Guidance Manual, Table 19.* September 2013. Available at http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf. Accessed April 17, 2019.

21 San Francisco Planning Department. 2017. *Preliminary Archaeological Review for 655 Fourth Street.* May 8, 2017.

22 Far Western Anthropological Research Group. 2019, DRAFT. *Geoarchaeological Assessment and Site Sensitivity Model for the City and County of San Francisco, California*. Confidential document on file with the Environmental Planning Department.

Bluxome and Townsend streets. If disturbed during excavation, the proposed project would result in a significant impact to archaeological resources. The significant archaeological impacts associated with the potential discovery of historic archaeological deposits or features during soils-disturbing activity resulting from the proposed project would be reduced to less-than-significant levels with implementation of **Project Mitigation Measure M-CR-1, Archaeological Testing** (implementing Central SoMa PEIR Mitigation Measure M-CP-4a). The full text of Project Mitigation Measure M-CR-1 is provided in the mitigation monitoring and reporting program (Attachment B to the Community Plan Evaluation). This mitigation measure would require the project sponsor to retain the services of an archaeological consultant to undertake an archaeological testing program and be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to results of the testing program.

Cumulative Analysis

There are currently no cumulative development projects nearby that were not encompassed in the Central SoMa PEIR's analysis. The only additional cumulative projects not evaluated in the Central SoMa PEIR are three streetscape projects along Fifth, Townsend, and Brannan streets. The proposed project in combination with these other cumulative projects would not result in new cumulative impacts to historic resources that were not disclosed in the Central SoMa PEIR because they would not directly affect a historic resource or district and because impacts to archaeological resources are typically site specific and do not generally combine to result in cumulative archaeological resource impacts. Therefore, the project would not result in more severe cumulative cultural resource impacts than were previously identified in the Central SoMa PEIR.

Conclusion

As demonstrated above, the proposed project would not result in significant project-level or cumulative impacts on cultural resources that were not identified in the Central SoMa PEIR, nor would the project result in significant project-level or cumulative impacts on cultural resources that are more severe than those identified in the Central SoMa PEIR or that are peculiar to the project site. Project Mitigation Measure M-CR-1 would apply to the proposed project.

E.4 Tribal Cultural Resources

Central SoMa PEIR Analysis

Based on discussions with Native American tribal representatives in San Francisco, while there are no other known or potential tribal cultural resources in San Francisco, prehistoric archaeological resources are presumed to be potential tribal cultural resources. The Central SoMa PEIR identified a potentially significant impact to prehistoric archaeological resources that also may be tribal cultural resources as a result of plan implementation and developed **Central SoMa PEIR Mitigation Measure M-CP-5, Project-Specific Tribal Cultural Resource Assessment**, to address this impact. Under this measure, a project-specific archaeological assessment may identify additional archaeological testing or monitoring required to assess the potential for impacts to tribal cultural resources at the project site. This mitigation measure applies to any project involving soil disturbance of 5 feet or greater below ground surface. These projects are required to be reviewed as part of the project-specific preliminary archaeological evaluation to determine if they may have significant effects on tribal cultural resources. If it is determined that a project may have a significant effect, the project is required to develop and implement an archaeological resource preservation plan or, if the resource cannot feasibly be preserved, an interpretive plan. The Central SoMa PEIR concluded that with implementation of Mitigation Measure M-CP-5, impacts of subsequent development projects on tribal cultural resources would be reduced to less-than-significant levels.

Topics:	Significant Impact Peculiar to Project or Project Site	Significant Impact not Identified in Central SoMa PEIR	Significant Impact due to Substantial New Information	No Significant Impact not Previously Identified in Central SoMa PEIR
4. TRIBAL CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

Project-Specific Analysis

The project site is in a location with no recorded prehistoric archaeological sites in the vicinity. Further, as noted above, the preliminary archaeological review indicates that the potential for prehistoric archaeological resources or human remains to be present at the project site is low.[23] On this basis, the potential to encounter tribal cultural resources also is low. No impact is anticipated.

Cumulative Analysis

As explained in the Central SoMa PEIR and again above, impacts to archaeological resources, including tribal cultural resources, are typically site specific and do not generally combine to result in cumulative impacts. Therefore, the project would not result in more severe cumulative tribal cultural resource impacts than were previously identified in the Central SoMa PEIR.

Conclusion

As demonstrated above, no tribal cultural resources are expected to be present at the project site. Therefore, the proposed project would not result in significant impacts to tribal cultural resources that were not identified in the Central SoMa PEIR, nor would the project result in significant project-level or

[23] San Francisco Planning Department. 2017. Preliminary Archeological Review, 655 Fourth Street (2014-000203ENV). May 8, 2017; updated May 2019.

cumulative impacts to tribal cultural resources that are more severe than those identified in the Central SoMa PEIR or that are peculiar to the project site.

E.5 Transportation and Circulation

Central SoMa PEIR Analysis

The Central SoMa PEIR anticipated that growth resulting from the zoning changes could result in significant impacts on transit, pedestrians, and loading, along with significant construction impacts. The Central SoMa PEIR identified 10 transportation mitigation measures; however, the Central SoMa PEIR anticipated that the significant impacts on transit, pedestrians, loading and construction could not be fully mitigated. Thus, the Central SoMa PEIR found these impacts to be significant and unavoidable. The Central SoMa PEIR found impacts to emergency vehicle access as a result of the amount of growth anticipated under the plan in combination with the proposed street network changes could be significant, and identified four mitigation measures to reduce impacts to emergency vehicle access to less than significant.

Additionally, the Central SoMa PEIR conducted a plan-level analysis and project-level screening analysis of the vehicle-miles-traveled (VMT) impacts of subsequent development projects enabled under the plan, such as the proposed project, and found that VMT impacts would not be significant. The proposed project consists of land uses (residential, office, and retail[24]) that were analyzed in the VMT analysis in the Central SoMa PEIR and is located in a transportation analysis zone 642 that was analyzed in the Central SoMa PEIR. Therefore, the proposed project would also not result in significant VMT impacts and this topic is not addressed below.

Topics	*Significant Impact Peculiar to Project or Project Site*	*Significant Impact not Identified in Central SoMa PEIR*	*Significant Impact due to Substantial New Information*	*No Significant Impact not Previously Identified in Central SoMa PEIR*
5. TRANSPORTATION AND CIRCULATION—Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☐	☒
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☒
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

Project-Specific Analysis

A transportation study was prepared for the proposed project to evaluate potential project-specific effects, and this study is summarized below along with a more comprehensive discussion of the Central SoMa PEIR findings for each transportation subtopic.[25] The project-specific transportation study estimated the net new person trips and distribution of those trips among various travel modes, referred to as the project's

[24] The proposed project also includes a 38-room hotel, which for purposes of VMT analysis is considered a residential land use and therefore addressed in the Central SoMa PEIR's VMT analysis.

[25] AECOM. 2019. 655 Fourth Street Transportation Impact Study. Prepared for the San Francisco Planning Department, Environmental Planning Division. February 12, 2019.

travel demand. The travel demand was then used to assess the project's impact on transportation and circulation, as discussed below.

Travel Demand

The existing tenants/businesses at the project site can be generally classified into one of three land use types:

- General office (Layer Business)
- Eating/drinking (The Iron Cactus and The Creamery)
- General retail (United Barbell/CrossFit SoMa, Bulthaup, and HD Buttercup)

Existing uses at the project site currently generate approximately 325 peak-hour person-trips across all existing uses. Net new person-trips by mode and vehicle trips, including trip credits for existing uses that would be removed with the project, are summarized in **Table 2**. Trips by mode for the existing and proposed uses were estimated using San Francisco Guidelines data.

Table 2
Project Travel Demand – Net New Trips by Mode

Direction, Land Use, and Building	Weekday Daily						Weekday p.m. Peak Hour					
	Person-Trips					Vehicle-Trips	Person-Trips					Vehicle-Trips
	Auto-mobile	Transit	Walk	Other	Total		Auto-mobile	Transit	Walk	Other	Total	
Trips Generated by the Proposed Project												
Inbound	2,837	1,866	2,720	853	8,276	1,775	471	328	460	140	1,399	329
Outbound	2,837	1,866	2,720	853	8,276	1,775	358	244	330	105	1,036	222
Total	**5,674**	**3,731**	**5,439**	**1,706**	**16,551**	**3,549**	**828**	**572**	**790**	**245**	**2,435**	**551**
Existing Trips at the Project Site												
Inbound	(666)	(337)	(633)	(217)	(1,853)	(284)	(62)	(27)	(63)	(22)	(174)	(26)
Outbound	(666)	(337)	(633)	(217)	(1,853)	(284)	(70)	(41)	(61)	(21)	(194)	(32)
Total	**(1,331)**	**(674)**	**(1,267)**	**(433)**	**(3,705)**	**(568)**	**(132)**	**(69)**	**(124)**	**(43)**	**(368)**	**(57)**
Net New Trips												
Inbound	2,171	1,529	2,086	637	6,423	1,491	409	301	397	119	1,225	303
Outbound	2,171	1,529	2,086	637	6,423	1,491	287	203	268	83	842	190
Total	**4,343**	**3,057**	**4,173**	**1,273**	**12,846**	**2,982**	**696**	**504**	**666**	**202**	**2,067**	**493**

Source: 655 Fourth Street Transportation Impact Study, Case No. 2014-000203ENV, AECOM 2019.

Note: Component values may not sum to total values due to rounding.

Traffic Hazards

Central SoMa PEIR Analysis

The Central SoMa PEIR defines a traffic hazard as any physical feature that impairs the ability of drivers to see other vehicles, pedestrians, or bicyclists. As described in the Central SoMa PEIR, subsequent development projects under the plan would generally not introduce unusual design features that would result in traffic hazards. Development projects are required to undergo various levels of city review to

ensure that proposed pedestrian access, vehicular access, and streetscape improvements follow appropriate design guidelines and are constructed consistent with city standards. The Central SoMa PEIR concluded that traffic hazards resulting from implementation of the plan would be less than significant.

Project-Specific Analysis

The proposed project would result in a general increase in vehicle traffic activity on the surrounding roadway network, including several of the streets in the vicinity of the project site that are classified as part of the Vision Zero High Injury Network[26]—namely, Third Street, Fourth Street (north of Bluxome Street), Townsend Street (between Third Street and Fifth Street), and Brannan Street (west of Jack London Alley). However, the project would represent a marginal increase in specific types of traffic activity along these streets that could be potential sources of vehicle–vehicle conflicts (such as permitted left-turn movements). The project would add less than 100 vehicle trips during the weekday p.m. peak hour on left-turn movements with the highest levels of project-generated vehicle activity, such as the westbound left turn at Fourth Street/Townsend Street, the northbound left turn at Third Street/Townsend Street, and the eastbound left turn at Third Street/King Street.

At these various locations, the project would represent only a minor increase in vehicle traffic on these turn movements relative to background traffic levels and would not constitute a substantial hazard for motorists. In addition, the existing traffic signal phasing at several of these locations already includes protected or permitted–protected phases[27] for the affected left-turn movements, reducing the potential for vehicle–vehicle conflicts.

The project does not involve any changes to the roadway network or include any design features that could cause major traffic hazards. In particular, the project's streetscape improvements would primarily consist of enhancements to the pedestrian realm, including building setbacks and street trees, and would not include any modifications to curb lines along the adjacent street frontages. In addition, the project would remove the two existing curb cuts serving the project site and construct a single consolidated curb cut at the southeast corner of the site. This change would reduce potential impacts as one consolidated curb cut offers fewer opportunities for vehicle–vehicle and vehicle–pedestrian or –bicycle conflicts.

The project also proposes to install a wind screen on Townsend Street. The proposed wind screen would be located opposite the project site, between the active pedestrian walking area and street traffic within the sidewalk along the south side of Townsend Street (see **Figures 7** and **15**).

Potential impacts from the wind screen could result from the reduction in sight distance for people driving and biking. An analysis of the proposed wind screen examined the sight distance as measured from the approximate centerline of the travel lane or bicycle lane at the approximate eye height of a motorist or bicyclist, respectively.[28]

The analysis indicates that the location of the proposed wind screen would not fall within the sight distance triangle for people driving or biking and approaching the intersection, even when assuming a conservative stopping sight distance of 200 feet. The analysis also shows that the proposed wind screen would not

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[26] Vision Zero is San Francisco's road safety policy, adopted in 2014.

[27] Protected phases refer to traffic control indications (such as signals) that are adjusted to provide that all conflicting vehicular movements are stopped to accommodate movements typically associated with higher risk.

[28] AECOM. 2019. Assessment of Potential Transportation Hazards Related to Proposed Wind Screen 655 Fourth Street Transportation Impact Study (Case No. 2014-000203ENV).

obstruct motorists' or bicyclists' sightlines to the pole-mounted signal, which is located along Townsend at the intersection of Lusk Street and the driveway for a large residential building.

Even assuming that the proposed greenery extends several inches outside of the physical frame of the screen, it would be unlikely to obstruct sightlines to the near-side traffic signal head for people driving or biking. Further, the study shows that sight distance to oncoming traffic along Townsend Street was not an issue for existing motorists in most situations, as the majority of these conflicts are already eliminated by the traffic signal. A small percentage of right-turn-on-red activity was seen among motorists exiting the driveway; however, motorists generally make this movement in two stages, checking for adequate gaps in oncoming traffic along eastbound Townsend Street before entering the traffic flow. Given these considerations, the proposed wind screen is unlikely to substantially affect sight distance for motorists or bicyclists exiting the residential driveway.

The intersection of Townsend Street with Lusk Street and the residential driveway only features one crosswalk across the east leg of Townsend Street. The crosswalk across the west leg is a "closed" crosswalk, with a "NO PED CROSSING" sign mounted within the sidewalk directing pedestrians to use the east crosswalk. Therefore, the proposed wind screen would have no effect on crosswalk safety at this location because crossing is not permitted. For motorists and bicyclists attempting to enter the residential driveway, the proposed wind screen may partially obstruct views of pedestrian activity in the sidewalk along the south side of Townsend Street for a brief period of time (over a short distance) as they approach the intersection. However, these motorists and bicyclists would generally be traveling no faster than the speed limit (25 miles per hour (mph)) upstream of the intersection, and would need to substantially slow down approaching the intersection to adequately negotiate the turn. As pedestrians would have the right-of-way, any such motorists and bicyclists are already required to yield and exercise caution when traversing the sidewalk and entering the driveway, which would continue to remain the case whether or not the proposed wind screen is constructed. Given these considerations, the proposed wind screen is unlikely to substantially affect sight distance for motorists entering and exiting The Beacon driveway.

Cumulative Analysis

Under cumulative conditions, vehicle activity on the surrounding street network would likely increase as a result of development projects within Central SoMa and background growth elsewhere in the city and the region. This would generally be expected to lead to an increase in the potential for vehicle–vehicle and vehicle–pedestrian or –bicycle conflicts (e.g., permitted left-turn movements), which could create hazards for traffic circulation. However, these effects would be offset by transportation network changes proposed as part of the Central SoMa Plan, such as an improved bicycle network, improvements to sidewalks and other pedestrian amenities, and infrastructure improvements to minimize conflicts between vehicles, pedestrians, and bicycles.

Three cumulative streetscape projects not analyzed in the Central SoMa PEIR cumulative analysis were identified as part of the project-specific cumulative impact analysis. All three projects, the Brannan Street Safety Project, the Townsend Corridor Improvement Project, and the Fifth Street Improvement Project, propose pedestrian and bicycle safety improvements within and adjacent to the plan area. The Brannan Street Safety Project is a modified version of the street network proposal for this street that was already analyzed in the Central SoMa PEIR from Second to Sixth streets. The Townsend Corridor Improvement Project includes protected bicycle lanes and a new sidewalk island along the south side of the streets between Fourth and Fifth streets to provide a continuous raised sidewalk along this section and physically separate people bicycling from moving vehicle traffic in the eastbound direction. The Fifth Street Improvement Project would implement bicycle, transit, parking, and loading improvements along Fifth Street. All of these projects would increase the safety of travelers in and through the plan area and would not exacerbate existing traffic hazards.

The project would contribute to an increase in vehicle activity on surrounding streets but does not propose any features that would result in a traffic hazard or preclude or inhibit the future implementation of transportation network changes proposed as part of the Central SoMa Plan or other traffic safety measures. Given these considerations, the project would not result in new significant cumulative impacts related to traffic hazards that were not identified in the Central SoMa PEIR, or result in an increased severity of traffic hazards that were not discussed in the Central SoMa PEIR.

Transit

Central SoMa PEIR Analysis

The Central SoMa PEIR found that growth resulting from Central SoMa Plan implementation, including proposed changes to the street system, would result in significant impacts on transit capacity (due to increased ridership demand) and transit operations (due to delays to transit vehicles).[29] The Central SoMa PEIR identified three mitigation measures to reduce these impacts: **Central SoMa PEIR Mitigation Measures M-TR-3a, Transit Enhancements** (i.e., enhanced transit funding, transit corridor improvements, transit accessibility improvements, and Muni storage and maintenance improvements); **M-TR-3b, Boarding Improvements**; and **M-TR-3c, Signalization and Intersection Restriping at Townsend/Fifth Streets.** Central SoMa PEIR Mitigation Measures M-TR-3b and M-TR-3c would be implemented by the city and are not applicable to individual development projects. Central SoMa PEIR Mitigation Measure M-TR-3a contains requirements for both the city and developers of subsequent development projects. One portion of Central SoMa PEIR Mitigation Measure M-TR-3a that applies to subsequent development projects requires the city to establish fee-based sources of revenue toward transit improvements. The Central SoMa Plan levies fees on subsequent development projects to finance the plan's public benefits package, which includes $500 million for local and regional transit improvements. Therefore, this portion of the M-TR-3a has been implemented with approval of the Central SoMa Plan and implementation of the plan's development impact fees. Nonetheless, due to uncertainty regarding the feasibility and effectiveness of all of the transit mitigation measures, the Central SoMa PEIR determined that these impacts would be significant and unavoidable.

Project-Specific Analysis

The project site is well served by both local and regional transit service. Local rail transit in the vicinity of the project site is provided along the Muni Metro Extension, which connects into the eastern end of the Market Street Subway at the Embarcadero Station and operates along The Embarcadero and King Street, terminating at Fourth & King Station, approximately one block south of the project site. Service on the Muni Metro Extension is provided primarily by the N-Judah and the T-Third Street. Caltrain's San Francisco (Fourth & King) Station—located diagonally opposite the project site at the southwest corner of the Fourth Street/Townsend Street intersection—is also a major hub for Muni bus service, including the 10 Townsend, 30 Stockton, 45 Union/Stockton, 47 Van Ness, 81X Caltrain Express, 82X Levi Plaza Express, and 83X Mid-Market Express. Slightly further away from the project site, supplementary service is provided by other bus routes through SoMa, including the high-frequency Bayshore Expresses (8 Bayshore, 8AX Bayshore "A" Express, and 8BX Bayshore "B" Express).

Regional public transit service is provided by a variety of transit operators including BART; the Alameda–Contra Costa Transit District; the Golden Gate Bridge, Highway & Transportation District; the Peninsula

[29] The San Francisco Planning Department no longer considers transit capacity as an environmental effect. This is consistent with state guidance in which the addition of new users is not treated as an adverse physical environmental effect.

Corridors Joint Powers Board; and the San Mateo County Transit District. Regional transit services not within walking or biking distance of the project site can also be accessed by connecting local transit service.

The project would generate approximately 581 net new transit person-trips (336 inbound transit person-trips and 244 outbound transit person-trips) during the weekday p.m. peak hour.

The project would not result in the permanent relocation or removal of any existing bus stops or other changes that would alter transit service. The existing all-day (i.e., at all times) near-side Muni zone at Fourth Street/Townsend Street adjacent to the project site, currently used by the 10 Townsend, would remain at this location. Likewise, the on-street parking restrictions stretching east of this zone to Lusk Street would also remain in effect, although there would be a reduction in the available curb space for Muni staging/layover (from approximately 275 feet under existing conditions to approximately 181 feet with the proposed project). The proposed project would restore the existing 12-foot-wide curb cut (that currently serves lot 50); however, the project also proposes a new 35-foot-wide curb cut on Townsend Street and 71 feet of curb to accommodate the portion of the project's on-street passenger loading zone that would be in effect at all times. These modifications under the proposed project would ultimately reduce the amount of available curb space for bus layover from existing conditions.

The project would also remove the existing 31-foot-wide existing curb cut serving the loading area for lot 28, which is currently located within the extents of the all-day Muni zone used by the 10 Townsend. While the project would slightly reduce the available curb space in the temporary zone used as staging/layover for the 81X Caltrain Express and 82X Levi Plaza Express, it could also reduce curb cut-related vehicle–transit conflicts for the 10 Townsend at the all-day zone.

Project-generated vehicle traffic would be most concentrated on the segment of Townsend Street between Third Street and Fourth Street, as the project's sole vehicle ingress/egress is proposed on Townsend Street. All project-generated vehicle traffic would be concentrated in the westbound direction of Townsend Street with restrictions in place prohibiting left-turn movements into and out of the driveway. While Townsend Street is not a major transit corridor, it accommodates an important secondary line (the 10 Townsend), and the segment in the vicinity of the project site (i.e., near the Caltrain station) also carries short segments of many other Muni routes, including major lines such as the 30 Stockton and 47 Van Ness. Project-generated vehicle traffic could result in significant impacts on transit operations including temporary delays to the 10 Townsend bus due to vehicle ingress/egress associated with the project's below-grade garage and project-generated vehicle traffic attempting to make a right-turn movement approaching the intersection of Fourth and Townsend from westbound Townsend street. These impacts were previously identified as significant plan-level impacts on transit operations in the Central SoMa PEIR.

Given the considerations described above, the project could cause a substantial increase in delays or operating costs such that significant adverse impacts in transit service levels could occur. Central SoMa PEIR Mitigation Measure M-TR-3a includes actions related to queue abatement specifically intended to be undertaken by sponsors of subsequent development projects within the plan area. Therefore, this specific portion of Central SoMa PEIR Mitigation Measure M-TR-3a would apply to the project's impacts to transit operations and is identified as **Project Mitigation Measure M-TR-1, Queue Abatement**. However, it is uncertain if this mitigation measure would fully mitigate the project's significant impacts to transit operations. Therefore, consistent with the findings of the Central SoMa PEIR, the project's impact on transit operations would remain significant and unavoidable with mitigation.

Cumulative Analysis

The Central SoMa PEIR identified a cumulative transit impact. For the reasons discussed in the project-level analysis above, the project would contribute to that previously identified significant transit impact. The Brannan Street Safety Project, Townsend Corridor Improvement Project, and Fifth Street Improvement Project propose pedestrian and bicycle safety improvements within and adjacent to the plan area. The Townsend Corridor Improvement Project includes protected bicycle lanes and a new sidewalk island along the south side of the streets between Fourth and Fifth streets to provide a continuous raised sidewalk along this section and physically separate people bicycling from moving vehicle traffic in the eastbound direction. The Fifth Street Improvement Project would implement bicycle, transit, parking, and loading improvements along Fifth Street. The 655 Fourth Street transportation study analyzed the impacts of the proposed project in combination with these cumulative projects and determined that the cumulative transit impacts would not be more severe than those identified in the Central SoMa PEIR. The Central SoMa PEIR evaluated changes to the street network along Brannan Street within the plan area, and because the project's driveway is proposed to be on Townsend Street, vehicle trips generated by the proposed project in combination with the modified Brannan Street Safety Project would not result in new or more severe impacts to transit operations on Brannan Street. Further, both the Townsend Corridor Improvement Project and Fifth Street Improvement Project include transit enhancements, such as boarding islands, that would facilitate transit service. Therefore, the proposed project in combination with the Townsend Corridor Improvement Project and Fifth Street Improvement Project would not combine to result in more severe cumulative transit impacts than were disclosed in the Central SoMa PEIR.

Pedestrians

Central SoMa PEIR Analysis

The Central SoMa PEIR determined that development under the plan would not result in pedestrian safety hazards nor result in substantial overcrowding on sidewalks or at corner locations, but would result in overcrowding at the following crosswalks:

- Third Street/Mission Street: east and west crosswalks (weekday midday and p.m. peak hours)
- Fourth Street/Mission Street: east and west crosswalks (weekday midday and p.m. peak hours)
- Fourth Street/Townsend Street: west crosswalk (weekday midday and p.m. peak hours)
- Fourth Street/King Street: west crosswalk (weekday p.m. peak hour)

The Central SoMa PEIR identified **Central SoMa PEIR Mitigation Measure M-TR-4, Upgrade Central SoMa Area Crosswalks**, whereby the SFMTA would widen crosswalks at three intersections in the plan area, as feasible. However, because the feasibility of crosswalk widening beyond the current width is uncertain due to roadway or other physical constraints (e.g., presence of bus stops or platforms), the Central SoMa PEIR concluded this impact would remain significant and unavoidable. The Central SoMa PEIR determined that cumulative impacts to pedestrian overcrowding would also be significant and unavoidable.

Project-Specific Analysis

The project would not generate any activities or include any design or features that would create hazards for pedestrians or interfere with pedestrian access or circulation. Given existing traffic levels and the estimates of project-generated vehicle traffic, the project is not expected to substantially increase overall traffic levels along these streets such that it could create potentially hazardous conditions for pedestrians or otherwise interfere with pedestrian access or circulation. The project would also implement several improvements to the pedestrian realm, including setbacks along the entire Fourth Street frontage of the site

and a portion of the Townsend Street frontage of the site. This improvement would essentially increase the effective width of the sidewalk available to pedestrians. Additionally, a proposed POPOS at the southwest corner of the site fronting the Fourth Street/Townsend Street intersection and proposed public walkways would maximize pedestrian connectivity into, out of, and through the site.

Affected crosswalks in the immediate vicinity of the project site include the south and west crosswalks at Fourth Street/Townsend Street; the north, south, and west crosswalks at Fourth Street/King Street; and the west crosswalk at Fourth Street/Brannan Street. These identified locations reflect the dominant pedestrian circulation patterns to/from the Caltrain station and Muni's Fourth & King Station. Given the location of these crosswalks (along the west side of Fourth Street) relative to the project site (located on the east side of Fourth Street) and the expected routes for project-generated foot traffic, the project is unlikely to represent a substantial share of the overall pedestrian activity in these particular crosswalks. In particular, pedestrians arriving at the project site from areas to the north (e.g., Market Street) or south (e.g., Mission Bay) would likely have positioned themselves on the east side of Fourth Street by the time they reach the immediate vicinity of the project site, knowing that the project site is located on the east side of Fourth Street and the areas on the west side of Fourth Street are undeveloped (e.g., the Caltrain railyard and the I-280 terminal at Fifth Street/King Street) or almost exclusively residential in nature (e.g., the blocks west of Fourth Street between King Street and Mission Creek) and would not be major attractors of project-generated pedestrian activity.

Based on the location of affected crosswalks in the Central SoMa Plan area, the project site is unlikely to represent a substantial share of the overall pedestrian activity at these locations. While the project would generate some transit ridership on Caltrain, it is unlikely to represent a substantial contribution to the overall pedestrian activity in the affected (west and south) crosswalks at Fourth Street/Townsend Street. This is because the project's net new weekday p.m. peak-hour transit ridership to/from the Peninsula/South Bay is expected to be approximately 57 person trips (33 inbound person trips and 24 outbound person trips). Of these transit riders, some would likely use other transit providers (e.g., BART, SamTrans), but even assuming that all of this project-generated ridership is assigned to Caltrain, the project is unlikely to add more than 2–3 pedestrians to either of these crosswalks during the busiest signal cycles, and would, on average, only add up to one additional person per signal cycle (assuming a 60-second cycle) over the course of the entire peak hour.

The proposed project would also install a 6-foot-wide and 10-foot-tall wind screen on Townsend Street near the intersection of Townsend and Lusk Street. The proposed wind screen would be located opposite the project site, between the active pedestrian walking area and street traffic within the sidewalk along the south side of Townsend Street. The intersection in this location only features one crosswalk across the east leg of Townsend Street. The crosswalk across the west leg is a "closed" crosswalk, with a "NO PED CROSSING" sign mounted within the sidewalk directing pedestrians to use the east crosswalk. Therefore, the proposed wind screen would have no effect on crosswalk safety at this location because crossing is not permitted.

For people driving and biking who attempt to enter the residential driveway at this intersection, the proposed wind screen may partially obstruct views of pedestrian activity in the sidewalk along the south side of Townsend Street for a brief period of time (over a short distance) as they approach the intersection. However, people driving and biking would generally be traveling no faster than the speed limit (25 mph) and would need to substantially slow down approaching the intersection to adequately negotiate the turn. As people walking would have the right-of-way, people driving and biking are already required to yield and exercise caution when traversing the sidewalk and entering the driveway, which would continue to

remain the case whether or not the proposed wind screen is constructed. Given these considerations, the proposed wind screen would not create hazardous conditions for people walking.

Based on the analysis above, the project would not create potentially hazardous conditions for people walking or otherwise interfere with pedestrian accessibility to the site or adjoining areas. Therefore, the project would result in less-than-significant impacts to pedestrian safety and access.

Cumulative Analysis

The Brannan Street Safety Project, the Townsend Corridor Improvement Project, and the Fifth Street Improvement Project all propose pedestrian and bicycle safety improvements within and adjacent to the Central SoMa Plan area. The 655 Fourth Street transportation study analyzed the impacts of the proposed project in combination with these cumulative projects and determined that the cumulative impacts to people walking would not be more severe than those identified in the Central SoMa PEIR. All of these projects would enhance the pedestrian realm and therefore would not combine with impacts of the proposed project to result in new or more severe cumulative impacts to people walking than were identified in the Central SoMa PEIR.

For the reasons discussed above, implementation of the proposed project would not result in significant impacts that were not identified in the Central SoMa PEIR related to pedestrian safety that are peculiar to the project site, nor would the proposed project result in more severe cumulative pedestrian impacts than were identified in the Central SoMa PEIR.

Bicycles

Central SoMa PEIR Analysis

The Central SoMa PEIR determined that both plan-level and cumulative impacts to bicycle safety and access would be less than significant. Therefore, no mitigation measures were identified in the Central SoMa PEIR. However, the Central SoMa PEIR identified two improvement measures—Improvement Measure I-TR-5a, Protected Bicycle Lane Public Education Campaign, and Improvement Measure I-TR-5b, Protected Bicycle Lane Post-Implementation Surveys—entailing outreach and data collection to be undertaken by SFMTA related to the protected bicycle lanes proposed by the plan along Howard Street/Folsom Street, Brannan Street, and Third Street/Fourth Street. Neither of these improvement measures are applicable to subsequent development projects within the plan area.

Project-Specific Analysis

There are multiple bikeways in the vicinity of the project site, including Townsend Street/Division Street, The Embarcadero/King Street/Third Street/Terry A. Francois Boulevard, Fourth Street (south of Townsend Street), Second Street, Fifth Street, and the San Francisco Bay Trail. Bicycle turning movement counts conducted at key intersections in the vicinity of the project site show that current bicycle activity in the vicinity of the project site is generally concentrated along Townsend Street, with slightly lower activity levels along Fourth Street and marginal activity along Third Street, Brannan Street, and King Street.

The project would provide class 1 bicycle parking in secure storage rooms, as well as class 2 bicycle parking in various on-site locations at street level. Public walkways such as the Fourth Street Gateway, Townsend Street Gateway, and North Alley would provide convenient access between the interior of the project site and the adjacent streets (Townsend Street and Fourth Street). Project-generated bicycle activity would likely be distributed across both Townsend Street and Fourth Street, although there may be higher concentrations along Townsend Street. In particular, Townsend Street features class 2 bikeways and offers

connections to north–south streets with bikeways (such as Second Street, Fifth Street, and Seventh Street/Eighth Street) that may be more attractive alternatives to bicycling on Fourth Street, which does not feature any designated bikeways.

Potential vehicle–bicycle conflict points associated with the project would be most concentrated along Townsend Street, which is a major route for bicyclists and the location of the proposed vehicle ingress/egress for the below-grade garage. In particular, all vehicles entering and exiting the project site would need to cross the westbound class 2 bikeway along Townsend Street, which can result in increased conflicts near the driveway for bicyclists using this bikeway. This is not expected to constitute a substantial hazard for bicyclists, however, as motorists would generally have unobstructed sightlines and/or substantial sight distance towards approaching bicyclists along westbound Fifth Street. In particular, traffic entering the driveway would have unobstructed sightlines towards bicyclists using the bicycle lane and would be required to wait until there is sufficient space in the flow of people bicycling (and if applicable, westbound vehicles and pedestrians in the sidewalk) to clear their vehicle before encroaching into the bikeway.

Similarly, the project would provide a large, unobstructed driveway apron and 35-foot-wide curb cut, which would maximize the field of vision for motorists exiting the project site and reduce potential vehicle–bicycle conflicts. A smaller curb cut or, primarily, obstructions such as building walls/columns, street trees, or adjacent on-street parking spaces, for example, can make it more difficult for exiting motorists to see pedestrians in the sidewalk or oncoming bicyclists and motorists along Townsend Street.

As discussed above, an analysis of the proposed wind screen was conducted to determine whether it could present any potential hazards to people walking, bicycling, and driving. The analysis indicates that the location of the proposed wind screen would not fall within the sight distance triangle for people biking approaching the intersection, even when assuming a conservative stopping sight distance of 200 feet. The analysis also shows that the proposed wind screen would not obstruct bicyclists' sightlines to the pole-mounted signal, which is located along Townsend at the intersection of Lusk Street and the driveway for a large residential building. For bicyclists attempting to enter the residential driveway at the intersection of Townsend Street with Lusk Street, the proposed wind screen may partially obstruct views of pedestrian activity in the sidewalk along the south side of Townsend Street for a brief period of time (over a short distance) as they approach the intersection. However, these bicyclists would likely be traveling no faster than the speed limit (25 mph) upstream of the intersection and would need to substantially slow down approaching the intersection to adequately negotiate the turn. As pedestrians would have the right-of-way, any such bicyclists are already required to yield and exercise caution when traversing the sidewalk and entering the driveway, which would continue to remain the case whether or not the proposed wind screen is constructed. Given these considerations, the proposed wind screen would not substantially affect sight distance for people bicycling that are exiting The Beacon driveway and impacts to people bicycling would be less than significant.

Cumulative Analysis

The Brannan Street Safety Project, Townsend Corridor Improvement Project, and Fifth Street Improvement Project all propose pedestrian and bicycle safety improvements within and adjacent to the plan area. The 655 Fourth Street transportation study analyzed the impacts of the proposed project in combination with these cumulative projects and determined that the cumulative impacts to people bicycling would not be more severe than those identified in the Central SoMa PEIR. All of these cumulative streetscape projects propose enhancements to bicycle facilities and therefore would not combine with impacts of the proposed project to

result in more severe cumulative impacts than disclosed in the Central SoMa PEIR. For the reasons described above, the project would result in less-than-significant cumulative impacts to bicycle safety and access.

Loading

Central SoMa PEIR Analysis

The Central SoMa PEIR concluded that development under the Central SoMa Plan, including the street network changes, would result in an increase in demand for on-street commercial and passenger loading and a reduction in on-street commercial loading supply such that the loading demand during the peak hours of loading activities would not be accommodated within the on-street loading supply; would affect existing passenger loading/unloading zones; and may create hazardous conditions or result in significant delay that may affect transit, other vehicles, bicycles, or pedestrians. **Central SoMa PEIR Mitigation Measures M-TR-6a, Driveway and Loading Operations Plan (DLOP)**, and **M-TR-6b, Accommodation of On-Street Commercial Loading Spaces and Passenger Loading/Unloading Zones**, were identified to reduce the significant impact caused by inadequate commercial and passenger loading opportunities. These mitigation measures have been incorporated into the planning code requirements for projects within the Central SoMa Plan area and are implemented during the project's entitlement review. The Central SoMa PEIR concluded that it is unlikely that sufficient on-street commercial and passenger loading spaces could be provided to offset the net loss in these spaces without avoiding conflicts between trucks, bicyclists, and other vehicles and that the feasibility of providing replacement on-street passenger loading zones for properties affected by the removal of existing zones is uncertain. Therefore, even with implementation of these two mitigation measures, loading impacts (both commercial and passenger) would remain significant and unavoidable.

Project-Specific Analysis

Commercial Loading

The project proposes to provide a total of seven on-site loading spaces accessible through the project's 35-foot-long curb cut off Townsend Street. The project would generate a freight loading/service vehicle demand of approximately four to five spaces during the average hour and approximately five to six spaces during the peak hour. The project's proposed seven freight loading/service vehicle spaces, consisting of five full-sized freight loading spaces and two service vehicle spaces, would satisfy the average-hour and peak-hour loading demands. However, it is likely that at least some types of freight loading/service activities (e.g., restaurant deliveries) would prefer to service the site at street level.

Although the site includes approximately 250 feet of frontage along Fourth Street, curbside commercial loading cannot be accommodated along Fourth Street due to the lack of an on-street parking lane. However, some freight loading/service vehicle operators may still choose to service the site along Fourth Street by encroaching into the sidewalk (to avoid obstructing the northbound travel lane along Fourth Street while stopped). Additionally, on-street parking is available in the surrounding area, but not in sufficient proximity to be an attractive option for most project-generated freight loading/service vehicle demand that chooses not to use the project's on-site loading area. As a result, some operators attempting to service the site at street level may choose to queue/dwell or begin servicing in unpermitted areas along the Fourth Street or Townsend Street frontages of the site or elsewhere in the immediate vicinity of the project site. These areas could include (but would not be limited to) the sidewalk along the east side of Fourth Street and various areas along the north side of Townsend Street, including the all-day Muni zone (10 Townsend stop); the proposed on-street white zone or temporary Muni staging/layover zones; the proposed curb cut and/or adjacent sidewalk; and the bicycle lane and/or adjacent travel lane along westbound Townsend Street.

In these cases, freight loading/service vehicle activities could result in potential disruptions to traffic, transit, bicycle, and pedestrian circulation or delays to transit. As a result, the project could generate a freight loading/service vehicle demand in excess of available and proposed on- or off-street accommodations such that hazardous conditions for traffic, transit, bicycles, or pedestrians or substantial delays to transit could occur under existing plus project conditions.

For the reasons described above, the project could result in significant impacts related to commercial loading, the same significant plan-level commercial loading impacts identified in the Central SoMa PEIR. Therefore, Central SoMa PEIR Mitigation Measure M-TR-6a, requiring a driveway and loading operations plan, is applicable to the project. The requirements of this Central SoMa PEIR mitigation measure have been adopted as part of planning code section 155(u) and the requirements are summarized in the project description.[30] Therefore, this mitigation measure is no longer required for subsequent development projects, as compliance with planning code section 155(u) is required. While compliance with planning code section 155(u) would reduce project-specific impacts to less-than-significant levels, the impact would remain significant and unavoidable with mitigation, as stated in the Central SoMa PEIR.

Passenger Loading

Project-generated passenger loading activities include those associated with resident vehicles and for-hire services (e.g., taxis, transportation network company vehicles). The passenger loading demand for the project is 288 vehicles per hour. These vehicles represent 121 residential vehicles, 143 restaurant vehicles, and 24 vehicles attributed to hotel, retail, and office.[31] The project includes a proposed valet station on level B1 of the project's below-grade garage that would include an extended driveway apron and ramp from street level and a double-lane interior loop, which together would provide substantial stacking capacity and maneuvering space that would likely have the capacity to accommodate any surplus passenger loading demand.

Vehicles may attempt to queue/dwell or conduct drop off/pick up in unpermitted areas along the frontage of the project site along Fourth Street or along Townsend Street at or near the on-street white zone. The project proposes to provide an approximately 120-foot-long on-street white zone along the north side of Townsend Street (equivalent to approximately five on-street parking spaces), with 45 feet of that loading zone reserved for SFMTA vehicles during the hours of 6–9 a.m., Monday through Friday.

The project's proposed on-street white zone would only be capable of satisfying some, but not all, of the estimated peak passenger loading demand. While the proposed valet station could provide additional capacity for passenger loading activities, site constraints and other factors could create situations where project-generated passenger loading activities may affect traffic, transit, bicycle, pedestrian circulation, or transit operations. Given the amount of passenger loading anticipated from the project and the specific confluence of transit, pedestrian, bicycle, and vehicle use in the project area, the project could result in significant impacts related to passenger loading. Therefore, Central SoMa PEIR Mitigation Measure M-TR-6b, requiring the project sponsor to develop a passenger loading plan, is applicable to the project. However, the requirements of this Central SoMa PEIR mitigation measure have been adopted as part of planning

[30] Planning code section 155(u) applies to all projects in the Central SoMa plan area that would include 100,000 gross square feet of new development, such as the proposed 655 Fourth Street project, and requires those projects to prepare a driveway and loading operations plan and passenger loading plan.

[31] AECOM, 2018.

code section 155(u) and the requirements are summarized in the project description. Therefore, no further mitigation beyond compliance with planning code section 155(u) is required.

Cumulative Analysis

Loading impacts would likely be exacerbated under cumulative conditions by the loss of on-street accommodations for passenger loading (including both on-street white zones and on-street parking spaces) due to street network changes under the Central SoMa Plan and other transportation network changes, as well as a general increase in localized demand for such accommodations in the vicinity of the project site as a result of new development expected from land use changes enabled by the Central SoMa Plan. As discussed above, the Central SoMa PEIR found significant and unavoidable loading impacts. The 655 Fourth Street transportation study analyzed the impacts of the proposed project in combination with the Brannan Street Safety Project, Townsend Corridor Improvement Project, and the Fifth Street Improvement Project and determined that the cumulative passenger or commercial loading impacts would not be more severe than those identified in the Central SoMa PEIR. The Brannan Street Safety Project and Fifth Street Improvement Project would not result in any new or more physical environmental impacts than were previously identified in the Central SoMa PEIR. In the case of the Townsend Corridor Improvement Project, a parking lane—whether located curbside as currently or in a "floating" configuration as part of a parking-protected bikeway—would need to be maintained along the north side of Townsend Street in order to continue to provide a temporary Muni layover/staging zone. When this temporary Muni zone (between 6 a.m. and 9 a.m. on weekdays) is not in effect, the parking lane could provide space for on-street loading zones (as proposed by the project) or on-street parking. While implementation of Central SoMa PEIR Mitigation Measures M-TR-6a and M-TR-6b, implemented through planning code section 155(u), would reduce project-specific loading impacts to less-than-significant levels, it is unlikely to fully mitigate the project's cumulative passenger loading impacts, which would remain significant and unavoidable with mitigation, as stated in the Central SoMa PEIR.

Since the Central SoMa PEIR identified significant and unavoidable impacts resulting from inadequate commercial and passenger loading and the proposed project would contribute to those impacts, the project would not result in new significant impacts related to loading that were not identified in the Central SoMa PEIR. Additionally, for the reasons discussed above, the proposed project would not result in more severe cumulative impacts related to loading than those identified in the Central SoMa PEIR.

Emergency Vehicles

Central SoMa PEIR Analysis

The Central SoMa PEIR determined that development under the Central SoMa Plan, including the proposed street network changes, could result in significant impacts on emergency vehicle access. However, with implementation of **Central SoMa PEIR Mitigation Measure M-TR-8, Emergency Vehicle Access Consultation,** along with mitigation measures regarding transit enhancements (M-TR-3a), transportation demand management (M-NO-1a), and **Central SoMa PEIR Mitigation Measure M-AQ-5e, Air Quality Improvement Strategy**, the impact would be reduced to less than significant. While Central SoMa PEIR Mitigation Measures M-TR-3a, M-TR-8, and M-AQ-5e would be implemented by the city and are not applicable to subsequent development projects, such projects would be required to implement M-NO-1a. As discussed previously, Central SoMa PEIR Mitigation Measure M-NO-1a is implemented by planning code section 169 and is a requirement of the proposed project. The project description includes a list of measures the project sponsor proposes in order to meet the city's transportation demand management requirements.

No further implementation of Central SoMa PEIR Mitigation Measure M-NO-1a is required beyond compliance with the planning code.

Project-Specific Analysis

Emergency vehicle access to the project site is currently provided along all four streets bounding the block containing the project site (Brannan Street, Townsend Street, Third Street, and Fourth Street). Emergency vehicles would have access to any of the through streets (i.e., streets other than alleys) in SoMa, most of which function as major arterial or collector streets. During the weekday a.m. and p.m. peak periods, general traffic congestion in the vicinity of the project site can result in some delay to emergency vehicle response, but nonemergency vehicles must yield right-of-way to emergency vehicles, as required by California Vehicle Code section 21806.

The project does not propose any major modifications to the roadway network such as vacation of existing (or creation of new) streets or public rights-of-way for use by vehicles and does not include any features that would affect emergency vehicle access, such as changes to curb lines and turning radii. The project site is also not located in the immediate vicinity of any existing uses or facilities that generate unusually large amounts of emergency vehicle activity (such as a hospital or fire station), such that project-generated activities could result in potential disruptions to emergency vehicle response times. San Francisco Fire Department Station 8 is located approximately 350 feet from the project site along the north side of Bluxome Street (between Fourth Street and Fifth Street). There is sufficient physical separation between the project and Station 8 that the project would be unlikely to result in any substantial effects on emergency vehicle response or access; impacts of the proposed project on emergency vehicle access would be less than significant.

Cumulative Analysis

Under cumulative conditions, vehicle activity on the surrounding street network would likely increase as a result of subsequent development projects enabled under the Central SoMa Plan and background growth elsewhere in the city and the region. This would generally be expected to lead to an increase in traffic congestion and associated delays to vehicles traveling within the neighborhood. Additionally, many of the transportation network changes, including the street network changes proposed by the Central SoMa Plan, proposed by cumulative projects, such as the Brannan Street Safety Project, Townsend Corridor Improvement Project, and Fifth Street Improvement Project, would affect roadway and intersection geometry but would not preclude emergency vehicle access. Some of the cumulative projects, including new peak-period transit-only lanes under the Central SoMa Plan and a new transit-only turn pocket under the Brannan Street Safety Project, would be available for use by emergency vehicles to bypass traffic congestion in mixed-flow lanes. To the extent that other changes from proposed cumulative projects reduce the available roadway capacity and unobstructed roadway width, they may affect motorists' ability to yield right-of-way, as well as the ability of emergency vehicles to pass other traffic. Overall cumulative impacts to emergency vehicle access would be significant, as was determined in the Central SoMa PEIR.

Given the project's location on a major traffic route to I-280 (via the Fifth Street/King Street on-ramp), project-generated vehicle traffic could increase congestion, thereby exacerbating the effects on emergency vehicle access. Given these considerations, the project's contribution to the cumulative impact to emergency vehicle access identified in the Central SoMa PEIR would be considerable. As discussed above, the proposed project would be required to implement the city's transportation demand management requirements of planning code section 169. Another applicable mitigation measure to reduce the project's impact to emergency vehicle access is Project Mitigation Measure M-TR-1 (Queue Abatement). Project Mitigation Measure M-TR-1 would address the queuing of vehicles into and out of the project site and would also facilitate emergency vehicles traveling on roadways surrounding the project site. With

implementation of the transportation demand management requirements and Project Mitigation Measure M-TR-1, cumulative emergency vehicle access impacts would be less than significant.

Based on the above analysis, the proposed project would not result in new or more severe cumulative impacts related to emergency vehicle access than those identified in the Central SoMa PEIR.

Construction Impacts

Central SoMa PEIR Analysis

The Central SoMa PEIR determined that plan-level construction activities associated with development under the Central SoMa Plan, including the proposed open space improvements and street network changes, could disrupt nearby streets, transit services, and pedestrian and bicycle circulation, resulting in a significant impact. **Central SoMa PEIR Mitigation Measure M-TR-9, Construction Management Plan and Construction Coordination**, was identified to reduce impacts by requiring individual development projects within the plan area to develop a construction management plan. However, even with implementation of M-TR-9, the plan-level impact would be significant and unavoidable because it was unknown how many subsequent development projects enabled by the plan could be under construction simultaneously; likewise, the construction activities required for those projects were unknown. The Central SoMa PEIR determined that cumulative construction impacts (impacts resulting from projects enabled by the plan in addition to other cumulative projects) would be less than significant.

Project-Specific Analysis

During the anticipated 34- to 36-month construction period, temporary and intermittent transportation impacts would result from construction-related truck movements to and from the project site during demolition and construction activities associated with the proposed project. No roadway, parking lane, or traffic lane closures are anticipated as a result of construction activities in and around the project site. Sidewalks, bike lanes, and a bus stop may be temporarily closed for short periods of time to accommodate utility work.

During the construction period, there would be an influx of construction-related vehicles (including large trucks) traveling to and from the site on a regular basis. Construction trucks would be required to use designated freight traffic routes to access the construction site. The San Francisco General Plan identifies multiple freight traffic routes in the vicinity of the construction site, including major freeways (I-80, I-280, and U.S. 101) and most through streets in the SoMa area—namely, the Howard Street/Folsom Street and Harrison Street/Bryant Street couplets in the east–west direction and all streets between Fremont Street and Tenth Street (except Second Street) in the north–south direction. Also included among the designated freight traffic routes are The Embarcadero/King Street, Fourth Street (between King Street and Third Street), and Third Street (south of King Street).

The impact of construction truck traffic would be a temporary lessening of the capacities of surrounding roadways and truck routes (as well as connecting local streets) due to the slower movement and larger turning radii of trucks. Construction truck traffic could result in minor congestion and conflicts with traffic, transit, bicycle, and pedestrian circulation. However, potential impacts would be considered less than significant due to their temporary and limited duration and to the fact that the majority of construction activity would occur during off-peak hours, when traffic volumes and the potential for conflicts are substantially lower. While there may be some occasional disruption to circulation as a result of on-road construction vehicles or construction-related truck traffic during the weekday a.m. or p.m. peak periods, these effects would not be frequent or substantial enough to constitute a significant impact.

Construction staging would be expected to take place primarily within the confines of the project site, although the sidewalk fronting the site along Fourth Street and/or Townsend Street may need to be closed on a temporary basis.

In consideration of the project site location and other relevant project characteristics, the duration and magnitude of temporary project-related construction activities could result in substantial interference with bicycle, pedestrian, or vehicle circulation and accessibility to adjoining areas, thereby resulting in potentially hazardous conditions. This would be a significant impact. Mitigation Measure M-TR-9, identified in the Central SoMa PEIR to address plan-level significant impacts as described above, includes actions related to development of a construction management plan (and, if necessary, a coordinated construction management plan) specifically intended to be undertaken by sponsors of subsequent development projects within the plan area. Therefore, this mitigation measure would apply to the proposed project and is identified as **Project Mitigation Measure M-TR-2, Construction Management Plan and Construction Coordination** (implementing Central SoMa PEIR Mitigation Measure M-TR-9), which is provided in full detail in Attachment B, Mitigation Monitoring and Reporting Program, to this Initial Study-Community Plan Evaluation. As described above for plan-level impacts, however, this mitigation measure would reduce, but not fully mitigate, the project's impacts related to construction. Therefore, these impacts would remain significant and unavoidable with mitigation.

Cumulative Analysis

There is also the potential for other nearby construction projects to generate traffic from construction-related vehicles (including large trucks) traveling to and from nearby sites. None of the cumulative development projects would be located on the same block as the project site. However, one project (636–648 Fourth Street) is located diagonally opposite the project site at Fourth Street/Bluxome Street, and two additional projects are located within a half-block distance of the project site (505 Brannan Street and 330 Townsend Street). The project site is also approximately one to two blocks away from the largest concentration of development proposals under the Central SoMa Plan at Fifth Street/Brannan Street, which includes the San Francisco Flower Mart redevelopment, 598 Brannan Street, and 88 Bluxome Street. Other development projects enabled by the Central SoMa Plan would be located further away and would generally make a much smaller contribution to any construction-related effects in the immediate vicinity of the project site. In addition, construction of the proposed project could overlap with construction of the Townsend Corridor Improvement Project and possibly the Brannan Street Safety Project. Other cumulative transportation projects in the area would involve construction activities on street segments in the immediate vicinity of the project site, including the Downtown Rail Extension and Transbay Program Phase 2 and the Fifth Street Improvement Project.

Given the volume of proposed potential land use developments in the area that are enabled under the Central SoMa Plan, and the scope, scale, and duration of potential transportation changes, it is possible that construction activities at multiple sites could overlap at least partially. Furthermore, any overlap in construction activities could amplify potential effects on traffic, transit, bicycle, and pedestrian circulation at some locations due to the proximity and concentration of construction sites. Given these considerations, the proposed project's contribution to cumulative plan-level construction-related transportation impacts under the Central SoMa Plan would be significant. Implementation of Project Mitigation Measure M-TR-2 would reduce this impact; however, it is uncertain whether or not this mitigation measure would fully mitigate the project's contribution to this significant plan-level impact identified in the Central SoMa PEIR. The timing of adjacent projects is uncertain and could change, and it is therefore difficult to accurately predict the number, scale, and intensity of construction activities that could be underway simultaneous to the proposed project's

construction activity. Therefore, construction impacts from the proposed project combined with other projects enabled under the plan would remain significant and unavoidable with mitigation.

For the reasons discussed above, implementation of the proposed project would not result in more severe cumulative construction impacts than were identified in the Central SoMa PEIR.

Parking

Central SoMa PEIR Analysis

The Central SoMa PEIR found that development under the plan would not result in a substantial parking deficit that would create hazardous conditions or significant delays affecting transit, bicycles, or pedestrians, and where particular characteristics of the Central SoMa Plan render the use of other modes infeasible. The secondary effects of increased parking demand generated by development under the plan and on-street parking loss as a result of Central SoMa Plan street network changes would be less than significant because increased demand and removal of parking would be spread out over multiple streets, other on- and off-street parking spaces would be available, the area is well served by public transit and other modes, street network changes would improve conditions for other modes, and the parking loss would not create hazardous conditions such as impairing visibility on narrow streets or blocking sidewalks or crosswalks.

Project-Specific Analysis

As discussed under Evaluation of Environmental Effects, above, the proposed project qualifies as an infill project under CEQA section 21099(d), and therefore, parking impacts need not be considered in CEQA review. No substantial parking deficit would occur. The project site is currently well served by local and regional transit services and the surrounding area is generally conducive to both biking and walking. Therefore, any secondary impacts resulting from a parking deficit would be less than significant, consistent with the findings of the Central SoMa PEIR.

Cumulative Analysis

Several of the transportation network changes, including those associated with the Brannan Street Safety Project, the Townsend Corridor Improvement Project, and the Fifth Street Improvement Project, would occur under cumulative conditions. These network changes combined with the project's design features (such as wider sidewalks, project provided POPOs, and bicycle parking) would enhance pedestrian connectivity for and through the project site and improve the quality of transit service and bicycle and pedestrian facilities in the vicinity of the project site. This would further enhance the safety and attractiveness of these particular travel modes. Therefore, any secondary impacts resulting from a parking deficit that would result under cumulative conditions would also be less than significant.

In summary, implementation of the proposed project would not result more severe cumulative impacts as a result of a lack of parking than were identified in the Central SoMa PEIR.

Conclusion

For the reasons described above, the proposed project would not result in significant project-level or cumulative impacts on transportation and circulation that were not identified in the Central SoMa PEIR, nor would the project result in significant project-level or cumulative impacts on transportation and circulation that are more severe than those identified in the Central SoMa PEIR or that are peculiar to the project site. Project Mitigation Measures M-TR-1 and M-TR-2, implementing various mitigation measures identified in the Central SoMa Plan, would apply to the proposed project.

E.6 Noise

Central SoMa PEIR Analysis

The Central SoMa PEIR determined that implementation of the plan would result in a substantial permanent increase in ambient traffic noise levels as a result of growth in jobs and residents anticipated under the plan and changes to the street network proposed by the plan. Although this impact would be reduced by Central SoMa PEIR Mitigation Measure M-NO-1a (now implemented by planning code section 169), the Central SoMa PEIR concluded that existing sensitive receptors (residences, schools, and childcare centers) would be adversely affected by increased traffic noise generated by Central SoMa Plan traffic and street network changes and under cumulative conditions, and that the impact would remain significant and unavoidable. The Central SoMa PEIR concluded that impacts associated with new noise-generating uses, now enabled under the plan, could result in significant noise impacts. Further, the plan concluded that implementation of Central SoMa PEIR Mitigation Measure M-NO-1b would render this impact less than significant.

With respect to construction noise and vibration, the Central SoMa PEIR determined that construction activities in the plan area could expose people to temporary increases in noise and vibration levels substantially in excess of ambient levels, which would be a significant impact. However, the Central SoMa PEIR found this impact could be mitigated to less than significant for individual building construction with implementation of **Central SoMa PEIR Mitigation Measures M-NO-2a, General Construction Noise Control Measure**, and **M-NO-2b, Noise and Vibration Control Measures during Pile Driving.** However, the Central SoMa PEIR found that if construction of multiple buildings were to simultaneously occur near the same receptors, the impact could be significant and unavoidable. The Central SoMa PEIR also determined that construction activities could expose people and buildings to significant temporary increases in vibration levels. The Central SoMa PEIR determined that these impacts could be mitigated to less than significant with implementation of Central SoMa PEIR Mitigation Measures M-NO-2b, M-CP-3a, and M-CP-3b.

The Central SoMa Plan area is not located near a private airstrip or an airport land use plan area; therefore, topic 5c below is not applicable to the plan nor any subsequent development projects within the plan area.

Topics	*Significant Impact Peculiar to Project or Project Site*	*Significant Impact not Identified in Central SoMa PEIR*	*Significant Impact due to Substantial New Information*	*No Significant Impact not Previously Identified in Central SoMa PEIR*
6. NOISE—Would the project result in the:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) For a project located within the vicinity of a private airstrip or an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	☐	☐	☐	☒

Project-Specific Analysis

An environmental noise and vibration assessment[32] was prepared to evaluate potential project-specific noise impacts resulting from the proposed project. The findings of this analysis are summarized below along with a comparison against the Central SoMa PEIR findings for each noise subtopic. To support the noise impact analysis for the proposed project, short-term (15-minute) and long-term (24-hour) noise measurements were conducted near the project site. Results of the long-term noise measurements indicate ambient daytime noise levels of about 64 A-weighted decibels (dBA)[33] with ambient nighttime noise levels of 61 dBA and day-night average (Ldn)[34] noise levels of 68 dBA. Short-term (15-minute) noise measurements around the project site indicate noise levels of 62–72 dBA.

Traffic Noise

The proposed project would contribute vehicle trips onto the local and regional roadway network. Consequently, traffic noise levels would increase with the project's contribution of additional vehicles. Peak-hour vehicle trip generation estimates resulting from the proposed project were obtained from the 655 Fourth Street transportation study and existing vehicle traffic levels were obtained from the Central SoMa PEIR to determine if the project's vehicular traffic on local roadways would result in a substantial increase in ambient noise levels.

A potentially significant increase in the ambient noise level due to traffic resulting from a proposed project is unlikely unless the project would cause a doubling of existing traffic levels, which is generally assumed to result in a 3 dBA increase in the existing ambient noise environment.[35] An increase of less than 3 dBA is generally not perceptible outside of controlled laboratory conditions.[36] Based on the transportation study, the proposed project would add 2,426 net p.m. peak-hour vehicle trips to the local roadway network. Five loading/service spaces would also be needed to accommodate the project's anticipated freight truck trips during the peak hour.

The noise study analyzed existing and project-generated p.m. peak-hour traffic volumes to determine whether the proposed project would result in a perceptible increase in traffic noise. The analysis found that project traffic would increase the most (by 26 percent) on Townsend Street between Lusk and Third streets and that noise levels would be expected to increase by less than 1 decibel. Thus, project-related traffic would not result in a substantial increase in ambient noise levels.

Article 29 of the Police Code, also known as the noise ordinance, regulates noise in the city. An analysis was conducted to determine whether noise from loading operations would meet the interior noise standard of 45 dBA as specified in section 2909(d) of the noise ordinance. Interior noise levels of 45 dBA or lower are

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32 Dudek. 2019. Environmental Noise and Vibration Assessment, Case Number: 2014-000203ENV for the 655 Fourth Street Project in San Francisco, California.

33 Decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes low and high frequency components of sound in a manner similar to the frequency response of the human ear and correlates well with subjective response to sound.

34 The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured during the night between 10 p.m. and 7 a.m.

35 Caltrans, *Technical Noise Supplement*, November 2009. Available at: http://www.dot.ca.gov/env/noise/docs/tens-sep2013.pdf . Accessed: December 18, 2017.

36 California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, pp. 2-44 to 2-45, September 2013. Available: http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013B.pdf. Accessed July 30, 2017.

generally accepted as the noise level requisite to ensure sleep disturbance does not occur. Typical freight and passenger loading operations generate average noise levels of 55 to 60 dBA Leq[37] and maximum levels (Lmax)[38] of 80 to 84 dBA at a distance of 50 feet.[39] The proposed loading areas would be at least 100 feet from the nearest on-site residence, and the line of sight would be interrupted by barriers or walls. The distance and intervening barriers would attenuate (reduce) noise levels from loading to an average of approximately 32 to 37 dBA Leq or a maximum of approximately 57 to 61 dBA Lmax at the nearest on-site residence. Thus, average interior noise levels from loading operations would generally be below the 45 dBA interior noise standard in the noise ordinance. At times, brief noise from loading operations may be audible at the nearest residence. Noise from loading operations at the nearest on-site sensitive receptor would also be below the ambient noise levels measured near the project site (68 dBA Ldn). Additionally, noise levels from loading operations would be even lower at off-site sensitive receptors because there would be greater separation between the loading areas and these receptors.[40]

As a result, the proposed project would not result in significant traffic noise impacts.

Mechanical Equipment

Mechanical equipment required for building operation, including heating, ventilation, and air conditioning units; exhaust fans; condenser water pumps; boilers; and a backup emergency generator, would generate noise. This equipment would be located in the basements or in mechanical penthouses on the building rooftops. Noise from each of these sources was evaluated in the noise study and the findings are summarized below.

The noise ordinance specifies that noise generated from a property must not result in noise levels of 5 dBA above the ambient noise level from noise generated at a residential property plane or 8 dBA above the ambient noise level from noise generated at a commercial property plane and, for fixed noise sources, must not result in interior noise levels at any residence above 45 dBA during nighttime hours or 55 dBA during daytime hours. As discussed above, the day-night average noise level in the project area is about 68 dBA Ldn. To ensure compliance with these standards, screen walls would be constructed on the building roofs to conceal cooling towers, mechanical equipment, the elevator penthouse, and building maintenance units. As shown in the project-specific noise study, with the proposed screen walls, the project would not result in operational noise from building mechanical equipment in excess of the applicable noise ordinance standards. A more detailed discussion is provided below.

The upper roof level of each tower would contain exhaust fans serving different functions in the building. Each tower would have 12 fans (48 fans total). Not all fans are expected to be operating at the same time. For the purpose of the noise analysis, no more than six fans were assumed to be operating at the same time in each of the towers (24 fans total). Six operating fans would produce a noise level of 62 dBA Leq at 50 feet. On-site residences may be as close as 25 feet from the center of the operating fans and could therefore be subject to an exhaust fan noise level of 68 dBA Leq at the exterior of their residential space. Assuming 25 dB of attenuation from exterior to interior, the interior noise levels from combined exhaust fan operations would be 43 dBA Leq.

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37 The average A-weighted sound level during the measurement period. For this CEQA evaluation, Leq refers to a one-hour period unless otherwise stated.

38 The maximum A-weighted sound level during the measurement period.

39 EDAW. 2006. Sound measurement data of loading dock activities collected on August 7 and 8, 2006. Personal observation by A. Kerr (EDAW). August 7 and 8, 2006.

40 The nearest off-site residents are occupants of the 601 Fourth Street building, approximately 35 feet northwest of the project site's northwestern border. Given the size of the project site, residents of the 601 Fourth Street building are at least, if not more than, 200 feet north of the project's proposed loading areas.

Thus, mechanical fan noise would be less than the 45 dBA Leq nighttime limit in the noise ordinance. The tower fans are not closer than 60 feet from an adjacent property plane, and therefore exhaust fan noise levels at any property plane would not exceed 60 dBA Leq, which is 8 dBA below the measured 68 dBA Ldn.

For existing noise sensitive land uses in the vicinity, a direct line of sight would not occur between the rooftop equipment and the receiver locations due to the height of the proposed 655 Fourth Street building and surrounding building heights. The distance from the fans to the property plane in the direction of the nearest noise sensitive land uses (601 Fourth Street) is estimated to be approximately 310 feet. At this distance, the expected exterior sound level of the fans is 43 dBA Leq at the closest off-site receiver locations, which are ground level at 601 Fourth Street. Interior noise levels would be even lower as the building of 601 Fourth Street would further attenuate noise from the 655 Fourth Street heating, ventilation, and air conditioning equipment.

Additionally, air handling units are planned for level 41 on Tower 1A and Tower 2B. A typical sound power level for similar air handling units with a fan is 94 dBA. At 50 feet, the sound pressure level would be approximately 62 dBA; consequently, air handling unit noise would also not result in 5 dBA over ambient noise levels at the property plane (estimated to be 68 dBA Ldn). For the on-site noise sensitive residential uses, noise from the air handling units would be reduced to approximately 43 dBA Leq within the closest interior space, which is at a distance of approximately 25 feet from the air handers. This equipment would not exceed the 45 dBA Leq nighttime noise limit for residential interiors in the noise ordinance. At the property plane of 601 Fourth Street, approximately 310 feet away, and including the additional noise attenuation from interruption of the line of sight between air handling units and the exterior of 601 Fourth Street, exterior noise levels would be about 42 dBA, well below the nighttime residential interior noise limit in the noise ordinance.

Condenser water pumps, boilers, and an emergency back-up generator would all be located in enclosed rooms, which is expected to effectively limit noise from these sources. Furthermore, the emergency back-up generator would be operated only in emergencies and for periodic testing; because of its intermittent use, it would not be expected to increase ambient noise levels.

Therefore, the proposed project's mechanical systems would not result in a significant noise impact.

Events

The eighth floor of Tower 2B would contain an event space with an outdoor terrace 85 feet above the street level with a maximum occupancy of 300 people. This space would function as a meeting and event space available for building occupants and for rental and reservation by external entities and groups for limited programmed events. The event space and other amenities would be 10,900 square feet. Primary noise sources on the outdoor terrace would include people talking and amplified music. As a result of the project's step-back design, the outdoor terrace would be about 60 feet from the northeast property plane and more than 100 feet from the nearest off-site residences at 601 Fourth Street.

The number of people expected to attend events on the 8th floor event space will vary depending on the event. Based on a maximum capacity of 300 people at the event space, a maximum of 122 people would be expected on the outdoor terrace at one time. Noise levels associated with the people gathering at the outdoor areas were assumed to be between 62 dBA and 65 dBA at a distance of 3.3 feet.

The existing nighttime ambient noise level at the project site is 61 dBA Leq. Noise levels from people's voices would be attenuated to approximately 48 dBA Leq at the property plane, which is less than the existing ambient noise level. Therefore, noise from people on the terrace would meet the property plane noise limits specified in section 2909 of the noise ordinance (noise cannot exceed 8 dBA above the ambient noise level at the property plane from noise generated on a commercial property). The estimated exterior

noise levels at the on-site private terraces (outdoors) above the event space from people gathering on the event terrace would be approximately 59 dBA Leq. Assuming the exterior building shell would provide 25 dB of exterior to interior attenuation, the interior crowd noise level would be reduced to 34 dBA Leq. The estimated exterior noise levels at the nearest off-site noise sensitive receptors (601 Fourth Street) would be 44 dBA Leq. These noise levels are below the 45 dBA nighttime interior standard required to prevent sleep disturbance and are consistent with the nighttime interior noise limits in section 2909(d) of the noise ordinance.

Speaker systems produce sound levels that vary depending on the music or speech amplified from the speaker(s) and the levels set by system operators. With existing nighttime ambient noise levels of 61 dBA Leq, the speaker system would need to produce noise that is less than 69 dBA (8 dBA above ambient, because this is a commercial source) at the property line to comply with the section 2909(b) regulation in the noise ordinance. If the speaker system conforms to this limit, then the system would also comply with the 45 dBA nighttime interior noise level for sleeping rooms in section 2909(d) of the noise ordinance. Should the speaker system produce noise levels that exceed 69 dBA at the property line, the system may not comply with the noise ordinance regulations and could result in significant temporary increases in ambient noise levels, which would be a significant impact, consistent with the findings in the Central SoMa PEIR related to noise-generating uses. The frequency of events expected for the space is approximately two large events (150–250 people) and two medium-sized (75–150 people) events per month.

To ensure that amplified sound does not result in a substantial increase in ambient noise levels in compliance with the applicable noise ordinance standards, the proposed project would be required to implement **Project Mitigation Measure M-NO-1, Siting of Noise Generating Uses** (implementing Central SoMa PEIR Mitigation Measure M-NO-1b). Project Mitigation Measure M-NO-1 would require that the amplified sound system be tested to ensure that it does not exceed 69 dBA at the property plane, and if the system would exceed this noise level, events would be restricted to a 10 p.m. completion time, unless an applicable event permit is obtained from the San Francisco Entertainment Commission for associated events. With implementation of Project Mitigation Measure M-NO-1, the proposed project would not result in new or more severe operational noise impacts than those disclosed in the Central SoMa PEIR.

Construction Noise

Construction activities for both Buildings 1 and 2 are anticipated to take approximately 34–36 months; the buildings would be constructed concurrently. Construction noise levels would vary from hour to hour and day to day, depending on the equipment in use, the operations being performed, and the distance between the source and receptor. Construction is expected to include demolition, site preparation, grading, paving, building construction, and architectural coating. Construction equipment with substantially higher noise generation characteristics (such as pile drivers, rock drills, blasting equipment) would not be necessary. Noise levels resulting from the proposed construction activities were calculated using the Federal Highway Administration Roadway Construction Noise Modeling software. **Table 3** shows the noise levels in a case when all expected equipment is operating at the same time.

Table 3
Construction Noise Modeling Summary Results

Construction Phase	Leq (dBA)			
	Residential 35 feet	*Residential 100 feet*	*Mixed-Use Residential 80 feet*	*Mixed-Use Residential 250 feet*
Mobilization and Demolition	87	80	81	73
Shoring and Excavation	87	80	82	73
Foundation	88	80	81	73
Structure	90	82	84	75
Exterior Skin	87	79	81	71
Interior Construction	88	81	82	74
Landscaping and Site Work	87	78	80	70

Leq = average sound level; dBA = A-weighted decibel.

The estimated construction noise levels generated by the proposed project would average 87 dBA Leq for typical moderate construction efforts at the nearest residential properties (at 35 feet from the construction site). When intense construction is conducted the noise levels would be higher, ranging from 87 to 90 dBA Leq (as shown in **Table 3**). These noise levels would be a substantial temporary increase over those existing without the project, which range from 62 to 72 dBA during various times of the day.

Construction of the proposed project would be subject to the San Francisco Noise Ordinance, which regulates construction noise. The Department of Building Inspection is responsible for enforcing the noise ordinance for private construction projects during normal business hours (8 a.m. to 5 p.m.). The police department is responsible for enforcing the noise ordinance during all other hours. Nonetheless, during the construction period for the proposed project, occupants of the nearby properties could be disturbed by construction noise. Instances may occur when noise could interfere with indoor activities in nearby residences and other businesses near the project site.

As discussed in the project description, limited nighttime construction work is required for approximately eight nights covering four weekends. The proposed nighttime work is expected to take place during the construction of the building's foundation. During continuous nighttime concrete pours, construction noise levels of 86 dBA could be experienced at the nearest existing residences, located approximately 35 feet northwest of the project site at 601 Fourth Street. This level would exceed the ambient plus 5 dBA nighttime construction noise limit in section 2908 of the Police Code and a special permit would be required. Also, based on other accounts of nighttime concrete pours in similar urban environments with a mix of uses in the vicinity, backup alarms and workers communicating by yelling are important noise sources of concern. Assuming the exterior shell of the 601 Fourth Street building (which is the closest noise sensitive receptor) provides 25 dB of noise reduction from exterior noise sources, the interior nighttime construction noise level expected at this residential building could be as high as 61 dBA Leq, which could interfere with people being able to fall asleep or stay asleep.

In summary, because construction noise levels would continue for about three years and result in construction noise levels of 87 to 90 dBA Leq (compared to existing noise levels without the project, which range from 62 to 72 dBA during various times of the day), construction noise impacts from the proposed project would be significant, consistent with the conclusions in the Central SoMa PEIR. Therefore, **Project Mitigation Measure M-NO-2, General Construction Noise Control Measures** (implementing Central SoMa PEIR Mitigation

Measure M-NO-2a), would be required, to reduce and manage construction noise. Project Mitigation Measure M-NO-2 would require the construction team to implement a series of best management practices to reduce construction noise and, to the extent feasible, during nighttime construction, to use electronic means (such as walkie talkies) to communicate over distances of 15 feet or more to reduce the team's need to yell and employ the use of advanced back-up alarms on construction equipment.

Vibration

No operational components of the proposed project would include substantial groundborne noise or vibration sources. Thus, no substantial groundborne noise or vibration impacts would occur with the operation of the proposed project.

Construction vibration was evaluated to determine if it would result in building damage or if nighttime construction activities would result in sleep disturbance. In general, on-site construction equipment that would cause the most groundborne vibration and noise would be associated with site grading. During grading, the largest groundborne vibration levels are anticipated to be generated by large bulldozers and loaded trucks used for earthmoving.

The nearest building to the construction site would be the Swinerton commercial building, located at 260 Townsend Street, approximately 20 feet from the northwest construction boundary. This building is considered a category II building under Federal Transit Administration vibration damage guidelines. These guidelines indicate that building damage for category II buildings could occur when vibration levels exceed 0.3 inches per second peak (in/sec) PPV. The second nearest existing building is located approximately 35 feet northeast from the project site, at 601 Fourth Street. According to the Federal Transit Administration, this historic 1910 non-engineered timber and masonry building could experience damage if vibration levels exceed 0.2 in/sec PPV. Buildings located across Townsend (90 feet away) and across Fourth (85 feet away) would be considered category I buildings and would be susceptible to damage if vibration levels exceeded 0.5 in/sec PPV. Using the distance and building categories described immediately above, vibration from construction activity was calculated at each of the adjacent existing buildings. Results are presented below in **Table 4**.

Table 4
Construction Vibration Levels at Adjacent Receivers

Receiver	Equipment	Distance to Construction	Calculated Vibration Level (in/sec PPV)	Damage Threshold (in/sec PPV)	Exceed Damage Threshold?
Swinerton (260 Townsend Street)	Large Bulldozer	20	0.12	0.3	N
	Loaded Trucks	20	0.11		N
601 Fourth Street	Large Bulldozer	35	0.05	0.2	N
	Loaded Trucks	35	0.05		N
Across Townsend	Large Bulldozer	90	0.01	0.5	N
	Loaded Trucks	90	0.01		N
Across Fourth	Large Bulldozer	85	0.01	0.5	N
	Loaded Trucks	85	0.01		N

As shown in **Table 4**, construction-related vibration levels at each adjacent building would fall below the damage criteria applicable to the buildings. Thus, building damage during construction is not expected.

Loaded trucks are the main vibration producing construction equipment during nighttime concrete pouring. Given this, the expected vibration levels produced during nighttime concrete pours would be 0.076 in/sec PPV at 25 feet. The closest residences to the construction activity are located at a distance of approximately 35 feet; at 35 feet, the vibration would be reduced to approximately 0.05 in/sec PPV. This level of vibration is below the 0.1 in/sec PPV vibration level that is considered "strongly perceptible." Therefore, nighttime construction vibration would not be likely to result in sleep disturbance and the project would have less-than-significant impacts from construction vibration.

Cumulative Analysis

There are no cumulative development projects nearby that were not encompassed in the Central SoMa PEIR cumulative noise and vibration analysis. Construction of the proposed project could overlap with construction of two streetscape improvement projects not specifically considered in the Central SoMa PEIR: the Brannan Street Safety Project and the Townsend Corridor Improvement Project. Construction noise impacts from the proposed project are unlikely to combine with construction noise impacts from the Fifth Street Improvement Project given that the Fifth Street Improvement Project is over 900 feet west of the project site. Nevertheless, all of these streetscape projects are similar in nature to the street network changes evaluated in the Central SoMa PEIR. The Central SoMa PEIR determined that plan-level construction impacts could be significant and unavoidable because of the possibility of multiple projects under construction at the same time. Therefore, the proposed project in combination with cumulative projects would not result in more severe cumulative construction noise impacts than disclosed in the Central SoMa PEIR.

Conclusion

For the reasons discussed above, implementation of the proposed project would not result in significant environmental impacts that were not identified in the Central SoMa PEIR related to noise and vibration, nor would the proposed project result in more severe project-specific or cumulative impacts than were identified in the Central SoMa PEIR.

E.7 *Air Quality*

Central SoMa PEIR Analysis

The Central SoMa PEIR identified potentially significant air quality impacts from subsequent development projects related to the generation of criteria air pollutants and impacts to sensitive receptors[41] as a result of exposure to elevated levels of diesel particulate matter and other toxic air contaminants (TACs) during project operations. The Central SoMa PEIR identified six mitigation measures that would reduce these air quality impacts; however, the Central SoMa PEIR determined that impacts from subsequent development projects would remain significant and unavoidable. The mitigation measures identified in the Central SoMa PEIR that are applicable to subsequent development projects are as follows: M-NO-1a, as well as **Central SoMa PEIR Mitigation Measures M-AQ-3a, Education for Residential and Commercial Tenants Concerning Low-VOC Consumer Products; M-AQ-3b, Reduce Operational Emissions; M-AQ-5a, Best Available Control Technology for Diesel Generators and Fire Pumps; M-AQ-5b, Siting of Uses that Emit Particulate Matter ($PM_{2.5}$), Diesel Particulate Matter, or Other Toxic Air Contaminants;** and **M-AQ-5d,**

[41] BAAQMD (Bay Area Air Quality Management District). 2011. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May 2011, p. 12. (The Bay Area Air Quality Management District considers sensitive receptors as children, adults, and older adults occupying or residing in residential dwellings, including apartments, houses, condominiums; schools, colleges, and universities; daycare centers; hospitals; and senior care facilities.)

Land Use Buffers around Active Loading Docks. As discussed throughout this initial study, M-NO-1a is implemented by planning code section 169.

The Central SoMa PEIR also identified potentially significant air quality impacts from subsequent development projects related to the generation of criteria air pollutants resulting from construction activities and impacts to sensitive receptors as a result of exposure to elevated levels of diesel particulate matter and other TACs during project construction. The Central SoMa PEIR identified four mitigation measures applicable to construction projects that would reduce these air quality impacts to less than significant: **Central SoMa PEIR Mitigation Measures M-AQ-4a, Construction Emissions Analysis; M-AQ-4b and M-AQ-6a, Construction Emissions Minimization Plan**; and **M-AQ-6b, Implement Clean Construction Requirements** (applicable to city projects only).

All other air quality impacts, including consistency with applicable air quality plans and exposure of people to objectionable odors, would be less than significant and no mitigation is required.

Topics	*Significant Impact Peculiar to Project or Project Site*	*Significant Impact not Identified in Central SoMa PEIR*	*Significant Impact due to Substantial New Information*	*No Significant Impact not Previously Identified in Central SoMa PEIR*
7. AIR QUALITY—Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal, state, or regional ambient air quality standard?	☐	☐	☐	☒
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

Project-Specific Analysis

Construction Dust Control

Project-related construction activities, primarily ground-disturbing activities, would result in construction dust. The board of supervisors adopted the San Francisco Construction Dust Control Ordinance (codified in Health Code article 22B and San Francisco Building Code section 106.A.3.2.6) with the intent of reducing the quantity of fugitive dust generated during site preparation, demolition, and construction work, in order to protect the health of the general public and of on-site workers and to minimize public nuisance complaints. The project would be required to comply with construction dust control ordinance, which requires the project sponsor and the contractor responsible for construction activities at the project site to implement a number of practices to control construction dust on the site or other practices that result in equivalent dust control that are acceptable to the director of the building department. For projects more than 0.5 acres in size, such as the proposed project, the ordinance requires that the project sponsor submit a dust control plan for approval by the San Francisco Department of Public Health. The building department will not issue a building permit without written notification from the director of public health that the applicant has a site-specific dust control plan, unless the director waives the requirement. The site-specific dust control plan would require the project sponsor to implement additional dust control measures, such as installation of dust curtains and windbreaks,

and to provide independent third-party inspections and monitoring, provide a public complaint hotline, and suspend construction during high-wind conditions.

The regulations and procedures set forth by the San Francisco Construction Dust Control Ordinance would ensure that construction dust impacts would be less than significant.

Construction Criteria Air Pollutants

The Bay Area Air Quality Management District's (air district's) 2017 CEQA Air Quality Guidelines (Air Quality Guidelines)[42] provide methodologies for analyzing air quality impacts. The Air Quality Guidelines also provide thresholds of significance for those criteria air pollutants for which the San Francisco Bay Area Air Basin is in non-attainment. These thresholds of significance are used by the city and are presented in **Table 5**. By its very nature, regional air pollution is largely a cumulative impact in that no single project is sufficient in size, by itself, to result in non-attainment of air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality impacts. If a project's contribution to cumulative air quality impacts is considerable, then the project's impact on air quality would be considered significant.[43]

Construction activities from the proposed project 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 would occur over approximately 34 to 36 months. Construction is expected to begin in 2020 and be completed in 2023. Construction-related criteria air pollutants generated by the proposed project were quantified using the California Emissions Estimator Model (CalEEMod) (Version 2016.3.1) and are provided within the air quality emissions assessment report prepared for the proposed project.[44] The model, including default data (e.g., emissions factors, meteorology), was developed in collaboration with staff from California air districts. The specific modeling assumptions are provided in the air quality technical report and default assumptions were used where project-specific information was unknown. Total construction period emissions were converted from tons per year to pounds per day using the estimated construction duration of 1,162 working days. As shown in **Table 5**, project construction emissions would be below the threshold of significance for all criteria pollutants; thus, construction emissions of criteria pollutants would result in a less-than-significant impact. No mitigation measures are required.

Table 5
Daily Project Construction Emissions

	Pollutant Emissions (Average Pounds per Day)			
	ROG	*NOx*	*Exhaust PM_{10}*	*Exhaust $PM_{2.5}$*
Project Emissions	24.0	42.8	1.2	1.2
Significance Threshold	54.0	54.0	82.0	54.0
Significant Impact?	No	No	No	No

SOURCE: Air Quality Emissions Assessment, Dudek 2019.

ROG = reactive organic gas; NOx = nitrogen oxide; PM_{10} = particles in the atmosphere with a diameter equal to or less than 10 micrometers; $PM_{2.5}$ = particles with a diameter equal to or less than 2.5 micrometers.

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42 Bay Area Air Quality Management District. 2017. *CEQA Air Quality Guidelines*. Updated May 2017, p. 2-1. Accessed December 26, 2017. Available at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

43 Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, updated May 2017.

44 Dudek. 2019. Memorandum to Elizabeth White and Jessica Range. 655 Fourth Street Project Air Quality Emissions Assessment.

Operational Criteria Air Pollutants

For the proposed project and existing operations, CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment associated with the proposed project. Emissions associated with natural gas use in space heating, hearths, water heating, and stoves were calculated in the building energy use module of CalEEMod. It was assumed that "hearth emissions" would occur from natural gas combustion (rather than wood-burning fireplaces, which are not proposed).

Consumer products in this analysis are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products.

The proposed project would also generate criteria pollutant emissions associated with vehicle traffic (mobile sources) and testing of a backup diesel generator. Operational-related criteria air pollutants generated by the proposed project were quantified using CalEEMod and model assumptions and results are provided within the air quality emissions assessment report for the proposed project.[45] Default assumptions were used where project-specific information was unknown.

The daily and annual emissions associated with operation of the proposed project are shown in **Table 6**. **Table 6** also includes the thresholds of significance used by the city.

Table 6
Summary of Net Operational Criteria Air Pollutant Emissions

Emissions Source	ROG	NOx	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions in pounds per day (lbs/day)				
Area Sources	31.75	19.49	1.94	1.94
Energy	0.36	3.15	0.25	0.25
Mobile Sources - Passenger Vehicles	5.70	4.48	19.09	5.15
Mobile Sources - Freight Vehicles	0.25	5.57	0.80	0.24
Stationary Sources	0.72	2.02	0.11	0.11
Total Project Maximum Daily Emissions (lbs/day)	38.78	34.71	22.19	7.69
Total Existing Emissions (lbs/day)	3.06	5.33	2.50	0.76
Net New Project Emissions (lbs/day)	35.72	29.38	19.69	6.93
Significance Threshold (lbs/day)	54	54	82	54
Significant Impact?	No	No	No	No
Annual Emissions in tons per year (tpy)				
Total Project Maximum Annual Emissions (tpy)	6.09	2.28	3.04	0.90
Total Existing Emissions (tpy)	0.50	0.81	0.36	0.11
Net New Project Emissions (tpy)	5.59	1.47	2.68	0.79
Significance Threshold (tpy)	10	10	15	10
Significant Impact?	No	No	No	No

SOURCE: Air Quality Emissions Assessment, Dudek 2018.

[45] Ibid

ROG = reactive organic gas; NOx = nitrogen oxide; PM_{10}= particles in the atmosphere with a diameter equal to or less than 10 micrometers; $PM_{2.5}$ = particles with a diameter equal to or less than 2.5 micrometers; lbs/day = pounds per day; tpy = tons per year.

As shown in **Table6**, the proposed project would not exceed any criteria air pollutant threshold of significance. Therefore, individual and cumulative operational criteria air pollutant impacts resulting from the proposed project would be less than significant. No mitigation measures are required.

The proposed project would not result in significant project or cumulative criteria air pollutant impacts that were not identified in the Central SoMa PEIR, nor would the project result in air quality impacts that are substantially more severe than those identified in the Central SoMa PEIR.

Health Risk

The project site is within an air pollutant exposure zone. As defined in Health Code article 38, an air pollutant exposure zone consists of areas that, based on modeling of all known air pollutant sources, exceed health protective standards for cumulative fine particulate matter ($PM_{2.5}$) concentration or cumulative excess cancer risk. The zone also incorporates health vulnerability factors and proximity to freeways. For sensitive-use projects within the air pollutant exposure zone, such as the proposed project, article 38 requires the project sponsor to submit an enhanced ventilation proposal for approval by the Department of Public Health that achieves protection from $PM_{2.5}$ equivalent to that associated with a minimum efficiency reporting value (MERV) 13 filtration. The Department of Building Inspection will not issue a building permit without written notification from the Director of Public Health that the applicant has an approved enhanced ventilation proposal. In compliance with article 38, the project sponsor has submitted an initial application to the Department of Public Health.[46] The regulations and procedures set forth by article 38 would reduce exposure of the proposed project's sensitive receptors to pollutant concentrations.

Additionally, projects within an air pollutant exposure zone require special consideration to determine whether the project's activities would expose existing sensitive receptors to substantial air pollutant concentrations or add emissions to areas already adversely affected by poor air quality. The nearest schools to the project site are the Bessie Carmichael Middle School on Harrison Street west of Fourth Street, approximately 1,850 feet northeast of the project site, and the Five Keys Charter School on Oak Street north of Bryant Street, approximately 1,930 feet west of the site. The nearest childcare centers are the Yerba Buena Gardens Child Development Center, approximately 2,550 feet northeast of the project site, and the Mission Head Start Mission Bay Child Development Center, approximately 2,990 feet southeast of the project site. The nearest residence to the project site is located 35 feet northwest of the project site.

Construction Health Risks

The Central SoMa PEIR found that subsequent development projects requiring the use of diesel-powered equipment and vehicles during construction within the air pollutant exposure zone would result in a significant impact to nearby sensitive receptors, and determined that with implementation of M-AQ-6a, construction period health risks from subsequent development projects would be reduced to less than significant. Because the project site is located within an identified air pollutant exposure zone and would require heavy-duty off-road diesel vehicles and equipment throughout the anticipated 34- to 36-month construction period, M-AQ-6a is required.

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[46] 655 Fourth Street Enhanced Ventilation Requirement under article 38. This document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case No 2014-000203ENV.

Project Mitigation Measure M-AQ-1, Construction Emissions Minimization Plan (implementing Central SoMa PEIR Mitigation Measure M-AQ-6a), requires that diesel engines powering construction equipment meet all of the following minimum standards: (1) comply with U.S. Environmental Protection Agency Tier 2 emissions standards, (2) be equipped with a level 3 diesel particulate filter,[47] and (3) use renewable diesel. Use of Tier 2 engines and a Level 3 Verified Diesel Emission Control Strategy (VDECS) can reduce construction emissions by 89 to 94 percent compared to equipment with engines meeting no emission standards and without a VDECS.[48] Emissions reductions from the combination of Tier 2 equipment and a Level 3 VDECS is almost equivalent to requiring only equipment with Tier 4 Final engines. Furthermore, renewable diesel, R100, has the potential to reduce particulate matter emissions by about 30 percent and provides an added co-benefit of reducing nitrogen oxide emissions by 10 percent.[49] Therefore, with implementation of Project Mitigation Measure M-AQ-1 (implementing Central SoMa PEIR M-AQ-6a), health risk impacts to sensitive receptors from the project's construction activities would be reduced to less than significant.

Operational Health Risks

The Central SoMa PEIR identified a significant and unavoidable impact regarding operational health risks and identified five mitigation measures, four of which apply to subsequent development projects.

The proposed project would generate an increase in daily vehicle trips and include a backup diesel generator, which would emit diesel particulate matter and other TACs. Therefore, the proposed project would be subject to M-NO-1a, which is implemented as part of the entitlement review process in compliance with planning code section 169. The proposed project would also include a diesel emergency backup generator, which emits diesel particulate matter, and therefore Central SoMa PEIR Mitigation Measure M-AQ-5a is applicable to the proposed project. This mitigation measure is incorporated into the proposed project as **Project Mitigation Measure M-AQ-2** (implementing Central SoMa PEIR Mitigation Measure M-AQ-5a) and requires the project's diesel generator to meet the best available emissions standards and be fueled with renewable diesel. The proposed project would not include other sources of TACs, and therefore Central SoMa PEIR Mitigation Measure M-AQ-5b is not applicable. Additionally, the proposed project would provide five loading bays within the below-grade parking garage, which would

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[47] Construction equipment meeting Tier 4 interim or Tier 4 final emissions standards automatically meet the Tier 2 plus level 3 diesel particulate filter standard.

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

[49] California Environmental Protection Agency. 2015. *Staff Report: Multimedia Evaluation of Renewable Diesel*. May 2015. Accessed October 23, 2015. Available at https://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/CEPC-2015yr-RenDieselRpt.pdf.

be sufficiently separated from residential uses, and therefore the project's design will meet the requirements of Central SoMa PEIR Mitigation Measure M-AQ-5d.

Project Mitigation Measures M-AQ-1 and M-AQ-2 (implementing Central SoMa PEIR Mitigation Measures M-AQ-6a and M-AQ-5a, respectively) would apply to the proposed project and would reduce health risk impacts from the proposed project to less-than-significant levels.

Cumulative Analysis

As discussed above, criteria air pollutant impacts are cumulative impacts because no single project is sufficient in size, by itself, to result in non-attainment of air quality standards. As demonstrated above, the project would not result in cumulatively considerable criteria air pollutant emissions.

With respect to localized health risks, the Fifth Street Improvement Project, Brannan Street Safety Project, and the Townsend Corridor Improvement Project are similar in nature to the streetscape improvement projects analyzed in the Central SoMa PEIR. All of these projects would be subject to the Clean Construction Ordinance, which requires construction equipment to meet similar standards as those required for the project through Project Mitigation Measure M-AQ-1, thereby reducing construction period emissions and associated health risks. For these reasons, cumulative health risks would not be more severe than disclosed in the Central SoMa PEIR.

Conclusion

For the reasons described above, the proposed project would not result in significant project-level or cumulative air quality impacts that were not identified in the Central SoMa PEIR, nor would the project result in significant project-level or cumulative air quality impacts that are more severe than those identified in the Central SoMa PEIR or that are peculiar to the project site.

E.8 Greenhouse Gas Emissions

Central SoMa PEIR Analysis

The Central SoMa PEIR concluded that adoption of the Central SoMa Plan would not directly result in operational greenhouse gas (GHG) emissions; however, implementation of development projects in the plan area, including the proposed project, would result in GHG emissions. The Central SoMa Plan includes goals and policies that would apply to the proposed project, and these policies are consistent with the city's Strategies to Address Greenhouse Gas Emissions.[50] The Central SoMa PEIR concluded that GHG emissions resulting from development under the Central SoMa Plan would be less than significant, and no mitigation measures were required.

The air district has issued guidelines and methodologies for analyzing GHGs. These guidelines are consistent with CEQA Guidelines sections 15064.4 and 15183.5, which address the analysis and determination of significant impacts from a proposed project's GHG emissions, and allow for projects that are consistent with an adopted GHG reduction strategy to conclude that the project's GHG impact is less than significant. San Francisco's Strategies to Address Greenhouse Gas Emissions[51] presents a comprehensive assessment of

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50 San Francisco Planning Department. *Strategies to Address Greenhouse Gas Emissions in San Francisco.* July 2017. This document is available online at: http://sf-planning.org/strategies-address-greenhouse-gas-emissions.

51 San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco,* November 2010. Available athttp://sfmea.sfplanning.org/GHG_Reduction_Strategy.pdf, accessed March 3, 2016.

policies, programs, and ordinances that collectively represent the city's GHG reduction strategy in compliance with the air district and CEQA Guidelines. These GHG reduction actions have resulted in a 36 percent reduction in GHG emissions in 2017 compared to 1990 levels,[52] exceeding the year 2020 reduction goals outlined in the air district's 2017 Clean Air Plan,[53] Executive Order S-3-05,[54] and Assembly Bill 32 (also known as the Global Warming Solutions Act).[55,56] In addition, the city's GHG reduction goals are consistent with, or more aggressive than, the long-term goals established under Executive Orders S-3-05[57] and B-30-15[58,59] and Senate Bill 32.[60,61] Therefore, projects that are consistent with the city's GHG reduction strategy would not result in GHG emissions that would have a significant effect on the environment, and would not conflict with state, regional, or local GHG reduction plans and regulations.

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52 San Francisco Department of the Environment, *San Francisco's Carbon Footprint (2019)*, April 2019. Available at https://sfenvironment.org/carbon-footprint, accessed April 22, 2019.

53 Bay Area Air Quality Management District, *Clean Air Plan*, September 2017. Available at *http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans*, accessed July 13, 2018.

54 Office of the Governor, *Executive Order S-3-05*, June 1, 2005. Available at http://www.climatestrategies.us/library/library/view/294, accessed April 22, 2019.

55 California Legislative Information, *Assembly Bill* 32, September 27, 2006. Available at http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf, accessed March 3, 2016.

56 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.

57 Executive Order S-3-05 sets forth a series of target dates by which statewide emissions of GHGs need to be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels (approximately 457 million metric tons of carbon dioxide equivalent (MT CO_2e)); by 2020, reduce emissions to 1990 levels (approximately 427 million MT CO_2e); and by 2050 reduce emissions to 80 percent below 1990 levels (approximately 85 million MT CO_2e). Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents," which present a weighted average based on each gas's heat absorption (or "global warming") potential.

58 Office of the Governor, *Executive Order B-30-15, April 29, 2015*. Accessed March 3, 2016. https://www.gov.ca.gov/news.php?id=18938. Executive Order B-30-15 sets a state GHG emissions reduction goal of 40 percent below 1990 levels by 2030.

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

60 Senate Bill 32 amends California Health and Safety Code Division 25.5 (also known as the California Global Warming Solutions Act of 2006) by adding section 38566, which directs that statewide greenhouse gas emissions to be reduced by 40 percent below 1990 levels by 2030.

61 Senate Bill 32 was paired with Assembly Bill 197, which would modify the structure of the State Air Resources Board; institute requirements for the disclosure of greenhouse gas emissions criteria pollutants, and toxic air contaminants; and establish requirements for the review and adoption of rules, regulations, and measures for the reduction of greenhouse gas emissions.

Topics		Significant Impact Peculiar to Project or Project Site	Significant Impact not Identified in Central SoMa PEIR	Significant Impact due to Substantial New Information	No Significant Impact not Previously Identified in Central SoMa PEIR
8.	**GREENHOUSE GAS EMISSIONS—Would the project:**				
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☒
b)	Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Project-Specific Analysis

The proposed project would increase the intensity of use of the site. Therefore, the proposed project would contribute to annual long-term increases in GHGs as a result of increased vehicle trips (mobile sources) and residential and commercial operations that would result in an increase in energy use, water use, wastewater treatment, and solid waste disposal. Construction activities would also result in temporary increases in GHG emissions.

The proposed project would meet LEED Silver standards and would be subject to adopted regulations that would reduce GHG emissions as identified in the GHG reduction strategy. As discussed below, compliance with the applicable regulations would reduce the project's GHG emissions related to transportation, energy, waste disposal, wood burning, and use of refrigerants. The project sponsor submitted a checklist demonstrating compliance with the GHG reduction strategy.[62]

Compliance with the city's Commuter Benefits Program, Emergency Ride Home Program, transportation demand management programs, Transportation Sustainability Fee, Jobs-Housing Linkage Program, bicycle parking requirements, low-emission car parking requirements, and car-sharing requirements would reduce the proposed project's transportation-related emissions. These regulations would reduce GHG emissions from single-occupancy vehicles by promoting the use of transportation modes with zero or lower GHG emissions on a per-capita basis.

The proposed project would be required to comply with the energy efficiency requirements of the city's Green Building Code, Stormwater Management Ordinance, Water Efficient Ordinance, Water Conservation and Irrigation Ordinance, and Energy Conservation Ordinance, which would promote energy and water efficiency, thereby reducing the proposed project's energy-related GHG emissions.[63] The proposed project would be required to meet the renewable energy criteria of the Green Building Code and comply with the commercial buildings energy performance ordinance. Reaching this compliance will mean the project, like other large buildings in the Central SoMa area, will be 100 percent free of building energy GHG emissions.

The proposed project's waste-related emissions would be reduced through compliance with the city's Recycling and Composting Ordinance and Construction and Demolition Debris Recovery Ordinance and

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62 San Francisco Planning Department, Greenhouse Gas Analysis: Compliance Checklist for 655 Fourth Street November 9, 2018.

63 Compliance with water conservation measures reduce the energy (and GHG emissions) required to convey, pump, and treat water required for the project.

Green Building Code requirements. These regulations reduce the amount of materials sent to a landfill, reducing GHGs emitted by landfill operations. These regulations also promote reuse of materials, conserving their embodied energy[64] and reducing the energy required to produce new materials.

Therefore, the proposed project's GHG emissions would not conflict with state, regional, or local GHG reduction plans and regulations. Furthermore, the proposed project would not result in impacts associated with GHG emissions beyond those disclosed in the Central SoMa PEIR. For the above reasons, the proposed project would not result in significant GHG emissions that were not identified in the Central SoMa PEIR, and no mitigation measures are necessary.

Cumulative Analysis

Similar to criteria air pollutants, GHG emissions and global climate change represent cumulative impacts. GHG emissions cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the combination of GHG emissions from past, present, and future projects have contributed and will continue to contribute to global climate change and its associated environmental impacts. Therefore, the analysis above addresses the project's contribution to cumulatively significant GHG emissions and no separate cumulative analysis is required.

Conclusion

For the reasons described above, the proposed project would not result in new significant or more severe GHG impacts that were not identified in the Central SoMa PEIR or that are peculiar to the project site.

E.9 Wind

Central SoMa PEIR Analysis

Wind is analyzed as part of CEQA review in the city with respect to potential pedestrian hazards, based on the criteria in planning code section 148, Reduction of Ground-Level Wind Currents in C-3 Use Districts. Although the project site is outside the C-3 (Downtown Commercial) Use Districts, section 148 was the city's first codification of wind standards, and its criteria remain the foundation of wind analysis in the city. For wind hazards, section 148 requires that buildings do not cause an equivalent wind speed of 26 mph as averaged for a single full hour of the year.[65,66] Although section 148 applies only within the C-3 Use Districts, the hazard criterion of section 148 is used by the planning department as a CEQA significance

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

65 The wind ordinance comfort criteria are defined in terms of equivalent wind speed, which is an average wind speed (mean velocity), adjusted to include the level of gustiness and turbulence. Equivalent wind speed is defined as the mean wind velocity, multiplied by the quantity (one plus three times the turbulence intensity) divided by 1.45. This calculation magnifies the reported wind speed when turbulence intensity is greater than 15 percent. Unless otherwise stated, use of the term "wind speed" in connection with the wind-tunnel tests refers to equivalent wind speeds that are exceeded 10 percent of the time.

66 The wind hazard criterion is derived from the 26 mph hourly average wind speed that would generate a 3-second gust of wind at 20 meters per second, a commonly used guideline for wind safety. Because the original federal building wind data was collected at 1-minute averages, the 26 mph hourly average is converted to a 1-minute average of 36 mph, which is used to determine compliance with the 26 mph 1-hour hazard criterion in the planning code (Arens, E., et al. 1989. "Developing the San Francisco Wind Ordinance and its Guidelines for Compliance," *Building and Environment*, Vol. 24, No. 4, p. 297–303).

threshold for the determination of whether a project would create wind hazards in publicly accessible areas of substantial pedestrian use.

The Central SoMa PEIR wind analysis found that the average wind speed for 1 hour per year would decrease by 1 mph, from 26 mph under existing conditions to 25 mph, with Central SoMa Plan implementation, which represents an incremental improvement. However, the number of locations that would exceed the hazard criteria would increase from three to five, and the hours per year during which the 1-hour wind hazard criterion would be exceeded would increase from 4 hours to 81 hours per year, resulting in a significant plan-level wind impact. Because the wind environment around a building is highly dependent on design details beyond the scope of the Central SoMa PEIR's programmatic analysis (e.g., setbacks, podiums, street wall heights), the results indicate only generally how new, taller buildings could affect pedestrian-level winds. **Central SoMa PEIR Mitigation Measure M-WI-1, Wind Hazard Criterion for the Plan Area**, was identified to reduce wind impacts from subsequent development within the plan area, and requires project-specific evaluation by a wind expert for projects taller than 85 feet and, if deemed necessary, wind-tunnel testing and implementation of feasible measures to meet the 1-hour 26 mph wind hazard criterion. Should wind tunnel testing reveal that a project would exceed the hazard criteria, then the project would need to be shaped to minimize the overall number of hours of the exceedance. However, because the Central SoMa PEIR could not determine with certainty that each subsequent development project would be able to meet the 1-hour, 26 mph wind hazard criterion, the Central SoMa PEIR determined that plan-level wind impacts would remain significant and unavoidable with mitigation. Cumulative wind impacts (implementation of the plan in addition to other cumulative projects) were determined to be less than significant.

In the Central SoMa Special Use District, which includes the project site, wind conditions with respect to project approval are governed by planning code section 249.78(d)(9). Section 249.78(d)(9) incorporates the section 148 hazard criterion of 26 mph for 1 hour per year, but permits the planning commission to grant exceptions for projects that result in an exceedance of the hazard criterion up to a maximum of 9 hours per year per wind-tunnel test location, if the "project has undertaken all feasible measures to reduce hazardous wind speeds, such as building sculpting and appurtenances, permanent wind baffling measures, and landscaping," and compliance with the 1-hour hazard criterion "would detract from the building design or unduly restrict the potential square footage of the project." Exceptions are not permitted for projects that would result in an exceedance of the 26 mph hazard criterion for more than 9 hours per year at any wind-tunnel test location. Section 249.78(d)(9) also includes wind comfort criteria that incorporate section 148's 7 mph and 11 mph wind speeds, which can be exceeded 10 percent of the time. However, section 249.78(d)(9) requires that buildings not cause a "substantial increase"—defined as 6 mph—in the wind speed more than 15 percent of the time, where the resulting wind speed exceeds the applicable comfort criterion. Exceptions may be granted based on the same findings as for granting exceptions to the 1-hour wind hazard criterion.

Topics	*Significant Impact Peculiar to Project or Project Site*	*Significant Impact not Identified in Central SoMa PEIR*	*Significant Impact due to Substantial New Information*	*No Significant Impact not Previously Identified in Central SoMa PEIR*
9. WIND —Would the project:				
a) Create wind hazards in publicly accessible areas of substantial pedestrian use?	☐	☐	☐	☒

Project-Specific Analysis

The analysis in the Central SoMa PEIR reveals no new exceedances of the hazard criterion in the five sensors located on or immediately adjacent to the project site; however, the analysis in the Central SoMa PEIR reveals that the corner of Fourth Street and Townsend Street would experience an increase in average wind speed of more than 3 miles per hour. A qualified wind consultant prepared a wind technical analysis for the proposed project and conducted wind tunnel testing.[67] The criteria used for this analysis relates to pedestrian comfort such that wind speeds will not exceed, more than 15 percent of the time, 11 mph in substantial pedestrian use areas, and 7 mph in public seating areas. The 1-hour hazard criterion of the 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, except as allowed by the planning commission. Test configurations included the following five different scenarios:

- existing conditions
- existing-plus-project conditions
- existing plus project plus wind reduction features
- cumulative conditions with the project (including wind reduction features)
- cumulative conditions (without the project)

Table 7, below, provides the results of the wind tunnel testing with respect to the 1-hour wind hazard criterion for each of the five scenarios above because this is the criterion used in CEQA review for determining whether a significant wind impact would occur. The wind technical analysis contains detailed tables of compliance with the planning code's wind comfort criteria and the 9-hour wind hazard criterion.

[67] RWDI. 2019. 655 Fourth Street, Pedestrian Wind Study. April 4, 2019.

Table 7
Wind Hazard Conditions – 1 Hour

	Existing			Existing + Project				Existing + Project + Wind Reduction Features				Project + Cumulative + Wind Reduction Features				Cumulative – no Project			
Location	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Exceeds	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Hours Change Relative to Existing	Exceeds
1	21	0		38	1	1	e	32	0	0		30	0	0		25	0	0	
2	20	0		49	79	79	e	34	0	0		34	0	0		29	0	0	
3				46	43		e	14	0			15	0						
4	25	0		46	55	55	e	19	0	0		21	0	0		29	0	0	
5	18	0		38	5	5	e	25	0	0		18	0	0		20	0	0	
6	13	0		32	0	0		24	0	0		14	0	0		13	0	0	
7	25	0		41	36	36	e	30	0	0		19	0	0		24	0	0	
8	21	0		33	0	0		24	0	0		18	0	0		24	0	0	
9				44	29		e	30	0			17	0						
10	22	0		35	0	0		28	0	0		15	0	0		24	0	0	
11	21	0		34	0	0		23	0	0		17	0	0		22	0	0	
12	22	0		31	0	0		24	0	0		19	0	0		23	0	0	
13	28	0		37	1	1	e	33	0	0		31	0	0		30	0	0	
14	20	0		21	0	0		21	0	0		16	0	0		16	0	0	
15	15	0		46	41	41	e	23	0	0		20	0	0		13	0	0	
16	9	0		37	2	2	e	32	0	0		27	0	0		13	0	0	
17	8	0		34	0	0		31	0	0		26	0	0		12	0	0	
18	7	0		35	0	0		30	0	0		23	0	0		10	0	0	
19				31	0			35	0			23	0						
20	11	0		31	0	0		23	0	0		20	0	0		13	0	0	
21	12	0		27	0	0		23	0	0		23	0	0		16	0	0	
22	14	0		32	0	0		33	0	0		23	0	0		12	0	0	
23				42	30		e	37	2		e	27	0						
24				31	0			23	0			14	0						
25				44	40		e	28	0			21	0						
26	15	0		37	2	2	e	28	0	0		18	0	0		14	0	0	
27				38	2		e	22	0			18	0						
28	18	0		37	1	1	e	21	0	0		14	0	0		15	0	0	
29				35	0			27	0			15	0						
30				42	37		e	33	0			19	0						
31				42	19		e	29	0			21	0						
32	22	0		21	0	0		23	0	0		33	0	0		34	0	0	
33	22	0		21	0	0		21	0	0		46	40	40	e	47	48	48	e
34	18	0		26	0	0		24	0	0		27	0	0		26	0	0	
35	27	0		29	0	0		29	0	0		33	0	0		28	0	0	
36	27	0		34	0	0		34	0	0		35	0	0		37	9	9	e
37	23	0		28	0	0		28	0	0		33	0	0		32	0	0	
38	16	0		32	0	0		32	0	0		27	0	0		16	0	0	
39	21	0		32	0	0		31	0	0		23	0	0		22	0	0	
40	10	0		10	0	0		13	0	0		12	0	0		12	0	0	
41	23	0		24	0	0		24	0	0		34	0	0		33	0	0	
42	24	0		25	0	0		24	0	0		24	0	0		24	0	0	

Table 7
Wind Hazard Conditions – 1 Hour

	Existing			Existing + Project				Existing + Project + Wind Reduction Features				Project + Cumulative + Wind Reduction Features				Cumulative – no Project			
Location	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Exceeds	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speed Exceeds Hazard Criteria	Hours Change Relative to Existing	Exceeds
43	22	0		26	0	0		25	0	0		21	0	0		25	0	0	
44	24	0		29	0	0		25	0	0		17	0	0		29	0	0	
45	23	0		23	0	0		23	0	0		18	0	0		19	0	0	
46	27	0		26	0	0		28	0	0		22	0	0		21	0	0	
47	36	1	e	35	0	1		33	0	1		28	0	1		28	0	1	
48	24	0		29	0	0		28	0	0		18	0	0		19	0	0	
49	23	0		31	0	0		28	0	0		17	0	0		19	0	0	
50	35	0		36	2	2	e	31	0	0		25	0	0		32	0	0	
51	26	0		49	65	65	e	40	7	7	e	24	0	0		28	0	0	
52	23	0		39	5	5	e	32	0	0		29	0	0		20	0	0	
53	28	0		48	54	54	e	37	2	2	e	31	0	0		29	0	0	
54	26	0		23	0	0		23	0	0		19	0	0		19	0	0	
55	19	0		23	0	0		22	0	0		20	0	0		15	0	0	
56	26	0		38	3	3	e	36	1	1	e	28	0	0		22	0	0	
57	10	0		38	2	2	e	33	0	0		27	0	0		12	0	0	
58	13	0		23	0	0		29	0	0		22	0	0		13	0	0	
59	16	0		22	0	0		22	0	0		16	0	0		17	0	0	
60	12	0		30	0	0		28	0	0		21	0	0		16	0	0	
Summary	Average (Mph)	Total Hours	Total	Average (Mph)	Total Hours	Hours Change	Total	Average (Mph)	Total Hours	Hours Change	Total	Average (Mph)	Total Hours	Hours Change	Total	Average (Mph)	Total Hours	Hours Change	Total
	20	1	1/50	33	554	553	23/60	27	12	11	4/60	23	40	39	1/60	22	57	56	2/50

NOTE: (a) A '-' in the table denotes a sensor that is not included in the analysis as it is covered by an existing building on the project site

Existing Conditions

Wind testing of existing conditions revealed one location that exceeds the 1-hour wind hazard criterion at the corner of Fourth and King streets and no locations that exceed the 9-hour wind hazard criterion. Wind speeds at 18 of 50 locations tested exceeded the 11 mph pedestrian comfort criterion (see **Figure 16**, Pedestrian Wind Hazard Conditions – Existing).

Existing Conditions Plus Proposed Project

The existing plus proposed project condition revealed 23 exceedances of the 1-hour wind hazard criterion with the proposed project and 12 locations that exceed the 9-hour wind hazard criterion.

Existing Conditions Plus Proposed Project Plus Wind Reduction Features

Pursuant to the requirements of planning code section 249.78(d)(9), the project is required to implement feasible measures to reduce hazardous wind speeds. Therefore, the project underwent iterative testing that included various wind reduction features. The results of that testing yielded the following wind reduction features, which have been incorporated into the proposed project, as discussed in the Project Description section of this initial study:

- Tower 1B has been modified to include a design that would add more porosity to the façade, referred to as a *Voided Terrace*.
- Canopies would be installed on Towers 1A, 1B, 2A, and 2B to improve wind speeds within the 655 Fourth Street Project's Central Plaza.
- A combination of shrubs (5 feet tall) and porous vines attached to a 10-foot tall artificial barrier would be installed on site within the alleyways between Towers 1A and 1B, between Towers 1B and 2A, and between Towers 1A and 2B to improve wind speeds in the alleyway.
- Deciduous trees would be planted within the Fourth Street Plaza and the Central Plaza to reduce wind speeds in each respective area.
- A 6-foot-wide and 10-foot-tall wind screen would be installed perpendicular to Townsend Street and 2 feet from the curb near the Lusk Street and Townsend Street bus stop to reduce wind speeds on Townsend Street (see **Figure 15**).

With these on- and off-site wind reduction elements, the project would result in a total of four locations that would exceed the 1-hour wind hazard criterion, which would be a net addition of three hazard locations from the existing condition. Because the proposed project would incorporate all feasible wind reduction measures in compliance with the planning code and the project would still exceed the 1-hour hazard criterion, the proposed project would result in a significant and unavoidable wind impact, consistent with the findings of the Central SoMa PEIR (see **Figure 17**, Pedestrian Wind Hazard Conditions – Existing + Project + Wind Reduction Features).

With the wind reduction features, all locations tested would comply with the planning code's 9-hour wind hazard criterion. Nonetheless, Central SoMa Plan Mitigation Measure M-WI-1 shall remain applicable to the project as **Project Mitigation Measure M-WI-1, Wind Hazard Evaluation for Building Design Modifications,** in the event the project sponsor proposes modifications to the current project design that may, as determined by the planning department, necessitate further wind analysis. The addition of the proposed project would result in 52 locations that exceed the wind comfort criterion. Wind reduction measures would eliminate eight of these exceedances, leaving 44 locations where the 11-mph pedestrian comfort criterion would be exceeded.

Cumulative Analysis

Cumulative Conditions Plus Proposed Project Plus Wind Reduction Features

A cumulative scenario, including the proposed project, the project's wind reduction features, and cumulative projects in the area, was also analyzed. The cumulative scenario did not identify any new cumulative development projects not already included in the Central SoMa PEIR plan-level or cumulative analysis. With cumulative development added to the with-project scenario, the total number of locations exceeding the 1-hour wind hazard criterion would be reduced to one, similar to existing conditions without the project or cumulative development (although the location of the 1-hour wind hazard would shift from King and Fourth streets north to Fourth Street between Bluxome and Brannan streets). This location would also exceed the 9-hour wind hazard criterion with the addition of the cumulative projects (see **Figure 18**, Pedestrian Wind Hazard Conditions – Project + Cumulative + Wind Reduction Features). It should be noted that the 9-hour wind hazard at this location also exists under the cumulative conditions without the project scenario (see discussion below) and therefore cannot be attributed solely to the project. Although the proposed project would eliminate one wind hazard location under cumulative conditions, one exceedance of the 1-hour wind hazard criterion would occur, similar to existing conditions.

Cumulative Conditions Without the Proposed Project

The analysis of cumulative development without the proposed project in the project area shows wind speeds are expected to exceed the 1-hour wind hazard criterion at two test locations due to the addition of the future buildings. Winds would exceed the 9-hour wind hazard criterion at one location. These two wind hazards are due to the addition of the cumulative buildings and do not include the proposed project. Therefore, as shown here, with the proposed project, including wind reduction features, and cumulative development, the number of locations exceeding the 1-hour wind hazard criterion would be reduced from two to one. Wind comfort conditions for the cumulative configuration without the project are anticipated to exceed the 11-mph pedestrian comfort criterion at 20 locations around the project area.

Conclusion

The proposed project would result in a significant wind hazard impact, consistent with the finding in the Central SoMa PEIR. The proposed project has implemented all feasible measures to reduce hazardous wind speeds in compliance with Central SoMa PEIR Mitigation Measure M-WI-1 and the planning code.[68] Therefore, consistent with the Central SoMa PEIR, the proposed project would result in significant and unavoidable wind impacts. For this reason, the proposed project would not result in new or more severe project-level or cumulative wind impacts than were identified in the Central SoMa PEIR.

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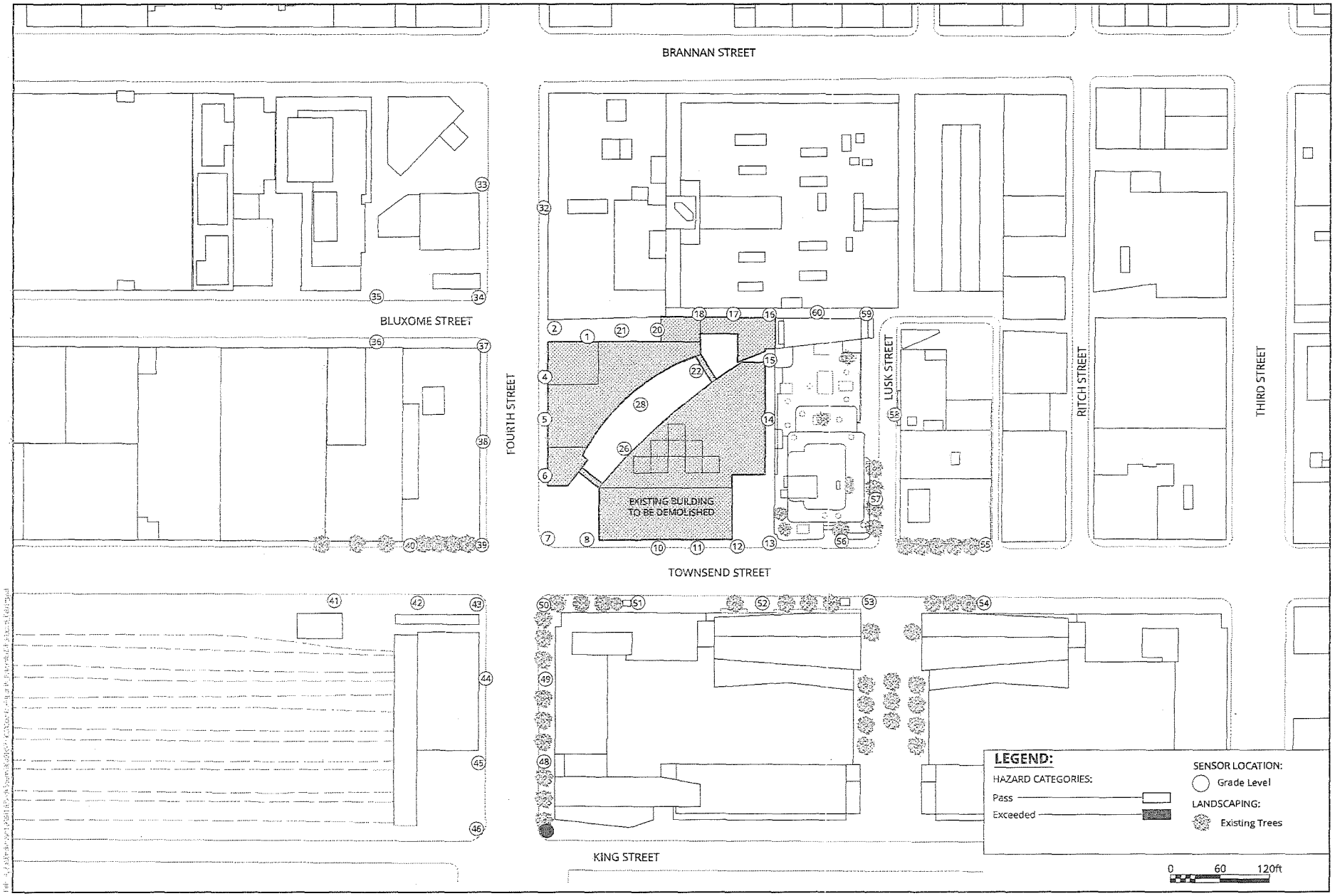
[68] Although the proposed project has included various design measures to reduce wind hazards, project mitigation measure M-WI-1 (implementing Central SoMa PEIR Mitigation Measure M-WI-1) will remain in effect to require additional wind analysis should the project's design change such that there is potential for anew hazard not analyzed in this community plan evaluation initial study.



SOURCE: RWDI, 2019

FIGURE 16

Pedestrian Wind Hazard Conditions – Existing

655 Fourth Street Project

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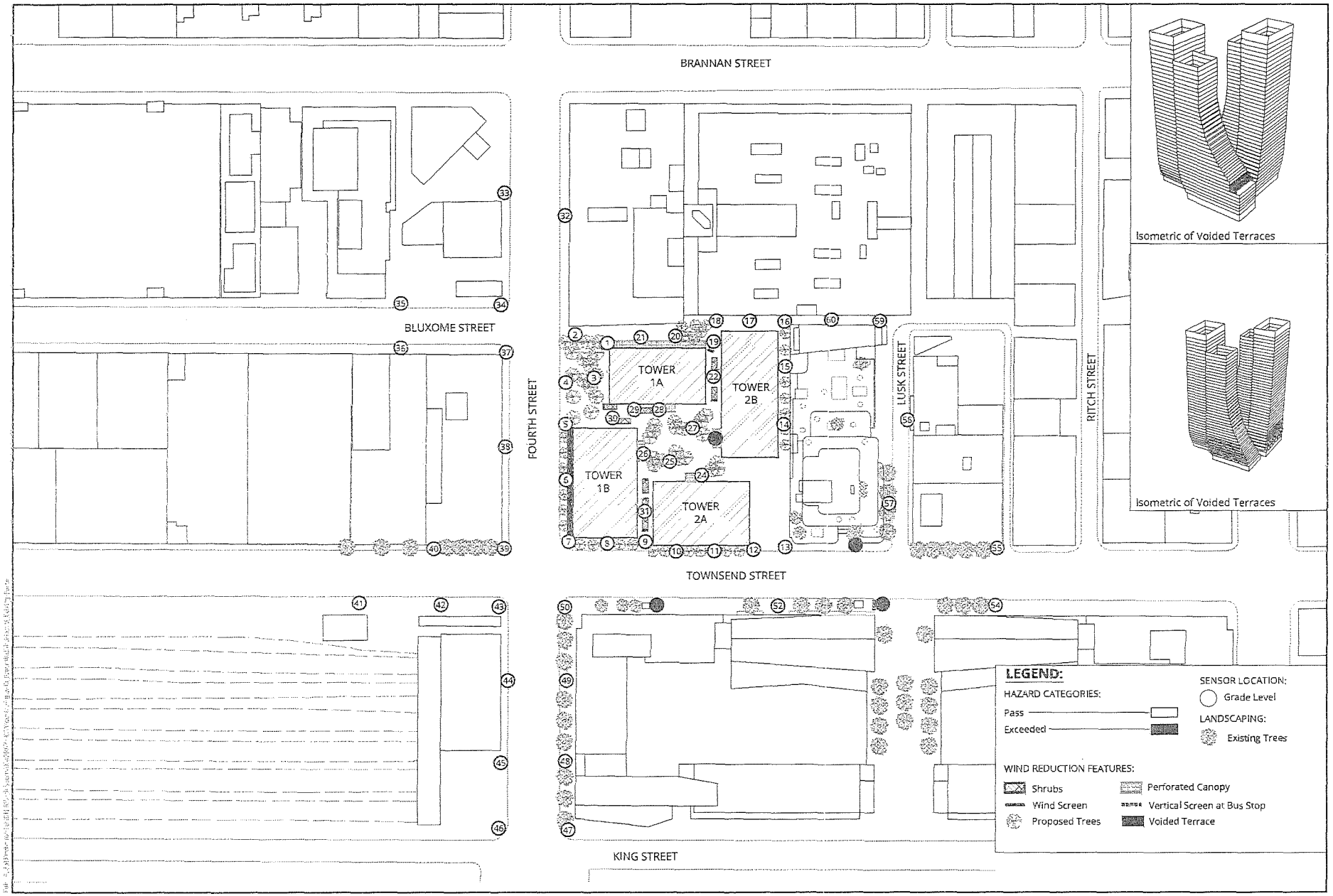

SOURCE: RWDI, 2019

0 60 120ft

FIGURE 17

Pedestrian Wind Hazard Conditions – Existing+Project+Wind Reduction Features

655 Fourth Street Project

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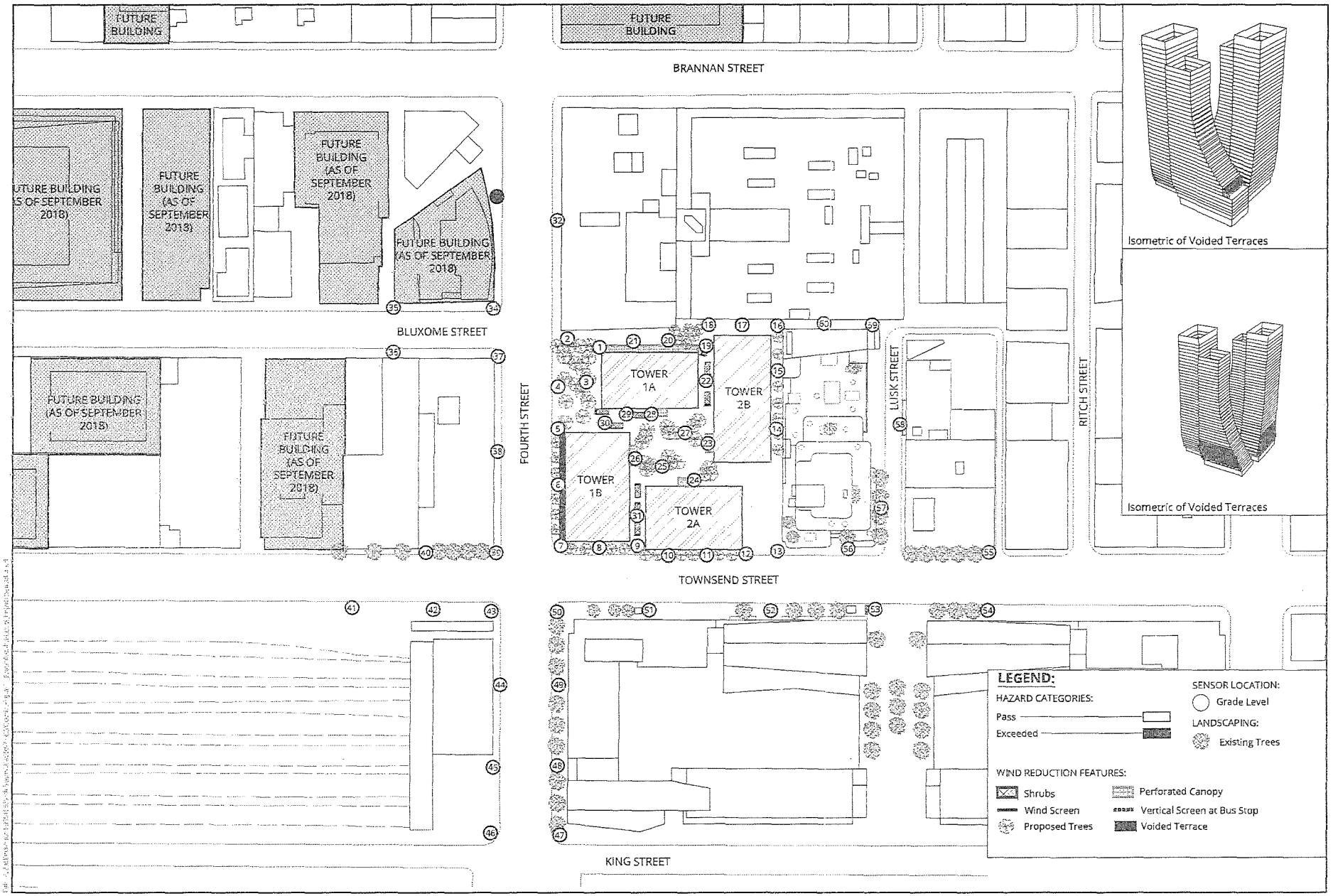

SOURCE: RWDI, 2019

0 60 120ft

FIGURE 18

Pedestrian Wind Hazard Conditions – Project+Cumulative+Wind Reduction Features

555 Fourth Street Project

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E.10 Shadow

Central SoMa PEIR Analysis

Planning code section 295 regulates 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. A project that adds new shadow to sidewalks or a public open space or exceeds the absolute cumulative limit[69] on a section 295 park does not necessarily result in a significant impact under CEQA; the city's significance criteria used in CEQA review asks whether a project would "create new shadow that substantially and adversely affects the use and enjoyment of publicly accessible open spaces."

The Central SoMa PEIR analyzed the change in shadow on existing area parks and open spaces under the Central SoMa Plan and considered how the shadows would affect the use of those spaces. The Central SoMa PEIR determined that the shadow impacts of development under the plan would not substantially affect the use of existing public outdoor recreation facilities and would have a less-than-significant impact with respect to shadow.

Topics	*Significant Impact Peculiar to Project or Project Site*	*Significant Impact not Identified in Central SoMa PEIR*	*Significant Impact due to Substantial New Information*	*No Significant Impact not Previously Identified in Central SoMa PEIR*
10. SHADOW —Would the project:				
a) Create new shadow that substantially and adversely affects the use and enjoyment of publicly accessible open spaces?	☐	☐	☐	☒

Project-Specific Analysis

The proposed 425-foot-tall (including rooftop appurtenances 25 feet above the highest occupied floor) buildings would cast shadow on publicly accessible open spaces; therefore, a shadow analysis was prepared for the proposed project, the results of which are summarized below.[70] The shadow analysis was conducted for an existing plus project scenario and a cumulative scenario. The cumulative scenario did not identify any new cumulative development projects not already included in the Central SoMa PEIR plan-level or cumulative analysis. The proposed project would result in net new shadow on the following open spaces: Willie Mays Plaza, Giants Promenade, South Beach Park, Townsend-Embarcadero Plaza, and China Basin Park. As part of the shadow analysis, two 30-minute open space observation site visits were made (one on a weekday and one on a weekend) to identify the uses and activities of each affected open space. Please refer to **Figure 19**, Publicly Accessible Open Spaces, for the location of these areas relative to the project site. The proposed project's shadow impact on each affected open space is summarized below.

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[69] The absolute cumulative limit represents the maximum percentage of new shadow, expressed as a percentage of theoretical annual available sunlight. 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 planning code 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 planning code 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.

[70] PreVision Design. 2019. Shadow Analysis Report for the Proposed 655 Fourth Street Per SF Planning and CEQA Standards.

Willie Mays Plaza

During the two 30-minute use observation visits, the number of users in Willie Mays Plaza ranged from about 90 to 145 individuals. Most open space users passed through the plaza, with about 15–20 users stopping for more than a few minutes to take pictures or congregate. Observed use was substantially higher during the weekend visit when compared to the weekday, and intensity of use is characterized as moderate for the weekday visit and high for the weekend visit. The predominant observed use of the plaza was transitory in nature for both site visits, with about 85 percent of plaza users passing through the park rather than remaining for longer than a few minutes.

Neither of the observation visits occurred on a date when a San Francisco Giants game was held at the Oracle Park, when it would be expected that open space use would be higher due to the adjacent main entry and exit gate to the ballpark. However, most people attending baseball games would be anticipated to use the plaza in a similar transitory nature to either enter or exit the ballpark.

Under existing shadow conditions, the Willie Mays Plaza receives a moderate amount of early morning and late afternoon/evening shadow year-round, is largely unshaded during midday hours from spring through fall, and during winter months approximately 30–100 percent of the plaza area is cast in shadow throughout the day.

Net new shadow from the proposed project would be present during two periods, from approximately early August through late September and again from mid-March through early May. New shadow would occur in the late afternoon/early evening and would be present for up to approximately 60 minutes within the daily analysis period (one hour after sunrise through one hour before sunset). On affected dates, new shadow would occur between approximately 5:30 p.m. to 6:30 p.m. During the affected period, net new shadow due to the proposed project would fall at various times on all portions of the plaza (though never on the entire plaza at any one moment). At the moment of maximum net new shadow from the proposed project, net new shadow would cover approximately 60 percent of the plaza area.

Under cumulative conditions, the project at 636 Fourth Street[71] and the Seawall Lot 337[72] Project would also cast net new shadow on Willie Mays Plaza. The proposed project at 636 Fourth Street would cast a small amount of late afternoon shadow for up to 30 minutes between late September and late October and again from mid-February through mid-March. The proposed Seawall Lot 337 project would also shade a portion of the plaza for up to about 25 minutes during early morning hours from early December through mid-January. Shadow from these cumulative projects would not result in shadow that overlaps with shadow from the proposed project, but would increase the amount and duration of shadow on the plaza throughout the year.

The proposed project would shade portions of Willie Mays Plaza in the late afternoon throughout the late summer/early fall and springtime months. Based on the observed uses, such shading may be noticeable to users of the plaza; however, given the transitory nature of the uses observed, it would be unlikely that the new shadow would substantially impair the use and enjoyment of the plaza. Therefore, the proposed project would result in less-than-significant individual and cumulative shadow impacts on the Willie Mays Plaza.

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71 PreVision Design. 2019. Shadow Analysis Report for the Proposed 655 Fourth Street Per SF Planning and CEQA Standards.

72 Ibid.

SOURCE: PREVISION DESIGN, 2019

FIGURE 19

Publicly Accessible Open Spaces

655 Fourth Street Project

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Giants Promenade

During the observation period, the vast majority of Giants Promenade users were observed walking along the promenade, with 5–10 users stopping for several minutes to congregate or take photos and two users observed to be using the promenade's benches. Overall, observed use was higher during the weekend, but both weekend and weekday use could be characterized as low to moderate and predominantly transitory in nature, as about 85 percent of Giants Promenade users passed through the promenade without stopping.

Under existing shadow conditions, Giants Promenade receives no morning or midday shadow year-round. The promenade is largely unshaded during midday hours and is incrementally shaded starting in mid-to-late afternoon when 30–100 percent of the promenade is eventually shaded by the adjacent Oracle Park.

Net new shadow from the proposed project would be present during two periods, from approximately late July through late August and again from late April through late May. New shadow would be present for up to 30 minutes within the daily analysis period and on the affected dates of net new shadow. During the affected period, net new shadow due to the proposed project would fall only on the southwestern end of the promenade near the Third Street Bridge and at the moment of maximum net new shadow from the proposed project, net new shadow would cover less than 10 percent of the promenade.

Cumulative projects would also cast net new shadow on the Giants Promenade. The proposed Seawall Lot 337 Project would shade portions of the promenade intermittently over the course of about two hours during morning hours from late November through late January. Shadow cast by the Seawall Lot 337 project would not interact or overlap with shadow cast by 655 Fourth Street, but would increase the amount of shadow on the promenade throughout the year.

The proposed project would cast net new shadow over a small portion of the Giants Promenade in the late afternoon/early evenings during the late spring and late summer. Shading may be noticeable to users of the promenade, in particular those using the fixed benches. However, given the predominantly transitory uses observed, it would be unlikely that the new shadow would substantially impair the use and enjoyment of the open space for most users. Therefore, the proposed project would result in less-than-significant individual and cumulative shadow impacts on the Giants Promenade.

South Beach Park (Port Property)

South Beach Park is 2.78 acres (121,113 square feet). During the observation period, the majority of South Beach Park users passed through the park via the waterfront promenade, with another 10–15 users using the grassy areas; approximately 20 users reading, resting, or eating on fixed benches; and between 2–6 children using the playground area. Overall, observed use was higher during the weekend. Park use is characterized as moderate to high, but predominantly transitory in nature; about 80–85 percent of park users passed through the park rather than remaining for longer than a few minutes.

The park is largely unshaded during morning and afternoon periods, with shadow encroaching from the west during late afternoon to early evening hours year round, accounting for up to approximately 40–90 percent shadow coverage on the park within the daily analysis period. All features within the park are currently affected by existing shadow at some time throughout the year.

The proposed project would result in net new shadow falling on the park during two periods: from approximately early September through late November and again from late January through early April. New shadow would be present in the late afternoon for up to around 45 minutes within the daily analysis

period over these dates. At the moment of maximum net new shadow from the proposed project, net new shadow would cover approximately 30 percent of the park area.

The days of maximum net new shadow on the park due to the proposed project would occur around February 15 and October 25, when the proposed project would shade larger portions of the green, the children's play area, pedestrian pathways, and several fixed seating areas in the late afternoon for approximately 20 minutes. No cumulative projects would cast net new shadow on South Beach Park under the cumulative scenario.

The proposed project would cast net new shadow over portions of South Beach Park in the late afternoon/early evenings throughout fall, winter, and spring. Net new shadow may be noticeable to certain users of the park, in particular to users occupying fixed benches and grassy areas and using the children's play area. For the predominantly transitory uses observed, it would be unlikely that the net new shadow would substantially impair the use and enjoyment of the open space. New shadow on the grassy areas, fixed benches, and playground would likely be more noticeable; however, the relatively short duration of new shadow effects on any single feature or area (under 20 minutes) would make it unlikely for the use and enjoyment of the park to be substantially impaired. Therefore, the proposed project would result in less-than-significant individual and cumulative shadow impacts on South Beach Park.

Townsend-Embarcadero Plaza

During the two 30-minute use observation visits, the number of users in the Townsend-Embarcadero Plaza ranged from about 23 to 30 individuals. The majority of open space users passed through the plaza on the paved walkways, with 3–5 users occupying the plaza's fixed benches to read or rest. Overall, observed use was slightly higher during the weekend visit, but both periods could be characterized as low to moderate and predominantly transitory in nature. During both site visits, about 80–85 percent of open space users passed through the plaza rather than remaining for longer than a few minutes.

Under existing shadow conditions, the Townsend-Embarcadero Plaza receives very low levels of morning and afternoon shadow year-round and is incrementally shaded starting in the mid-afternoon until the plaza is completely shaded by the late afternoon or early evening hours.

Net new shadow from the proposed project would be present only during the winter months, from approximately late November through mid-January during the afternoon hours. New shadow would be present for up to 15 minutes within the daily analysis period and on the affected dates new shadow would shade the plaza no earlier than 3:30 pm. During the affected period, net new shadow due to the proposed project would fall across the western portion of the plaza, shading the grassy areas, the circular planter at the intersection of Townsend Street and The Embarcadero, and, potentially for a few minutes, one of the two fixed benches on the western edge of the space (the other bench would be unaffected by net new shadow). At the moment of maximum net new shadow from the proposed project, net new shadow would cover approximately 40 percent of the plaza. No cumulative projects would cast net new shadow on the Townsend-Embarcadero Plaza under the cumulative scenario.

The proposed project would cast net new shadow over portions of the Townsend-Embarcadero Plaza in the late afternoon/early evenings throughout the summer months. Based on observed uses, such shading may be noticeable to users of the plaza, in particular those using the fixed benches. However, given the short duration (15 minutes or less) of net new shadow, the limited time period of new shadow throughout the year, and the predominantly transitory uses observed, it would be unlikely that the new shadow would substantially impair the use and enjoyment of the open space for most users. Therefore, the proposed project would result in less-than-significant individual and cumulative shadow impacts on the Townsend-Embarcadero Plaza.

China Basin Park (Existing Conditions)

China Basin Park is 2.58 acres (112,283 square feet). During the two 30-minute use observation visits, the number of users in China Basin Park ranged from about 85 to 94. The majority of park users were observed along the northern walkway running and walking, with a smaller number of users observed sitting on the seating wall. Overall, observed use was slightly higher during the weekend visit and is characterized as moderate to high but predominantly transitory in nature; on both site visits about 70–80 percent of park users were observed passing through the park rather than remaining for more than a few minutes.

China Basin Park is entirely unshaded during morning and afternoon periods of the summer months, with small amounts of shadow reaching the park in the very late afternoon to early evening hours. From fall through spring, some early morning shadows are cast by the adjacent Pier 48 structure. Features affected by existing shadow include western portions of the northern concrete walkway, seating wall, and green; these are also affected during some late afternoons. The Junior Giant's field is shaded during some mornings.

The proposed project would result in net new shadow falling on the park in the late afternoon though early evening annually between April 20 and August 22; the new shadow would be present for up to about 40 minutes per day within the daily analysis period on affected dates. At the moment of maximum net new shadow from the proposed project, net new shadow would cover approximately 45 percent of the park area.

Cumulative projects would also cast net new shadow on the China Basin Park. The proposed Seawall 337 Project would shade portions of the park for up to 10 hours (throughout the day) from mid-August through late April. As discussed below, the Seawall 337 Project would almost double the size of China Basin Park. Shadow from the Seawall 337 Project would not interact or overlap with shadow cast by the proposed project, but would increase the amount of shadow on the park throughout the year.

The proposed project would cast net new shadow over portions of China Basin Park in the late afternoon/early evening throughout the summer months. Based on the observed use of the park, this shadow may be noticeable to some users of the park. However, given the predominantly transitory nature of the uses observed, it would be unlikely that new shadow resulting from the project would impact the use and enjoyment of the park for most users. Therefore, the proposed project would result in less-than-significant individual and cumulative shadow impacts on the China Basin Park.

Proposed Expanded China Basin Park (Cumulative Condition)

The expansion and renovation of China Basin Park as proposed by the Seawall Lot 337 Project would create a 4.86-acre (211,867 square-foot) park. Accordingly, for the proposed expanded China Basin Park's analysis, the Seawall Lot 337 Project is considered part of the "existing" conditions, rather than a cumulative project. As the future expanded China Basin Park is not yet in existence, the nature and patterns of park use cannot be observed, but it is likely to be similar in nature to the existing China Basin Park use.

During summer months, the future park would be largely unshaded, as shadow would be limited to the southern edge of the park, affecting the park promenade and southern portions of the play areas and the great lawn. In the fall and spring, shadows would be longer and cast further northward, shading the southern half of the park in September/April up to the full park in October/March. Areas shaded would be similar to those affected during summer months, with later fall/early spring shadow extending to the waterfront promenade and rain gardens. Over winter, shadow would be cast over the majority of the park and beyond onto China Basin, sweeping from west to east from morning through evening. Portions of all park features would, at different times, receive winter shadow throughout the day.

The proposed project would result in net new shadow annually cast for up to approximately 45 minutes in the late afternoon/early evening between April 20 and August 22.

The days of maximum net new shadow on the park due to the proposed project would occur on approximately May 17 and July 26, when the proposed project would incrementally shade portions of all park features over the course of about 25 minutes in the early evening, covering up to 60 percent of the park area. No cumulative projects would cast net new shadow on the proposed expanded China Basin Park under the cumulative condition.

Other Public Open Spaces

The proposed project would also shade portions of nearby streets, sidewalks, and private properties in the project vicinity at different times of day throughout the year. Shadows on streets and sidewalks would be transitory in nature and would not exceed levels commonly expected in urban areas and would be considered a less-than-significant impact under CEQA. Although occupants of nearby properties may regard the increase in shadow as undesirable, the limited increase in shading of private properties as a result of the proposed project would be considered a less-than-significant impact under CEQA.

Cumulative Analysis

There are no cumulative development projects nearby that were not encompassed in the Central SoMa PEIR cumulative shadow analysis. The project is within the scope of development projected under the Central SoMa Plan and would not result in new or more severe cumulative shadow impacts than were previously identified in the Central SoMa PEIR.

Conclusion

The proposed project would have no shadow impact on section 295 properties, but would increase shadow on surrounding outdoor public areas. However, given the short duration of the net new shadow and the observed transitory use of these areas, the net new shadow would not substantially impair the use and enjoyment of these open spaces. For the reasons explained above, shadow impacts from the proposed project, both individually and cumulatively, would be less than significant.

The proposed project would not result in new or more severe shadow impacts, or any significant project or cumulative shadow impacts that are peculiar to the site, beyond those analyzed in the Central SoMa PEIR.

E.11 Recreation

Central SoMa PEIR Analysis

The Central SoMa PEIR found that implementation of the Central SoMa Plan would result in an increase in the use of existing neighborhood parks and recreational facilities, but not to a degree that would lead to or accelerate their physical deterioration or require the construction of new recreational facilities. Although the Central SoMa Plan would increase the population of the area, one of the primary objectives of the Central SoMa Plan is to expand the network of open space and recreational uses to serve the existing and future population. Because the growth forecasts for the plan area anticipate a considerable amount of employment growth, the Central SoMa PEIR found it is likely that much of the new recreational use resulting from plan area development would likely be passive use, since employees are less likely than residents to make active use of parks and open spaces. The Central SoMa PEIR concluded that new publicly available open spaces and a comprehensive pedestrian-friendly network to increase access to existing, new, and improved spaces would help to alleviate the demand for recreational facilities that would be generated by the increase in population.

Given the Central SoMa Plan's proposed network of new open spaces, including a potential new neighborhood park, several new and expanded linear open spaces and plazas, new mid-block pedestrian/bicycle connections, and POPOS, and continued planning code requirements for new residential open space, the Central SoMa PEIR determined that implementation of the Central SoMa Plan would have a less-than-significant impact on recreation and public open space, and no mitigation measures were required.

Topics	*Significant Impact Peculiar to Project or Project Site*	*Significant Impact not Identified in Central SoMa PEIR*	*Significant Impact due to Substantial New Information*	*No Significant Impact not Previously Identified in Central SoMa PEIR*
11. 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?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Project-Specific Analysis

The nearest open spaces to the project site are Victoria Manalo Draves Park (on Sherman Street just west of I-80 and northwest of the project site), South Park Children's Play Center, and Gene Friend Recreation Center (at 6th and Folsom streets); each of these parks is a Recreation and Parks Department property. Mission Creek Park (on the edge of Mission Creek at Fifth Street) and South Beach Park (north of Oracle Park) are under the jurisdiction of the Office of Community Investment and Infrastructure. There are other privately owned, publicly accessible plazas, gardens, and open spaces nearby, including areas associated with Oracle Park.

The project would provide approximately 59,595 square feet of open space, including 35,100 square feet of private and commonly accessible open spaces for building residents and 2,484 square feet of exterior ground-floor POPOS. The proposed project would include a ground-level plaza that would serve as part of the project's POPOS. In addition, the project site frontage at the corner of Fourth and Townsend streets would accommodate a pedestrian plaza. These POPOS would be accessible from Townsend and Fourth streets and from Bryant Street via Morris Street.

Although new workers, hotel guests, and residents at the project site would increase the use of nearby public and private open spaces, the project's provision of new open space resources, both publicly accessible and private, including the new pedestrian connections, would satisfy at least some of the increased demand. Consistent with the Central SoMa PEIR, existing recreational resources would not experience overuse or accelerated physical deterioration. Other than construction of the project's proposed open spaces, which are evaluated in this initial study, the project would not require the construction of other recreational facilities. Therefore, the proposed project would result in less-than-significant recreation impacts.

Cumulative Analysis

There are no cumulative development projects nearby that were not encompassed in the Central SoMa PEIR cumulative recreation analysis. The project is within the scope of development projected under the Central SoMa Plan and would not result in more severe recreation impacts than previously identified in the Central SoMa PEIR.

Conclusion

The proposed project would not result in new or more severe physical environmental impacts on recreational resources or any significant project or cumulative impacts peculiar to the site beyond those analyzed in the Central SoMa PEIR.

E.12 Utilities and Service Systems

Central SoMa PEIR Analysis

The Central SoMa PEIR found that implementation of the Central SoMa Plan would result in less-than-significant impacts to utilities and service systems, and no mitigation measures were identified.

The Central SoMa PEIR determined that development under the area plan would not require expansion of the city's water supply system and would not adversely affect the city's water supply. This determination was based on the best available water supply and demand projections available at the time, which were contained in the San Francisco Public Utilities Commission (SFPUC) 2010 Urban Water Management Plan and a 2013 Water Availability Study prepared by the SFPUC to update demand projections for San Francisco.[73,74]

Under the 2013 Water Availability Study, the SFPUC determined it would be able to meet the demand of projected growth, including growth that would result from development under the Central SoMa Plan, in years of average precipitation as well as in a single dry year and a multiple dry year event, for each five-year period beginning in 2020 through 2035.[75] The study projected a small deficit (0.25 percent of demand) for a normal year and single dry year, and a deficit of two percent of demand during a multiple-year drought, as a result of development and occupancy of new projects in advance of improvements planned in the SFPUC's water supply. The SFPUC noted in the 2013 Water Availability Study that a two-percent shortfall in water supplies "can be easily managed through voluntary conservation measures or rationing." Further, it stated that "retail" demand (water the SFPUC provides to individual customers within San Francisco), as opposed to "wholesale" demand (water the SFPUC provides to other water agencies supplying other jurisdictions), has declined by more than 10 percent in the last 10 years.[76] For the SFPUC's regional system as a whole, which includes retail and wholesale demand, in a single dry year and multiple dry years, it is possible that the SFPUC would not be able to meet 100 percent of demand and would therefore have to impose reductions on its deliveries. Under the SFPUC's Water Shortage Allocation Plan, retail customers would experience no reduction in regional water system deliveries within a 10-percent system-wide shortage. During a 20-percent system-wide shortage, retail customers would experience a 1.9-percent reduction in deliveries. Retail allocations would be reduced to 79.5 million gallons per day (mgd) (98.1 percent of normal year supply), and wholesale allocations would be reduced to 132.5 mgd (72 percent of normal year supply).[77]

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73 SFPUC, *2013 Water Availability Study for the City and County of San Francisco*, May 2013. Available at: http://www.sfwater.org/modules/showdocument.aspx?documentid=4168. The 2013 Water Availability Study was prepared as an update to the 2010 Urban Water Management Plan to evaluate water demand based on updated growth projections completed by the planning department in 2012 in response to the Association of Bay Area Governments Sustainable Community Strategy Jobs-Housing Connections scenario.

74 The current 2015 Urban Water Management Plan update adopted in 2016 contains updated demand projections and supersedes the 2010 Urban Water Management Plan and 2013 Water Availability Study.

75 SFPUC, *2013 Water Availability Study for the City and County of San Francisco*, May 2013.

76 Ibid.

77 Ibid.

The Central SoMa PEIR therefore concluded that with the ongoing development of additional local supplies through implementation of the SFPUC's Water System Improvement Program and rationing contemplated under the Water Shortage Allocation Plan, the impacts of development under the area plan on the city's water supply would be less than significant.

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 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, and the North Point Plant, which is located on the northeast waterfront and provides additional wet-weather treatment capacity. The Central SoMa PEIR found that sufficient dry-weather capacity exists at the Southeast Water Pollution Control Plant, and that development under the Central SoMa Plan would cause a reduction in stormwater flows that is expected to offset estimated increases in wastewater flows during wet weather. The Central SoMa PEIR concluded that development under the Central SoMa Plan, which included the proposed project, would not exceed wastewater treatment requirements of the Regional Water Quality Control Board and would not require construction of new water or wastewater treatment facilities.

Regarding solid waste, the Central SoMa PEIR found that impacts would be less than significant because, given the existing and anticipated increase in solid waste recycling and the existing and potential future landfill capacities, the Central SoMa Plan would not result in either landfill exceeding its permitted capacity or non-compliance with federal, state, or local statutes or regulations related to solid waste.

Topics	*Significant Impact Peculiar to Project or Project Site*	*Significant Impact not Identified in Central SoMa PEIR*	*Significant Impact due to Substantial New Information*	*No Significant Impact not Previously Identified in Central SoMa PEIR*
12. UTILITIES AND SERVICE SYSTEMS—Would the project:				
a) Require or result in the relocation or construction of new or expanded, water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Project-Specific Analysis

The project site is located in an urban area and would connect to existing utilities including water and wastewater connections, electricity, natural gas, and telecommunications systems. The proposed project

would represent a small fraction of the overall demand for utilities and service systems analyzed in the Central SoMa PEIR and, consistent with the findings in the Central SoMa PEIR, utilities and service providers have accounted for the growth in demand, including that of the proposed project, individually and cumulatively. The construction impacts associated with connecting to these systems are accounted for in the construction equipment and operating assumptions that provide the basis for determining the environmental effects on various environmental resources, including construction noise and air quality. Therefore, this initial study accounts for any environmental effects associated with providing connections to these utilities.

Water Supply

The following analysis evaluates whether (1) sufficient water supplies are available to serve the proposed project and reasonably foreseeable future development in normal, dry, and multiple dry years and (2) the proposed project would require or result in the relocation or construction of new or expanded water supply facilities, the construction or relocation of which would have significant environmental impacts that were not identified in the Central SoMa PEIR. To support this analysis, the SFPUC prepared a project-specific water supply assessment based on updated water supply and demand projections. Background on the city's water system and the updated projections are described in the sections below.

Background on Hetch Hetchy Regional Water System

San Francisco's Hetch Hetchy regional water system, operated by the SFPUC, supplies water to approximately 2.7 million people. The system supplies both retail customers—primarily in San Francisco—and 27 wholesale customers in Alameda, Santa Clara, and San Mateo counties. The system supplies an average of 85 percent of its water from the Tuolumne River watershed, stored in Hetch Hetchy Reservoir in Yosemite National Park, and the remaining 15 percent from local surface waters in the Alameda and Peninsula watersheds. The split between these resources varies from year to year depending on hydrological conditions and operational circumstances. Separate from the regional water system, the SFPUC owns and operates an in-city distribution system that serves retail customers in San Francisco. Approximately 97 percent of the San Francisco retail water supply is from the regional system; the remainder is comprised of local groundwater and recycled water.

Water Supply Reliability and Drought Planning

In 2008, the SFPUC adopted the Phased Water System Improvement Program (WSIP) to ensure the ability of the regional water system to meet certain level of service goals for water quality, seismic reliability, delivery reliability, and water supply through 2018.[78] The SFPUC's level of service goals for regional water supply are to meet customer water needs in non-drought and drought periods and to meet dry-year delivery needs while limiting rationing to a maximum of 20 percent system-wide. In approving the WSIP, the SFPUC established a supply limitation of up to 265 mgd to be delivered from its water supply resources in the Tuolumne, Alameda, and Peninsula watersheds in years with normal (average) precipitation.[79] The SFPUC's water supply agreement with its wholesale customers provides that approximately two-thirds of this total (up to 184 mgd) is available to wholesale purchasers and the remaining one-third (up to 81 mgd) is available to retail customers. The total amount of water the SFPUC can deliver to retail and wholesale customers in any one year depends on several factors, including the amount of water that is available from natural runoff, the

[78] On December 11, 2018, the SFPUC Commission extended the timing of the WSIP water supply decision through 2028 in its Resolution No. 18-0212.

[79] SFPUC Resolution No. 08-200, *Adoption of the Water System Improvement Program Phased WSIP Variant*, October 30, 2008.

amount of water in reservoir storage, and the amount of that water that must be released from the system for purposes other than customer deliveries (e.g., required instream flow releases below reservoirs). A "normal year" is based on historical hydrological conditions that allow the reservoirs to be filled by rainfall and snowmelt, allowing full deliveries to customers; similarly, a "wet year" and a "dry year" is based on historical hydrological conditions with above and below "normal" rainfall and snowmelt, respectively.

For planning purposes, the SFPUC uses a hypothetical drought that is more severe than what has historically been experienced. This drought sequence is referred to as the "design drought" and serves as the basis for planning and modeling of future scenarios. The design drought sequence used by the SFPUC for water supply reliability planning is an 8.5-year period that combines the following elements to represent a drought sequence more severe than historical conditions:

- Historical Hydrology – a six-year sequence of hydrology from the historical drought that occurred from July 1986 to June 1992
- Prospective Drought – a 2.5-year period which includes the hydrology from the 1976–1977 drought
- System Recovery Period – The last six months of the design drought are the beginning of the system recovery period. The precipitation begins in the fall, and by approximately the month of December, inflow to reservoirs exceeds customer demands and SFPUC system storage begins to recover.

While the most recent drought (2012 through 2016) included some of the driest years on record for the SFPUC's watersheds, the design drought still represents a more severe drought in duration and overall water supply deficit.

Based on historical records of hydrology and reservoir inflow from 1920 to 2017, current delivery and flow obligations, and fully-implemented infrastructure under the WSIP, normal or wet years occurred 85 out of 97 years. This translates into roughly nine normal or wet years out of every 10 years. Conversely, system-wide rationing is required roughly one out of every 10 years. The frequency of dry years is expected to increase as climate change intensifies.

2015 Urban Water Management Plan

The California Urban Water Management Planning Act[80] requires urban water supply agencies to prepare *urban water management plans* to plan for the long-term reliability, conservation, and efficient use of California's water supplies to meet existing and future demands. The act requires water suppliers to update their plans every five years based on projected growth for at least the next 20 years.

Accordingly, the current urban water management plan for the City and County of San Francisco is the 2015 Urban Water Management Plan update.[81] The 2015 plan is an update to the 2010 Urban Water Management Plan and the 2013 Water Availability Study that were the basis for analysis contained in the Central SoMa PEIR, as discussed above. The 2015 plan update presents information on the SFPUC's retail and wholesale service areas, the regional water supply system and other water supply systems operated by the SFPUC, system supplies and demands, water supply reliability, Water Conservation Act of 2009 compliance, water shortage contingency planning, and water demand management.

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80 California Water Code, division 6, part 2.6, sections 10610 through 10656, as last amended in 2015.

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

The water demand projections in the 2015 plan reflect anticipated population and employment growth, socioeconomic factors, and the latest conservation forecasts. For San Francisco, housing and employment growth projections are based on the San Francisco Planning Department's Land Use Allocation 2012 (see 2015 Urban Water Management Plan, Appendix E, Table 5, p. 21), which in turn is based on the Association of Bay Area Governments growth projections through 2040.[82] The 2015 plan presents water demand projections in five-year increments over a 25-year planning horizon through 2040.

The 2015 plan compares anticipated water supplies to projected demand through 2040 for normal, single-dry, and multiple-dry water years. Retail water supplies are comprised of regional water system supply, groundwater, recycled water, and non-potable water. Under normal hydrologic conditions, the total retail supply is projected to increase from 70.1 mgd in 2015 to 89.9 mgd in 2040. According to the plan, available and anticipated future water supplies would fully meet projected demand in San Francisco through 2040 during normal years.

On December 11, 2018, by Resolution No. 18-0212, the SFPUC amended its 2009 Water Supply Agreement between the SFPUC and its wholesale customers. That amendment revised the Tier 1 allocation in the Water Supply Allocation Plan to require a minimum reduction of 5 percent of the regional water system supply for San Francisco retail customers whenever system-wide reductions are required due to dry-year supply shortages.[83] When accounting for the requirements of this recently amended agreement, existing and planned supplies would meet projected retail water system demands in all years except for an approximately 3.6 to 6.1 mgd or 5 to 6.8 percent shortfall during dry years through the year 2040. This relatively small shortfall is primarily due to implementation of the amended 2009 water supply agreement. In such an event, the SFPUC would implement the SFPUC's Retail Water Shortage Allocation Plan and could manage this relatively small shortfall by prohibiting certain discretionary outdoor water uses and/or calling for voluntary rationing among all retail customers. Based on experience in past droughts, retail customers could reduce water use to meet this projected level of shortfall. The required level of rationing is well below the SFPUC's regional water supply level of service goal of limiting rationing to no more than 20 percent on a system-wide basis.

Based on the 2015 Urban Water Management Plan, as modified by the 2018 amendment to the 2009 Water Supply Agreement, sufficient retail water supplies would be available to serve projected growth in San Francisco through 2040. While concluding supply is sufficient, the 2015 Urban Water Management Plan also identifies projects that are underway or planned to augment local supply. Projects that are underway or recently completed include the San Francisco Groundwater Supply Project and the Westside Recycled Water Project. A more current list of potential regional and local water supply projects that the SFPUC is considering is provided below under Additional Water Supplies.

In addition, the plan describes the SFPUC's ongoing efforts to improve dry-year water supplies, including participation in Bay Area regional efforts to improve water supply reliability through projects such as interagency interties, groundwater management and recharge, potable reuse, desalination, and water transfers. While no specific capacity or supply has been identified, this program may result in future supplies that would benefit SFPUC customers.

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82 Association of Bay Area Governments, *Jobs-Housing Connection Strategy*, May 2012.

83 SFPUC, Resolution No. 18-0212, December 11, 2018.

2018 Bay-Delta Plan Amendment

In December 2018, the State Water Resources Control Board adopted amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, which establishes water quality objectives to maintain the health of the rivers and the Bay-Delta ecosystem.[84] Among the goals of the adopted Bay-Delta Plan Amendment is to increase salmonid populations in the San Joaquin River, its tributaries (including the Tuolumne River), and the Bay-Delta. Specifically, the plan amendment requires increasing flows in the Stanislaus, Tuolumne, and Merced rivers to 40 percent of unimpaired flow[85] from February through June every year, whether it is wet or dry. During dry years, this would result in a substantial reduction in the SFPUC's water supplies from the Tuolumne River watershed.

If this plan amendment is implemented, the SFPUC would be able to meet the projected retail water demands presented in the 2015 Urban Water Management Plan in normal years but would experience supply shortages in single dry years and multiple dry years. Implementation of the Bay-Delta Plan Amendment would result in substantial dry-year water supply shortfalls throughout the SFPUC's regional water system service area, including San Francisco. The 2015 Urban Water Management Plan assumes limited rationing for retail customers may be needed in multiple dry years to address an anticipated supply shortage by 2040; the 2018 amendment to the 2009 Water Supply Agreement with wholesale customers would slightly increase rationing levels indicated in the 2015 plan. By comparison, implementation of the Bay-Delta Plan Amendment would result in supply shortfalls in all single dry years and multiple dry years and rationing to a greater degree than previously anticipated to address supply shortages not accounted for in the 2015 Urban Water Management Plan or as a result of the 2018 amendment to the Water Supply Agreement.

The state water board has stated that it intends to implement the plan amendment by the year 2022, assuming all required approvals are obtained by that time. However, at this time, the implementation of the Bay-Delta Plan Amendment is uncertain for several reasons, as the SFPUC explained in the Water Supply Assessment prepared for this project. First, under the federal Clean Water Act, the U. S. Environmental Protection Agency must approve the water quality standards identified in the plan amendment within 90 days from the date the approval request is received. It is uncertain what determination the U.S. Environmental Protection Agency will make, and its decision could result in litigation.

Second, since adoption of the Bay-Delta Plan Amendment, over a dozen lawsuits have been filed in state and federal court, challenging the water board's adoption of the plan amendment, including legal challenges filed by the federal government at the request of the U.S. Bureau of Reclamation. That litigation is in the early stages, and there have been no dispositive court rulings as of this date.

Third, the Bay-Delta Plan Amendment is not self-executing and does not allocate responsibility for meeting its new flow requirements to the SFPUC or any other water rights holders. Rather, the plan amendment merely provides a regulatory framework for flow allocation, which must be accomplished by other regulatory and/or adjudicatory proceedings, such as a comprehensive water rights adjudication or, in the case of the Tuolumne River, the Clean Water Act, section 401, certification process in the Federal Energy Regulatory Commission's relicensing proceeding for Don Pedro Dam. The license amendment process is

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84 State Water Resources Control Board Resolution No. 2018-0059, *Adoption of Amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and Final Substitute Environmental Document*, December 12, 2018, available at https://www.waterboards.ca.gov/plans_policies/docs/2018wqcp.pdf.

85 "Unimpaired flow" represents the water production of a river basin, unaltered by upstream diversions, storage, or by export or import of water to or from other watersheds.

currently expected to be completed in the 2022–2023 timeframe. This process and other regulatory and/or adjudicatory proceeding would likely face legal challenges and have lengthy timelines, and quite possibly could result in a different assignment of flow responsibility for the Tuolumne River than currently exists (and therefore a different water supply effect on the SFPUC).

Fourth, in recognition of the obstacles to implementation of the Bay-Delta Plan Amendment, the water board directed its staff to help complete a "Delta watershed-wide agreement, including potential flow measures for the Tuolumne River" by March 1, 2019, and to incorporate such agreements as an "alternative" for a future amendment to the Bay-Delta Plan to be presented to the [water board] as early as possible after December 1, 2019." In accordance with the water board's instruction, on March 1, 2019, the SFPUC, in partnership with other key stakeholders, submitted a proposed project description for the Tuolumne River that could be the basis for a voluntary agreement with the state water board that would serve as an alternative path to implementing the Bay-Delta Plan's objectives. On March 26, 2019, the SFPUC adopted Resolution No. 19-0057 to support its participation in the voluntary agreement negotiation process. To date, those negotiations are ongoing.

For these reasons, whether, when, and the form in which the Bay-Delta Plan Amendment will be implemented, and how those amendments will affect the SFPUC's water supply, is currently unknown.

Additional Water Supplies

In light of the adoption of the Bay-Delta Plan Amendment and the resulting potential limitation to the SFPUC's regional water system supply during dry years, the SFPUC is expanding and accelerating its efforts to develop additional water supplies and explore other projects that would improve overall water supply resilience. Developing these supplies would reduce water supply shortfalls and reduce rationing associated with such shortfalls. The SFPUC has taken action to fund the study of additional water supply projects, which are described in the water supply assessment for the proposed project and listed below:

- Daly City Recycled Water Expansion
- Alameda County Water District Transfer Partnership
- Brackish Water Desalination in Contra Costa County
- Alameda County Water District-Union Sanitary District Purified Water Partnership
- Crystal Springs Purified Water
- Eastside Purified Water
- San Francisco Eastside Satellite Recycled Water Facility
- Additional Storage Capacity in Los Vaqueros Reservoir from Expansion
- Calaveras Reservoir Expansion

The capital projects that are under consideration would be costly and are still in the early feasibility or conceptual planning stages. These projects would take 10 to 30 or more years to implement and would require environmental permitting negotiations, which may reduce the amount of water that can be developed. The yield from these projects is unknown and not currently incorporated into SFPUC's supply projections.

In addition to capital projects, the SFPUC is also considering developing related water demand management policies and ordinances, such as funding for innovative water supply and efficiency technologies and requiring potable water offsets for new developments.

Water Supply Assessment

Under sections 10910 through 10915 of the California Water Code, urban water suppliers like the SFPUC must prepare water supply assessments for certain large projects, as defined in CEQA Guidelines section 15155.[86] Water supply assessments rely on information contained in the water supplier's urban water management plan and on the estimated water demand of both the proposed project and projected growth within the relevant portion of the water supplier's service area. Because the proposed project is a mixed-use residential development containing approximately 960 dwelling units, it meets the definition of a water demand project under CEQA. Accordingly, the SFPUC adopted a water supply assessment for the proposed project on May 28, 2019.[87]

The water supply assessment for the proposed project identifies the project's total water demand, including a breakdown of potable and non-potable water demands. The proposed project is subject to San Francisco's Non-potable Water Ordinance (article 12C of the San Francisco Health Code). The Non-potable Water Ordinance requires new commercial, mixed-use, and multi-family residential development projects with 250,000 square feet or more of gross floor area to install and operate an on-site non-potable water system. Such projects must meet their toilet and urinal flushing and irrigation demands through the collection, treatment, and use of available graywater, rainwater, and foundation drainage. While not required, projects may use treated blackwater or stormwater if desired. Furthermore, projects may choose to apply non-potable water to other non-potable water uses, such as cooling tower blowdown and industrial processes, but are not required to do so under the ordinance. The proposed project would exceed the requirements of the Non-potable Water Ordinance by using graywater and rainwater for toilet and urinal flushing and irrigation.

Both potable and non-potable demands for the project were estimated using the SFPUC's Non-potable Water Calculator and supplemented with additional calculations for the swimming pool and commercial laundry demands. According to the demand estimates, the project's total water demand would be 0.102 mgd, which would be comprised of 0.082 mgd of potable water and 0.020 mgd of non-potable water. Accordingly, 19.6 percent of the project's total water demand would be met by non-potable water.

The water supply assessment estimates future retail (citywide) water demand through 2040 based on the population and employment growth projections contained in the planning department's Land Use

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[86] Pursuant to CEQA Guidelines section 15155(1), "a water-demand project" means:
(A) A residential development of more than 500 dwelling units.
(B) A shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
(C) A commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor area.
(D) A hotel or motel, or both, having more than 500 rooms, (e) an industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
(F) a mixed-use project that includes one or more of the projects specified in subdivisions (a)(1)(A), (a)(1)(B), (a)(1)(C), (a)(1)(D), (a)(1)(E), and (a)(1)(G) of this section.
(G) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

[87] SFPUC, *Water Supply Assessment for the 655 Fourth Street Project (Case No. 2014-000203ENV)*, May 28, 2019

Allocation 2012. The department has determined that the proposed project represents a portion of the planned growth accounted for in Land Use Allocation 2012. Therefore, the project's demand is incorporated in the 2015 Urban Water Management Plan.

The water supply assessment determined that the project's potable water demand of 0.082 mgd would contribute 0.09 percent to the projected total retail demand of 89.9 mgd in 2040. The project's total water demand of 0.102 mgd, which does not account for the 0.020 mgd savings anticipated through compliance with the non-potable water ordinance, would represent 0.11 percent of 2040 total retail demand. Thus, the proposed project represents a small fraction of the total projected water demand in San Francisco through 2040.

Due to the recent 2018 Bay Delta Plan Amendment, the water supply assessment considers these demand estimates under three water supply scenarios. To evaluate the ability of the water supply system to meet the demand of the proposed project in combination with both existing development and projected growth in San Francisco, the water supply assessment describes each of the following water supply scenarios:

- Scenario 1 – Current Water Supply
- Scenario 2 – Bay-Delta Plan Voluntary Agreement
- Scenario 3 – 2018 Bay-Delta Plan Amendment

As discussed below, the water supply assessment concludes that water supplies would be available to meet the demand of the proposed project in combination with both existing development and projected growth in San Francisco through 2040 under each of these water supply scenarios with varying levels of rationing during dry years. The following is a summary of the analysis and conclusions presented in the SFPUC's water supply assessment for the project under each of the three water supply scenarios considered.

Scenario 1 – Current Water Supply

Scenario 1 assumes no change to the way in which water is supplied, and that neither the Bay-Delta Plan Amendment nor a Bay-Delta Plan Voluntary Agreement would be implemented. Thus, the water supply and demand assumptions contained in the 2015 Urban Water Management Plan and the 2009 Water Supply Agreement as amended would remain applicable for the project's water supply assessment. As stated above, the project is accounted for in the demand projections in the 2015 Urban Water Management Plan.

Under Scenario 1, the water supply assessment determined that water supplies would be available to meet the demand of the project in combination with existing development and projected growth in all years, except for an approximately 3.6 to 6.1 mgd or 5- to 6.8-percent shortfall during dry years through the year 2040. This relatively small shortfall is primarily due to implementation of the amended 2009 Water Supply Agreement. To manage a small shortfall such as this, the SFPUC may prohibit certain discretionary outdoor water uses and/or call for voluntary rationing by its retail customers. During a prolonged drought at the end of the 20-year planning horizon, the project could be subject to voluntary rationing in response to a 6.8-percent supply shortfall, when the 2018 amendments to the 2009 Water Supply Agreement are taken into account. This level of rationing is well within the SFPUC's regional water system supply level of service goal of limiting rationing to no more than 20 percent on a system-wide basis (i.e., an average throughout the regional water system).

Scenario 2 – Bay-Delta Plan Voluntary Agreement

Under Scenario 2, a voluntary agreement would be implemented as an alternative to the adopted Bay-Delta Plan Amendment. The March 1, 2019, proposed voluntary agreement submitted to the state water board

has yet to be accepted, and the shortages that would occur with its implementation are not known. The voluntary agreement proposal contains a combination of flow and non-flow measures that are designed to benefit fisheries at a lower water cost, particularly during multiple dry years, than would occur under the Bay-Delta Plan Amendment. The resulting regional water system supply shortfalls during dry years would be less than those under the Bay-Delta Plan Amendment and would require rationing of a lesser degree and closer in alignment to the SFPUC's adopted level of service goal for the regional water system of rationing of no more than 20 percent system-wide during dry years. SFPUC Resolution No. 19-0057, which authorized the SFPUC staff to participate in voluntary agreement negotiations, stated its intention that any final voluntary agreement allow the SFPUC to maintain both the water supply and sustainability level of service goals and objectives adopted by the SFPUC when it approved the WSIP. Accordingly, it is reasonable to conclude that if the SFPUC enters into a voluntary agreement, the supply shortfall under such an agreement would be of a similar magnitude to those that would occur under Scenario 1. In any event, the rationing that would be required under Scenario 2 would be of a lesser degree than under the Bay-Delta Plan Amendment as adopted.

Scenario 3 – Bay-Delta Plan Amendment

Under Scenario 3, the 2018 Bay-Delta Plan Amendment would be implemented as it was adopted by the state water board without modification. As discussed above, there is considerable uncertainty whether, when, and in what form the plan amendment will be implemented. However, because implementation of the plan amendment cannot be ruled out at this time, an analysis of the cumulative impact of projected growth on water supply resources under this scenario is included in this document to provide a worst-case impact analysis.

Under this scenario, which is assumed to be implemented after 2022, water supplies would be available to meet projected demands through 2040 in wet and normal years with no shortfalls. However, under Scenario 3 the entire regional water system—including both the wholesale and retail service areas—would experience significant shortfalls in single dry and multiple dry years, which over the past 97 years occur on average just over once every 10 years. Significant dry-year shortfalls would occur in San Francisco, regardless of whether the proposed project is constructed. Except for the currently anticipated shortfall to retail customers of about 6.1 mgd (6.8 percent) that is expected to occur under Scenario 1 during years seven and eight of the 8.5-year design drought based on 2040 demand levels, these shortfalls to retail customers would exclusively result from supply reductions resulting from implementation of the Bay-Delta Plan Amendment. The retail supply shortfalls under Scenario 3 would not be attributed to the incremental demand associated with the proposed project, because the project's demand is incorporated already in the growth and water demand/supply projections contained in the 2015 Urban Water Management Plan.

Under the Bay-Delta Plan Amendment, existing and planned dry-year supplies would be insufficient for the SFPUC to satisfy its regional water system supply level of service goal of no more than 20 percent rationing system-wide. The Water Shortage Allocation Plan does not specify allocations to retail supply during system-wide shortages above 20 percent. However, the plan indicates that if a system-wide shortage greater than 20 percent were to occur, regional water system supply would be allocated between retail and wholesale customers per the rules corresponding to a 16- to 20-percent system-wide reduction, subject to consultation and negotiation between the SFPUC and its wholesale customers to modify the allocation rules. The allocation rules corresponding to the 16- to 20-percent system-wide reduction are reflected in the project's water supply assessment. These allocation rules result in shortfalls of 15.6 to 49.8 percent across the retail service area as a whole under Scenario 3. As shown in Table 5 of the water supply assessment, total shortfalls under Scenario 3 would range from 12.3 mgd (15.6 percent) in a single dry year to 36.1 mgd

(45.7 percent) in years seven and eight of the 8.5-year design drought based on 2025 demand levels and from 21 mgd (23.4 percent) in a single dry year to 44.8 mgd (49.8 percent) in years seven and eight of the 8.5-year design drought based on 2040 demand.

Impact Analysis

As described above, the supply capacity of the Hetch Hetchy regional water system that provides the majority of the city's drinking water far exceeds the potential demand of any single development project in San Francisco. No single development project alone in San Francisco would require the development of new or expanded water supply facilities or require the SFPUC to take other actions, such as imposing a higher level of rationing across the city in the event of a supply shortage in dry years. Therefore, a separate project-only analysis is not provided for this topic. The following analysis instead considers whether the proposed project in combination with both existing development and projected growth through 2040 would require new or expanded water supply facilities, the construction or relocation of which could have significant cumulative impacts on the environment that were not identified in the Central SoMa PEIR. It also considers whether a high level of rationing would be required that could have significant cumulative impacts. It is only under this cumulative context that development in San Francisco could have the potential to require new or expanded water supply facilities or require the SFPUC to take other actions, which in turn could result in significant physical environmental impacts related to water supply. If significant cumulative impacts could result, then the analysis considers whether the project would make a considerable contribution to the cumulative impact.

Impacts related to New or Expanded Water Supply Facilities

The SFPUC's adopted water supply level of service goal for the regional water system is to meet customer water needs in non-drought and drought periods. The system performance objective for drought periods is to meet dry-year delivery needs while limiting rationing to a maximum of 20 percent system-wide reduction in regional water service during extended droughts. As the SFPUC has designed its system to meet this goal, it is reasonable to assume that to the extent the SFPUC can achieve its service goals, sufficient supplies would be available to serve existing development and planned growth accounted for in the 2015 Urban Water Management Plan (which includes the proposed project) and that new or expanded water supply facilities are not needed to meet system-wide demand. While the focus of this analysis is on the SFPUC's retail service area and not the regional water system as a whole, this cumulative analysis considers the SFPUC's regional water supply level of service goal of rationing of not more than 20 percent in evaluating whether new or expanded water supply facilities would be required to meet the demands of existing development and projected growth in the retail area through 2040. If a shortfall would require rationing more than 20 percent to meet system-wide dry-year demand, the analysis evaluates whether as a result, the SFPUC would develop new or expanded water supply facilities that result in significant physical environmental impacts. It also considers whether such a shortfall would result in a level of rationing that could cause significant physical environmental impacts. If the analysis determines that there would be a significant cumulative impact, then per CEQA Guidelines section 15130, the analysis considers whether the project's incremental contribution to any such effect is "cumulatively considerable."

As discussed above, existing and planned dry-year supplies would meet projected retail demands through 2040 under Scenario 1 within the SFPUC's regional water system adopted water supply reliability level of service goal. Therefore, the SFPUC could meet the water supply needs for the proposed project in combination with existing development and projected growth in San Francisco through 2040 from the SFPUC's existing system. The SFPUC would not be expected to develop new or expanded water supply facilities for retail customers under Scenario 1 and there would be no significant cumulative environmental impact.

The effect of Scenario 2 cannot be quantified at this time but as explained previously, if it can be designed to achieve the SFPUC's level of service goals and is adopted, it would be expected to have effects similar to Scenario 1. Given the SFPUC's stated goal of maintaining its level of service goals under Scenario 2, it is expected that Scenario 2 effects would be more similar to Scenario 1 than to Scenario 3. In any event, any shortfall effects under Scenario 2 that exceed the SFPUC's service goals would be expected to be less than those under Scenario 3. Therefore, the analysis of Scenario 3 would encompass any effects that would occur under Scenario 2 if it were to trigger the need for increased water supply or rationing in excess of the SFPUC's regional water system level of service goals.

Under Scenario 3, the SFPUC's existing and anticipated water supplies would be sufficient to meet the demands of existing development and projected growth in San Francisco, including the proposed project, through 2040 in wet and normal years, which have historically occurred in approximately nine out of 10 years on average. During single dry and multiple dry years, retail supply shortfalls of 15.6 to 49.8 percent could occur.

The SFPUC has indicated in its water supply assessment that as a result of the adoption of the Bay-Delta Plan Amendment and the resulting potential limitations on supply to the regional water system during dry years, the SFPUC is increasing and accelerating its efforts to develop additional water supplies and explore other projects that would increase overall water supply resilience. It lists possible projects that it will study. The SFPUC is beginning to study water supply options, but it has not determined the feasibility of the possible projects, has not made any decision to pursue any particular supply projects, and has determined that the identified potential projects would take anywhere from 10 to 30 years or more to implement.

There is also a substantial degree of uncertainty associated with the implementation of the Bay-Delta Plan Amendment and its ultimate outcome, and therefore, there is substantial uncertainty in the amount of additional water supply that may be needed, if any. Moreover, there is uncertainty and lack of knowledge as to the feasibility and parameters of the possible water supply projects the SFPUC is beginning to explore. Consequently, the physical environmental impacts that could result from future supply projects is quite speculative at this time and would not be expected to be reasonably determined for a period of time ranging from 10 to 30 years. Although it is not possible at this time to identify the specific environmental impacts that could result, this analysis assumes that if new or expanded water supply facilities, such as those listed above under Additional Water Supplies, were developed, the construction and/or operation of such facilities could result in significant adverse environmental impacts, and this would be a significant cumulative impact.

As discussed above, the proposed project would represent 0.11 percent of total demand and 0.09 percent of potable water demand in San Francisco in 2040, whereas implementation of the Bay Delta Plan Amendment would result in a retail supply shortfall of up to 49.8 percent. Thus, new or expanded dry-year water supplies would be needed under Scenario 3 regardless of whether the proposed project is constructed. As such, any physical environmental impacts related to the construction and/or operation of new or expanded water supplies would occur with or without the proposed project. Therefore, the proposed project would not have a considerable contribution to any significant cumulative impacts that could result from the construction or operation of new or expanded water supply facilities developed in response to the Bay-Delta Plan Amendment.

Impacts Related to Rationing

Given the long lead times associated with developing additional water supplies, in the event the Bay-Delta Plan Amendment were to take effect sometime after 2022 and result in a dry-year shortfall, the expected

action of the SFPUC for the next 10 to 30 years (or more) would be limited to requiring increased rationing. The remaining analysis therefore focuses on whether rationing at the levels that might be required under the Bay-Delta Plan Amendment could result in any cumulative impacts, and if so, whether the project would make a considerable contribution to these impacts.

The SFPUC has established a process through its Retail Water Shortage Allocation Plan for actions it would take under circumstances requiring rationing. Rationing at the level that might be required under the Bay-Delta Plan Amendment would require changes to how businesses operate, changes to water use behaviors (e.g., shorter and/or less-frequent showers), and restrictions on irrigation and other outdoor water uses (e.g., car washing), all of which could lead to undesirable socioeconomic effects. Any such effects would not constitute physical environmental impacts under CEQA.

High levels of rationing could, however, lead to adverse physical environmental effects, such as the loss of vegetation cover resulting from prolonged restrictions on irrigation. Prolonged high levels of rationing within the city could also make San Francisco a less desirable location for residential and commercial development compared to other areas of the state not subject to such substantial levels of rationing, which, depending on location, could lead in turn to increased urban sprawl. Sprawl development is associated with numerous environmental impacts, including, for example, increased GHG emissions and air pollution from longer commutes and lower density development, higher energy use, loss of farmland, and increased water use from less water-efficient suburban development.[88] In contrast, as discussed in the transportation section, the proposed project is located in an area where VMT per capita is well below the regional average; projects in San Francisco are required to comply with numerous regulations that would reduce GHG emissions, as discussed in the GHG section of this initial study, and San Francisco's per capita water use is among the lowest in the state. Thus, the higher levels of rationing on a citywide basis that could be required under the Bay-Delta Plan Amendment could lead directly or indirectly to significant cumulative impacts. The question, then, is whether the project would make a considerable contribution to impacts that may be expected to occur in the event of high levels of rationing.

While the levels of rationing described above apply to the retail service area as a whole (i.e., 5 to 6.8 percent under Scenario 1, 15.6 to 49.8 percent under Scenario 3), the SFPUC may allocate different levels of rationing to individual retail customers based on customer type (e.g., dedicated irrigation, single-family residential, multi-family residential, commercial, etc.) to achieve the required level of retail (citywide) rationing. Allocation methods and processes that have been considered in the past and may be used in future droughts are described in the SFPUC's current Retail Water Shortage Allocation Plan.[89] However, additional allocation methods that reflect existing drought-related rules and regulations adopted by the SFPUC during the recent drought are more pertinent to current and foreseeable development and water use in San Francisco and may be included in the SFPUC's update to its Retail Water Shortage Allocation Plan.[90] The Retail Water Shortage Allocation Plan will be updated as part of the 2020 Urban Water Management Plan update in 2021. The SFPUC anticipates that the updated Retail Water Shortage Allocation Plan would include a tiered allocation approach that imposes lower levels of rationing on customers who use less water than other customers in the same customer class and would require higher

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88 Pursuant to the SFPUC 2015 Urban Water Management Plan, San Francisco's per capita water use is among the lowest in the state.

89 San Francisco Public Utilities Commission, *2015 Urban Water Management Plan for the City and County of San Francisco, Appendix L – Retail Water Shortage Allocation Plan,* June 2016. This document is available at https://sfwater.org/ index.aspx?page=75

90 SFPUC, *2015-2016 Drought Program,* adopted by Resolution 15-0119, May 26, 2015.

levels of rationing by customers who use more water. This approach aligns with the state water board's statewide emergency conservation mandate imposed during the recent drought, in which urban water suppliers who used less water were subject to lower reductions than those who used more water. Imposing lower rationing requirements on customers who already conserve more water is also consistent with the implementation of prior rationing programs based on past water use in which more efficient customers were allocated more water.

The SFPUC anticipates that, as a worst-case scenario under Scenario 3, a mixed-used residential project could be subject to up to 38-percent rationing during a severe drought.[91] In accordance with the Retail Water Shortage Allocation Plan, the level of rationing that would be imposed on the proposed project would be determined at the time of a drought or other water shortage and cannot be established with certainty prior to the shortage event. However, newly-constructed buildings, such as the proposed project, have water-efficient fixtures and non-potable water systems that comply with the latest regulations. Thus, if these buildings can demonstrate below-average water use, they would likely be subject to a lower level of rationing than other retail customers that meet or exceed the average water use for the same customer class.

While any substantial reduction in water use in a new, water efficient building likely would require behavioral changes by building occupants that are inconvenient, temporary rationing during a drought is expected to be achievable through actions that would not cause or contribute to significant environmental effects. The effect of such temporary rationing would likely cause occupants to change behaviors but would not cause the substantial loss of vegetation because vegetation on this urban infill site would be limited to ornamental landscaping, and non-potable water supplies would remain available for landscape irrigation in dry years. The project would not include uses that would be forced to relocate because of temporary water restrictions, such as a business that relies on significant volumes of water for its operations. While high levels of rationing that would occur under Scenario 3 could result in future development locating elsewhere, existing residents, office workers, and businesses occupying the proposed project would be expected to tolerate rationing for the temporary duration of a drought.

As discussed above, implementation of the Bay-Delta Plan Amendment would result in substantial system-wide water supply shortfalls in dry years. These shortfalls would occur with or without the proposed project, and the project's incremental increase in potable water demand (0.010 percent of total retail demand) would have a negligible effect on the levels of rationing that would be required throughout San Francisco under Scenario 3 in dry years.

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[91] This worst-case rationing level for San Francisco multi-family residential was estimated for the purpose of preparing comments on behalf of the City and County of San Francisco on the SWRCB's Draft Substitute Environmental Document in Support of Potential Changes to the Bay- Delta Plan, dated March 16, 2017. See comment letter Attachment 1, Appendix 3, Page 5, Table 3. The comment letter and attachments are available on the SWRCB website:
https://www.waterboards.ca.gov/public_notices/comments/2016_baydelta_plan_amendment/docs/dennis_herrera.pdf The rationing estimates prepared for the comment letter apply to the first 6 years of the SFPUC's 8.5-year design drought as they reflect the 1987-92 drought. For the last 2.5 years of the design drought, a corresponding worst-case rationing level for San Francisco multi-family residential customers was not estimated. While the level of rationing imposed on the retail system will be higher for the outer years of the design drought compared to the first 6 years, it is reasonable to assume that multi-family residential customers such as the proposed project would not have to conserve more than 38 percent.

As such, temporary rationing that could be imposed on the project would not cause or contribute to significant environmental effects associated with the high levels of rationing that may be required on a city-wide basis under Scenario 3. Thus, the project would not make a considerable contribution to any significant cumulative impacts that may result from increased rationing that may be required with implementation of the Bay-Delta Plan Amendment, were it to occur.

Conclusion

As stated above, there is considerable uncertainty as to whether the Bay-Delta Plan Amendment will be implemented. If the plan amendment is implemented, the SFPUC will need to impose higher levels of rationing than its regional water system level of service goal of no more than 20 percent rationing during drought years by 2025 and for the next several decades. Implementation of the plan amendment would result in a shortfall beginning in years two and three of multiple dry-years in 2025 of 33.2 percent, and dry year shortfalls by 2040 ranging from 23.4 percent in a single dry year and year one of multiple dry years to up to 49.8 percent in years seven and eight of the 8.5-year design drought. While the SFPUC may seek new or expanded water supply facilities, it has not made any definitive decision to pursue particular actions and there is too much uncertainty associated with this potential future decision to identify environmental effects that would result. Such effects are therefore speculative at this time. In any case, the need to develop new or expanded water supplies in response to the Bay Delta Plan Amendment and any related environmental impacts would occur irrespective of the water demand associated with the proposed project. Given the long lead times associated with developing additional supplies, the SFPUC's expected response to implementation of the Bay-Delta Plan Amendment would be to ration in accordance with procedures in its Retail Water Shortage Allocation Plan.

Both direct and indirect environmental impacts could result from high levels of rationing. However, the project is a mixed-use urban infill development that would be expected to tolerate the level of rationing imposed on it for the duration of the drought, and thus would not contribute to sprawl development caused by rationing under the Bay-Delta Plan Amendment. The project itself would not be expected to contribute to a loss of vegetation because project-generated non-potable supplies would remain available for irrigation in dry years. Nor would the small increase in potable water demand attributable to the project compared to citywide demand substantially affect the levels of dry-year rationing that would otherwise be required throughout the city. Thus, the proposed project would not make a considerable contribution to a cumulative environmental impact caused by implementation of the Bay-Delta Plan Amendment. Therefore, for the reasons described above, under all three scenarios, this impact would be considered less than significant.

Stormwater, Wastewater, and Solid Waste

The project site is covered by impervious surfaces and would be required to comply with the city's Stormwater Management Ordinance. This ordinance requires the proposed project to decrease the amount of impervious area on site and reduce peak stormwater runoff compared to existing conditions. Therefore, with implementation of the proposed project, stormwater runoff from the project site to the Southeast Water Treatment Plant would be reduced compared to existing conditions. Further, wastewater volumes generated by the project would be minimal in comparison to stormwater flows. Thus, the proposed project would not require new or expanded stormwater or wastewater facilities.

The proposed project would comply with solid waste regulations and would not be expected to generate solid waste in amounts that would exceed the permitted landfill capacity analyzed in the Central SoMa PEIR. The proposed project would adhere to the city's plumbing, water conservation, and waste diversion requirements.[92]

Cumulative Analysis

There are no cumulative development projects nearby that were not encompassed in the Central SoMa PEIR cumulative utilities and service systems analysis. The project is within the scope of development projected under the Central SoMa Plan and would not result in more severe utilities and service systems impacts than previously identified in the Central SoMa PEIR.

Conclusion

For the reasons discussed above, implementation of the proposed project would not result in significant impacts that were not identified in the Central SoMa PEIR related to utilities and service systems or impacts that are peculiar to the project site, nor would the proposed project result in more severe project or cumulative impacts than were identified in the Central SoMa PEIR.

E.13 Public Services

Central SoMa PEIR Analysis

The Central SoMa PEIR found that implementation of the Central SoMa Plan and the anticipated increase in population would not result in significant impacts related to the provision of new or physically altered public services, including police, fire, schools, and park services. Further, the Central SoMa PEIR found that if new or expanded facilities would be needed, the environmental effects of construction and operation of these facilities would be similar to that of subsequent development projects anticipated in the Central SoMa PEIR. That is, construction of a new fire station, police station, or other comparable government facility would not result in new significant impacts not already analyzed; thus, the effects have already been addressed in the Central SoMa PEIR.

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

Project-Specific Analysis

The increased employees, visitors, and residents resulting from the proposed project would increase demand for police and fire protection services, schools, and parks. The proposed project would account for a fraction of the increased demand for these services that were analyzed in the Central SoMa PEIR, and the project falls within the development density assumptions for the site that were analyzed in the Central

[92] San Francisco Water Power Sewer. 2019. *Water Supply Assessment for the 655 4th Street Project.* May 28, 2019.

SoMa PEIR. Therefore, the proposed project would not result in a more substantial increase in the demand for police or fire protection services than was previously identified in the Central SoMa PEIR. As described under the Recreation section, the proposed project would not result in new or more severe physical environmental impacts to parks or recreational facilities.

Cumulative Analysis

There are no cumulative development projects nearby that were not encompassed in the Central SoMa PEIR cumulative public services analysis. The project is within the scope of development projected under the Central SoMa Plan and would not result in more severe public services impacts than were previously identified in the Central SoMa PEIR.

Conclusion

For the reasons discussed above, implementation of the proposed project would not result in significant impacts that were not identified in the Central SoMa PEIR related to public services or impacts that are peculiar to the project site, nor would the proposed project result in more severe project or cumulative impacts than were identified in the Central SoMa PEIR.

E.14 Biological Resources

Central SoMa PEIR Analysis

The Central SoMa PEIR found that the Central SoMa Plan would be implemented in a developed urban area with no natural vegetation communities remaining; therefore, development under the Central SoMa Plan 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 Central SoMa Plan.

In addition, development envisioned under the Central SoMa Plan would not substantially interfere with the movement of any resident or migratory wildlife species. However, **Central SoMa PEIR Improvement Measure I-BI-2, Night Lighting Minimization**, was identified to further reduce potential effects on birds from nighttime lighting at individual project sites.

The Central SoMa PEIR determined that construction in the plan area would not have a significant impact on special-status species, apart from bats. The Central SoMa PEIR concluded that impacts to bats would be reduced to less than significant with implementation of **Central SoMa PEIR Mitigation Measure M-BI-1, Pre-Construction Bat Surveys**, requiring pre-construction surveys for bats. This mitigation measure applies to all projects removing trees at least 6 inches at diameter at breast height or where buildings that are proposed for demolition have been vacant for at least six months.

Topics	Significant Impact Peculiar to Project or Project Site	Significant Impact not Identified in Central SoMa PEIR	Significant Impact due to Substantial New Information	No Significant Impact not Previously Identified in Central SoMa PEIR
14. BIOLOGICAL RESOURCES—Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
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?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Project-Specific Analysis

As the project is located within the Central SoMa Plan area, the proposed project would not affect any natural vegetation communities, special-status plants, riparian corridors, estuaries, marshes, or wetlands. The proposed project would remove at least one tree over 6 inches in diameter and it is likely buildings will be vacant or underutilized at the time of demolition; therefore, **Project Mitigation Measure M-BI-1, Pre-Construction Bat Surveys** (implementing Central SoMa PEIR Mitigation Measure M-BI-1) would be applicable. Implementation of Project Mitigation Measure M-BI-1 would reduce the project's impact to any special-status bats to a less-than-significant level by requiring that pre-construction surveys be conducted to identify bats and avoid impacts to roosting bats.

Also, the proposed project would require the removal of five street trees, including two London plane trees on Townsend Street and three purple leaf plum trees on Fourth Street. The proposed project would plant up to approximately 26 street trees.

During tree removal activities, the proposed project could disturb nesting birds and those protected by the federal Migratory Bird Treaty Act and the California Fish and Game Code. Nesting birds may be present in the existing street trees and foliage surrounding the project site. As such, if tree removal would occur during the nesting season (January 15 through August 15) or during the breeding season (March through August), nesting birds could be disturbed. This would be considered a potentially significant impact. However, the project sponsor is required to comply with California Fish and Game Code section 3500 et al., including sections 3503, 3503.5, 3511, and 3513, which provide that it is unlawful to take or possess any migratory nongame bird or needlessly destroy nests of birds except as otherwise outlined in the code. The California

Department of Fish and Wildlife enforces the code by requiring that projects incorporate measures to avoid and minimize impacts to nesting birds if any tree removal would occur during the nesting or breeding season. For example, a qualified biologist would conduct a tree survey within 15 days before the start of construction occurring in March through May, or 30 days before the start of construction occurring in June through August. These surveys would help establish the presence of any nesting birds that would need to be protected through avoidance and minimization measures. Additionally, California Department of Fish and Wildlife staff may require notification if any active nests are identified, including consultation with the California Department of Fish and Wildlife and establishment of construction-free buffer zones. Compliance with these existing state regulations would ensure that project impacts relating to nesting birds would be less than significant.

Planning code section 139, Standards for Bird-Safe Buildings, establishes building design standards to reduce avian mortality rates associated with bird strikes.[93] The proposed project would be required to comply with the building feature–related hazards standards of section 139 by using bird-safe glazing treatment on 100 percent of any building feature–related hazards such as free-standing glass walls, wind barriers, and balconies. The project would be subject to and would be required to comply with the city's regulations for bird-safe buildings and federal and state migratory bird regulations. Therefore, the proposed project would not interfere with the movement of native resident or wildlife species or with established native resident or migratory wildlife corridors and would not result in a significant impact to native resident or wildlife species.

Although the project would not result in significant impacts to native resident and migratory birds, impacts to birds resulting from the proposed project would be further reduced through the implementation of Project Improvement Measure I-BI-1 (implementation of Central SoMa Improvement Measure I-BI-2, Night Lighting Minimization). I-BI-1 includes voluntary compliance with the San Francisco Lights Out Program, which encourages project sponsors of buildings developed pursuant to the Central SoMa Plan to implement bird-safe building operations to prevent and minimize bird strike impacts, and generally keep lighting to a minimum, as birds can become disoriented from building lighting. Implementation of this improvement measure would further reduce the project's less-than-significant impact to birds.

Cumulative Analysis

There are no cumulative development projects nearby that were not encompassed in the Central SoMa PEIR cumulative biological resources analysis. The street improvement projects along Townsend, Brannan, and Fifth streets are substantially similar in scope to the street network changes already analyzed in the Central SoMa PEIR. Therefore, the project would not result in more severe biological resource impacts than previously identified in the Central SoMa PEIR.

Conclusion

The proposed project would not result in significant project-level or cumulative impacts on biological resources that were not identified in the Central SoMa PEIR, nor would the project result in significant project-level or cumulative impacts on biological resources that are more severe than those identified in the Central SoMa PEIR or that are peculiar to the project site. Impacts to native resident and migratory birds would further be reduced with the implementation of Project Improvement Measure I-BI-1.

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[93] San Francisco Planning Department, Standards for Bird-Safe Buildings, July 14, 2011. Available at: http://planning.sanfranciscocode.org/1.2/139, accessed on January 18, 2017.

E.15 Geology and Soils

Central SoMa PEIR Analysis

The Central SoMa PEIR found that impacts related to geology and soils would be less than significant, including impacts related to earthquake faults, seismic ground shaking, seismically induced ground failure, and landslides. The Central SoMa PEIR found that the plan area is generally flat and that implementation of the Central SoMa Plan would have no impact on altering the topography of the plan area. Most of the plan area is located within a potential liquefaction hazard zone identified by the California Geological Survey. Compliance with applicable state and local codes and recommendations made in project-specific geotechnical analyses would reduce the geologic hazards of subsequent development projects to a less-than-significant level. Additionally, the Central SoMa PEIR found that development enabled by the Central SoMa Plan could induce ground settlement as a result of excavation for construction of subsurface parking or basement levels, construction dewatering, heave during installation of piles, and long-term dewatering.

In addition, proposed buildings over 160 feet tall, such as the proposed project's buildings, could be subject to compliance with the building department's Administrative Bulletin 083, Requirements and Guidelines for the Seismic Design of New Tall Buildings using Non-Prescriptive Seismic-Design Procedures.[94] This bulletin specifies the requirements and guidelines for the non-prescriptive design of new tall buildings that are higher than 160 feet to ensure that the design meets the standards of the building code.[95] Also, the building department's Administrative Bulletin 082, Guidelines and Procedures for Structural Design Review, specifies the guidelines and procedures for structural design review during the application review process for a building permit. In addition to requirements for a site-specific geotechnical report as articulated in San Francisco Building Code section 1803 and building department Information Sheet S-05, Geotechnical Report Requirements, structural design review may result in review by an independent structural design reviewer. Administrative Bulletin 082 describes what types of projects may require this review, the qualifications of the structural design reviewer, the scope of the structural design review, and how the director of the building department as the building official would resolve any disputes between the structural design reviewer and the project's engineer of record. A building department Structural Information Sheet S-18 will also be required. It provides Interim Guidelines and Procedures for Structural, Geotechnical, and Seismic Hazard Engineering Design Review for New Tall Buildings and supplements and clarifies the requirements and procedures in Administrative Bulletins 082 and 083. It applies to buildings 240 feet or taller and is thus relevant to subsequent development projects in the Plan area. With implementation of the recommendations provided in project-specific detailed geotechnical studies for subsequent development projects, subject to review and approval by the building department, impacts related to the potential for settlement and subsidence due to construction on soil that is unstable, or could become unstable as a result of such construction, would be less than significant. Thus, the Central SoMa PEIR concluded that implementation of the Central SoMa Plan would not result in significant impacts with regard to geology and soils, and no mitigation measures were identified in the Central SoMa PEIR.

The Central SoMa PEIR found that there is low potential to uncover unique or significant fossils within the plan area or vicinity. Construction excavations could encounter undisturbed dune sands, the Colma Formation, or artificial fills associated with previous development (e.g., road bases, foundations, and

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[94] Non-prescriptive seismic design deviates from one or more of the specific standards contained in the San Francisco Building Code.

[95] Building Department Administrative Bulletins and Information Sheets are available at http://sfdbi.org/administrative-bulletins and http://sfdbi.org/information-sheets, respectively.

previous backfills for underground utilities). Due to their age and origin, these geological materials have little to no likelihood of containing unique or significant fossils.

Topics	Significant Impact Peculiar to Project or Project Site	Significant Impact not Identified in Central SoMa PEIR	Significant Impact due to Substantial New Information	No Significant Impact not Previously Identified in Central SoMa PEIR
15. GEOLOGY AND SOILS—Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☒
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
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?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Project Analysis

As discussed in this initial study checklist, wastewater would flow into the city's combined sewer system and would not require a septic system. Therefore, initial study checklist question 15e is not applicable to the proposed project.

Soil, Seismic, and Geological Hazards

A geotechnical investigation was prepared for the proposed project.[96,97] Given that the project is in a seismic hazard zone, the building department is required to make sure the recommendations that address seismic hazards, including liquefaction hazards, in the geotechnical report are adhered to. Project design and the geotechnical report must comply with the guidelines and procedures for design review of tall buildings

[96] Rollo & Ridley. 2017. Geotechnical Investigation 655 Fourth Street, San Francisco, California. May 19, 2017.

[97] Rollo & Ridley. 2018. Update to Geotechnical Investigation. Updated June 29, 2018.

established by the building department; the final project design will undergo review by the city's engineering design review team, which includes geotechnical and civil engineers.

The geotechnical investigation found that the project site is underlain by 16 feet of fill material composed of sand, silt, clay, brick, gravel, concrete, and other debris. Below the fill is a 2- to 5.5-foot-thick layer of marine deposits consisting of soft to stiff clay and sandy clay. Below the fill and marine deposits the site is underlain by a layer of medium dense to very dense sand, clayey sand, and sandy clay referred to as the Colma Formation, which extends to bedrock. The bedrock consists of Franciscan Complex Mélange, which includes layers of shale and sandstone and, to a lesser extent, layers of greywacke, serpentinite, siltstone, chert, and greenstone. The geotechnical investigation estimated that groundwater is at a depth of 8 to 11 feet below grade.

The geotechnical investigation concluded that the proposed buildings are feasible to construct and identified specific design features for the building foundation to adequately support the proposed buildings. The final building design is required to implement the report recommendations for site preparation and grading, including a reinforced-concrete mat foundation, basement floor waterproofing and groundwater level accommodations, basement wall lateral pressure requirements, tiedown anchors, soil cement shoring walls and concrete diaphragm walls, slant drilled underpinning piers, dewatering, construction monitoring, drainage and infiltration, and seismic design. The following summarizes the preliminary geotechnical recommendations. As discussed above, because the project site is located within a seismic hazard zone, the building department would ensure conformance of the proposed project's construction plans with recommendations in the geotechnical investigation during the permit review process.

Reinforced-Concrete Mat Foundation. The geotechnical report recommends that the proposed building be supported on a reinforced-concrete mat foundation. The geotechnical report anticipates that bedrock will be exposed in the northeast corner of the building footprint. Where encountered, 3 feet of bedrock should be removed below the planned bottom of the mat and replaced with engineered fill. As designed, the loads from the mat will bear directly on a combination of Colma Formation soil and engineered fill replacing the bedrock where exposed at subgrade. This would create a relatively homogenous subgrade for uniform support of the structure. Groundwater depths range from approximately 8 to 11 feet below the ground surface, which would be accounted for in the structural and basement design.

Basement Walls. Basement walls would be designed to resist lateral pressures created by the soil and adjacent surcharges. In addition, because the site is in a seismically active area, all below-grade walls would be designed to resist pressures associated with seismic forces.

Tiedown Anchors. Tiedown anchors would be used to provide uplift resistance across portions of the mat where the uplift pressure will exceed the anticipated building loads.[98]

Shoring and Underpinning. The excavation would extend below the groundwater level. Therefore, the shoring scheme will need to consist of a system which acts as a water cutoff (barrier). Soil cement shoring walls and concrete diaphragm walls are recommended, as they require the least amount of dewatering, are

[98] Tiedown anchors typically consist of relatively small-diameter, drilled, concrete- or grout-filled shafts with high strength bars with a minimum stressing length of 15 feet and minimum of 10 feet below the mat acting as tensile reinforcement in the anchors.

relatively rigid, and substantially limit lateral deflections and excavation-related ground subsidence. The shoring system would be tied back or internally braced.

Dewatering. The groundwater level within the site should be lowered to a depth of at least 3 feet below the bottom of the planned excavation and maintained at that level until sufficient weight and/or uplift capacity of the structure is available to resist the hydrostatic uplift forces on the bottom of the structure. The project structural engineer should determine when the dewatering can be terminated.

Construction Monitoring. Adjacent buildings such as 601 Fourth Street, 38 Lusk Street, and 260 Townsend Street and utilities border the site. These and critical utilities would be documented as part of a baseline crack and photographic survey before construction begins. A licensed surveyor would monitor ground movements and the movements of adjacent structures and improvements (both vertical and horizontal) during construction activities to evaluate the effects of construction on the surrounding improvements (building, streets, utilities, etc.). Prior to starting construction, the contractor would establish survey points on adjacent improvements within 50 feet of the jobsite perimeter and the buildings across the street sides. During construction, the project geotechnical and shoring engineers would continuously evaluate the soil conditions and compare them to the monitoring results so modifications in the shoring system can be made in a timely manner, if necessary.

The proposed project would conform to state and local building codes and the building department's implementing procedures, which ensures the safety of all new construction in the city. The building department would review the project-specific geotechnical report during its review of the building permit for the proposed project, and may require additional site-specific soils reports through the building permit application process. The state Seismic Hazards Mapping Act of 1990 requires that, due to the location of the site within a liquefaction hazard zone, the measures identified in the geotechnical report that address liquefaction hazard (primarily focused on susceptible fill removal) be made conditions of the building permit.

The building department requirement for a geotechnical report and review of the building permit application pursuant to the building department's implementation of state and local codes, including compliance with requirements specified in applicable administrative bulletins and information sheets, would ensure that the proposed project would have no significant impacts related to soils, seismicity, or other geological hazards.

Paleontological Resources

The project site is located within the Central SoMa Plan area and the Central SoMa PEIR evaluated the potential for subsequent development projects to result in impacts to paleontological resources based on the underlying geology and soils in the plan area, concluding that subsequent development projects would not likely result in significant impacts to unique paleontological resources. Based on the project-specific geotechnical study, the project would not involve excavation or other soil disturbance within any geological formations that are likely to contain unique or significant fossils. Therefore, the proposed project is not anticipated to result in significant impacts to paleontological resources. No mitigation is required.

Cumulative Analysis

There are no cumulative development projects nearby that were not encompassed in the Central SoMa PEIR cumulative geology and soils analysis. The project is within the scope of development projected under the Central SoMa Plan and would not result in more severe cumulative geology and soils impacts than were previously identified in the Central SoMa PEIR.

Conclusion

Consistent with the findings in the Central SoMa PEIR, the proposed project would not result in a significant effect related to geology and soils. Therefore, the proposed project would not result in any new or more severe project or cumulative significant impacts related to geology and soils than were identified in the Central SoMa PEIR.

E.16 Hydrology and Water Quality

Central SoMa PEIR Analysis

The Central SoMa PEIR determined that the anticipated increase in population would not result in a significant impact on hydrology and water quality, including the combined sewer system and future flooding hazards, taking into account future sea level rise. The Central SoMa PEIR noted that portions of the plan area would be exposed to an increased risk of flooding in the future due to sea level rise, although Central SoMa Plan development would not exacerbate this risk and, therefore, would not result in a significant impact. Moreover, the Central SoMa Plan includes objectives, policies, and implementation measures intended to maximize flood resilience. All hydrology and water quality impacts of the Central SoMa Plan were determined to be less than significant and no mitigation measures were identified in the Central SoMa PEIR.

Topics	*Significant Impact Peculiar to Project or Project Site*	*Significant Impact not Identified in Central SoMa PEIR*	*Significant Impact due to Substantial New Information*	*No Significant Impact not Previously Identified in Central SoMa PEIR*
16. HYDROLOGY AND WATER QUALITY—Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☐	☒
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:	☐	☐	☐	☒
i) Result in substantial erosion or siltation on- or offsite;	☐	☐	☐	☒
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite;	☐	☐	☐	☒
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒
iv) Impede or redirect flood flows?	☐	☐	☐	☒
v) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite;	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due a project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Project-Specific Analysis

Construction Water Quality and Stormwater Runoff

The proposed project would involve excavation to a maximum depth of 55 feet below grade for construction of the building foundation and belowground parking garage. Excavation would require dewatering, given that the depth to groundwater is estimated at 8 to 11 feet below grade.[99] Any groundwater encountered during construction of the proposed project would be subject to the requirements of article 4.1 of the San Francisco Public Works Code (Industrial Waste), requiring that groundwater meet specified water quality standards before it may be discharged into the sewer system. The SFPUC must be notified of projects necessitating dewatering and may require water analysis before discharge.

During construction, and pursuant to Public Works Code sections 146 and 147, the proposed project would be required to implement and maintain best management practices to minimize surface runoff erosion and to comply with a stormwater control plan. As a result, the proposed project would not increase stormwater runoff, alter the existing drainage, or violate water quality or wastewater discharge standards. Construction stormwater discharges to the city's combined sewer system would be subject to the requirements of Public Works Code article 4.1 (supplemented by San Francisco Department of Public Works Order No. 158170), which incorporates and implements the city's National Pollutant Discharge Elimination System 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 pollutant discharge permit. Therefore, the city's compliance with applicable permits would reduce water quality impacts and the proposed project would not result in new or more severe impacts than identified in the Central SoMa PEIR related to violation of water quality standards or degradation of water quality due to discharge of construction-related stormwater runoff.

Operational Water Quality and Stormwater Runoff

The project site currently contains structures and paved areas, resulting in a primarily impervious surface area. The proposed project would redevelop the entire site, but would also include the addition of street trees and landscaped open space areas. Therefore, the proposed project would decrease the amount of impervious area on site and reduce peak stormwater runoff compared to existing conditions and would not contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems.

Stormwater flows and drainage from the proposed project would be controlled consistent with San Francisco's Stormwater Management Ordinance, contained in Public Works Code article 4.2, and the city's Stormwater Design Guidelines. The project sponsor would be required to submit a stormwater control plan for approval by SFPUC that complies with the Stormwater Design Guidelines, using best management practices, thereby ensuring that the proposed project meets performance measures set by 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. In addition, the proposed project would be required to comply with Health Code article 12C, which requires the on-site reuse of rainwater, graywater, and foundation drainage to reduce potable water use, which would also reduce stormwater runoff rate and volume.

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[99] Rollo & Ridley. 2017. Geotechnical Investigation 655 Fourth Street, San Francisco, California. May 19, 2017. Updated June 29, 2018

In light of the above, the proposed project's construction and operational activities would not result in significant water quality impacts or obstruct implementation of a water quality control plan. Further, the proposed project would not increase runoff that would exceed the capacity of stormwater drainage systems or release substantial additional sources of polluted runoff.

Groundwater

Regarding groundwater supplies, the proposed project would use potable water from the SFPUC and non-potable water from two on-site sources: greywater from the building recycled on site and rainwater collected in an on-site catchment system. Groundwater from the Downtown San Francisco Groundwater Basin, where the project site is located, is not used as drinking water, and the proposed project would not result in additional impervious surfaces that would affect groundwater recharge, because the site is fully occupied by existing buildings and impervious surfaces. Therefore the proposed project would not substantially decrease groundwater supplies, interfere with groundwater recharge, or conflict with a groundwater management plan.

Flood Hazards

The project site is within the portion of the plan area that would be exposed to increased future flood risk due to sea level rise. The proposed project would not exacerbate the risk of flooding due to sea level rise because it would not impede or redirect flood flows and because it would not increase the rate or amount of surface runoff in a manner that would result in flooding on or off site. Implementation of policies addressing flood resilience, such as the Stormwater Management Ordinance and Stormwater Management Requirements and Design Guidelines, would ensure that the project would be resilient to future flooding due to sea level rise.

The project site is located in the South of Market Flood Zone identified by SFPUC as an area with existing flooding hazards related to the depth of sewer lines relative to properties they serve. The project site is also located within an area that is prone to flooding during storms, especially where ground floors are located below an elevation of 0.0 city datum or, more importantly, below the hydraulic grade line or water level of the sewer. Pursuant to Planning Director Bulletin Number 4,[100] the project sponsor submitted the project proposal for preliminary review to the Public Works Hydraulics Division. The purpose of this review is to avoid flooding problems caused by the relative elevation of a proposed structure to the hydraulic grade line in the sewers. Public Works staff reviewed the proposed project and found that since the project site is in a low-lying area, its sewers will be surcharged often, making it an area of potential concern for plumbing drainage purposes. Public Works staff recommended that the finished ground floor elevation be at or higher than the official grade elevation to minimize the potential reverse flow through the sewer pipes and that the ground floor and the basement levels be discharged through a dedicated sewer line separate from the upper floors of the development, to reduce the probability that surcharging occurs during certain storm conditions.[101] As required, the project sponsor is continuing coordination with Public Works regarding conceptual sewer design. These requirements would ensure that the proposed project would not exacerbate an existing flood hazard in the project area.

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100 San Francisco Planning Department. Planning Director Bulletin No. 4, Review of Projects in Identified Areas Prone to Flooding. October 2009. Available at: http://default.sfplanning.org/publications_reports/DB_04_Flood_Zones.pdf

101 Wong, Cliff. "Re: SOMA Flood Zone: Fourth & Townsend. Message to Ryan Beaton (KPFF Consulting Engineers). December 18, 2017. E-mail.

Because the project site is not located near a water course or within a tsunami hazard zone, the proposed project would not result in significant impacts involving the release of pollutants from inundation by seiche or tsunami.[102]

Cumulative Analysis

There are no cumulative development projects nearby that were not encompassed in the Central SoMa PEIR cumulative hydrology and water quality analysis. The project is within the scope of development projected under the Central SoMa Plan and would not result in more severe hydrology and water quality impacts than previously identified in the Central SoMa PEIR.

Conclusion

Consistent with the findings in the Central SoMa PEIR, the proposed project would not result in any new or more severe project or cumulative significant impacts related to hydrology and water quality, or any significant impacts peculiar to the project site other than those that were identified in the Central SoMa PEIR.

E.17 Hazards and Hazardous Materials

Central SoMa PEIR Analysis

The Central SoMa PEIR found that implementation of the Central SoMa Plan would not result in any significant impacts with respect to hazards or hazardous materials that could not be mitigated to a less-than-significant level. The Central SoMa PEIR determined that compliance with San Francisco Health Code article 22A (also known as the Maher Ordinance), which incorporates state and federal requirements regulating the handling, treatment, cleanup, and disposal of hazardous materials in soils and groundwater, 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. In addition, the transportation of hazardous materials is regulated by the California Highway Patrol and the California Department of Transportation. Therefore, potential impacts related to the routine use, transport, and disposal of hazardous materials associated with Central SoMa Plan implementation would be less than significant.

The Central SoMa PEIR determined that compliance of subsequent development projects with the San Francisco Fire and Building Codes, which are implemented through the city's ongoing permit review process, would ensure that potential fire hazards related to development activities would be minimized to less-than-significant levels. The plan area is not within 2 miles of an airport land use plan or an airport or private airstrip, and therefore would not interfere with air traffic or create safety hazards in the vicinity of an airport. The Central SoMa PEIR did not identify any cumulative impacts related to hazards or hazardous materials.

The Central SoMa PEIR determined that demolition and renovation of buildings in the plan area could expose workers and the public to hazardous building materials or release those materials into the environment. Such materials include asbestos-containing materials, lead-based paint, polychlorinated biphenyls (PCBs), di (2-ethylhexyl) phthalate, and mercury. **Central SoMa PEIR Mitigation Measure M-HZ-3, Hazardous Building Materials Abatement**, which requires abatement of certain hazardous building materials in accordance with existing laws, was identified to reduce impacts to less than significant.

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[102] San Francisco Planning Department. 2012. San Francisco General Plan Community Safety Element; Map 05, Tsunami Hazard Zones, page 15. October 2012. Accessed December 1, 2017. http://www.sf-planning.org/ftp/General_Plan/Community_Safety_Element_2012.pdf.

However, this mitigation measure is not necessary because regulations have been enacted to address these common hazardous building materials.

Topics	Significant Impact Peculiar to Project or Project Site	Significant Impact not Identified in Central SoMa PEIR	Significant Impact due to Substantial New Information	No Significant Impact not Previously Identified in Central SoMa PEIR
17. 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
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?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒

Project-Specific Analysis

Hazardous Building Materials

The proposed project would demolish all existing structures on the project site. 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 Central SoMa PEIR include asbestos, electrical equipment (such as transformers and fluorescent light ballasts that contain PCBs or di (2 ethylhexyl) phthalate), 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. Regulations are in place to address the proper removal and disposal of asbestos-containing building materials, lead-based paint, and other hazardous building materials. Therefore, as discussed above, Central SoMa PEIR Mitigation Measure M-HZ-3, addressing the proper removal and disposal of other hazardous building materials, is not necessary to reduce impacts related to hazardous building materials. Compliance with these regulations would ensure

the proposed project would not result in significant impacts from the potential release of hazardous building materials.

The California Department of Toxic Substance Control considers asbestos hazardous, and removal is required. Asbestos-containing materials must be removed in accordance with local and state regulations as well as the air district, the California Occupational Safety and Health Administration, and California Department of Health Services requirements. This includes materials that could be disturbed by the proposed demolition and construction activities.

The proposed project would demolish the existing buildings located on the project site. Buildings on lots 26 and 28 were built in 1947 and the building on lots 162–164 was built in 1996. Lead paint may be found in the buildings on lots 26 and 28 as these buildings were constructed prior to 1978. Lead may cause a range of health effects, from behavioral problems and learning disabilities to seizures and death. Children 6 years old and under are most at risk. Demolition must be conducted in compliance with section 3425 of the San Francisco Building Code, Work Practices for Lead-Based Paint on Pre-1979 Buildings and Steel Structures. Where there is any work that may disturb or remove interior or exterior lead-based paint on pre-1979 buildings, work practices must be used that minimize or eliminate the risk of lead contamination on the environment.

The proposed project would be subject to and would comply with the above regulations, therefore, impacts from lead-based paint would be less than significant.

Soil and Groundwater Contamination

Health Code article 22A includes properties throughout the city where there is potential to encounter hazardous materials, primarily industrial zoning districts, sites with industrial uses or underground storage tanks, sites with historic bay fill, and sites in proximity to freeways or underground storage tanks. The overarching goal of the Maher Ordinance is to protect public health and safety by requiring appropriate handling, treatment, disposal, and, when necessary, remediation of contaminated soils that are encountered in the building construction process.

The project site is located within the Maher area and subject to the provisions of the Maher Ordinance. Accordingly, the project sponsor submitted a Maher Application to the Department of Public Health and a phase I environmental site assessment was completed to evaluate the potential presence of hazardous materials in the soils or groundwater underlying the project site based on prior land uses and available records.[103,104] The assessment found that there were no recognized environmental conditions[105] within the project site but that there may be areas of concern. The site was first developed by the Southern Pacific Rail Road Company in 1887 and was later used for warehousing and possibly light industrial operations. However, there is no indication of any widespread hazardous waste contamination. The site is not listed on any environmental databases indicative of a release or generation of hazardous materials. Given that the buildings on site were constructed before current regulations regarding the use of asbestos-containing materials and lead-based paint, it is possible that these materials may be present on site. However, neither were detected in initial limited observations. The phase I site assessment found no evidence of leaking underground storage tanks.

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103 Maher Application for 655 Fourth Street, submitted March 1, 2018.

104 Phase 1 Environmental Site Assessment, 655-695 Fourth Street/292-296 Townsend Street, San Francisco, California, ENVIRON International Corporation, March 11, 2014.

105 Recognized Environmental Conditions are defined as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property.

Despite the results of the phase I site assessment, there remains potential to encounter soil and groundwater contamination during construction. Therefore, the San Francisco Department of Public Health may require further subsurface investigation, including soil and groundwater sampling. If concerns are identified during the sampling, a site mitigation plan would be required. The proposed project would be required to remediate potential soil and groundwater contamination in accordance with Health Code article 22A, and removal of underground storage tanks would be required in accordance with Health Code article 21. Upon successful implementation of a site mitigation plan, the San Francisco Department of Public Health would provide notification of compliance with article 22A. Approval by the San Francisco Department of Public Health is required prior to issuance of approval from the building department to commence work on the project.

Cumulative Analysis

There are no cumulative development projects nearby that were not encompassed in the Central SoMa PEIR hazards and hazardous materials analysis. The project is within the scope of development projected under the Central SoMa Plan and would not result in more severe cumulative hazards and hazardous materials impacts than were previously identified in the Central SoMa PEIR.

Conclusion

The proposed project would not result in new or more severe significant project-level or cumulative impacts related to hazards or hazardous materials, or any significant impacts peculiar to the project site, than were identified in the Central SoMa PEIR.

E.18 Mineral Resources

Central SoMa PEIR Analysis

All land in San Francisco, including in the plan area, is designated by the California Geological Survey as Mineral Resource Zone 4 under the Surface Mining and Reclamation Act of 1975. The Mineral Resource Zone 4 designation indicates that adequate information does not exist to assign the area to any other Mineral Resource Zone; thus, the area is not one designated to have significant mineral deposits. The Central SoMa PEIR determined that the plan area has been designated as having no known mineral deposits, and it would not deplete any nonrenewable natural resources; therefore, the Central SoMa Plan would have no effect on mineral resources.

Topics	*Significant Impact Peculiar to Project or Project Site*	*Significant Impact not Identified in Central SoMa PEIR*	*Significant Impact due to Substantial New Information*	*No Significant Impact not Previously Identified in Central SoMa PEIR*
18. MINERAL 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Project-Specific and Cumulative Analysis

The project site is not a mineral resource recovery site, it would not require quarrying, mining, dredging, or extracting locally important mineral resources on the project site, and it would not deplete non-renewable natural resources. Therefore, the proposed project would have no impact on mineral resources either individually or cumulatively.

Conclusion

Consistent with the findings in the Central SoMa PEIR, the proposed project would have no impact related to mineral resources, and, therefore, it would not result in any new or more severe significant project or cumulative impacts than were identified in the Central SoMa PEIR.

E.19 Energy Resources

Several federal, state, and citywide policies and measures promote energy efficiency and reduce demands on nonrenewable resources. The city's Green Building Code is codified in Chapter 13C of the San Francisco Building Code. Chapter 13C, which is to be used in conjunction with the 2013 California Green Building Standards Code, places more stringent energy, materials, and construction debris management requirements on new residential and commercial buildings. Further, the Central SoMa Plan initial study states that future development projects in the plan area would be subject to the most current energy efficiency standards in effect at the time the project is proposed and would be subject to the established performance metrics set forth in the plan's Eco-District guidelines. Therefore, the implementation of the plan would not result in wasteful consumption of energy and this impact would be less than significant.

Topics	*Significant Impact Peculiar to Project or Project Site*	*Significant Impact not Identified in Central SoMa PEIR*	*Significant Impact due to Substantial New Information*	*No Significant Impact not Previously Identified in Central SoMa PEIR*
19. ENERGY RESOURCES—Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☒
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Project-Specific Analysis

Development of the proposed project would not result in unusually large amounts of fuel, water, or energy in the context of energy use throughout the city or region. The project is required, as discussed above, to comply with the transportation demand management ordinance, and because the site is located in an area that exhibits low levels of VMT per capita, it would not result in a wasteful use of fuel.

As stated in the project description, the proposed project would achieve LEED Silver certification, with a goal of achieving LEED Gold standards. Energy demand from the proposed project would be typical for a building of the size and nature proposed, and the project would meet or exceed the current state and local codes and standards concerning energy consumption, including California Code of Regulations Title 24 and the San Francisco Green Building Ordinance. Documentation showing compliance with these standards has been submitted to the city in the form of the "Compliance Checklist Table for Greenhouse Gas Analysis: Private Development Projects," described above. Title 24 and the Green Building Ordinance are enforced by the Department of Building Inspection.

In light of the above, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy and would not conflict with any state or local plan for renewable energy or energy efficiency.

Cumulative Analysis

All cumulative projects in the city are required to comply with the transportation demand management ordinance and the same energy efficiency standards set forth in the California Code of Regulations Title 24 and the San Francisco Green Building Ordinance. Therefore, cumulative impacts on energy resources would be less than significant.

Conclusion

Consistent with the findings in the Central SoMa PEIR, the proposed project would have a less-than-significant impact related to energy resources, and, therefore, it would not result in any new or more severe significant project or cumulative impacts than were identified in the Central SoMa PEIR.

E. 20 Agriculture and Forest Resources

Central SoMa PEIR Analysis

The Central SoMa PEIR determined that the plan area and the surrounding areas do not contain agricultural or forest uses, and are not zoned for such uses; therefore, implementation of the Central SoMa Plan would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. In addition, the Central SoMa Plan would not conflict with existing zoning for agricultural land use or a Williamson Act contract, nor would it involve any changes to the environment that could result in the conversion of farmland. The Central SoMa Plan would not result in the loss of forest land or conversion of forest land to non-forest uses.

Topics	*Significant Impact Peculiar to Project or Project Site*	*Significant Impact not Identified in Central SoMa PEIR*	*Significant Impact due to Substantial New Information*	*No Significant Impact not Previously Identified in Central SoMa PEIR*
20. AGRICULTURE AND FOREST RESOURCES—Would the project: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Project-Specific and Cumulative Analysis

The proposed project is located in the Central SoMa Plan area, which does not contain agricultural or forest resources, and therefore would have no impact on these resources either individually or cumulatively.

Conclusion

Consistent with the findings in the Central SoMa PEIR, the proposed project would have no impact related to agriculture and forest resources, and, therefore, it would not result in any new or more severe project or cumulative impacts than were identified in the Central SoMa PEIR.

E.21 Wildfire

Central SoMa PEIR Analysis

The Central SoMa PEIR did not explicitly analyze impacts of the plan on wildfire risk, but the plan area is not located in or near state responsibility areas. Therefore, this topic is not applicable to the Central SoMa Plan or any subsequent development projects enabled by the plan.

Topics	*Significant Impact Peculiar to Project or Project Site*	*Significant Impact not Identified in Central SoMa PEIR*	*Significant Impact due to Substantial New Information*	*No Significant Impact not Previously Identified in Central SoMa PEIR*
21. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plans?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structure to significant risks including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒
a) Substantially impair an adopted emergency response plan or emergency evacuation plans?	☐	☐	☐	☒

Project-Specific and Cumulative Analysis

As discussed above, the project site is not located in or near state responsibility areas and therefore would have no impact either individually or cumulatively with respect to wildfire risk.

Conclusion

The proposed project would not result in any new or more severe project or cumulative impacts related to wildfires than were identified in the Central SoMa PEIR.

F. PUBLIC NOTICE AND COMMENT

A "Notification of Project Receiving Environmental Review" was mailed on November 1, 2018, to adjacent occupants and owners of properties within 300 feet of the project site and citywide neighborhood group

lists. Six responses were received. Two individuals requested that they be sent the completed environmental document when published. Three commenters expressed concern over the construction of high-rise buildings in the area, with two commenters opining that the proposed project would negatively affect the character of the area. One commenter expressed concerns regarding the transportation impacts of the proposed project, specifically the amount of foot traffic at the corner of Fourth and Townsend streets and the potential impacts of Lyfts and Ubers in the area with the additional new residential units. Two commenters requested that the department evaluate the proposed project's wind impacts to the surrounding area. Finally, one commenter inquired about the potential air quality and noise impacts from the project's construction activities and operations. Overall, concerns and issues raised by the public in response to the notice were taken into consideration and incorporated in the environmental review as appropriate for CEQA analysis. The proposed project would not result in significant adverse environmental impacts associated with the issues identified by the public beyond those identified in the Central SoMa PEIR.

G. COMMUNITY PLAN EVALUATION PREPARERS

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Attachment 3

ATTACHMENT B: MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
Cultural Resources				
Project Mitigation Measure M-CR-1: Archeological Testing (Implementation of Central SoMa PEIR Mitigation Measure M-CP-4a) 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 and on human remains and associated or unassociated funerary objects. The project sponsor shall retain the services of an archaeological consultant from the rotational Department Qualified Archaeological Consultants List (QACL) maintained by the Planning Department archaeologist. After the first project approval action or as directed by the ERO, the project sponsor shall contact the Department archeologist to obtain the names and contact information for the next three archeological consultants on the QACL. The archeological consultant shall undertake an archeological testing program as specified herein. In addition, the consultant shall be available to conduct an archeological monitoring and/or data recovery program if required pursuant to this measure. The archeological consultant's work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer (ERO). All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less than significant level potential effects on a significant archeological resource as defined in CEQA Guidelines Sect. 15064.5 (a) and (c).	Project sponsor and archeological consultant at the direction of the ERO	Prior to issuance of site permits	Planning Department	Considered complete after archeological consultant is retained and archeological consultant has approved scope by the ERO for the archeological testing program

ATTACHMENT B: MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
Consultation with Descendant Communities: On discovery of an archeological site[1] associated with descendant Native Americans, the Overseas Chinese, or other potentially interested descendant group an appropriate representative[2] of the descendant group and the ERO shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and to offer recommendations to the ERO regarding appropriate archeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archeological site. A copy of the Final Archaeological Resources Report shall be provided to the representative of the descendant group. *Archeological Testing Program.* The archeological consultant shall prepare and submit to the ERO for review and approval an archeological testing plan (ATP). The archeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archeological testing program will be to determine to the extent possible the presence or absence of archeological resources and to identify and to evaluate whether any archeological resource encountered on the site constitutes an historical resource under CEQA.				

1 By the term "archeological site" is intended here to minimally include any archeological deposit, feature, burial, or evidence of burial.
2 An "appropriate representative" of the descendant group is here defined to mean, in the case of Native Americans, any individual listed in the current Native American Contact List for the City and County of San Francisco maintained by the California Native American Heritage Commission and in the case of the Overseas Chinese, the Chinese Historical Society of America. An appropriate representative of other descendant groups should be determined in consultation with the Department archeologist.

ATTACHMENT B: MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
At the completion of the archeological testing program, the archeological consultant shall submit a written report of the findings to the ERO. If based on the archeological testing program the archeological consultant finds that significant archeological resources may be present, the ERO in consultation with the archeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archeological testing, archeological monitoring, and/or an archeological data recovery program. No archeological data recovery shall be undertaken without the prior approval of the ERO or the Planning Department archeologist. If the ERO determines that a significant archeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either: A) The proposed project shall be re-designed so as to avoid any adverse effect on the significant archeological resource; or B) A data recovery program shall be implemented, unless the ERO determines that the archeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible. *Archeological Monitoring Program.* If the ERO in consultation with the archeological consultant determines that an archeological monitoring program shall be implemented the archeological monitoring program shall minimally include the following provisions: • The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils disturbing activities commencing. The ERO in consultation with the archeological consultant shall determine what project activities shall be				

ATTACHMENT B: MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
archeologically monitored. In most cases, any soils- disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, site remediation, etc., shall require archeological monitoring because of the risk these activities pose to potential archaeological resources and to their depositional context; • The archeological consultant shall undertake a worker training program for soil-disturbing workers that will include an overview of expected resource(s), how to identify the evidence of the expected resource(s), and the appropriate protocol in the event of apparent discovery of an archeological resource; • The archeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archeological consultant and the ERO until the ERO has, in consultation with 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/construction activities and equipment until the deposit is evaluated. 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.				

ATTACHMENT B: MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
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.				

ATTACHMENT B: MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
• *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, Associated or Unassociated Funerary Objects.* If human remains and associated or unassociated funerary objects are discovered during any soils disturbing activity, all applicable State and Federal Laws shall be followed, including 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 ERO shall also be immediately notified upon discovery of human remains. The archeological consultant, project sponsor, ERO, and MLD shall make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (CEQA Guidelines. Sec. 15064.5(d)) within six days of the discovery of the human remains. This proposed timing shall not preclude the PRC 5097.98 requirement that descendants make recommendations or preferences for treatment within 48 hours of being granted access to the site. The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, curation, possession, and final disposition of the human				

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Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
remains and associated or unassociated funerary objects. Nothing in existing State regulations or in this mitigation measure compels the project sponsor and the ERO to accept recommendations of an MLD. The archeological consultant shall retain possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of the human remains or objects as specified in the treatment agreement if such as agreement has been made or, otherwise, as determined by the archeological consultant and the ERO. If no agreement is reached State regulations shall be followed including the reinternment of the human remains and associated burial objects with appropriate dignity on the property in a location not subject to further subsurface disturbance (Pub. Res. Code Sec. 5097.98). *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. The Draft FARR shall include a curation and deaccession plan for all recovered cultural materials. The Draft FARR shall also include an Interpretation Plan for public interpretation of all significant archeological features. Copies of the Draft FARR shall be sent to the ERO for review and approval. Once approved by the ERO, the consultant shall also prepare a public distribution version of the FARR. Copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning Department shall				

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Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
receive one bound and one unlocked, searchable PDF copy on CD of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of public interest in or the high interpretive value of the resource, the ERO may require a different or additional final report content, format, and distribution than that presented above.				
Transportation and Circulation				
Project Mitigation Measure M-TR-1: Queue Abatement (Implementation of Central SoMa PEIR M-TR-3a) The project sponsor shall ensure that recurring vehicular turning movements into the 655 4th Street Project driveway or vehicle queues do not substantially affect public transit operations on the public right-of-way along Townsend Street near the off-street vehicular parking facility. A vehicle queue is defined as one or more vehicles (destined to the parking facility) blocking any portion of the street (including the 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 shall employ abatement methods as needed to abate the queue. Suggested abatement methods include but are not limited to the following: redesign of facility to improve vehicle circulation and/or onsite queue capacity; employment of additional parking attendants; installation of LOT FULL signs with active management by parking attendants; use of off-site parking facilities or shared parking with nearby uses; transportation demand management strategies such as those listed in the San Francisco Planning Code TDM Program. 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. Upon request, the owner/operator shall hire a qualified transportation consultant to evaluate the conditions at the site for no	Project sponsor	Ongoing	Planning Department and project sponsor	Ongoing

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Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
less than seven days. The consultant shall prepare a monitoring report to be submitted to the Department for review. If the Department determines that a recurring queue does exist, the facility owner/operator shall have 90 days from the date of the written determination to abate the queue.				
M-TR-2: Construction Management Plan and Construction Coordination (Implementation of Central SoMa PEIR M-TR-9) The project sponsor shall develop and, upon review and approval by the San Francisco Municipal Transportation Agency (SFMTA) and Public Works, implement a Construction Management Plan, addressing transportation-related circulation, access, staging and hours of delivery. The Construction Management Plan would disseminate appropriate information to contractors and affected agencies with respect to coordinating construction activities to minimize overall disruption and ensure that overall circulation in the project area is maintained to the extent possible, with particular focus on ensuring transit, pedestrian, and bicycle connectivity. The Construction Management Plan would supplement and expand, rather than modify or supersede, any manual, regulations, or provisions set forth by the SFMTA, Public Works, or other City departments and agencies, and the California Department of Transportation. If construction of the proposed project is determined to overlap with nearby adjacent project(s) to result in transportation-related impacts, the project sponsor or its contractor(s) shall consult with various City departments such as the SFMTA and Public Works, and other interdepartmental meetings as deemed necessary by the SFMTA, Public Works, and the Planning Department, to develop a Coordinated Construction Management Plan. The Coordinated Construction Management Plan, to be prepared by the contractor, would be reviewed by the SFMTA and would address issues of circulation	Project sponsor	Prior to the start of the project's construction and throughout the construction period	SFMTA, Public Works, and Planning Department	Considered complete upon approval and implementation of the construction management plan and completion of the project's construction activities

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(traffic, pedestrians, and bicycle), safety, parking and other project construction in the area. Based on review of the construction logistics plan, the project may be required to consult with SFMTA Muni Operations prior to construction to review potential effects to nearby transit operations. The Construction Management Plan and, if required, the Coordinated Construction Management Plan, shall include, but not be limited to, the following: • *Restricted Construction Truck Access Hours*—Limit construction truck movements during the hours between 7:00 and 9:00 a.m. and between 4:00 and 7:00 p.m., and other times if required by the SFMTA, to minimize disruption to vehicular traffic, including transit during the a.m. and p.m. peak periods. • *Construction Truck Routing Plans*—Identify optimal truck routes between the regional facilities and the project site, taking into consideration truck routes of other development projects and any construction activities affecting the roadway network. • *Coordination of Temporary Lane and Sidewalk Closures*—The project sponsor shall coordinate travel lane closures with other projects requesting concurrent lane and sidewalk closures through interdepartmental meetings, to minimize the extent and duration of requested lane and sidewalk closures. Travel lane closures shall be minimized especially along transit and bicycle routes, so as to limit the impacts to transit service and bicycle circulation and safety. • *Maintenance of Transit, Vehicle, Bicycle, and Pedestrian Access*—The project sponsor/construction contractor(s) shall meet with Public Works, SFMTA, the Fire Department, Muni Operations and other City agencies to coordinate feasible measures to include in the Coordinated Construction Management Plan to maintain access for transit, vehicles, bicycles and pedestrians.				

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Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
This shall include an assessment of the need for temporary transit stop relocations or other measures to reduce potential traffic, bicycle, and transit disruption and pedestrian circulation effects during construction of the project. • *Carpool, Bicycle, Walk and Transit Access for Construction Workers*—The construction contractor shall include methods to encourage carpooling, bicycling, walk and transit access to the project site by construction workers (such as providing transit subsidies to construction workers, providing secure bicycle parking spaces, participating in free-to-employee ride matching program from www.511.org, participating in emergency ride home program through the City of San Francisco (www.sferh.org), and providing transit information to construction workers). • *Construction Worker Parking Plan*—The location of construction worker parking shall be identified as well as the person(s) responsible for monitoring the implementation of the proposed parking plan. The use of on-street parking to accommodate construction worker parking shall be discouraged. All construction bid documents shall include a requirement for the construction contractor to identify the proposed location of construction worker parking. If on-site, the location, number of parking spaces, and area where vehicles would enter and exit the site shall be required. If off-site parking is proposed to accommodate construction workers, the location of the off-site facility, number of parking spaces retained, and description of how workers would travel between the off-site facility and project site shall be required. • *Project Construction Updates for Adjacent Businesses and Residents*—To minimize construction impacts on access for nearby institutions and businesses, the project sponsor shall provide nearby residences and adjacent businesses with regularly-				

ATTACHMENT B: MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
updated information regarding project construction, including construction activities, peak construction vehicle activities (e.g., concrete pours), travel lane closures, and lane closures. At regular intervals to be defined in the Construction Management Plan and, if necessary, in the Coordinated Construction Management Plan, a regular email notice shall be distributed by the project sponsor that shall provide current construction information of interest to neighbors, as well as contact information for specific construction inquiries or concerns.				
Noise and Vibration				
Project Mitigation Measure M-NO-1: Siting of Noise-Generating Uses (Implementation of Central SoMa PEIR Mitigation Measure M-NO-1b) The project sponsor shall undertake the following: If outdoor sound systems are installed for the outdoor terrace of the event space, prior to a certificate of occupancy, the project sponsor shall submit documentation to the Planning Department demonstrating that the speaker system has been tested and achieves the noise limit of no greater than 69 dBA at the property plane. The results of this test shall be submitted to the Planning Department for review and approval. If results of this testing indicate that noise limits would exceed 69 dBA at the property plane, amplified sound emanating from the outdoor terrace of the event space shall be prohibited past 10 p.m., unless an applicable event permit is obtained from the Entertainment Commission.	Project sponsor and Planning Department	Analysis of noise from speaker system to be completed prior to the certificate of occupancy	Planning Department (Environmental Review Officer [ERO] and Planning's Noise Technical Team).	Considered complete upon either: 1) approval of final plan set by Department of Building Inspection if outdoor sound systems are installed for the outdoor terrace of the event space; or 2) analysis of the speaker system indicates the system will not exceed 69 dBA at the property plane; or upon confirmation that amplified sound from the terrace would be prohibited past 10 p.m., unless an applicable permit is obtained from the Entertainment Commission

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Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
Project Mitigation Measure M-NO-2: General Construction Noise Control Measures (Implementation of Central SoMa PEIR Mitigation Measure M-NO-2a) The project sponsor shall undertake the following: • Require the general contractor to ensure that equipment and trucks used for project construction use 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. • Require the general contractor to locate stationary noise sources (such as compressors) as far from adjacent or nearby sensitive receptors along the northwest site boundary as possible, to muffle such noise sources, and to construct barriers around such sources and/or the construction site. To further reduce noise, the contractor shall locate stationary equipment in pit areas or excavated areas, if feasible. • 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. • Include noise control requirements in specifications provided to construction contractors. Such requirements could include, but are not limited to, performing all work in a manner that minimizes noise to the extent feasible; use of equipment with effective mufflers; undertaking the most noisy activities during times of least disturbance to surrounding residents and occupants, as feasible; and	Project sponsor and construction general contractor	During construction period	Planning Department, Department of Building Inspection (as requested and/or on complaint basis), Police Department (on complaint basis)	Considered complete upon submittal and implementation of construction noise control plan and completion of construction activities pursuant to the plan

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selecting haul routes that avoid residential buildings to the extent that such routes are otherwise feasible. • Prior to the issuance of each building permit, along with the submission of construction documents, submit to the Planning Department and Department of Building Inspection (DBI) a list of measures that shall be implemented and that shall respond to and track complaints pertaining to construction noise. These measures shall include (1) a procedure and phone numbers for notifying DBI 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 nonresidential 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 anticipated noise levels of 80 dBA or greater without noise controls, which is the standard in the Police Code) about the estimated duration of the activity. • Two-Way Radio Use – During concrete pours, the construction team shall use electronic means (such as walkie talkies) to communicate over distances of 15 feet or more to reduce the team's need to yell. These devices should be used to the extent feasible. • Back Up Alarms – Advanced back up alarms should be used on equipment to the extent feasible. Advanced back up alarms would either sense ambient noise levels and adjust the backup alarm level and/or would emit a broad band noise instead of the more common tonal alarm sounds.				

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Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
Air Quality				
Project Mitigation Measure M-AQ-1: Construction Emissions Minimization Plan (Implementation of Central SoMa PEIR M-AQ-4b) The project sponsor shall submit a Construction Emissions Minimization Plan (Plan) to the Environmental Review Officer (ERO) for review and approval by an Environmental Planning Air Quality Specialist. The Plan shall be designed to reduce air pollutant emissions to the greatest degree practicable. The Plan shall detail project compliance with the following requirements: 1. All off-road equipment greater than 25 horsepower and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements: a) Where access to alternative sources of power are available, portable diesel engines shall be prohibited; b) All off-road equipment shall have: i. Engines that meet or exceed either U.S. Environmental Protection Agency or California Air Resources Board Tier 2 off-road emission standards, *and* ii. Engines that are retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy (VDECS) (Tier 4 interim or final engines meet the requirement of a Tier 2 engine and ARB Level 3 VDECS), *and* iii. Engines shall be fueled with renewable diesel (at least 99 percent renewable diesel or R99). c) Exceptions: i. Exceptions to 1(a) may be granted if the project sponsor has submitted information providing	Project sponsor and Planning Department	Prior to the start of diesel equipment use on site	Planning Department (Environmental Review Officer and Planning's Air Quality Technical Team)	Considered complete upon Planning Department review and acceptance of Construction Emissions Minimization Plan, implementation of the plan, and completion of construction activities pursuant to the plan

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Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
evidence to the satisfaction of the ERO that an alternative source of power is limited or infeasible at the project site and that the requirements of this exception provision apply. Under this circumstance, the sponsor shall submit documentation of compliance with 1(b) for onsite power generation. ii. Exceptions to 1(b)(ii) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the ERO that a particular piece of off-road equipment with an ARB Level 3 VDECS (1) is technically not feasible, (2) would not produce desired emissions reductions due to expected operating modes, (3) installing the control device would create a safety hazard or impaired visibility for the operator, or (4) there is a compelling emergency need to use off-road equipment that are not retrofitted with an ARB Level 3 VDECS and the sponsor has submitted documentation to the ERO that the requirements of this exception provision apply. If granted an exception to 1(b)(ii), the project sponsor shall comply with the requirements of 1(c)(iii). iii. If an exception is granted pursuant to 1(c)(ii), the project sponsor shall provide the next-cleanest piece of off-road equipment as provided by the step-down schedule in Table M-AQ-4:				

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TABLE M-AQ-4B:
OFF-ROAD EQUIPMENT COMPLIANCE STEP DOWN SCHEDULE*

Compliance Alternative	Engine Emission Standard	Emissions Control
1	Tier 2	ARB Level 2 VDECS
2	Tier 2	ARB Level 1 VDECS

* How to use the table. If the requirements of 1(b) cannot be met, then the project sponsor would need to meet Compliance Alternative 1. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 1, then Compliance Alternative 2 would need to be met.

2. The project sponsor shall require the idling time for off-road and on-road equipment be limited to no more than two minutes, except as provided in exceptions to the applicable State regulations regarding idling for off-road and on-road equipment. Legible and visible signs shall be posted in multiple languages (English, Spanish, Chinese) in designated queuing areas and at the construction site to remind operators of the two-minute idling limit.
3. The project sponsor shall require that construction operators properly maintain and tune equipment in accordance with manufacturer specifications.
4. 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. Off-road equipment descriptions and information may include, but is not limited to,

ATTACHMENT B: MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. For the VDECS installed: 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 not using renewable diesel, reporting shall indicate the type of alternative fuel being used. 5. The Plan shall be kept on-site and available for review by any persons requesting it and a legible sign shall be posted at the perimeter of the construction site indicating to the public the basic requirements of the Plan and a way to request a copy of the Plan. The project sponsor shall provide copies of Plan as requested. 6. *Reporting.* Quarterly reports shall be submitted to the ERO indicating the construction phase and off-road equipment information used during each phase including the information required in Paragraph 4, above. In addition, for off-road equipment not using renewable diesel, reporting shall indicate the type of alternative fuel being used. Within six months of the completion of construction activities, the project sponsor shall submit to the ERO a final report summarizing construction activities. The final report shall indicate the start and end dates and duration of each construction phase. For each phase, the report shall include detailed information required in Paragraph 4. In addition, for off-road equipment not using renewable diesel, reporting shall indicate the type of alternative fuel being used. 7. *Certification Statement and On-site Requirements.* Prior to the commencement of construction activities, the project sponsor shall certify (1) compliance with the Plan, and (2) all applicable requirements of the Plan have been incorporated into contract specifications.				

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Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
Project Mitigation Measure M-AQ-2: Best Available Control Technology for Diesel Generators and Fire Pumps (Implementation of Central SoMa PEIR M-AQ-5a) All diesel generators and fire pumps shall have engines that (1) meet Tier 4 Final or Tier 4 Interim emission standards, or (2) meet Tier 2 emission standards and are equipped with a California Air Resources Board Level 3 Verified Diesel Emissions Control Strategy. All diesel generators and fire pumps shall be fueled with renewable diesel, R99, if commercially available. For each new diesel backup generator or fire pump permit submitted for the project, including any associated generator pads, engine and filter specifications shall be submitted to the San Francisco Planning Department for review and approval prior to issuance of a permit for the generator or fire pump from the San Francisco Department of Building Inspection. Once operational, all diesel backup generators and Verified Diesel Emissions Control Strategy shall be maintained in good working order in perpetuity and any future replacement of the diesel backup generator, fire pumps, and Level 3 Verified Diesel Emissions Control Strategy filters shall be required to be consistent with these emissions specifications. The operator of the facility shall maintain records of the testing schedule for each diesel backup generator and fire pump for the life of that diesel backup generator and fire pump and provide this information for review to the Planning Department within three months of requesting such information.	Project sponsor	For generator and fire pump specifications, prior to issuance of building permit for diesel generator or fire pump. For maintenance, ongoing	Planning Department (ERO, Air Quality technical staff)	Equipment specifications portion considered complete when equipment specifications approved by ERO. Maintenance portion is ongoing and records are subject to Planning Department review upon request

ATTACHMENT B: MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
Wind				
Project Mitigation Measure M-WI-1: Wind Hazard Evaluation for Building Design Modifications (Implementation of Central SoMa PEIR M-WI-1) In the event that the proposed project's design is modified, the new design shall be evaluated by a qualified wind expert as to the potential to result in a new wind hazard exceedance or aggravate an existing pedestrian-level wind hazard exceedance (defined as the one-hour wind hazard criterion of 26 miles per hour equivalent wind speed). If the qualified expert determines that wind-tunnel testing is required due to the potential for a new or worsened wind hazard exceedance, the project shall adhere to the following standards for reduction of ground-level wind speeds in areas of substantial pedestrian use: • New buildings shall be shaped (e.g., include setbacks, or other building design techniques), or other wind baffling measures shall be implemented, so that the development would result in the following with respect to the one-hour wind hazard criterion of 26 miles per hour equivalent wind speed: o No net increase, compared to existing conditions, in the overall number of hours during which the wind hazard criterion is exceeded (the number of exceedance locations may change, allowing for both new exceedances and elimination of existing exceedances, as long as there is no net increase in the number of exceedance locations), based on wind-tunnel testing of a representative number of locations proximate to the project site; OR o Any increase in the overall number of hours during which the wind hazard criterion is exceeded shall be	Project sponsor	In the event that the project's design is modified	Planning Department	Considered complete after approval of final construction plan set

ATTACHMENT B: MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
evaluated in the context of the overall wind effects of anticipated development that is in accordance with the Plan. Such an evaluation shall be undertaken if the project contribution to the wind hazard exceedance at one or more locations relatively distant from the individual project site is minimal and if anticipated future Plan area development would substantively affect the wind conditions at those locations. The project and foreseeable development shall ensure that there is no increase in the overall number of hours during which the wind hazard criterion is exceeded. o New buildings that cannot meet the one-hour wind hazard criterion of 26 miles per hour equivalent wind speed performance standard of this measure based on the above analyses, shall minimize to the degree feasible the overall number of hours during which the wind hazard criterion is exceeded.				

ATTACHMENT B: MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
Biological Resources				
Project Mitigation Measure M-BI-1: Pre-Construction Bat Surveys (Implementation of Central SoMa PEIR M-BI-1) As part of the construction contract, the project sponsor shall include a requirement for pre-construction special-status bat surveys when trees with a diameter at breast height equal to or greater than 6 inches are to be removed or vacant buildings that have been vacant for six months or longer are to be demolished. If active day or night roosts are found, a qualified biologist (i.e., a biologist holding a California Department of Fish and Wildlife [CDFW] collection permit and a Memorandum of Understanding with the CDFW allowing the biologist to handle and collect bats) 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, unless the feature upon which the roost is located would be demolished.	Project sponsor, qualified biologist, and California Department of Fish and Wildlife, and project contractor	Prior to issuance of demolition or building permits when trees would be removed or demolition of existing buildings	Planning Department; CDFW if applicable	Considered complete upon issuance of demolition or building permits

ATTACHMENT B: MITIGATION MONITORING AND REPORTING PROGRAM

Project Improvement Measure	Responsibility for Implementation	Mitigation Schedule	Monitoring/Report Responsibility	Status/Date Completed
Project Improvement Measure I-BI-1: Night Lighting Minimization (Implementation of Central SoMa PEIR Improvement Measure I-BI-2) In compliance with the voluntary San Francisco Lights Out Program, the project sponsor will implement bird-safe building operations to prevent and minimize bird strike impacts, including but not limited to the following measures: • Reduce building lighting from exterior sources by: o Minimizing the amount and visual impact of perimeter lighting and façade up-lighting and avoid up-lighting of rooftop antennae and other tall equipment, as well as of any decorative features; o Installing motion-sensor lighting; o Using minimum wattage fixtures to achieve required lighting levels. • Reduce building lighting from interior sources by: o Dimming lights in lobbies, perimeter circulation areas, and atria; o Turning off all unnecessary lighting by 11:00 p.m. through sunrise, especially during peak migration periods (mid-March to early June and late August through late October); o Using automatic controls (motion sensors, photo-sensors, etc.) to shut off lights in the evening when no one is present; o Encouraging the use of localized task lighting to reduce the need for more extensive overhead lighting; o Scheduling nightly maintenance to conclude by 11:00 p.m.; o Educating building users about the dangers of night lighting to birds.	Project sponsor	Ongoing during project operation	Planning Department	Considered complete upon approval of building plans by Planning Department. Planning Department may engage in follow-up discussion with project sponsors, as applicable

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